



FEB 03 2015

Mr. Jonathan D. Garcia
Southern California Gas Co
P O Box 2300
Chatsworth, CA 91313

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # S-1792
Project # S-1134792**

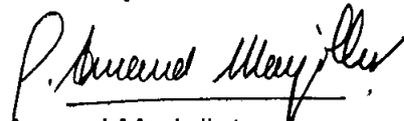
Dear Mr. Garcia:

Enclosed for your review is the District's analysis of Southern California Gas Co's application for the Federally Mandated Operating Permit for its operation at 9530 CA State Highway 166, Mettler, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

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

Sincerely,



Arnaud Marjolle
Director of Permit Services

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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**SAN JOAQUIN VALLEY
UNIFIED AIR POLLUTION CONTROL DISTRICT**

SOUTHERN CALIFORNIA GAS COMPANY

ENGINEERING EVALUATION

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- ATTACHMENT A - DETAILED FACILITY REPORT
- ATTACHMENT B - EXEMPT EQUIPMENT
- ATTACHMENT C - CURRENT PERMIT TO OPERATE
- ATTACHMENT D - DISTRICT RULE 4702 STRINGENCY ANALYSIS

TITLE V APPLICATION REVIEW

Project #: S-1134792
Deemed Complete: January 6, 2014

Engineer: Jonah Aiyabei
Date: December 5, 2014

Facility Number: S-1792
Facility Name: Southern California Gas Company
Mailing Address: P O Box 2300
Chatsworth, CA 91313

Contact Name: Jonathan Garcia
Phone: (818) 701-4552

Responsible Official: Jonathan Garcia
Title: Field Operations Manager

I. PROPOSAL

Southern California Gas Company is proposing that an initial Title V permit be issued for its natural gas compressor operation at 9530 CA State Highway 166, Mettler. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

II. FACILITY LOCATION

Southern California Gas Company's Wheeler Ridge compressor station is located at 9530 CA State Highway 166, Mettler, Kern County.

III. EQUIPMENT LISTING

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

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

IV. GENERAL PERMIT TEMPLATE USAGE

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

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

Conditions 1 through 40 of the requirements for permit unit S-1792-0-1.

VI. REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

- District Rule 1100, Equipment Breakdown, (amended December 17, 1992)
- District Rule 1160, Emission Statements, (adopted November 18, 1992)
- District Rule 2010, Permits Required, (amended December 17, 1992)
- District Rule 2020, Exemptions, (amended December 18, 2014)¹
- District Rule 2031, Transfer of Permits, (amended December 17, 1992)
- District Rule 2040, Applications, (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications, (amended December 17, 1992)
- District Rule 2080, Conditional Approval, (amended December 17, 1992)

¹ The amendments made to this rule on August 18, 2011 and December 18, 2014 have no impact on this source; therefore template SJV-UM-0-3 is still valid for this project.

- District Rule 2520, Federally Mandated Operating Permits, Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16, and 10.0, (amended June 21, 2001)
- District Rule 4101, Visible Emissions, (amended February 17, 2005)
- District Rule 4601, Architectural Coatings, (amended December 17, 2009)
- 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 Trackout, (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 61, Subpart M, National Emission Standard for Asbestos, (amended September 18, 2003)
- 40 CFR Part 82, Subpart B, Stratospheric Ozone, (amended November 9, 2007)
- 40 CFR Part 82, Subpart F, Stratospheric Ozone, (amended June 8, 2008)

VII. REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

- District Rule 1080, Stack Monitoring, (amended December 17, 1992)
- District Rule 1081, Source Sampling, (amended December 16, 1993)
- District Rule 2201, New and Modified Stationary Source Review Rule, (amended April 21, 2011)

- District Rule 2410, Prevention of Significant Deterioration, (adopted June 16, 2011)
- District Rule 4201, Particulate Matter Concentration, (amended December 17, 1992)
- District Rule 4701, Internal Combustion Engines – Phase 1, (amended August 21, 2003)
- District Rule 4702, Internal Combustion Engines, (amended November 14, 2013)
- District Rule 4703, Stationary Gas Turbines, (amended September 20, 2007)
- District Rule 4801, Sulfur Compounds, (amended December 17, 1992)
- 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines
- 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
- 40 CFR 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines
- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- 40 CFR 63 Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
- 40 CFR 72.6(b), Acid Rain Provisions

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

designated as Federally Enforceable through Title V Permit.

This facility is subject to the following District-only requirements that are not currently federally enforceable:

District Rule 4102 – Nuisance

This rule prevents the discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

a. S-1792-0-1: FACILITY-WIDE REQUIREMENTS

- Condition 41 of the requirements for this permit unit is based on this requirement and is therefore not federally enforceable through Title V.

b. S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

- Condition 5 of the requirements for this permit unit is based on this requirement and is therefore not federally enforceable through Title V.

Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

The Air Toxic Control Measure (ATCM) is a rule under the California Code of Regulations (CCR) which is the official compilation and publication of the regulations adopted, amended or repealed by state agencies. The purpose of this rule is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition engines.

S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

- Condition 17 of the requirements for this permit unit is based on this requirement and is therefore not federally enforceable through Title V.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility-wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

B. Requirements Not Addressed by Model General Permit Templates

1. District Rule 1080 – Stack Monitoring

This rule grants the APCO the authority to request the installation, use, maintenance, and inspection of continuous monitoring equipment. The general, source and pollutant specific requirements for continuous monitoring equipment are defined. This rule also specifies the performance standards for the equipment and administrative recordkeeping, reporting, and violation and equipment breakdown notification requirements.

Section 6.0 specifies the standards of performance for continuous monitoring equipment.

Section 6.3 requires that calibration gas mixtures shall meet the specifications in 40 CFR, Part 51, Appendix P, Section 3.3, and Part 60, Appendix B, Performance Specification 2, Section 2.1, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the Environmental Protection Agency.

Section 6.4 requires that 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 Environmental Protection Agency.

Section 6.5 requires that continuous SO₂ and NO_x monitors meet the applicable performance specification requirements in 40 CFR, Part 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the Environmental Protection Agency.

Section 6.6 requires that the continuous CO₂ and O₂ monitoring system shall meet the performance specification requirements in 40 CFR, Part 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent

specifications established by mutual agreement of the District, the ARB, and the Environmental Protection Agency.

Section 7.0 specifies the data reduction and recordkeeping requirements. Section 7.1 requires that a person operating or using a stack monitoring system shall, upon written notice from the APCO, provide a summary of the data obtained from such systems. This summary of data shall be in the form and the manner prescribed by the APCO.

Section 7.2 requires that data shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement of the District, the ARB and the Environmental Protection Agency.

Section 7.3 requires that records from the monitoring equipment shall be kept by the owner for a period of two (2) years. The records shall be in permanent form, shall be suitable for inspection and shall be made available to the ARB and the District upon request. The records shall at a minimum include:

7.3.1 - The occurrence and duration of any start-up, shutdown or malfunction in the operation of any affected facility;

7.3.2 - Performance testing, evaluations, calibrations, checks, adjustments and maintenance of any continuous emission monitors that have been installed pursuant to this rule; and

7.3.3 - Emission measurements.

Section 8.0 requires that owners or operators subject to Section 4.0 shall submit a written report for each calendar quarter to the APCO. The report is due by the 30th day following the end of the calendar quarter and shall include:

8.1 - Time intervals, data and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions taken and preventive measures adopted.

8.2 - Averaging period used for data reporting corresponding to averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant/source category in question.

8.3 - Time and date of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs and adjustments.

8.4 - A negative declaration when no excess emissions occurred.

8.5 - Reports on opacity monitors giving the number of three (3) minute periods during which the average opacity exceeded the standard for each hour of operation. The averages may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess averages of opacity.

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- d. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER

- Conditions 4 and 6 through 10 of the requirements for these permit units ensure compliance with this rule.

2. District Rule 1081 – Source Sampling

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

Section 3.1 requires that sampling port locations must be determined according to criteria in the California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing.

Section 3.2 requires that sampling platforms must be constructed according to specifications shown in the Air Resources Board publication entitled Supplement to Stationary Source Test Methods, Volume I, Appendix A, page 1-A-15.

Section 3.3 requires that in addition to the general industry safety orders of the State of California Title 14, Number 32776, Chapter 4, Subchapter 7, pertaining to ladders, all ladders accessing sampling platforms on any stack, chimney, or other structure will be caged and equipped with rest platforms at 20 foot intervals.

Section 4.0 requires that the owner of such a source operation, when requested by the APCO, shall provide records or other information, which will enable the APCO to determine when a representative sample can be taken. In addition, upon the request of the APCO and as directed by him, the owner of such a source operation shall collect, have collected, or allow the APCO to collect, a source sample.

Section 5.0 requires that the applicable test method, if not specified in the rule, shall be conducted in accordance with Title 40 CFR Subpart 60 Appendix A - Reference Methods, except PM₁₀ for compliance with Rule 2201 (New and Modified Stationary Source Review) requirements shall be conducted in accordance with Title 40 CFR Subpart 51, Appendix M, Method 201 or 201A. Where no test method exists in the preceding references for a source type, source sampling shall be conducted in accordance with CARB approved methods.

Section 6.1 requires that for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three (3) test runs shall apply, unless two (2) of the three (3) results are above the applicable limit. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

Section 6.2 requires that a scheduled source test may not be discontinued solely due to the failure of one or more runs to meet applicable standards.

Section 6.3 requires that in the event that a sample is accidentally lost or conditions occur in which one (1) of the three (3) runs must be discontinued because of forced shutdown, failure of an irreplaceable

portion of the sampling train, extreme meteorological conditions presenting a hazard to the sampling team, or other circumstances beyond the owner or operators control, upon the APCO's approval, compliance may be determined using the arithmetic mean of the other two (2) runs.

Section 7.1 requires that the District must be notified 30 days prior to any compliance source testing and the owner shall submit a source test plan for District approval 15 days prior to source sampling.

Section 7.2 requires that source sampling to determine the compliance status of an emissions source shall be witnessed or authorized by District personnel.

Section 7.3 requires that Source test reports must be submitted to the District within 60 days of completion of field-testing. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail or reschedule because of failure, status. A District authorized compliance source test shall not be discontinued solely due to the failure of one (1) or more runs to meet applicable standards.

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - d. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- Conditions 18, 34, 36 and 37 of the requirements for these permit units ensure compliance with this rule.

3. District Rule 2020 – Exemptions

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

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

Permit units S-1792-5 through S-1792-7, S-1792-9, S-1792-11, S-1792-12, and S-1792-14 were subject to the District Rule 2201 upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting Permits to Operate (PTOs) were addressed to define how NSR permit terms should be incorporated into the Title V permit:

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

- Conditions 1 and 2 from the PTOs have been deleted since the facility is now a major source and therefore no longer subject to Rule 2530, Federally Enforceable Potential to Emit.
- Condition 3 from the PTOs has been included as condition 1 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 4 from the PTOs has been included as condition 3 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 5 from the PTOs has been included as condition 12 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 6 from the PTOs has been included as condition 5 of the requirements for permit units 5-7, 6-7, and 7-6.

- Condition 7 from the PTOs has been included as condition 28 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 8 from the PTOs has been deleted as it has been subsumed by condition 22 of the facility-wide requirements, unit 0-1.
- Condition 9 from the PTOs has been deleted as it has been subsumed by condition 41 of the facility-wide requirements, unit 0-1.
- Condition 10 from the PTOs has been included as condition 18 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 11 from the PTOs has been included as condition 14 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 12 from the PTOs has been included as condition 17 of the requirements for permit units 5-7, 6-7, and 7-6.
- Conditions 13 through 15 from the PTOs have been included as conditions 19 through 21 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 16 from the PTOs has been included as condition 11 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 17 from the PTOs has been included as condition 15 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 18 from the PTOs has been included as condition 13 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 19 from the PTOs has been included as condition 2 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 20 from the PTOs has been included as condition 27 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 21 from the PTOs has been deleted since compliance with Rule 4001 is addressed under the individual applicable subparts of the NSPS.
- Conditions 22 through 24 from the PTOs have been replaced by conditions 4 and 6 through 10 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 25 from the PTOs has been included as condition 46 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 26 from the PTOs has been included as condition 43 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 27 from the PTOs has been included as condition 16 of the requirements for permit units 5-7, 6-7, and 7-6.
- Conditions 28 and 29 from the PTOs have been included as conditions 22 and 23 of the requirements for permit units 5-7, 6-7, and 7-6.
- Conditions 30 and 31 from the PTOs have been included as conditions 25 and 26 of the requirements for permit units 5-7, 6-7, and 7-6.
- Condition 32 from the PTOs has been included as condition 45 of

- the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 33 from the PTOs has been included as condition 24 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Conditions 34 through 38 from the PTOs have been included as conditions 29 through 33 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 39 from the PTOs has been included as condition 36 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Conditions 40 and 41 from the PTOs have been included as conditions 34 and 35 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Conditions 42 through 45 from the PTOs have been included as conditions 38 through 41 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 46 from the PTOs has been included as condition 37 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 47 from the PTOs has been included as condition 42 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 48 from the PTOs has been included as condition 44 of the requirements for permit units 5-7, 6-7, and 7-6.
 - Condition 49 from the PTOs has been included as condition 47 of the requirements for permit units 5-7, 6-7, and 7-6.
- d. S-1792-9-3: NATURAL GAS ODORANT SKID, INCLUDING: 5500 GAL STORAGE TANK AND TWO ODORANT INJECTION PUMP SKIDS
- Conditions 1 and 2 from the PTO have been deleted since the facility is now a major source and therefore no longer subject to Rule 2530, Federally Enforceable Potential to Emit.
 - Condition 3 from the PTO has been deleted as it has been subsumed by condition 41 of the facility-wide requirements, unit 0-1.
 - Conditions 4 through 6 from the PTO have been included as conditions 1 through 3 of the requirements for permit unit 9-3.
- e. S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
- Conditions 1 and 2 from the PTO have been deleted since the facility is now a major source and therefore no longer subject to Rule 2530, Federally Enforceable Potential to Emit.
 - Condition 3 from the PTO has been deleted as it has been subsumed by condition 41 of the facility-wide requirements, unit 0-1.
 - Condition 4 from the PTO has been included as condition 1 of the

- requirements for permit unit 11-2.
- Condition 5 from the PTO has been deleted as it has been subsumed by condition 22 of the facility-wide requirements, unit 0-1.
 - Conditions 6 through 15 from the PTO have been included as conditions 2 through 11 of the requirements for permit unit 11-2.
 - Condition 16 from the PTO has been deleted as it is not applicable to fire pump engines and was included on the PTO erroneously.
 - Conditions 17 and 18 from the PTO have been included as conditions 16 and 17 of the requirements for permit unit 11-2.
 - Condition 19 from the PTO has been included as condition 18 of the requirements for permit unit 11-2.
- f. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- Conditions 1 and 2 from the PTO have been deleted since the facility is now a major source and therefore no longer subject to Rule 2530, Federally Enforceable Potential to Emit.
 - Condition 3 from the PTO has been included as condition 1 of the requirements for permit unit 12-2.
 - Conditions 4 and 5 from the PTO have been replaced by condition 2 of the requirements for permit unit 12-2.
 - Condition 6 from the PTO has been included as condition 3 of the requirements for permit unit 12-2.
 - Condition 7 from the PTO has been included as condition 12 of the requirements for permit unit 12-2.
 - Condition 8 from the PTO has been replaced by conditions 4 and 5 of the requirements for permit unit 12-2.
 - Condition 9 from the PTO has been included as condition 28 of the requirements for permit unit 12-2.
 - Condition 10 from the PTO has been deleted as it has been subsumed by condition 22 of the facility-wide requirements, unit 0-1.
 - Condition 11 from the PTO has been deleted as it has been subsumed by condition 41 of the facility-wide requirements, unit 0-1.
 - Condition 12 from the PTO has been included as condition 18 of the requirements for permit unit 12-2.
 - Condition 13 from the PTO has been included as condition 14 of the requirements for permit unit 12-2.
 - Condition 14 from the PTO has been included as condition 17 of the requirements for permit unit 12-2.
 - Conditions 15 through 17 from the PTO have been included as conditions 19 through 21 of the requirements for permit unit 12-2.

- Condition 18 from the PTO has been included as condition 11 of the requirements for permit unit 12-2.
- Condition 19 from the PTO has been included as condition 15 of the requirements for permit unit 12-2.
- Condition 20 from the PTO has been included as condition 13 of the requirements for permit unit 12-2.
- Condition 21 from the PTO has been included as condition 27 of the requirements for permit unit 12-2.
- Condition 22 from the PTO has been deleted since compliance with Rule 4001 is addressed under the individual applicable subparts of the NSPS.
- Conditions 23 through 25 from the PTO have been replaced by conditions 4 and 6 through 10 of the requirements for permit unit 12-2.
- Condition 26 from the PTO has been included as condition 46 of the requirements for permit unit 12-2.
- Condition 27 from the PTO has been included as condition 43 of the requirements for permit unit 12-2.
- Condition 28 from the PTO has been included as condition 16 of the requirements for permit unit 12-2.
- Condition 29 from the PTO has been included as condition 22 of the requirements for permit unit 12-2.
- Conditions 30 and 31 from the PTO have been included as conditions 25 and 26 of the requirements for permit unit 12-2.
- Condition 32 from the PTO has been included as condition 45 of the requirements for permit unit 12-2.
- Conditions 33 and 34 from the PTO have been included as conditions 23 and 24 of the requirements for permit unit 12-2.
- Condition 35 from the PTO has been included as condition 29 of the requirements for permit unit 12-2.
- Condition 36 from the PTO has been included as condition 32 of the requirements for permit unit 12-2.
- Conditions 37 and 38 from the PTO have been included as conditions 30 and 31 of the requirements for permit unit 12-2.
- Condition 39 from the PTO has been included as condition 33 of the requirements for permit unit 12-2.
- Condition 40 from the PTO has been included as condition 36 of the requirements for permit unit 12-2.
- Conditions 41 and 42 from the PTO have been included as conditions 34 and 35 of the requirements for permit unit 12-2.
- Conditions 43 through 46 from the PTOs have been included as conditions 38 through 41 of the requirements for permit unit 12-2.
- Condition 47 from the PTO has been included as condition 37 of the requirements for permit unit 12-2.

- Condition 48 from the PTO has been included as condition 42 of the requirements for permit unit 12-2.
 - Condition 49 from the PTO has been included as condition 44 of the requirements for permit unit 12-2.
 - Condition 50 from the PTO has been included as condition 47 of the requirements for permit unit 12-2.
- g. S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR
- Condition 1 from the PTO has been deleted as it has been subsumed by condition 41 of the facility-wide requirements, unit 0-1.
 - Conditions 2 through 6 from the PTO have been included as conditions 1 through 5 of the requirements for permit unit 14-1.
 - Condition 7 from the PTO has been deleted as it has been subsumed by condition 22 of the facility-wide requirements, unit 0-1.
 - Conditions 8 through 16 from the PTO have been included as conditions 6 through 14 of the requirements for permit unit 14-1.

5. District Rule 2410 – Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a preconstruction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The provisions of this rule apply to any source and the owner or operator of any source subject to any requirement under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

There are no PSD requirements for this source. Therefore, the facility is not subject to this rule and no further discussion is required.

6. District Rule 2520 – Federally Mandated Operating Permits

Greenhouse Gas Requirements

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

7. District Rule 4201 – Particulate Matter Concentration

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

Natural Gas-Fired Turbines

$$\text{PM Conc. (gr/scf)} = \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Air flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})}$$

PM emission rate = 19.0 lb/day, assuming 100% of PM is PM₁₀
Exhaust Gas Flow = 1,980,967 scf/hr

$$\text{PM Conc. (gr/scf)} = \frac{[(19.0 \text{ lb/day}) \times (7,000 \text{ gr/lb})]}{[(1,980,967 \text{ ft}^3/\text{min}) \times (24 \text{ hr/day})]}$$

$$\text{PM Conc.} = 0.003 \text{ gr/scf}$$

As demonstrated above, the emissions concentration for the turbines is not expected to exceed the rule limit of 0.1 gr/dscf.

Diesel-Fired IC Engine

EPA F-factor (adjusted to 60 °F) = 9,051 dscf/MMBtu

BHP to Btu/hr conversion = 2,542.5 Btu/bhp-hr

Thermal efficiency of engine ≈ 35%

PM₁₀ fraction of diesel exhaust = 0.96 (CARB, 1988)

PM₁₀ emission rate = 0.4 g/bhp-hr (Carl Moyer Program)

$$0.4 \frac{\text{g} - \text{PM}_{10}}{\text{bhp} - \text{hr}} \times \frac{1 \text{g} - \text{PM}_{10}}{0.96 \text{g} - \text{PM}_{10}} \times \frac{1 \text{bhp} - \text{hr}}{2,542.5 \text{Btu}} \times \frac{10^6 \text{Btu}}{9,051 \text{dscf}} \times \frac{0.35 \text{Btu}_{\text{out}}}{1 \text{Btu}_{\text{in}}} \times \frac{15.43 \text{grain}}{\text{g}} = 0.098 \frac{\text{grain} - \text{PM}}{\text{dscf}}$$

As demonstrated above, the emissions concentration for the diesel-fired engine is not expected to exceed the rule limit of 0.1 gr/dscf.

Natural Gas-Fired IC Engine

EPA F-factor (adjusted to 60 °F) = 8,578 dscf/MMBtu (40 CFR 60 Appendix B)

BHP to Btu/hr conversion = 2,542.5 Btu/bhp-hr

Thermal efficiency of engine ≈ 35%

PM10 emission rate = 0.063 g/bhp-hr

100% of PM = PM₁₀

$$0.063 \frac{g - PM_{10}}{bhp - hr} \times \frac{1 bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{8,578 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.016 \frac{grain - PM}{dscf}$$

As demonstrated above, the emissions concentration for the diesel-fired engine is not expected to exceed the rule limit of 0.1 gr/dscf.

a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

- Condition 28 of the requirements for these permit units ensures compliance with this rule.

d. S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

- Condition 1 of the requirements for this permit unit ensures compliance with this rule.

e. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER

- Condition 28 of the requirements for this permit unit ensures compliance with this rule.

f. S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR)

POWERING AN EMERGENCY ELECTRICAL GENERATOR

- Condition 1 of the requirements for this permit unit ensures compliance with this rule.

8. District Rule 4701 – Internal Combustion Engines – Phase 1

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine rated greater than 50 bhp that requires a Permit to Operate (PTO).

The facility has two engines that are subject to District Rule 4701. In addition, the engines are also subject to District Rule 4702, which has in all respects superseded District Rule 4701.

Since the emissions limits and all other requirements of District Rule 4702 are equivalent to or more stringent than those of District Rule 4701, compliance with 4702 rule requirements will satisfy requirements of District Rule 4701.

9. District Rule 4702 – Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SO_x) from internal combustion engines.

This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.

The current SIP version of the rule was last amended on January 18, 2007. The current version of the rule was amended on November 14, 2013, but has not yet been approved into the SIP.

The analysis in Attachment D shows that the proposed requirements of the current non-SIP version of this rule are as stringent as, or more stringent than the requirements of the existing SIP version. Streamlining procedures are utilized to substitute the set of requirements in the current non-SIP version of the rule for the otherwise applicable requirements in the SIP version of the rule.

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

with an operating nonresettable elapsed time meter.

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

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

- 1) The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood, and
- 2) Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed operating time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine, and
- 3) The engine is operated with a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Pursuant to Section 5.9, the owner of an engine subject to Section 4.2 shall comply with the following requirements:

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

- 2) Monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier.
- 3) Install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. 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.
- a. S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
- This unit is exempt pursuant to Section 4.3 of the rule, and is therefore only required to comply with Section 6.2.3.
- Conditions 6, 11, 16 and 18 of the requirements for this permit unit ensure compliance with this rule.
- b. S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

This unit is exempt pursuant to Section 4.2 of the rule, and is therefore

only required to comply with Sections 5.9 and 6.2.3.

- Conditions 3, 7 through 9 and 11 through 14 of the requirements for this permit unit ensure compliance with this rule.

10. District Rule 4703 – Stationary Gas Turbines

The provisions of this rule apply to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour, except as provided in Section 4.0. The turbines in this project are subject to District permitting and maximum heat input ratings are above 3 MMBtu/hr; therefore, these turbines are subject to the provisions of this rule.

The turbines are subject to the Tier 3 NO_x Compliance Limits per Section 5.1.3 and Table 5-3. Pursuant to the compliance schedule stated in section 7.3.2.4, all the turbines at the facility were required to comply with the Tier 3 standards by January 1, 2012. According to Row b of Table 5-3, NO_x emissions from pipeline gas turbines fired on gas fuel shall not exceed 8 ppmvd @ 15% O₂ during steady state operation and shall not exceed 12 ppmvd @ 15% O₂ during non-steady state operation.

Section 5.2, Table 5-4, requires that CO emissions from turbines, other than General Electric Frame 7, General Electric Frame 7 with Quiet Combustors, and Solar Saturn gas turbines < 2.0 MW powering centrifugal compressors, shall not exceed 200 ppmvd @ 15% O₂.

Section 5.3.1.1 specifies that the duration of each start-up or each shutdown shall not exceed two hours.

Section 6.2.1 requires the owner or operator to install, operate, and maintain continuous emissions monitoring equipment for NO_x and oxygen; or install and maintain an APCO-approved alternate monitoring.

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

Section 6.2.6 requires the owner or operator to maintain a daily log that includes local start-up time and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used.

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.

Section 6.2.12 requires the operator of a unit subject to subsection (b) of Table 5-3 to keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period.

Section 6.3 requires the owner or operator to perform annual source test to measure NO_x and CO emissions. Section 6.4 identifies various test methods to measure NO_x, CO, O₂, HHV and LHV of gaseous fuels.

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- d. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - Conditions 4, 22 through 26, 30, 31, 33, 34, 38 through 41, 44, 45 and 47 of the requirements for these permit units ensure compliance with this rule.

11. District Rule 4801 – Sulfur Compounds

This rule limits the emissions of sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes.

The rule has been submitted to the EPA to replace Kern County Rule 407, which is contained in the SIP. District Rule 4801 is as stringent as Kern County Rule 407, as shown on the following table:

Comparison of District Rule 4801 to Kern County Rule 407		
REQUIREMENTS	District Rule 4801	County Rule 407
A person shall not discharge into the atmosphere sulfur compounds exceeding in concentration at the point of discharge 0.2 percent by volume calculated as sulfur dioxide on a dry basis averaged over 15 consecutive minutes.	✓	✓
EPA Method 8 and ARB Method 1-100 shall be used to determine such emissions.	✓	

Natural Gas-Fired Turbines and Engine

The turbines and one engine at this facility are required by permit condition to be fired solely on PUC-quality natural gas with a maximum sulfur content of 1.0 gr/100 scf (equivalent to a SO_x emission rate of 0.00285 lb/MMBtu). Using the ideal gas equation, the expected maximum sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{nRT}{P}$$

Where:

$$n = \text{moles SO}_2$$

$$T \text{ (Standard Temperature)} = 60^\circ\text{F} = 520^\circ\text{R}$$

$$P \text{ (Standard Pressure)} = 14.7 \text{ psi}$$

$$R \text{ (Universal Gas Constant)} = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$$

$$\text{EPA F-Factor} = 8,578 \text{ dscf/MMBtu (corrected to } 60^\circ\text{F)}$$

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Since the expected sulfur compounds emissions are less than 0.2% (2,000 ppmv), compliance with the requirements of this rule is expected.

Diesel-Fired IC Engine

The maximum sulfur content of the diesel combusted shall not exceed

0.0015% by weight. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

Where:

n = moles SO₂

T (standard temperature) = 60 °F or 520 °R

$$R \text{ (universal gas constant)} = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$$

Density of diesel fuel = 7.1 lb/gal

EPA F-factor (adjusted to 60°F) = 9,051 dscf/MMBtu

Diesel fuel heating value = 137,000 Btu/gal

$$\frac{0.000015 \text{ lb - S}}{\text{lb - fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb - SO}_2}{32 \text{ lb - S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb - mol}}{64 \text{ lb - SO}_2} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb - mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times 1,000,000 = 1.0 \text{ ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801.

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - Condition 1 of the requirements for these permit units ensures compliance with this rule.
- d. S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
 - Condition 5 of the requirements for this permit unit ensures

compliance with this rule.

e. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER

- Condition 1 of the requirements for this permit unit ensures compliance with this rule.

f. S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

- Condition 4 of the requirements for this permit unit ensures compliance with this rule.

12. 40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines

This subpart applies to all stationary gas turbines with a heat input greater than 10.7 gigajoules per hour (10.2 MMBtu/hr), that commence construction, modification, or reconstruction after October 3, 1977.

Section 60.332(a)(2) requires that no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

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

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

Assuming the maximum value for Y (14.4) and minimum value for F (0):

$$\begin{aligned} \text{STD} &= 0.015(1) + 0 \\ &= 0.015\% \text{ (150 ppmv)}. \end{aligned}$$

Since the turbines at this facility are limited by permit condition (with source testing) to NOx emissions not exceeding 12 ppmv, compliance with §60.332(a)(2) is assured.

Section 60.333(a) requires that no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015% by volume at 15% oxygen and on a dry basis.

Section 60.333(b) requires that no owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel, which contains sulfur in excess of 0.8% by weight (8000 ppmw).

Because all the turbines at this facility are limited to combust only natural gas with fuel sulfur content of 1.0 gr/100 scf or less, compliance is assured with the 60.333(a) emission limit of 150 ppmv SO₂ (dry std. conditions at 15% O₂) and 60.333(b) fuel sulfur limit of 0.8% by weight, as shown by the following calculations, based on total sulfur content of 1 grain per 100 standard cubic feet of gas, and assuming all sulfur is converted to SO₂:

$$\%S(\text{lb/lbNG}) = \left(\frac{1 \text{ gr}}{100 \text{ scf}} \right) \left(\frac{1 \text{ lb}}{7000 \text{ gr}} \right) \left(\frac{24.5 \text{ L}}{\text{mol NG}} \right) \left(\frac{1 \text{ mol}}{16 \text{ g}} \right) \left(\frac{454 \text{ g}}{1 \text{ lb}} \right) \left(\frac{0.035 \text{ scf}}{1 \text{ L}} \right) (100)$$

$$= 0.00348\% \text{ sulfur by weight}$$

$$\begin{aligned} \text{lb SO}_2/\text{scf gas} &= (0.0000348)(1 \text{ lb}/23.8 \text{ scf gas})(64 \text{ lb SO}_2/32 \text{ lb S}) \\ &= 2.92 \text{ E-}6 \text{ lb SO}_2/\text{scf gas} \end{aligned}$$

$$\text{lb SO}_2/V_{\text{exhaust}} = (\text{lb SO}_2/\text{scf gas}) \div (\text{F factor}) (\text{Btu content of gas})$$

$$\left(\frac{\text{lb SO}_2}{V_{\text{exhaust}}} \right) = \frac{\left(2.92 \text{ E-}6 \frac{\text{lb SO}_2}{\text{scf gas}} \right) \left(\frac{10^6 \text{ Btu}}{\text{MMBtu}} \right)}{\left(8710 \frac{\text{dscf}}{\text{MMBtu}} \right) \left(1000 \frac{\text{Btu}}{\text{scf}} \right)} = 3.35 \text{ E-}7 \frac{\text{lb SO}_2}{\text{dscf exhaust}}$$

$$V_{\text{SO}_2}/V_{\text{exhaust}} = nRT/P$$

where,

$n = \text{moles SO}_2 = (3.35 \text{ E-}7 \text{ lb SO}_2/\text{dscf exhaust}) / (64 \text{ lb SO}_2/\text{lb-mol})$

$R = \text{universal gas constant} = 10.73 \text{ psi-ft}^3/\text{lb-mol-R}$

$T = \text{standard temperature} = 60 \text{ }^\circ\text{F} = 520 \text{ }^\circ\text{R}$

$P = \text{standard pressure} = 14.7 \text{ psi}$

$$\text{Therefore, } \left(\frac{V_{\text{SO}_2}}{V_{\text{exhaust}}} \right) = \frac{\left(\frac{3.35 \text{ E-}6 \text{ lb SO}_2}{\text{dscf exhaust}} \right) \left(\frac{10.73 \text{ psi-ft}^3}{\text{lb-mol-}^\circ\text{R}} \right) (520 \text{ }^\circ\text{R})}{\left(\frac{64 \text{ lb SO}_2}{\text{lb-mol}} \right) (14.7 \text{ psi})} = 1.99\text{E-}6 \frac{\text{dscf}}{\text{dscf exhaust}}$$

$$= 1.99 \text{ ppmv dry}$$

Diluting it to 15% O₂:

$$\text{ppmv @ 15\% O}_2 = \text{ppmv dry} \times \left(\frac{20.9 - 15}{20.9} \right) = 0.56 \text{ ppmv}$$

0.56 ppmv << 150 ppmv.

Natural gas with fuel sulfur content of 1.0 gr/100 scf or less can be converted to an expression of weight percent of sulfur in the natural gas as follows:

$$\%S(\text{lb/lbNG}) = \left(\frac{1 \text{ gr}}{100 \text{ scf}} \right) \left(\frac{1 \text{ lb}}{7000 \text{ gr}} \right) \left(\frac{24.5 \text{ L}}{\text{mol NG}} \right) \left(\frac{1 \text{ mol}}{16 \text{ g}} \right) \left(\frac{454 \text{ g}}{1 \text{ lb}} \right) \left(\frac{0.035 \text{ scf}}{1 \text{ L}} \right) (100)$$

$$= 0.00348\% \text{ sulfur by weight}$$

Thus natural gas with fuel sulfur content of 1.0 gr/100 scf or less (0.00348% sulfur by weight) assures compliance with the 0.8% sulfur by weight limit of §60.333(b).

Section 60.334(h)(3) requires that the sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated by representative fuel sampling data which shows that sulfur content of gas does not exceed 1.0 gr/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D of 40 CFR part 75 is required.

Section 60.334(c) states that for any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NOX emissions, the owner or operator may, but is not required to,

for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NOx emission limit under §60.332, that approved procedure may continue to be used.

Section 60.334(j) requires that the owner or operator shall submit reports of excess emissions and monitor downtime as required under §60.7(c), periods of excess emissions that shall be reported are defined as follows: 60.334(J)(1)(iii) - An hour of excess emissions shall be any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or diluent (or both).

60.334(j)(5) requires that all reports required under §60.7(c) shall be post-marked by 30th day following the end of each calendar quarter.

60.335(a) requires that source testing shall be conducted using EPA method 20 or 7E for NOx and EPA method 3, 3A for O₂.

- a. S-1792-5-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - b. S-1792-6-7: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - c. S-1792-7-6: 47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
 - d. S-1792-12-2: 52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER
- Conditions 1, 4, 6, 7, 10, 30, 31, 38, 41 and 42 of the requirements for these permit units ensure compliance with this rule.

13. 40 CFR 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This subpart is applicable to owners and operators of stationary compression ignited internal combustion engines that commence construction after July 11, 2005, where the engines are:

- 1) Manufactured after April 1, 2006, if not a fire pump engine.
- 2) Manufactured as a National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

The compression ignition engine at this facility was installed prior to July 11, 2005, and is therefore not subject to the requirements of this subpart.

14. 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR Part 60, Subpart JJJJ applies to owners and operators of Stationary Spark Ignition (SI) Internal Combustion Engines (ICE) that commence construction after June 12, 2006 for engines that are manufactured on or after July 1, 2007 for engines with a maximum power rating greater than or equal to 500 hp; on or after January 1, 2008 for lean burn engines with a maximum power rating greater than or equal to 500 hp and less than 1,350 hp; on or after July 1, 2008 for engines with a maximum power rating less than 500 hp; or on or after January 1, 2009 for emergency engines with a maximum power rating greater than 25 hp.

This facility has one rich-burn SI ICE with maximum power rating of 760 bhp. The engine was installed after June 12, 2006 and was manufactured after July 1, 2008, and is therefore subject to the requirements of this subpart.

Section 60.4233(e) requires owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 bhp to comply with the emission standards in Table 1 to this subpart. Table 1 specifies emissions rates of 2.0 g-NO_x/bhp-hr NO_x; 4.0 g-CO/bhp-hr and 1.0 g-VOC/bhp-hr for emergency engines rated > 130 bhp

Section 60.4234 requires owners and operators of stationary SI ICE to operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

Section 60.4243(a)(1) requires the operation and maintenance of the certified stationary SI IC engine and control device according to the manufacturer's emission-related written instructions and requires records of conducted maintenance to demonstrate compliance.

Section 60.4243(b) outlines the requirements for demonstrating compliance with the emissions standards in §60.4233(d) and (e). The facility will demonstrate compliance through the engine's manufacturer certification.

Section 60.4243(d) specifies that in order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) is prohibited. Pursuant to paragraph (d)(1) and (d)(2), there is no time limit on the use of emergency stationary ICE in emergency situations, and an emergency stationary ICE may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing.

Paragraph 60.4243(g) requires that air-to-fuel ratio controllers used in combination with the operation of a three-way catalyst/non-selective catalytic reduction be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

Section 60.4245(a) requires owners and operators of stationary SI ICE to keep records of the following information.

- (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

- Conditions 2, 3, 11 and 13 of the requirements for this permit unit ensure compliance with this rule.

15. 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Gas Turbines

40 CFR Part 60 Subpart KKKK applies to all stationary gas turbines rated at greater than or equal to 10 MMBtu/hr that commence construction, modification, or reconstruction after February 18, 2005.

Since the turbines at this facility were in existence prior to 2005 and are not undergoing any modification or reconstruction, the requirements of this subpart are not applicable.

16. 40 CFR 63 Subpart YYYY – National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

This subpart applies to stationary combustion turbines that are located at a major source of HAP emissions, which is defined as a contiguous site under common control that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

Per the District's Toxics Inventory, this facility is not major source of HAP emissions; hence the requirements of this subpart are not applicable.

17. 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Emergency engines are subject to this subpart if they are operated at a major or area source of Hazardous Air Pollutant (HAP) emissions. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAPs is a facility is not a major source of HAPs.

Pursuant to section 63.6603(a), the owner or operator of an existing (constructed prior to June 12, 2006) stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions, must comply with the requirements in Table 2d to this subpart. Pursuant to Table 2d row 4, the following requirements are applicable to emergency stationary CI RICE:

- Change oil and filter every 500 hours of operation or annually, whichever comes first

- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

Pursuant to Section 63.6625(f), the owner or operator of an existing emergency stationary RICE located at an area source of HAP emissions must install a non-resettable hour meter if one is not already installed.

Pursuant to Section 63.6625(i), the owner or operator of an existing emergency stationary RICE located at an area source of HAP emissions may have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

Pursuant to Section 63.6640(f): 1) There is no time limit on the use of emergency stationary RICE in emergency situations; and 2) An emergency stationary RICE may be operated for maintenance checks and readiness testing, emergency demand response, and other non-emergency situations up to a maximum of 100 hours per calendar year.

Pursuant to Section 63.6660, the owner or operator must maintain records in a form suitable and readily available for expeditious review, and readily accessible in hard copy or electronic form for at least 5 years.

S-1792-11-2: 93 BHP DIESEL-FIRED EMERGENCY IC ENGINE
POWERING A FIREWATER PUMP

- Conditions 6, 11 through 15 and 18 of the requirements for this

permit unit ensure compliance with this rule.

Pursuant to section 63.6590(c)(1), a new or reconstructed stationary RICE located at an area source must meet the requirements of this subpart by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this subpart.

S-1792-14-1: 760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

- This emission unit is a new (constructed after June 12, 2006) spark ignition stationary RICE and will comply with the requirements of this subpart by complying with the requirements of 40 CFR 60 subpart JJJJ. Compliance with 40 CFR 60 subpart JJJJ was discussed under Section IX.B.13 above.

18. 40 CFR 72.6(b) – Acid Rain Provisions

The turbines at this facility are exempt from Acid Rain Provisions, pursuant to 40 CFR 72.7(a), New Units Exemption, since they serve compressors with nameplate capacities of less than 25 MWe, burn fuel that does not include any coal or coal-derived fuel; and burn gaseous fuel with an annual average sulfur content of 0.05% or less by weight.

X. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

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

B. Requirements not Addressed by Model General Permit Templates

The applicant has not requested any permit shields.

XI. PERMIT CONDITIONS

See draft operating permit beginning on the following page.

San Joaquin Valley Air Pollution Control District

FACILITY: S-1792-0-1

EXPIRATION DATE: 10/31/2018

FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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: SOUTHERN CALIF GAS CO
Location: WHEELER RIDGE STA., HWY 166, 2 MI WEST OF 15, CA
S-1792-0-1; Dec 4 2014 5:18PM - AJYABEU

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

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

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

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

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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-5-7

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. This gas turbine engine shall be fired only on PUC-regulated natural gas. [District Rules 2201 and 4801; and 40 CFR 60.333] Federally Enforceable Through Title V Permit
2. This gas turbine engine shall not burn more than 1.237 MMscf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This gas turbine engine shall be equipped with a continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [District Rules 1080, 2201 and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
5. This gas turbine engine shall be equipped with a continuously recording process analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. The CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit
8. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080 and 40 CFR 60.7(b)] 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 owner or operator shall submit a written report of CEM operations 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 NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
11. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inlet gas temperature to catalyst beds shall be maintained within the range recommended by catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
17. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Steady state gas turbine engine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Steady state gas turbine engine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
26. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
27. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
29. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
31. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
32. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
34. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
35. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source testing, and a source test plan must be submitted for approval at least 15 days prior to testing. Source testing shall be witnessed or authorized by District personnel, and source test results must be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
37. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit
38. Source testing to measure the NO_x emission rate (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
39. Source testing to measure the VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Source testing to measure the CO emission rate (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
42. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201 and 40 CFR 60.334(h)(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.

43. Permittee shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
44. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
46. Permittee shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
47. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-6-7

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. This gas turbine engine shall be fired only on PUC-regulated natural gas. [District Rules 2201 and 4801; and 40 CFR 60.333] Federally Enforceable Through Title V Permit
2. This gas turbine engine shall not burn more than 1.237 MMscf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This gas turbine engine shall be equipped with a continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x and O₂ concentrations. [District Rules 1080, 2201 and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
5. This gas turbine engine shall be equipped with a continuously recording process analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. The CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit
8. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080 and 40 CFR 60.7(b)] 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 owner or operator shall submit a written report of CEM operations 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 NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
11. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inlet gas temperature to catalyst beds shall be maintained within the range recommended by catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
17. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Steady state gas turbine engine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Steady state gas turbine engine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
26. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
27. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
29. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
31. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
32. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
34. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
35. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source testing, and a source test plan must be submitted for approval at least 15 days prior to testing. Source testing shall be witnessed or authorized by District personnel, and source test results must be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
37. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit
38. Source testing to measure the NO_x emission rate (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
39. Source testing to measure the VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Source testing to measure the CO emission rate (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
42. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201 and 40 CFR 60.334(h)(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.

43. Permittee shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
44. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
46. Permittee shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
47. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1792-7-6

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. This gas turbine engine shall be fired only on PUC-regulated natural gas. [District Rules 2201 and 4801; and 40 CFR 60.333] Federally Enforceable Through Title V Permit
2. This gas turbine engine shall not burn more than 1.237 MMscf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This gas turbine engine shall be equipped with a continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [District Rules 1080, 2201 and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
5. This gas turbine engine shall be equipped with a continuously recording process analyzer. [District Rules 2201] Federally Enforceable Through Title V Permit
6. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. The CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit
8. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080 and 40 CFR 60.7(b)] 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 owner or operator shall submit a written report of CEM operations 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 NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
11. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inlet gas temperature to catalyst beds shall be maintained within the range recommended by catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
17. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201] Federally Enforceable Through Title V Permit
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22. Steady state gas turbine engine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Steady state gas turbine engine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
26. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
27. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
29. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
31. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
32. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
34. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
35. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source testing, and a source test plan must be submitted for approval at least 15 days prior to testing. Source testing shall be witnessed or authorized by District personnel, and source test results must be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
37. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit
38. Source testing to measure the NO_x emission rate (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
39. Source testing to measure the VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Source testing to measure the CO emission rate (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
42. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201 and 40 CFR 60.334(h)(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.

43. Permittee shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
44. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
46. Permittee shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
47. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703] 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-1792-9-3

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

NATURAL GAS ODORANT SKID, INCLUDING: 5500 GAL STORAGE TANK AND TWO ODORANT INJECTION PUMP SKIDS

PERMIT UNIT REQUIREMENTS

1. All fugitive components shall be maintained leak free as defined below. [District Rule 2201] Federally Enforceable Through Title V Permit
2. A leak shall be defined as the dripping at a rate of more than 3 drops per minute of a liquid containing VOC's or a reading in excess of 10,000 ppm measured as methane on a portable hydrocarbon detector. [District Rule 2201] Federally Enforceable Through Title V Permit
3. A portable hydrocarbon detector used to determine leaking components shall be calibrated with methane and used in accordance with EPA Method 21. Readings shall be taken at a distance of one (1) centimeter from the potential source of emissions. [District Rule 2201] 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-1792-11-2

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

EXPIRATION DATE: 10/31/2018

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with a turbocharger and with an aftercooler or intercooler. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The engine shall be operated with the timing retarded four degrees from the manufacturer's standard recommended timing. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
7. NOx emissions shall not exceed 7.01 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The PM10 emissions rate shall not exceed 0.87 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Volatile organic compound emissions shall not exceed 0.19 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Carbon monoxide emissions shall not exceed 12.80 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems". Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] 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.

14. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. 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 Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. {3415} The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115]
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] 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-1792-12-2

EXPIRATION DATE: 10/31/2018

EQUIPMENT DESCRIPTION:

52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, ANHYDROUS AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. This gas turbine engine shall be fired only on PUC-regulated natural gas. [District Rules 2201 and 480]; and 40 CFR 60.333] Federally Enforceable Through Title V Permit
2. This gas turbine engine shall not burn more than 1.237 MMscf/day of natural gas; and shall not burn more than 447.125 MMscf/year of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This gas turbine engine shall be equipped with a continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [District Rules 1080, 2201 and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
5. This gas turbine engine shall be equipped with a continuously recording process analyzer. [District Rules 2201] Federally Enforceable Through Title V Permit
6. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
7. The CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit
8. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
10. The owner or operator shall submit a written report of CEM operations 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 NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)] 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 gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Inlet gas temperature to catalyst beds shall be maintained within the range recommended by catalyst manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
17. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Steady state gas turbine engine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Steady state gas turbine engine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
26. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
29. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
31. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703; and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
32. Gas turbine stack VOC emissions shall not exceed 4.3 ppmv at 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
34. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit
35. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source testing, and a source test plan must be submitted for approval at least 15 days prior to testing. Source testing shall be witnessed or authorized by District personnel, and source test results must be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
37. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit
38. Source testing to measure the NO_x emission rate (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
39. Source testing to measure the VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Source testing to measure the CO emission rate (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
42. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
43. Permittee shall keep accurate records of the daily and annual fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
44. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703] 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.

45. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703] Federally Enforceable Through Title V Permit
46. Permittee shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
47. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703] 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-1792-14-1

EXPIRATION DATE: 10/31/2018

SECTION: 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Emissions from this IC engine shall not exceed any of the following limits: 2.0 g-NOx/bhp-hr, 0.063 g-PM10/bhp-hr, 2.0 g-CO/bhp-hr, or 1.0 g-VOC/bhp-hr. [District Rule 2201 and 40 CFR 60.4233] Federally Enforceable Through Title V Permit
3. This engine shall be operated only for testing and maintenance, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 40 CFR 60.4243] Federally Enforceable Through Title V Permit
4. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
6. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
8. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This IC engine shall be equipped with a three-way catalyst and shall be fired on natural gas fuel only. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer and emissions control system supplier. Records of conducted maintenance shall be kept. [District Rule 4702, 40 CFR 60.4243 and 40 CFR 60.4245] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. Permittee shall also maintain documentation from the manufacturer of the engine's certification. [District Rule 4702 and 40 CFR 60.4245] Federally Enforceable Through Title V Permit
14. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

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

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Attachment A

Detailed Facility Report

Detailed Facility Report
For Facility=1792 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

SOUTHERN CALIF GAS CO WHEELER RIDGE STA., HWY 166 2 MI WEST OF I5, CA	FAC #	S 1792	TYPE:	TitleV	EXPIRE ON:	10/31/2018
	STATUS:	A	TOXIC ID:		AREA:	7 /
	TELEPHONE:	6612537034			INSP. DATE:	09/14

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1792-5-6	48 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
S-1792-6-6	48 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
S-1792-7-5	48 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER
S-1792-9-2	5,500 gallons	3020-05 B	1	93.00	93.00	A	NATURAL GAS ODORANT SKID, INCLUDING: 5500 GAL STORAGE TANK AND TWO ODORANT INJECTION PUMP SKIDS
S-1792-11-1	93hp	3020-10 A	1	80.00	80.00	A	93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
S-1792-12-1	53 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER
S-1792-14-0	760 bhp IC engine	3020-10 D	1	479.00	479.00	A	760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

Number of Facilities Reported: 1

Attachment B
Exempt Equipment

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

Exemption Category	Rule 2020 Citation
Piston-type internal combustion engine with maximum continuous rating of 50 braking horsepower (bhp) or less.	6.1.2

Attachment C
Current Permit to Operate



Permit to Operate

FACILITY: S-1792

EXPIRATION DATE: 10/31/2018

LEGAL OWNER OR OPERATOR:
MAILING ADDRESS:

SOUTHERN CALIF GAS CO
PO BOX 2300, M/L SC9314
CHATSWORTH, CA 91313-2300

FACILITY LOCATION:

WHEELER RIDGE STA., HWY 166
2 MI WEST OF I5, CA

FACILITY DESCRIPTION:

NATURAL GAS TRANSMISSION

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

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

Seyed Sadredin
Executive Director / APCO

Arnaud Marjollet
Director of Permit Services

San Joaquin Valley
Air Pollution Control District

FACILITY: S-1792-0-0

EXPIRATION DATE: 10/31/2018

FACILITY-WIDE REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]

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: SOUTHERN CALIF GAS CO
Location: WHEELER RIDGE STA., HWY 166, 2 MI WEST OF I5, CA
S-1792-0-0: Nov 25 2014 4:58PM - AIYABEIJ

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-5-8

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. This turbine shall be fired only on PUC-regulated natural gas. [District Rule 2201]
4. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201]
5. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201]
6. Gas turbine engine shall be equipped with continuously recording oxygen and nitrogen oxide monitors, and a continuously recording process analyzer. [District Rules 2201 and 4703]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. 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]
9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
10. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081]
11. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201]
12. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201]
13. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201]
14. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201]
16. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201]
17. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201]
18. Inlet gas temperature to catalyst beds shall be maintained within range recommended by catalyst manufacturers. [District Rule 2201]
19. Gas turbine engine shall not burn more than 1.237 MM scf/day of natural gas. [District Rule 2201]
20. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. Southern California Gas Company shall comply in full with Rule 4001 (New Source Performance Standards) requirements including notification, record keeping, and monitoring requirements. [District Rule 4001]
22. Continuous emission monitoring systems for NO_x (as NO₂) and oxygen shall conform with Rule 1080 specifications. [District Rule 1080]
23. Continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080]
24. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports submitted to District within 60 days of such audit. [District Rule 1080]
25. Southern California Gas Company shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201]
26. Southern California Gas Company shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201]
27. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100]
28. Steady state turbine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
29. Steady state turbine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
30. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703]
31. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703]
32. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703]
33. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

34. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201]
35. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703]
36. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703]
37. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201]
38. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O2. [District Rules 2201 and 4703]
39. 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]
40. Source testing to measure the NOx, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703]
41. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201]
42. Source testing to measure oxides of nitrogen (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703]
43. Source testing to measure VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703]
44. Source testing to measure carbon monoxide (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703]
45. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703]
46. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]
47. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201]
48. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703]
49. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-6-8

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. This turbine shall be fired only on PUC-regulated natural gas. [District Rule 2201]
4. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201]
5. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201]
6. Gas turbine engine shall be equipped with continuously recording oxygen and nitrogen oxide monitors, and a continuously recording process analyzer. [District Rules 2201 and 4703]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. 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]
9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
10. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081]
11. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201]
12. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201]
13. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201]
14. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201]

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

15. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201]
16. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201]
17. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201]
18. Inlet gas temperature to catalyst beds shall be maintained within range recommended by catalyst manufacturers. [District Rule 2201]
19. Gas turbine engine shall not burn more than 1.237 MM scf/day of natural gas. [District Rule 2201]
20. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. Southern California Gas Company shall comply in full with Rule 4001 (New Source Performance Standards) requirements including notification, record keeping, and monitoring requirements. [District Rule 4001]
22. Continuous emission monitoring systems for NO_x (as NO₂) and oxygen shall conform with Rule 1080 specifications. [District Rule 1080]
23. Continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080]
24. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports submitted to District within 60 days of such audit. [District Rule 1080]
25. Southern California Gas Company shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201]
26. Southern California Gas Company shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201]
27. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100]
28. Steady state turbine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
29. Steady state turbine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
30. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703]
31. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703]
32. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703]
33. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rule 2201]

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

34. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201]
35. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703]
36. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703]
37. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201]
38. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703]
39. 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]
40. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703]
41. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201]
42. Source testing to measure oxides of nitrogen (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703]
43. Source testing to measure VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703]
44. Source testing to measure carbon monoxide (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703]
45. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703]
46. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]
47. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201]
48. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703]
49. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-7-7

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

47.65 MMBTU/HR GAS TURBINE ENGINE/COMPRESSOR SET WITH SCR AND OXIDATION CATALYSTS, AMMONIA STORAGE AND INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. This turbine shall be fired only on PUC-regulated natural gas. [District Rule 2201]
4. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201]
5. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201]
6. Gas turbine engine shall be equipped with continuously recording oxygen and nitrogen oxide monitors, and a continuously recording process analyzer. [District Rules 2201 and 4703]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. 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]
9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
10. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081]
11. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201]
12. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201]
13. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201]
14. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201]

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

15. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201]
16. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201]
17. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201]
18. Inlet gas temperature to catalyst beds shall be maintained within range recommended by catalyst manufacturers. [District Rule 2201]
19. Gas turbine engine shall not burn more than 1.237 MM scf/day of natural gas. [District Rule 2201]
20. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. Southern California Gas Company shall comply in full with Rule 4001 (New Source Performance Standards) requirements including notification, record keeping, and monitoring requirements. [District Rule 4001]
22. Continuous emission monitoring systems for NOx (as NO₂) and oxygen shall conform with Rule 1080 specifications. [District Rule 1080]
23. Continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080]
24. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports submitted to District within 60 days of such audit. [District Rule 1080]
25. Southern California Gas Company shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201]
26. Southern California Gas Company shall keep accurate records of daily fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201]
27. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100]
28. Steady state turbine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
29. Steady state turbine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
30. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703]
31. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703]
32. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703]
33. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

34. Gas turbine stack PM10 emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201]
35. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703]
36. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703]
37. Gas turbine stack VOC emissions shall not exceed 0.007 lb/MM BTU. [District Rule 2201]
38. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O2. [District Rules 2201 and 4703]
39. 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]
40. Source testing to measure the NOx, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703]
41. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201]
42. Source testing to measure oxides of nitrogen (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703]
43. Source testing to measure VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703]
44. Source testing to measure carbon monoxide (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703]
45. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703]
46. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]
47. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201]
48. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703]
49. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-9-4

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 **TOWNSHIP:** 11N **RANGE:** 20W

EQUIPMENT DESCRIPTION:

NATURAL GAS ODORANT SKID, INCLUDING: 5500 GAL STORAGE TANK AND TWO ODORANT INJECTION PUMP SKIDS

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. All fugitive components shall be maintained leak free as defined below. [District Rule 2201]
5. A leak shall be defined as the dripping at a rate of more than 3 drops per minute of a liquid containing VOC's or a reading in excess of 10,000 ppm measured as methane on a portable hydrocarbon detector. [District Rule 2201]
6. A portable hydrocarbon detector used to determine leaking components shall be calibrated with methane and used in accordance with EPA Method 21. Readings shall be taken at a distance of one (1) centimeter from the potential source of emissions. [District Rule 2201]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-11-1

EXPIRATION DATE: 10/31/2018

SECTION: SE 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

93 BHP DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The engine shall be equipped with a turbocharger and with an aftercooler or intercooler. [District Rule 2201]
7. The engine shall be operated with the timing retarded four degrees from the manufacturer's standard recommended timing. [District Rule 2201]
8. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
9. 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]
10. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
11. NOx emissions shall not exceed 7.01 g/hp-hr. [District Rule 2201]
12. The PM10 emissions rate shall not exceed 0.87 g/hp-hr. [District Rule 2201]
13. Volatile organic compound emissions shall not exceed 0.19 g/bhp-hr. [District Rule 2201]
14. Carbon monoxide emissions shall not exceed 12.80 g/bhp-hr. [District Rule 2201]
15. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems". Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
16. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

17. 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 Rule 4702 and 17 CCR 93115]
18. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115]
19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-12-3

EXPIRATION DATE: 10/31/2018

EQUIPMENT DESCRIPTION:

52.7 MMBTU/HR (HHV) GAS TURBINE ENGINE/COMPRESSOR SET WITH HIGH TEMPERATURE SCR AND OXIDATION CATALYSTS, AMMONIA INJECTION SYSTEM AND LUBE OIL VENT COALESCER

PERMIT UNIT REQUIREMENTS

1. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
2. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
3. This turbine shall be fired only on PUC-regulated natural gas. [District Rule 2201]
4. Gas turbine engine shall not burn more than 1.237 MM scf/day of natural gas. [District Rule 2201]
5. Gas turbine engine shall not burn more than 447.125 MM scf/year of natural gas. [District Rule 2201]
6. Gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201]
7. Exhaust gas ducting from gas turbine through catalyst systems shall be gas tight. [District Rule 2201]
8. Gas turbine engine shall be equipped with continuously recording oxygen and nitrogen oxide monitors, and a continuously recording process analyzer. [District Rules 2201 and 4703]
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
10. 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]
11. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
12. Exhaust stack shall be equipped with permanent stack sampling provisions consistent with Rule 1081, EPA reference methods 5 and 8, and OSHA requirements. [District Rule 1081]
13. Flue gas temperature at SCR catalyst shall be monitored by operational temperature indicator. [District Rule 2201]
14. Gas turbine exhaust ducting shall include provisions for adding additional oxidation and SCR catalyst, if required to achieve emission sampling limits. [District Rule 2201]
15. Ammonia slip shall not exceed 20 ppmv (three-hour average) and compliance with the ammonia slip limit shall be demonstrated using directly measured parameters. [District Rule 2201]
16. The three-hour rolling average ammonia slip concentration in ppm shall be calculated by subtracting the certified NOx CEMs measurement (A) from the measurement reported by the continuously recording process analyzer (B) where ammonia slip shall then be calculated as: Ammonia Slip = B - A. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

17. Permittee shall check, record, and quantify the calibration drift (CD) of the continuously recording process analyzer (Process Analyzer) at two concentration values at least once daily (approximately 24 hours). The Process Analyzer's calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD of the Process Analyzer exceeds 5% for five consecutive daily periods, the Process Analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, the Process Analyzer shall be deemed out-of-control. If the Process Analyzer is out-of-control, the permittee shall take appropriate corrective action including repair of the Process Analyzer within 96 operating hours and then repeat the CD of the Process Analyzer. [District Rule 2201]
18. All gas turbine engine exhaust shall flow through catalyst beds. [District Rule 2201]
19. If oxidation catalyst system or SCR system is inoperative, gas turbine engine shall be shut down. [District Rule 2201]
20. Inlet gas temperature to catalyst beds shall be maintained within range recommended by catalyst manufacturers. [District Rule 2201]
21. Visible emissions from the gas turbine lube oil vent coalescer shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
22. Southern California Gas Company shall comply in full with Rule 4001 (New Source Performance Standards) requirements including notification, record keeping, and monitoring requirements. [District Rule 4001]
23. Continuous emission monitoring systems for NO_x (as NO₂) and oxygen shall conform with Rule 1080 specifications. [District Rule 1080]
24. Continuous emissions monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080]
25. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports submitted to District within 60 days of such audit. [District Rule 1080]
26. Southern California Gas Co. shall make continuous emissions monitors records available for District inspection upon request. [District Rule 2201]
27. Southern California Gas Company shall keep accurate records of the daily and annual fuel consumption of gas turbine engine and shall make such records available for District inspection upon request. [District Rule 2201]
28. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100]
29. Steady state turbine operation shall commence after any two consecutive 15 minute periods in which the fuel rate to the turbine does not differ from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
30. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703]
31. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703]
32. Permittee shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, total hours of operation, quantity of fuel used, and duration of all start-up and shutdown periods. [District Rule 4703]
33. Steady state turbine operation shall cease and transitional state begin if, during any single 15 minute period, the fuel rate differs from the reference fuel rate by more than +/- 3000 scf/15 minute period. [District Rule 2201]
34. The reference fuel rate is defined as the fuel rate measured during the preceding 15 minute period. [District Rule 2201]
35. Gas turbine stack PM₁₀ emissions shall not exceed 0.015 lb/MM BTU. [District Rule 2201]

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

36. Gas turbine stack VOC emissions shall not exceed 4.3 ppmv at 15% O₂. [District Rule 2201]
37. Nitrogen oxide emissions shall not exceed 12 ppmvd at 15% oxygen (three hour average) when turbine is operating in the transitional state, as defined by above. [District Rules 2201 and 4703]
38. Nitrogen oxide emissions shall not exceed 8 ppmvd at 15% oxygen (three hour average) when turbine is operating in the steady state, as defined above. [District Rules 2201 and 4703]
39. Carbon monoxide emissions shall not exceed 8 ppmv @ 15% O₂. [District Rules 2201 and 4703]
40. 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]
41. Source testing to measure the NO_x, CO, and VOC emission limits shall be conducted at least once every twelve months. [District Rules 1081 and 4703]
42. Compliance with the gas turbine lube oil vent coalescer visible emissions limit shall be evaluated using EPA method 22 at least once every twelve months. [District Rule 2201]
43. Source testing to measure oxides of nitrogen (ppmv) shall be conducted using EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4703]
44. Source testing to measure VOC emission rate shall be conducted using EPA Method 18. [District Rules 2201 and 4703]
45. Source testing to measure carbon monoxide (ppmv) shall be conducted using EPA Method 10, or ARB Method 100. [District Rules 2201 and 4703]
46. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A, or ARB Method 100. [District Rules 2201 and 4703]
47. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]
48. Permittee shall maintain sufficient records to demonstrate that the fuel fired in the turbine is PUC-regulated. [District Rule 2201]
49. Permittee shall keep records of the date, time and duration of each steady state period and non-steady state period and the quantity of fuel used during each period. [District Rule 4703]
50. All records shall be maintained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1080 and 4703]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1792-14-0

EXPIRATION DATE: 10/31/2018

SECTION: 5 TOWNSHIP: 11N RANGE: 20W

EQUIPMENT DESCRIPTION:

760 BHP (INTERMITTENT) CUMMINS MODEL GTA38 RICH-BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) POWERING AN EMERGENCY ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. Emissions from this IC engine shall not exceed any of the following limits: 2.0 g-NOx/bhp-hr, 0.063 g-PM10/bhp-hr, 2.0 g-CO/bhp-hr, or 1.0 g-VOC/bhp-hr. [District Rule 2201]
4. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
5. This IC engine shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rules 2201 and 4801]
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
7. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
8. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
10. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
11. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
12. This IC engine shall be equipped with a three-way catalyst and shall be fired on natural gas fuel only. [District Rule 2201]
13. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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14. 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]
15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702]

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

Attachment D

DISTRICT RULE 4702 STRINGENCY
ANALYSIS

Comparison of the Non-SIP version (amended November 14, 2013) of District Rule 4702 (Internal Combustion Engines) with the SIP approved version (amended January 18, 2007) of District Rule 4702 (Internal Combustion Engines)

Section	SIP Version of Rule 4702 (Amended January 18, 2007)	Non-SIP Version of Rule 4702 (Amended November 14, 2013)	Conclusion
1.0 Purpose	1.0 The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.	1.0 The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SOx) from internal combustion engines.	There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.
2.0 Applicability	2.0 This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.	2.0 This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.	The SIP version does not apply to engines rated between 25 and 50 bhp. Therefore, the Non-SIP Version of the rule is more stringent.
4.0 Exemptions	<p>4.1 The requirements of this rule shall not apply to the following engines:</p> <p>4.1.1 An engine used to propel implements of husbandry, as that term is defined in Section 36000 of the California Vehicle Code, as that section existed on January 1, 2003.</p> <p>4.1.2 An engine used exclusively to power a wind machine.</p> <p>4.1.3 A de-rated spark-ignited engine not used in agricultural operations, provided the de-rating occurred before June 1, 2004.</p> <p>4.1.4 A de-rated spark-ignited engine used in agricultural operations or a de-rated compression-ignited engine, provided the de-rating occurred before June 1, 2005.</p> <p>4.1.5 An engine used exclusively to power Mobile Agricultural Equipment.</p> <p>4.2 Except for the requirements of Section 5.7 and Section 6.2.3, the requirements of this rule shall not apply to:</p> <p>4.2.1 An emergency standby engine as defined in Section 3.0 of this rule, and provided that it is operated with a nonresettable elapsed operating time meter. In lieu of a nonresettable time meter, the owner of an emergency engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>4.2.2 An internal combustion engine that is operated no more than 200 hours per</p>	<p>4.1 The requirements of this rule shall not apply to the following engines:</p> <p>4.1.1 An engine used to propel implements of husbandry, as that term is defined in Section 36000 of the California Vehicle Code, as that section existed on January 1, 2003.</p> <p>4.1.2 An engine used exclusively to power a wind machine.</p> <p>4.1.3 A de-rated spark-ignited engine not used in agricultural operations, provided the de-rating occurred before June 1, 2004.</p> <p>4.1.4 A de-rated spark-ignited engine used in agricultural operations or a de-rated compression-ignited engine, provided the de-rating occurred before June 1, 2005.</p> <p>4.1.5 An engine used exclusively to power Mobile Agricultural Equipment.</p> <p>4.1.6 An internal combustion engine registered as a portable emissions unit under the Statewide Portable Equipment Registration Program pursuant to California Code of Regulations Title 13, Division 3, Chapter 9, Article 5, Sections 2450-2465.</p> <p>4.1.7 An internal combustion engine registered as a portable emissions unit under Rule 2280 (Portable Equipment Registration).</p> <p>4.2 Except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter.</p> <p>4.2.1 In lieu of operating a nonresettable elapsed time meter, the operator may</p>	<p>The non-SIP version of this rule includes several operations that are not required to meet the requirements of this rule. These operations were added to clarify what operations are subject to this rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>calendar year as determined by an operational nonresettable elapsed operating time meter and provided the engine is not used to perform any of the functions specified in Section 4.2.2.1 through Section 4.2.2.3 below. In lieu of a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>4.2.2.1 To generate electrical power that is either fed into the electrical utility power grid or used to reduce electrical power purchased by a stationary source,</p> <p>4.2.2.2 To generate mechanical power that is used to reduce electrical power purchased by a stationary source, or</p> <p>4.2.2.3 In a distributed generation application.</p> <p>4.3 Except for the administrative requirements of Section 6.2.3, the requirements of this rule shall not apply to:</p> <p>4.3.1 An internal combustion engine that meets the following conditions:</p> <p>4.3.1.1 The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood, and</p> <p>4.3.1.2 Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed operating time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine, and</p> <p>4.3.1.3 The engine is operated with a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>4.3.2 An internal combustion engine registered as a portable emissions unit under Rule 2280 (Portable Equipment</p>	<p>use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter.</p> <p>4.2.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>4.3 Except for the administrative requirements of Section 6.2.3, the requirements of this rule shall not apply to the following:</p> <p>4.3.1 An internal combustion engine that meets the following conditions:</p> <p>4.3.1.1 The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood; and</p> <p>4.3.1.2 Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine; and</p> <p>4.3.1.3 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.</p> <p>4.3.2 Military Tactical Equipment and engines used to retract military aircraft arresting gear cables.</p> <p>4.4 For existing facilities, a replacement unit installed for the sole purpose of complying with the requirements of this rule shall be considered to be an emission control technique and shall be exempt from the Best Available Control Technology (BACT) and offsets requirements of District Rule 2201 (New and Modified Stationary Source Review Rule) provided that all other requirements of Rule 2201 are met.</p> <p>4.5 Except for the requirements of Section 5.1,</p>	
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	<p>Registration) or the Statewide Portable Equipment Registration Program pursuant to Sections 2450-2465, Article 5, Title 13, California Code of Regulations.</p> <p>4.3.3 Military Tactical Equipment and engines used to retract military aircraft arresting gear cables.</p> <p>4.4. A replacement engine installed for the sole purpose of complying with the requirements of this rule shall be exempt from the Best Available Control Technology (BACT) and Offsets requirements of District Rule 2201 (New and Modified Stationary Source Review Rule) provided that all of the following conditions are met:</p> <p>4.4.1 The replacement engine is of equal or lesser horsepower rating of the engine being replaced,</p> <p>4.4.2 The replacement engine is subject to the same operational parameters (e.g. hours of operation, fuel use limitations, etc.) as the engine being replaced,</p> <p>4.4.3 The replacement engine performs the same function as the engine being replaced, and</p> <p>4.4.4 The emissions of the replacement engine are no greater than the emissions of the engine being replaced.</p>	<p>the requirements of this rule shall not apply to stationary engines rated at least 25 Brake Horsepower, up to, and including 50 Brake Horsepower.</p>	
<p>5.0 Requirements</p>	<p>Note: Section 5.0 requirements refer to Tables 1 through 4, which list the emission limits/standards for various categories of IC engines subject to this rule. These Tables are included at the end of this Stringency Comparison for each version of the rule.</p>		
	<p>N/A</p>	<p>5.1 Stationary Engines Rated at Least 25 Brake Horsepower, Up To, and Including 50 Brake Horsepower and Used in Non-Agricultural Operations (Non-AO)</p> <p>5.1.1 On and after July 1, 2012, no person shall sell or offer for sale any non-AO spark-ignited engine or any non-AO compression-ignited engine unless the engine meets the applicable requirements and emission limits specified in 40 Code of Federal Regulation (CFR) 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) and 40 CFR 60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines) for the year in which the ownership of the engine changes.</p> <p>5.1.2 By January 1, 2013, the operator shall submit a one-time report that includes the number of engines at the stationary source, and the following information for each engine:</p> <p>5.1.2.1 Location of each engine, 5.1.2.2 Engine manufacturer, 5.1.2.3 Model designation and engine</p>	<p>The SIP version does not apply to engines rated between 25 and 50 bhp. Therefore, the Non-SIP Version of the rule is more stringent.</p>

		<p>serial number,</p> <p>5.1.2.4 Rated brake horsepower,</p> <p>5.1.2.5 Type of fuel and type of ignition,</p> <p>5.1.2.6 Combustion type: rich-burn, lean-burn, or compression ignition,</p> <p>5.1.2.7 Purpose, and intended use, of the engine,</p> <p>5.1.2.8 Typical daily operating schedule, and</p> <p>5.1.2.9 Fuel consumption (cubic feet for gas or gallons for liquid fuel) for the previous one-year period.</p>	
	<p>5.1 Engine Emission Limits/Standards</p> <p>5.1.1 Spark-Ignited Internal Combustion Engine Emission Limits/Standards - The owner of a spark-ignited internal combustion engine shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 below for the appropriate engine type according to the compliance schedules listed in Section 7.0 or according to the compliance dates specified in Table 1 below. A spark-ignited engine shall comply with the applicable emission limits pursuant to Section 5.1 or Section 8.0.</p>	<p>5.2 Engines Rated at Greater than 50 Brake Horsepower (>50 bhp)</p> <p>5.2.1 Spark Ignited Engines Used in non-AO - Table 1 Emission Limits/Standards</p> <p>The operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in non-AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emission limits pursuant to Section 8.0.</p> <p>5.2.2 Spark-Ignited Engines Used in non-AO - Table 2 Emission Limits/Standards</p> <p>On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine > 50 bhp that is used in non-AO shall comply with all the applicable requirements of the rule and one of the following, on an engine-by-engine basis:</p> <p>5.2.2.1 On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine that is used exclusively in non-AO shall comply with Sections 5.2.2.1.1 through 5.2.2.1.3 on an engine-by-engine basis:</p> <p>5.2.2.1.1 NOx, CO, and VOC emission limits pursuant to Table 2;</p> <p>5.2.2.1.2 SOx control requirements of Section 5.7, pursuant to the deadlines specified in Section 7.5; and</p> <p>5.2.2.1.3 Monitoring requirements of Section 5.10, pursuant to the deadlines specified in Section 7.5.</p> <p>5.2.2.2 In lieu of complying with the NOx emission limit requirement of Section 5.2.2.1.1, an operator may pay an annual fee to the District, as specified in Section 5.6, pursuant to Section 7.6.</p>	<p>The requirements of Table 1 of both versions of the rule are identical. Table 2 from the non-SIP version found at the end of this document has emissions requirements that are more stringent than the requirements of Table 1 in both versions of the Rule. The standards of the non-SIP version are at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>

		<p>5.2.2.2.1 Engines in the fee payment program shall have actual emissions not greater than the applicable limits in Table 1 during the entire time the engine is part of the fee payment program.</p> <p>5.2.2.2.2 Compliance with Section 5.7 and 5.10, pursuant to the deadlines specified in Section 7.5, is also required as part of the fee payment option.</p> <p>5.2.2.3 In lieu of complying with the NO_x, CO, and VOC limits of Table 2 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0. An operator electing this option shall not be eligible to participate in the fee payment option outlined in Section 5.2.2.2 and Section 5.6.</p> <p>5.2.3 Spark-Ignited Engines Used Exclusively in Agricultural Operations (AO)</p> <p>5.2.3.1 The operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 3 for the appropriate engine type on an engine-by-engine basis.</p> <p>5.2.3.2 In lieu of complying with the NO_x, CO, and VOC limits of Table 3 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0.</p> <p>5.2.3.3 An operator of an AO spark-ignited engine that is subject to the applicable requirements of Table 3 shall not replace such engine with an engine that emits more emissions of NO_x, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced.</p>	
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	<p>5.1.2 Compression-Ignited Internal Combustion Engine Emission Limits/Standards and Compliance Schedules – The owner of a compression-ignited internal combustion engine shall repower, replace or control the engine to comply with the applicable limits/standards and compliance dates in Table 2 below. The annual hours of operation shall be determined on a calendar year basis. A compression-ignited engine shall comply with the applicable emission limits/standards pursuant to Section 5.1.2 or Section 8.0.</p> <p>5.1.3 On and after June 1, 2006, the owner of an AO rich-burn spark-ignited engine, AO lean-burn spark-ignited engine, or AO compression-ignited engine that is subject to the requirements of Section 5.1 shall not replace such engine with a rich-burn spark-ignited, lean-burn spark-ignited, or compression-ignited engine, respectively, that emits more emissions of NO_x, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced.</p> <p>5.1.4 The owner of a non-certified compression-ignited engine, in place on June 1, 2006, shall comply with the Emission Limit/Standard and Compliance Date in Table 2 based on the non-certified compression-ignited engine that was in place on June 1, 2006, unless the owner meets one of the following conditions:</p> <p>5.1.4.1 Replaces the non-certified compression-ignited engine with a non-modified Tier 3 or a non-modified Tier 4 engine after June 1, 2006.</p> <p>5.1.4.2 Controls the non-certified compression-ignited engine after June 1, 2006, to emit emissions less than, or equal to, 80 ppm NO_x, 2,000 ppm CO, and 750 ppm VOC, (corrected to 15% oxygen on a dry basis), or</p> <p>5.1.4.3 Replaces the non-certified compression-ignited engine after June 1, 2006, with an engine or other source with emissions less than, or equal to, 80 ppm NO_x, 2,000 ppm CO, and 750 ppm VOC (corrected to 15% oxygen on a dry basis).</p>	<p>5.2.4 Certified Compression-Ignited Engines (AO and non-AO)</p> <p>The operator of a certified compression-ignited engine rated >50 bhp shall comply with the following requirements:</p> <p>5.2.4.1 Repower, replace, or control the engine's emissions to comply with the applicable limits/standards in Table 4 on an engine-by-engine basis by the compliance dates as specified in Table 4.</p> <p>5.2.4.2 The annual hours of operation shall be determined on a calendar year basis.</p> <p>5.2.4.3 In lieu of complying with the NO_x, CO, and VOC limits of Table 4 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0.</p> <p>5.2.4.4 An operator of an AO compression-ignited engine that is subject to the applicable requirements of Table 4 shall not replace such engine with an engine that emits more emissions of NO_x, VOC, and CO, on a ppmv basis, (corrected to 15% oxygen on a dry basis) than the engine being replaced.</p> <p>5.2.5 Non-Certified Compression-Ignited Engines (AO and Non-AO) The operator of a non-certified compression-ignited engine, in place on or before June 1, 2006, shall comply with the Emission Limit/Standard and Compliance Date in Table 4 based on the non-certified compression ignited engine that was in place on June 1, 2006, unless the operator meets one of the following conditions:</p> <p>5.2.5.1 Replace the non-certified compression-ignited engine with a nonmodified Tier 3 or a non-modified Tier 4 engine after June 1, 2006;</p> <p>5.2.5.2 Control the non-certified compression-ignited engine after June 1, 2006, to emit emissions less than, or equal to, 80 ppmv NO_x, 2,000 ppmv CO, and 750 ppmv VOC (corrected to 15% oxygen on a dry basis); or</p> <p>5.2.5.3 Replace the non-certified compression-ignited engine after June 1, 2006, with an engine or other source with emissions less than, or equal to, 80 ppmv NO_x, 2,000 ppmv CO, and 750 ppmv VOC (corrected to 15% oxygen on a dry basis).</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
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	<p>5.2 All continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule.</p> <p>5.3 Percent emission reductions, if used to comply with the NOx emission limits of Section 5.1, shall be calculated as follows:</p> <p>5.3.1 For engines with external control devices that are not operated in combination with a second emission control device or technique, percent reduction shall be calculated using emission samples taken at the inlet and outlet of the control device.</p> <p>5.3.2 For engines without external control devices and for engines with an external control device in combination with a second emission control device or technique, percent reduction shall be based on source test results for the uncontrolled engine and the engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. When representative source sampling prior to the application of an emissions control technology or technique is not available, the APCO may approve the use of a manufacturer's uncontrolled emissions information or source sampling from a similar, uncontrolled engine.</p> <p>5.4 The owner of an internal combustion engine that uses percent emission reduction to comply with the NOx emission limits of Section 5.1 shall provide an accessible inlet and outlet on the external control device or the engine as appropriate for taking emission samples and as approved by the APCO.</p>	<p>5.3 All continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule.</p> <p>5.4 Percent emission reductions, if used to comply with the NOx emission limits of Section 5.2, shall be calculated as follows:</p> <p>5.4.1 For engines with external control devices that are not operated in combination with a second emission control device or technique, percent reduction shall be calculated using emission samples taken at the inlet and outlet of the control device.</p> <p>5.4.2 For engines without external control devices and for engines with an external control device in combination with a second emission control device or technique, percent reduction shall be based on source test results for the uncontrolled engine and the engine after the control device or technique has been employed. In this situation, the engine's typical operating parameters, loading, and duty cycle shall be documented and repeated at each successive post-control source test to ensure that the engine is meeting the percent reduction limit. When representative source sampling prior to the application of an emissions control technology or technique is not available, the APCO may approve the use of a manufacturer's uncontrolled emissions information or source sampling from a similar, uncontrolled engine.</p> <p>5.5 The operator of an internal combustion engine that uses percent emission reduction to comply with the NOx emission limits of Section 5.2 shall provide an accessible inlet and outlet on the external control device or the engine as appropriate for taking emission samples and as approved by the APCO.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
<p>N/A</p>		<p>5.6 Payment of an Annual Fee in Lieu of Complying with a NOx Emission Limit</p> <p>The operator of a non-AO spark-ignited engine who elects to comply under Section 5.2.2.2 shall comply with the requirements of Sections 5.6 by the schedule specified in Section 7.6 and all other applicable provisions of this rule.</p> <p>5.6.1 An operator shall pay a total annual fee to the District based on the total NOx emissions from those engines that will be subject to Section 5.2.2.2. The annual fee shall be calculated in the following manner:</p> <p>5.6.1.1 The operator shall calculate the total emissions for all engines operating at a stationary source that will comply with Section 5.2.2.2. The total NOx emissions</p>	<p>The annual fee option applies to units subject to Table 2.</p>

shall be calculated in accordance with Section 5.6.1.3.

5.6.1.2 The total annual fee shall be calculated in accordance with Section 5.6.1.4. These calculations include only the units that have been identified to comply with Section 5.2.2.2.

5.6.1.3 Total Emissions (TE) Calculation

$$E(\text{engine}) = A \times B \times C \times D \times 2.147 \times 10^{-16}$$

Where:

E (engine) = Annual NO_x emissions for each unit, in tons/year.

A = NO_x emission limit for the Permit-to-Operate, in ppmvd corrected to 15% oxygen.

B = Annual fuel use (ft³/year)

C = Fuel higher heating value (Btu/ft³) – for natural gas use 1,000 Btu/ft³

D = Fuel F-Factor at 60°F (Dscf/MMBtu) – for natural gas use 8,579 Dscf/MMBtu

$$TE = \Sigma E(\text{engine})$$

Where:

ΣE(engine) = Sum of all NO_x emissions from all units in the annual fee program, in tons per year.

5.6.1.4 Total Annual Fee Calculation

$$\text{Total Annual Fee} = (TE \times FR) + \text{Administrative Fee}$$

Where:

TE = Total Emissions, in tons per year, as calculated in Section 5.6.1.3.

FR (Fee Rate) = the cost of NO_x reductions, in dollars per ton, as established by District Rule 9510. Under no circumstances shall the cost per ton of NO_x reductions exceed the cost effectiveness threshold for the Carl Moyer Cost Effectiveness, as established by the applicable state law.

$$\text{Administrative Fee} = 4\% \times (TE \times FR)$$

<p>5.5 California Reformulated Gasoline shall be used as the fuel for all gasoline-fired, spark-ignited internal combustion engines.</p>	<p>5.7 Sulfur Oxides (SOx) Emission Control Requirements</p> <p>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:</p> <p>5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or</p> <p>5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or</p> <p>5.7.3 Use California Reformulated Gasoline for gasoline-fired spark-ignited engines; or</p> <p>5.7.4 Use California Reformulated Diesel for compression-ignited engines; or</p> <p>5.7.5 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</p> <p>5.7.6 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.</p>	<p>The non-SIP version of this rule contains SOx emissions control requirements not found in the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
<p>5.6 Monitoring Requirements A</p> <p>The owner of a non-AO spark-ignited engine subject to the requirements of Section 5.1 or any engine subject to the requirements of Section 8.0 shall comply with the following requirements:</p> <p>5.6.1 For each engine with a rated brake horsepower of 1,000 hp or greater and which is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition to operate more than 2,000 hours per calendar year, or with an external emission control device, either install, operate, and maintain continuous monitoring equipment for NO_x, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:</p> <p>5.6.1.1 Periodic NO_x and CO emission concentrations,</p> <p>5.6.1.2 Engine exhaust oxygen concentration,</p> <p>5.6.1.3 Air-to-fuel ratio,</p> <p>5.6.1.4 Flow rate of reducing agents added to engine exhaust,</p> <p>5.6.1.5 Catalyst inlet and exhaust temperature,</p>	<p>5.8 Monitoring Requirements: Non-AO Spark-Ignited Engines and Engines in an AECF (Section 8.0)</p> <p>The operator of a non-AO spark-ignited engine subject to the requirements of Section 5.2 or any engine subject to the requirements of Section 8.0 shall comply with the following requirements:</p> <p>5.8.1 For each engine with a rated brake horsepower of 1,000 bhp or greater and which is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition to operate more than 2,000 hours per calendar year, or with an external emission control device, either install, operate, and maintain continuous monitoring equipment for NO_x, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:</p> <p>5.8.1.1 Periodic NO_x and CO emission concentrations,</p> <p>5.8.1.2 Engine exhaust oxygen concentration,</p> <p>5.8.1.3 Air-to-fuel ratio,</p> <p>5.8.1.4 Flow rate of reducing agents added to engine exhaust,</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>5.6.1.6 Catalyst inlet and exhaust oxygen concentration, 5.6.1.7 Other operational characteristics.</p> <p>5.6.2 For each engine not subject to Section 5.6.1, monitor operational characteristics recommended by the engine manufacturer or emission control system supplier, and approved by the APCO.</p> <p>5.6.3 For each engine with an alternative monitoring system, submit to, and receive approval from the APCO, adequate verification of the alternative monitoring system's acceptability. This would include data demonstrating the system's accuracy under typical operating conditions for the specific application and any other information or data deemed necessary in assessing the acceptability of the alternative monitoring system.</p> <p>5.6.4 For each engine with an APCO approved CEMS, operate the CEMS in compliance 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 Appendix B (Performance Specifications), 40 CFR Appendix F (Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring).</p> <p>5.6.5 For each engine, have the data gathering and retrieval capabilities of an installed monitoring system described in Section 5.6 approved by the APCO.</p> <p>5.6.6 For each engine, install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>5.6.7 For each engine, implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5.</p> <p>5.6.8 For each engine, collect data through the I&M plan in a form approved by the APCO.</p> <p>5.6.9 For each engine use a portable NOx analyzer to take NOx emission readings to verify compliance with the emission requirements of Section 5.1 or Section 8.0 during each calendar quarter in which a source test is not performed and the engine is operated. All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt</p>	<p>5.8.1.5 Catalyst inlet and exhaust temperature, 5.8.1.6 Catalyst inlet and exhaust oxygen concentration, or 5.8.1.7 Other operational characteristics.</p> <p>5.8.2 For each engine not subject to Section 5.8.1, monitor operational characteristics recommended by the engine manufacturer or emission control system supplier, and approved by the APCO.</p> <p>5.8.3 For each engine with an alternative monitoring system, submit to, and receive approval from the APCO, adequate verification of the alternative monitoring system's acceptability. This would include data demonstrating the system's accuracy under typical operating conditions for the specific application and any other information or data deemed necessary in assessing the acceptability of the alternative monitoring system.</p> <p>5.8.4 For each engine with an APCO approved CEMS, operate the CEMS in compliance 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 Appendix B (Performance Specifications), 40 CFR Appendix F (Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring).</p> <p>5.8.5 For each engine, have the data gathering and retrieval capabilities of an installed monitoring system described in Section 5.8 approved by the APCO.</p> <p>5.8.6 For each engine, install and operate a nonresettable elapsed time meter.</p> <p>5.8.6.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to-Operate or Permit-Exempt Equipment Registration condition.</p> <p>5.8.6.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>5.8.7 For each engine, implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5.</p> <p>5.8.8 For each engine, collect data through the I&M plan in a form approved by the APCO.</p> <p>5.8.9 For each engine, use a portable NOx analyzer to take NOx emission readings to verify compliance with the emission requirements of Section 5.2 or Section 8.0 during each calendar quarter in which a</p>	
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	<p>Equipment Registration. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO. NOx emission readings taken pursuant to this section 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.</p> <p>5.6.10 The APCO shall not approve an alternative monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits. The operator shall source test over the proposed range of surrogate operating parameters to demonstrate compliance with the applicable emission standards.</p> <p>5.6.11 For each engine subject to Section 8.0, install and operate a nonresettable fuel meter. In lieu of installing a nonresettable fuel meter, the owner may use an alternative device, method, or technique in determining daily fuel consumption provided that the alternative is approved by the APCO. The owner shall properly maintain, operate, and calibrate the required fuel meter in accordance with the manufacturer's instructions.</p>	<p>source test is not performed and the engine is operated.</p> <p>5.8.9.1 If an engine is operated less than 120 calendar days per calendar year, take one NOx emission reading during the calendar year in which a source test is not performed and the engine is operated.</p> <p>5.8.9.2 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.</p> <p>5.8.9.3 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO.</p> <p>5.8.9.4 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO.</p> <p>5.8.9.5 NOx emission readings taken pursuant to this section 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.</p> <p>5.8.10 The APCO shall not approve an alternative monitoring system unless it is documented that continued operation within ranges of specified emissions related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits. The operator shall source test over the proposed range of surrogate operating parameters to demonstrate compliance with the applicable emission standards.</p> <p>5.8.11 For each engine subject to Section 8.0, install and operate a nonresettable fuel meter.</p> <p>5.8.11.1 In lieu of installing a nonresettable fuel meter, the operator may use an alternative device, method, or technique in determining daily fuel consumption provided that the alternative is approved by the APCO and EPA.</p> <p>5.8.11.2 The operator shall properly maintain, operate, and calibrate the required fuel meter in accordance with the manufacturer's instructions.</p>	
	<p>5.7 Monitoring Requirements B</p> <p>5.7.1 The owner of any of the following engines shall comply with the requirements specified</p>	<p>5.9 Monitoring Requirements: All Other Engines</p> <p>5.9.1 The operator of any of the following engines shall comply with the requirements</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the</p>

	<p>in Section 5.7.2 through Section 5.7.5 below:</p> <p>5.7.1.1 An AO spark-ignited engine subject to the requirements of Section 5.1,</p> <p>5.7.1.2 A compression-ignited engine subject to the requirements of Section 5.1, or</p> <p>5.7.1.3 An engine subject to Section 4.2.</p> <p>5.7.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.</p> <p>5.7.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.</p> <p>5.7.4 Install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>5.7.5 The owner of an AO spark-ignited engine that has been retro-fitted with a NOx exhaust control that has not been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements, or a compression-ignited engine that has been retro-fitted with a NOx exhaust control shall comply with the following:</p> <p>5.7.5.1 Use a portable NOx analyzer to take NOx emission readings to demonstrate compliance with the emission requirements of Section 5.1.</p> <p>5.7.5.2 The owner of a compression-ignited engine that is subject to the limits/standards of Section 5.1.2 Table 2 Category 1.d shall use a portable NOx analyzer to take NOx emission readings at least once every six months that the engine is operated.</p> <p>5.7.5.3 The owner of any other engine that has been retro-fitted with a NOx exhaust control shall use a portable NOx analyzer to take NOx emission readings at least once every 24 months that the engine is operated.</p> <p>5.7.5.4 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.</p>	<p>specified in Section 5.9.2 through Section 5.9.5 below:</p> <p>5.9.1.1 An AO spark-ignited engine subject to the requirements of Section 5.2;</p> <p>5.9.1.2 A compression-ignited engine subject to the requirements of Section 5.2; or</p> <p>5.9.1.3 An engine subject to Section 4.2.</p> <p>5.9.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.</p> <p>5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.</p> <p>5.9.4 Install and operate a nonresettable elapsed time meter.</p> <p>5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to- Operate or Permit-Exempt Equipment Registration condition.</p> <p>5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.</p> <p>5.9.5 The operator of an AO spark-ignited engine that has been retro-fitted with a NOx exhaust control that has not been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements, or a compression ignited engine that has been retro-fitted with a NOx exhaust control shall comply with the following:</p> <p>5.9.5.1 Use a portable NOx analyzer to take NOx emission readings to demonstrate compliance with the emission requirements of Section 5.2.</p> <p>5.9.5.2 The operator of a compression-ignited engine that is subject to the limits/standards of Section 5.2 Table 4 Category 1.d shall use a portable NOx analyzer to take NOx emission readings at least once every six (6) months that the engine is operated.</p> <p>5.9.5.3 The operator of any other engine that has been retro-fitted with a NOx exhaust control shall use a portable NOx analyzer to take NOx emission readings at least once every 24 months that the engine is operated.</p> <p>5.9.5.4 All emission readings shall be taken with the engine operating either at</p>	<p>rule is as stringent as the SIP version of the rule.</p>
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	<p>5.7.5.5 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO.</p> <p>5.7.5.6 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO.</p> <p>5.7.5.7 NOx emission readings taken pursuant to this section 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.</p>	<p>conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.</p> <p>5.9.5.5 The portable NOx analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO.</p> <p>5.9.5.6 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO.</p> <p>5.9.5.7 NOx emission readings taken pursuant to this section 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.</p>	
		<p>5.10 SOx Emissions Monitoring Requirements On and after the compliance schedule specified in Section 7.5, an operator of a non-AO engine shall comply with the following requirements:</p> <p>5.10.1 An operator of an engine complying with Sections 5.7.2 or 5.7.5 shall perform an annual sulfur fuel analysis in accordance with the test methods in Section 6.4. The operator shall keep the records of the fuel analysis and shall provide it to the District upon request.</p> <p>5.10.2 An operator of an engine complying with Section 5.7.6 by installing and operating a control device with at least 95% by weight SOx reduction efficiency shall submit for approval by the APCO the proposed the key system operating parameters and frequency of the monitoring and recording not later than July 1, 2013, and</p> <p>5.10.3 An operator of an engine complying with Section 5.7.6 shall perform an annual source test unless a more frequent sampling and reporting period is included in the Permit-to-Operate. Source tests shall be performed in accordance with the test methods in Section 6.4.</p>	<p>The non-SIP approved version contains SO_x emissions monitoring requirements not required in the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>5.8 Permit-Exempt Equipment Registration Requirements</p> <p>The owner of an engine used exclusively in agricultural operations shall register such engine pursuant to Rule 2250 (Permit-Exempt Equipment Registration), except for an engine that meets any one of the following conditions:</p> <p>5.8.1 The engine is required to have a Permit-to-Operate pursuant to California Health and Safety Code Section 42301.16, or</p> <p>5.8.2 The engine is not required to comply with Section 5.1 of this rule.</p>	<p>5.11 Permit-Exempt Equipment Registration Requirements</p> <p>The operator of an engine used exclusively in agricultural operations shall register such engine pursuant to Rule 2250 (Permit-Exempt Equipment Registration), except for an engine that meets any one of the following conditions:</p> <p>5.11.1 The engine is required to have a Permit-to-Operate pursuant to California Health and Safety Code Section 42301.16; or</p> <p>5.11.2 The engine is not required to comply with Section 5.2 of this rule.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
<p>6.0 Administrative Requirements</p>	<p>6.1 Emission Control Plan</p> <p>The owner of an engine subject to the requirements of Section 5.1 or Section 8.0, except for an engine specified in Section 6.1.1, of this rule shall submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0.</p> <p>6.1.1 The requirement to submit an emission control plan shall not apply to an engine specified below:</p> <p>6.1.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0,</p> <p>6.1.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0,</p> <p>6.1.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0,</p> <p>6.1.1.4 An engine subject to Section 4.2, or</p> <p>6.1.1.5 An engine subject to Section 4.3.</p> <p>6.1.1.6 An engine with an operating exhaust control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements.</p> <p>6.1.2 Such emission control plan shall contain the following information, as applicable for each engine:</p> <p>6.1.2.1 Permit-to-Operate number, Authority-to-Construct number, or Permit-Exempt Equipment Registration number</p> <p>6.1.2.2 Engine manufacturer</p> <p>6.1.2.3 Model designation and engine serial</p>	<p>6.1 Emission Control Plan</p> <p>The operator of an engine subject to the requirements of Section 5.2 of this rule shall submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.2 and the compliance schedules of Section 7.0. If there is no change to the previously-approved emission control plan, the operator shall submit a letter to the District indicating that the previously approved plan is still valid.</p> <p>6.1.1 The requirement to submit an emission control plan shall apply to the following engines:</p> <p>6.1.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;</p> <p>6.1.1.2 Engines subject to Section 8.0;</p> <p>6.1.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0;</p> <p>6.1.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.</p> <p>6.1.2 Such emission control plan shall contain the following information, as applicable for each engine:</p> <p>6.1.2.1 Permit-to-Operate number, Authority-to-Construct number, or Permit-Exempt Equipment Registration number,</p> <p>6.1.2.2 Engine manufacturer,</p> <p>6.1.2.3 Model designation and engine serial number,</p> <p>6.1.2.4 Rated brake horsepower,</p> <p>6.1.2.5 Type of fuel and type of ignition,</p> <p>6.1.2.6 Combustion type: rich-burn or lean-</p>	<p>The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet these section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>number</p> <p>6.1.2.4 Rated brake horsepower</p> <p>6.1.2.5 Type of fuel and type of ignition</p> <p>6.1.2.6 Combustion type: rich-burn or lean-burn</p> <p>6.1.2.7 Total hours of operation in the previous one-year period, including typical daily operating schedule</p> <p>6.1.2.8 Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period</p> <p>6.1.2.9 Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing</p> <p>6.1.2.10 Type of control to be applied, including in-stack monitoring specifications</p> <p>6.1.2.11 Applicable emission limits</p> <p>6.1.2.12 Documentation showing existing emissions of NO_x, VOC, and CO, and</p> <p>6.1.2.13 Date that the engine will be in full compliance with Rule 4702.</p> <p>6.1.3 The emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule.</p> <p>6.1.4 For an engine being permanently removed from service, the emission control plan shall include a letter of intent pursuant to Section 7.2.</p>	<p>burn,</p> <p>6.1.2.7 Total hours of operation in the previous one-year period, including typical daily operating schedule,</p> <p>6.1.2.8 Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period,</p> <p>6.1.2.9 Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing,</p> <p>6.1.2.10 Type of control to be applied, including in-stack monitoring specifications,</p> <p>6.1.2.11 Applicable emission limits,</p> <p>6.1.2.12 Documentation showing existing emissions of NO_x, VOC, and CO, and</p> <p>6.1.2.13 Date that the engine will be in full compliance with this rule.</p> <p>6.1.3 The emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule.</p> <p>6.1.4 For an engine being permanently removed from service, the emission control plan shall include a letter of intent pursuant to Section 7.2.</p>	
	<p>6.2 Recordkeeping</p> <p>6.2.1 Except for engines subject to Section 4.0, the owner of an engine subject to the requirements of Section 5.1 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:</p> <p>6.2.1.1 Total hours of operation,</p> <p>6.2.1.2 Type of fuel used,</p> <p>6.2.1.3 Maintenance or modifications performed,</p> <p>6.2.1.4 Monitoring data,</p> <p>6.2.1.5 Compliance source test results, and</p>	<p>6.2 Recordkeeping</p> <p>6.2.1 The operator of an engine subject to the requirements of Section 5.2 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:</p> <p>6.2.1.1 Total hours of operation,</p> <p>6.2.1.2 Type of fuel used,</p> <p>6.2.1.3 Maintenance or modifications performed,</p> <p>6.2.1.4 Monitoring data,</p> <p>6.2.1.5 Compliance source test results, and</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>6.2.1.6 Any other information necessary to demonstrate compliance with this rule.</p> <p>6.2.1.7 For an engine subject to Section 8.0, the quantity (cubic feet of gas or gallons of liquid) of fuel used on a daily basis.</p> <p>6.2.2 The data collected pursuant to the requirements of Section 5.6 and Section 5.7 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request.</p> <p>6.2.3 An owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and provided to the APCO upon request. The records shall include, but are not limited to, the following:</p> <p>6.2.3.1 Total hours of operation,</p> <p>6.2.3.2 The type of fuel used,</p> <p>6.2.3.3 The purpose for operating the engine,</p> <p>6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and</p> <p>6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.</p>	<p>6.2.1.6 Any other information necessary to demonstrate compliance with this rule.</p> <p>6.2.1.7 For an engine subject to Section 8.0, the quantity (cubic feet of gas or gallons of liquid) of fuel used on a daily basis.</p> <p>6.2.2 The data collected pursuant to the requirements of Section 5.8 and Section 5.9 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request.</p> <p>6.2.3 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:</p> <p>6.2.3.1 Total hours of operation,</p> <p>6.2.3.2 The type of fuel used,</p> <p>6.2.3.3 The purpose for operating the engine,</p> <p>6.2.3.4 For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and</p> <p>6.2.3.5 Other support documentation necessary to demonstrate claim to the exemption.</p>	
	<p>6.3 Compliance Testing</p> <p>The owner of an engine subject to the requirements of Section 5.1 or the requirements of Section 8.0, shall comply with the following requirements, except for an engine specified in Section 6.3.1:</p> <p>6.3.1 The requirements of Section 6.3.2 through Section 6.3.4 shall not apply to any of the following engines:</p> <p>6.3.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0.</p> <p>6.3.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0.</p> <p>6.3.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0.</p> <p>6.3.1.4 An engine subject to Section 4.2.</p> <p>6.3.1.5 An engine subject to Section 4.3.</p> <p>6.3.1.6 An engine with an operating exhaust</p>	<p>6.3 Compliance Testing</p> <p>The operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall comply with the following requirements:</p> <p>6.3.1 The requirements of Section 6.3.2 through Section 6.3.4 shall apply to the following engines:</p> <p>6.3.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;</p> <p>6.3.1.2 Engines subject to Section 8.0;</p> <p>6.3.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0;</p> <p>6.3.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.</p> <p>6.3.2 Demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below:</p> <p>6.3.2.1 By the applicable date specified in</p>	<p>The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet this section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements.

6.3.2 Demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below:

6.3.2.1 By the applicable date specified in Section 5.1.1, Section 5.1.2, Section 7.3, Section 7.4, Section 7.5, or Section 7.6 and at least once every 24 months thereafter, except for an engine subject to Section 6.3.2.2.

6.3.2.2 By the applicable date specified in Section 5.1.1, Section 5.1.2, Section 7.3, Section 7.4, Section 7.5, or Section 7.6 and at least once every 60 months thereafter, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0.

6.3.2.3 A portable NOx analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.1 for AO spark-ignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date.

6.3.2.3.1 A minimum of 15 minutes of runtime must be measured with data recorded at a minimum of 15, evenly spaced time intervals. Compliance is to be determined with the arithmetic average of the oxygen-corrected data.

6.3.2.3.2 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer calibration records shall be made available at the District's request.

6.3.2.3.3 The analyzer shall be checked with EPA protocol span gas at the beginning and end of each test day. The results of these checks shall be recorded and copies submitted to the District with each engine test. If the analyzer exhibits more than a 10% deviation from the span check, the instrument must be re-calibrated. Any analysis performed prior to an end-of-day span check failure shall be void.

6.3.2.3.4. The test results of each engine, including span check results, shall be submitted to the District within 30 days of the test date. Test results shall clearly identify the engine tested including owner, location, permit or

Section 5.2, and at least once every 24 months thereafter, except for an engine subject to Section

6.3.2.2 By the applicable date specified in Section 5.2 and at least once every 60 months thereafter, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device.

6.3.2.3 A portable NOx analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.2 for AO spark ignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date.

6.3.2.3.1 A minimum of 15 minutes of runtime must be measured with data recorded at a minimum of 15, evenly spaced time intervals. Compliance is to be determined with the arithmetic average of the oxygen corrected data;

6.3.2.3.2 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer calibration records shall be made available at the District's request;

6.3.2.3.3 The analyzer shall be checked with EPA protocol span gas at the beginning and end of each test day. The results of these checks shall be recorded and copies submitted to the District with each engine test. If the analyzer exhibits more than a 10% deviation from the span check, the instrument must be recalibrated. Any analysis performed prior to an end-of-day span check failure shall be void;

6.3.2.3.4 The test results of each engine, including span check results, shall be submitted to the District within 30 days of the test date. Test results shall clearly identify the engine tested including operator, location, permit or registration number, manufacturer, model, and serial number; and

6.3.2.3.5 The analyzer utilized for each check shall be clearly identified in the material submitted with the test results. Identification shall include manufacturer and serial number of the analyzer used, and the last calibration date.

6.3.3 Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the

	<p>registration number, manufacturer, model, and serial number.</p> <p>6.3.2.3.5. The analyzer utilized for each check shall be clearly identified in the material submitted with the test results. Identification shall include manufacturer and serial number of the analyzer used, and the last calibration date.</p> <p>6.3.3 Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, 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. VOC shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit in Table 1, the percent reduction of NO_x emissions shall also be reported.</p> <p>6.3.4 In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan.</p> <p>6.3.5 Engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions.</p>	<p>purpose of determining compliance with an applicable standard or numerical limitation, 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. VOC shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NO_x emissions shall also be reported.</p> <p>6.3.4 In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan.</p> <p>6.3.5 Engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions.</p>	
	<p>6.3.6 Representative Testing</p> <p>For spark-ignited engines, in lieu of compliance with the applicable requirements of Section 6.3.2, compliance with the applicable emission limits in Section 5.1 shall be demonstrated by submittal of annual emission test results, within 30 days of the test date, to the District, from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied:</p> <p>6.3.6.1 The units are located at the same stationary source;</p> <p>6.3.6.2 The units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specifications;</p>	<p>6.3.6 Representative Testing</p> <p>For spark-ignited engines, in lieu of compliance with the applicable requirements of Section 6.3.2, compliance with the applicable emission limits in Section 5.2 shall be demonstrated by submittal of annual emission test results, within 30 days of the test date, to the District, from a unit or units that represents a specified group of units, provided all of the following requirements are satisfied:</p> <p>6.3.6.1 The units are located at the same stationary source;</p> <p>6.3.6.2 The units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>6.3.6.3 The units are operated and maintained in a similar manner; and</p> <p>6.3.6.4 At least 20% of the total number of units are tested during each annual test cycle.</p> <p>6.3.6.5 The District, based on documentation submitted by the stationary source:</p> <p>6.3.6.5.1 Determines that the margin of compliance for the identical units tested is significant and can be maintained on an on-going basis; or</p> <p>6.3.6.5.2 Determines based on a review of sufficient emissions data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit will be in compliance. These factors may include, but are not limited to, the following:</p> <p>6.3.6.5.2.1 Historical records at the tested unit</p> <p>6.3.6.5.2.2 Fuel characteristics yielding low variability and therefore assurance that emissions will be constant and below allowable levels;</p> <p>6.3.6.5.2.3 Statistical analysis of a robust emissions data set demonstrates sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable.</p> <p>6.3.6.6 Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in Sections 6.3.6.1 through 6.3.6.5 have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of Section 6.3.6.6 has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.2 or 6.3.6.</p>	<p>capacity and operating specifications;</p> <p>6.3.6.3 The units are operated and maintained in a similar manner; and</p> <p>6.3.6.4 At least 20% of the total number of units are tested during each annual test cycle.</p> <p>6.3.6.5 The District, based on documentation submitted by the stationary source:</p> <p>6.3.6.5.1 Determines that the margin of compliance for the identical units tested is significant and can be maintained on an on-going basis; or</p> <p>6.3.6.5.2 Determines based on a review of sufficient emissions data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit will be in compliance. These factors may include, but are not limited to, the following:</p> <p>6.3.6.5.2.1 Historical records at the tested unit showing consistent invariant load;</p> <p>6.3.6.5.2.2 Fuel characteristics yielding low variability and therefore assurance that emissions will be constant and below allowable levels;</p> <p>6.3.6.5.2.3 Statistical analysis of a robust emissions data set demonstrating sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable.</p> <p>6.3.6.6 Should any of the representative units exceed the required emission limits, or if the District notifies the operator that the criteria in Sections 6.3.6.1 through 6.3.6.5 have not been fulfilled, each of the units in the group shall individually demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of this section has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.2 or 6.3.6.</p>	
	<p>6.4 Test Methods</p> <p>Compliance with the requirements of Section 5.0 shall be determined, as required, in accordance with the following test procedures or any other method approved by EPA and the APCO:</p> <p>6.4.1 Oxides of nitrogen - EPA Method 7E, or ARB Method 100.</p> <p>6.4.2 Carbon monoxide - EPA Method 10, or ARB Method 100.</p>	<p>6.4 Test Methods</p> <p>Compliance with the requirements of Section 5.2 shall be determined, as required, in accordance with the following test procedures or any other method approved by EPA and the APCO:</p> <p>6.4.1 Oxides of nitrogen - EPA Method 7E, or ARB Method 100.</p> <p>6.4.2 Carbon monoxide - EPA Method 10, or ARB Method 100.</p>	<p>The Non-SIP approved version of this rule added SO_x test methods to the SIP approved version of this rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

6.4.3 Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.

6.4.4 Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100.

6.4.5 Operating horsepower determination - any method approved by EPA and the APCO.

6.4.3 Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.

6.4.4 Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test.

6.4.5 Operating horsepower determination - any method approved by EPA and the APCO.

6.4.6 SOx Test Methods

6.4.6.1 Oxides of sulfur – EPA Method 6C, EPA Method 8, or ARB Method 100.

6.4.6.2 Determination of total sulfur as hydrogen sulfide (H₂S) content – EPA Method 11 or EPA Method 15, as appropriate.

6.4.6.3 Sulfur content of liquid fuel – American Society for Testing and Materials (ASTM) D 6920-03 or ASTM D 5453-99.

6.4.6.4 The SO_x emission control system efficiency shall be determined using the following:

$$\% \text{ Control Efficiency} = [(CSO_2, \text{inlet} - CSO_2, \text{outlet}) / CSO_2, \text{inlet}] \times 100$$

Where:

CSO₂, inlet = concentration of SO_x (expressed as SO₂) at the inlet side of the SO_x emission control system, in lb/Dscf

CSO₂, outlet = concentration of SO_x (expressed as SO₂) at the outlet side of the SO_x emission control system, in lb/Dscf

6.4.7 The Higher Heating Value (hhv) of the fuel shall be determined by one of the following test methods:

6.4.7.1 ASTM D 240-02 or ASTM D 3282-88 for liquid hydrocarbon fuels.

6.4.7.2 ASTM D 1826-94 or ASTM 1945-96 in conjunction with ASTM D 3588-89 for gaseous fuel.

	<p>6.5 Inspection and Monitoring (I&M) Plan</p> <p>The owner of an engine that is subject to the requirements of Section 5.1 or the requirements of Section 8.0, except for an engine specified in Section 6.5.1, shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.6. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below:</p> <p>6.5.1 The requirements of Section 6.5.2 through Section 6.5.9 shall not apply to any of the following engines:</p> <p>6.5.1.1 A certified compression-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0.</p> <p>6.5.1.2 A certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0.</p> <p>6.5.1.3 An AO spark-ignited engine that has not been retro-fitted with a catalytic emission control device and is not subject to the requirements of Section 8.0.</p> <p>6.5.1.4 An engine subject to Section 4.2.</p> <p>6.5.1.5 An engine subject to Section 4.3.</p> <p>6.5.1.6 An engine with an operating exhaust control system that has been certified in accordance with Section 9.0 Exhaust Control System Certification Requirements.</p> <p>6.5.2 Procedures requiring the owner or operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits.</p> <p>6.5.3 Procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan.</p> <p>6.5.4 Procedures for the corrective actions on the noncompliant parameter(s) that the owner or operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations.</p> <p>6.5.5 Procedures for the owner or operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust</p>	<p>6.5 Inspection and Monitoring (I&M) Plan</p> <p>The operator of an engine that is subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below. If there is no change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid.</p> <p>6.5.1 The requirements of Section 6.5.2 through Section 6.5.9 shall apply to the following engines:</p> <p>6.5.1.1 Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;</p> <p>6.5.1.2 Engines subject to Section 8.0;</p> <p>6.5.1.3 An AO spark-ignited engine that is subject to the requirements of Section 8.0.</p> <p>6.5.1.4 An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.</p> <p>6.5.2 Procedures requiring the operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits.</p> <p>6.5.3 Procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan.</p> <p>6.5.4 Procedures for the corrective actions on the noncompliant parameter(s) that the operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations.</p> <p>6.5.5 Procedures for the operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NOx, CO, VOC, or oxygen concentrations.</p> <p>6.5.6 Procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating</p>	<p>The non-SIP approved version of this rule includes what engine categories are subject to this section. The SIP approved version has a list of what engines are exempt from this section. However, there is no change in the actual engine categories that are required to meet these section requirements. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
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	<p>NOx, CO, VOC, or oxygen concentrations.</p> <p>6.5.6 Procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating condition.</p> <p>6.5.7 Procedures and a schedule for using a portable NOx analyzer to take NOx emission readings pursuant to Section 5.6.9.</p> <p>6.5.8 Procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.6.1 and 5.6.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO.</p> <p>6.5.9 Procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine owner that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate or Permit-Exempt Equipment Registration. The owner of an engine may request a change to the I&M plan at any time.</p>	<p>condition.</p> <p>6.5.7 Procedures and a schedule for using a portable NOx analyzer to take NOx emission readings pursuant to Section 5.8.9.</p> <p>6.5.8 Procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.8.1 and 5.8.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO.</p> <p>6.5.9 Procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine operator that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator of an engine may request a change to the I&M plan at any time.</p>	
<p>7.0 Compliance Schedules</p>	<p>7.1 Loss of Exemption</p> <p>The owner of an engine which becomes subject to the emission limits/standards of this rule through loss of exemption shall not operate the subject engine, except as required for obtaining a new or modified Permit-to-Operate or Permit-Exempt Equipment Registration for the engine, until the owner demonstrates that the subject engine is in full compliance with the requirements of this rule.</p>	<p>7.1 Loss of Exemption</p> <p>The operator of an engine which becomes subject to the emission limits/standards of this rule through loss of exemption shall not operate the subject engine, except as required for obtaining a new or modified Permit-to-Operate or Permit-Exempt Equipment Registration for the engine, until the operator demonstrates that the subject engine is in full compliance with the requirements of this rule.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>7.2 Permanent Removal of an Engine</p> <p>The owner of an engine who elects to permanently remove the engine from service shall comply with all of the following conditions:</p> <p>7.2.1 Comply with all applicable requirements of this rule until the engine is permanently removed from service;</p> <p>7.2.2 Submit a letter to the APCO no later than 14 days before the engine is permanently removed from service, stating the intent to</p>	<p>7.2 Permanent Removal of an Engine</p> <p>The operator of an engine who elects to permanently remove the engine from service shall comply with all of the following conditions:</p> <p>7.2.1 Comply with all applicable requirements of this rule until the engine is permanently removed from service;</p> <p>7.2.2 Submit a letter to the APCO no later than 14 days before the engine is permanently</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>permanently remove the engine from service. The engine removal letter can be submitted with the emission control plan, if any; and</p> <p>7.2.3 Permanently remove the engine from service and officially surrender the Permit-to-Operate or Permit-Exempt Equipment Registration, if any, to the APCO no later than 30 days after the engine is permanently removed from service.</p>	<p>removed from service, stating the intent to permanently remove the engine from service. The engine removal letter can be submitted with the emission control plan, if any; and</p> <p>7.2.3 Permanently remove the engine from service and officially surrender the Permit-to-Operate or Permit-Exempt Equipment Registration, if any, to the APCO no later than 30 days after the engine is permanently removed from</p>	
	<p>7.3 Compliance Schedule for an AO Compression-Ignited Engine</p> <p>7.3.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, Permit-Exempt Equipment Registration Application and Authority-to-Construct for an AO Compression-Ignited Engine</p> <p>7.3.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than January 1, 2006.</p> <p>7.3.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of Rule 4702, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, no later than six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702.</p> <p>7.3.1.3 The owner of an engine that is subject to Section 5.1 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan, no later than three months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702.</p> <p>7.3.2 Compliance Schedule - Monitoring and Recordkeeping for an AO Compression-Ignited Engine Subject to Section 5.1 and Section 5.7</p> <p>On and after June 1, 2006, the owner of an engine that is subject to Section 5.1 and Section 5.7 of Rule 4702 shall be in compliance with the requirements of Section 5.7, Section 6.2.1.1, and Section 6.2.1.2.</p> <p>7.3.3 Compliance Schedule - General for an AO Compression-Ignited Engine</p>	<p>7.3 AO Compression-Ignited Engine</p> <p>7.3.1 The operator of an AO compression-ignited engine that is subject to Section 5.2 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of this rule, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, no later than six months before the engine is required to be in compliance with the requirements of Section 5.2.</p> <p>7.3.2 The operator of an AO compression-ignited engine that is subject to Section 5.2 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan, no later than three months before the engine is required to be in compliance with the requirements of Section 5.2.</p> <p>7.3.3 Unless otherwise specified, the operator of an engine that is subject to the requirements of Section 5.2 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates in Table 4.</p>	<p>The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>7.3.3.1 On and after January 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.2 or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702.</p> <p>7.3.3.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.2.</p>		
	<p>7.4 Compliance Schedule for an AO Spark-Ignited Engine</p> <p>7.4.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, Permit-Exempt Equipment Registration Application and Authority-to-Construct for an AO Spark-Ignited Engine</p> <p>7.4.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than January 1, 2006.</p> <p>7.4.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Authority-to-Construct application in order to comply with the requirements of Rule 4702, shall submit the Authority-to-Construct application, and any required Emission Control Plan or I&M Plan, by June 1, 2006, or six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later.</p> <p>7.4.1.3 The owner of an engine that is subject to Section 5.1 and that is required to submit a Permit-Exempt Equipment Registration application in order to comply with the requirements of Rule 4702, shall submit the Permit-Exempt Equipment Registration application, and any required Emission Control Plan or I&M Plan by January 1, 2007, or three months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later.</p> <p>7.4.2 Compliance Schedule - Monitoring and Recordkeeping for an AO Spark-Ignited Engine Subject to Section 5.1 and Section 5.7</p> <p>On and after June 1, 2006, the owner of an engine that is subject to Section 5.1 and Section 5.7 of Rule 4702 shall be in compliance with the requirements of Section 5.7.3 through Section</p>		<p>AO spark-ignited engines were required to be in full compliance with this rule by 1/1/10. The requirements from this section of the rule are obsolete and not required on the Non-SIP approved version of the rule. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>5.7.5, Section 6.2.1.1, and Section 6.2.1.2.</p> <p>7.4.3 Compliance Schedule - General for an AO Spark-Ignited Engine</p> <p>7.4.3.1 On and after June 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.2 or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702.</p> <p>7.4.3.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.1.</p>		
	<p>7.5 Compliance Schedule for a Non-AO Compression-Ignited Engine</p> <p>7.5.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, and Authority-to-Construct for a Non-AO Compression-Ignited Engine</p> <p>7.5.1.1 The owner of an engine that is subject to Section 4.2 or Section 4.3 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than June 1, 2006.</p> <p>7.5.1.2 The owner of an engine that is subject to Section 5.1 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) by June 1, 2006 or six months before the engine is required to be in compliance with the requirements of Section 5.1 of Rule 4702, whichever is later.</p> <p>7.5.2 Compliance Schedule - General for a Non-AO Compression-Ignited Engine</p> <p>7.5.2.1 On and after June 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.1, Section 4.2, or Section 4.3 of Rule 4702 shall be in full compliance with Rule 4702.</p> <p>7.5.2.2 Unless otherwise specified, the owner of an engine that is subject to the requirements of Section 5.1 of Rule 4702 shall be in full compliance with Rule 4702 by the indicated dates pursuant to Section 5.1.2.</p> <p>7.5.2.3 The owner of an engine that is subject to the requirements of Section 4.0 or Section 5.0 of Rule 4701 (Internal Combustion Engines - Phase 1) shall no longer be subject to the requirements of Rule 4701 pursuant to the following requirements:</p> <p>7.5.2.3.1 For an engine that is subject to the requirements of Section 4.1, Section 4.2, or</p>	<p>7.4 Non-AO Compression-Ignited Engine</p> <p>7.4.1 The operator of a non-AO compression-ignited engine that is subject to Section 5.2 and that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with rule requirements, shall submit such document(s) no later than six months before the engine is required to be in compliance with the requirements of Section 5.2.</p> <p>7.4.2 Unless otherwise specified, the operator of an engine that is subject to the requirements of Section 5.2 shall be in full compliance with Rule 4702 by the indicated dates in Table 4.</p>	<p>The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

<p>Section 4.3 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702, or</p> <p>7.5.2.3.2 For an engine that is subject to the requirements of Section 5.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702.</p>		
<p>7.6 Compliance Schedule for a Non-AO Spark-Ignited Engine</p> <p>7.6.1 Compliance Schedule - Submission of Emission Control Plan, I&M Plan, and Authority-to-Construct for a Non-AO Spark-Ignited Engine</p> <p>Effective on and after June 16, 2005, the owner of an engine that is required to submit an Emission Control Plan, an I&M Plan, or an Authority-to-Construct in order to comply with the requirements of Rule 4702, shall submit such document(s) no later than six months before the engine is required to be in full compliance with Rule 4702.</p> <p>7.6.2 Compliance Schedule – Emission Limits for a Non-AO Spark-Ignited Engine</p> <p>The owner of a non-AO spark-ignited engine subject to the requirements of Rule 4702 shall not operate the engine unless the owner demonstrates and maintains the engine in compliance with the applicable requirements of Rule 4702 by the indicated dates below.</p> <p>Compliance Schedule 1 – Non-AO Spark-Ignited Engine</p> <p>For the purposes of Section 7.6, the total number of non-AO spark-ignited engines at a stationary source on a specified date includes those non-AO spark-ignited engines subject to Rule 4702 pursuant to Section 2.0 and excludes any engines exempt from Rule 4702 pursuant to Section 4.1 on the specified date.</p> <p>7.6.3 Compliance Schedule - General for a Non-AO Spark-Ignited Engine</p> <p>7.6.3.1 On and after January 1, 2006, unless otherwise specified, the owner of an engine that is subject to the requirements of Section 4.1 of Rule 4702 shall be in full compliance with Rule 4702.</p>	<p>Note: This section refers to Table 5. Table 5 can be found as an attachment to this document.</p> <p>7.5 Non-AO Spark-Ignited Engine</p> <p>7.5.1 An operator with non-AO spark-ignited engines at a stationary source subject to Table 2 or Section 8.0 emission limits, SOx control requirements of Section 5.7, and the SOx monitoring requirements of Section 5.10 shall comply with the schedule specified in Table 5.</p> <p>7.5.2 As shown in Table 5, the column labeled:</p> <p>7.5.2.1 "Emission Control Plan" identifies the date by which the operator shall submit an emission control plan pursuant to the applicable provisions of Section 6.1. The emission control plan shall identify all the Non-AO spark-ignited engines subject to Table 2 emission limits, SOx control and monitoring requirements. The emission control plan shall identify all the steps to be taken to comply with this rule. If there is no change to the previously approved emission control plan, the operator does not need to submit a new emission control plan. However, the operator shall submit a letter to the District indicating that previously approved plan is still valid.</p> <p>7.5.2.2 "Authority to Construct and Inspection and Maintenance Plan" identifies the date by which the operator shall submit an Authority to Construct (if needed) and an Inspection and Monitoring Plan as specified in the applicable provisions of Section 6.5 for each engine subject to Table 2 emission limits, SOx control and monitoring requirements. If there is no change to the previously approved I&M plan, the operator does not need to submit a new I&M Plan. However, the operator shall submit a letter to the District indicating that previously approved I&M plan is still valid.</p> <p>7.5.2.3 "Full Compliance" identifies the date by which the operator shall demonstrate that each unit is in compliance with Table 2</p>	<p>The Non-SIP approved version of this rule only includes current requirements from the SIP approved version. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>7.6.3.2 Unless otherwise specified, the owner of an engine subject to the requirements of Rule 4702 shall be in full compliance with Rule 4702 by the applicable compliance date pursuant to Section 7.6.2.</p> <p>7.6.3.3 The owner of an engine that is subject to the requirements of Rule 4701 shall no longer be subject to the requirements of Rule 4701 pursuant to the following requirements:</p> <p>7.6.3.3.1 For an engine that is subject to the requirements of Section 4.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on and after January 1, 2006, or</p> <p>7.6.3.3.2 For an engine that is subject to the requirements of Section 4.2, Section 4.3, or Section 5.1 of Rule 4702, the requirements of Rule 4701 shall not apply effective on the date that such engine is required to be in full compliance with Rule 4702.</p>	<p>emission limits, SOx control and monitoring requirements.</p>	
		<p>7.6 Operator of Non-AO Spark-Ignited Engine Who Elects to Pay Fees</p> <p>In lieu of complying with Table 2 NOx emission limits, the operator of a non-AO spark-ignited engine who elects to pay annual fees under Section 5.2.2.2 and Section 5.6 shall comply with the following requirements:</p> <p>7.6.1 By the date specified in Table 5, submit an Emission Control Plan which includes the following information:</p> <p>7.6.1.1 Number of engines at a stationary source that will comply under Section 5.2.2.2,</p> <p>7.6.1.2 Location of each engine,</p> <p>7.6.1.3 Engine manufacturer, model designation, engine serial number, and Permit-to-Operate number, and</p> <p>7.6.1.4 Each engine's rated brake horsepower, fuel type, and type of ignition.</p> <p>7.6.2 The total annual fees shall be paid to the District in the following manner:</p> <p>7.6.2.1 Payment shall be paid no later than June 30 of each year, for the emissions of the previous calendar year,</p> <p>7.6.2.2 The first payment is due to the District no later than June 30 of the year in which full compliance is required for the specified percent of engines at a stationary as specified in Table 5 that the operator has opted to pay the annual fees,</p>	<p>This section was added to address a new unit category. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

		<p>7.6.2.3 Should June 30 fall on a day when the District is closed, the payment shall be made by the next District working day after June 30, and</p> <p>7.6.2.4 Payments shall continue annually until the engine either is permanently removed from use in the San Joaquin Valley Air Basin and the Permit-to-Operate is surrendered or the operator demonstrates compliance with the applicable Table 2 emission limits.</p> <p>7.6.2.5 The emissions fee for units that operate for less than the full calendar year before demonstrating compliance under Section 5.2, shall be based on the actual fuel used during the portion of the calendar year prior to demonstrating compliance or removing the unit from operation within the San Joaquin Valley Air Basin.</p>	
<p>8.0 Alternative Emission Control Plan (AECF)</p>	<p>An owner may comply with the NOx emission requirements of Section 5.1 for a group of engines by meeting the requirements below. An owner that is subject to the requirements below shall also comply with all the applicable requirements of Sections 5.0, 6.0, and 7.0. An engine that is not subject to Section 5.1 is not eligible for inclusion in an AECF.</p> <p>8.1 During any 7 (seven) consecutive calendar day period, the owner shall operate all engines in the AECF to achieve an actual aggregate NOx emission level that is not greater than 90 percent of the NOx emissions that would be obtained by controlling the engines to comply individually with the NOx limits in Section 5.1. The owner shall operate engines in the AECF such that</p> $AE_{Actual} \leq 0.90 (AE_{Limit})$ <p>and shall notify the APCO within 24 hours of a violation of this section.</p> <p>8.1.1 The actual aggregate NOx emissions (AE_{Actual}) is the sum of the actual NOx emissions, over a 7 (seven) consecutive calendar day period, from all engines in the AECF which were actually operated during that period. AE_{Actual} shall be calculated as follows:</p> $AE_{Actual} = \sum_i (EF_i)(F_i)(k_i)$ <p>where:</p> <p>i identifies each engine in the AECF.</p> <p>EF_i is the NOx emission factor of the engine established pursuant to Section 8.2 and approved by the APCO.</p> <p>F_i is the actual total fuel used by the engine</p>	<p>An operator may comply with the NOx emission requirements of Section 5.2 for a group of engines by meeting the requirements below. An operator that is subject to the requirements below shall also comply with all the applicable requirements of Sections 5.0, 6.0, and 7.0. Only engines subject to Section 5.2 are eligible for inclusion in an AECF.</p> <p>8.1 During any seven (7) consecutive calendar day period, the operator shall operate all engines in the AECF to achieve an actual aggregate NOx emission level that is not greater than 90 percent of the NOx emissions that would be obtained by controlling the engines to comply individually with the NOx limits in Section 5.2. The operator shall operate engines in the AECF such that</p> $AE_{Actual} \leq 0.90 (AE_{Limit})$ <p>and shall notify the APCO within 24 hours of any violation of this section.</p> <p>8.1.1 The actual aggregate NOx emissions (AE_{Actual}) is the sum of the actual NOx emissions, over a seven (7) consecutive calendar day period, from all engines in the AECF which were actually operated during that period. AE_{Actual} shall be calculated as follows:</p> $AE_{Actual} = \sum_i (EF_i)(F_i)(k_i)$ <p>where:</p> <p>i identifies each engine in the AECF.</p> <p>EF_i is the NOx emission factor of the engine established pursuant to Section 8.2 and approved by the APCO.</p> <p>F_i is the actual total fuel used by the engine</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>during the 7 (seven) consecutive calendar day period.</p> <p>k_i is a constant used to convert an engine's fuel use and NOx emission factor to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO.</p> <p>8.1.2 The estimated aggregate NOx emissions limit (AE_{Limit}) is the sum of the NOx emissions, over a 7 (seven) consecutive calendar day period, for the same engines in the AECF which were actually operated during the same period as considered in Section 8.1.1, calculated with the NOx limits of Section 5.1 and the actual fuel usage during that 7 (seven) consecutive calendar day period. AE_{Limit} shall be calculated as follows:</p> $AE_{Limit} = \sum_i (EL_i)(F_i)(k_i)$ <p>where:</p> <p>i identifies each engine in the AECF.</p> <p>EL_i is the NOx emission limit from Section 5.1 for each engine.</p> <p>F_i is the actual total fuel used by the engine during the 7 (seven) consecutive calendar day period.</p> <p>k_i is a constant used to convert an engine's fuel use and NOx emission limit to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO.</p> <p>8.1.3 Only engines in the AECF which were operated during the 7 (seven) consecutive calendar day period shall be included in the calculations of AE_{Limit} and AE_{Actual}.</p> <p>8.1.4 The owner shall, at least one time each day the AECF is used, calculate and record the actual aggregate NOx emissions (AE_{Actual}) and the aggregate NOx emission limit (AE_{Limit}) for the preceding 7 (seven) consecutive calendar day period.</p>	<p>during the 7 (seven) consecutive calendar day period.</p> <p>k_i is a constant used to convert an engine's fuel use and NOx emission factor to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO.</p> <p>8.1.2 The estimated aggregate NOx emissions limit (AE_{Limit}) is the sum of the NOx emissions, over a seven (7) consecutive calendar day period, for the same engines in the AECF which were actually operated during the same period as considered in Section 8.1.1, calculated with the NOx limits of Section 5.2 and the actual fuel usage during that seven (7) consecutive calendar day period. AE_{Limit} shall be calculated as follows:</p> $AE_{Limit} = \sum_i (EL_i)(F_i)(k_i)$ <p>where:</p> <p>i = identifies each engine in the AECF.</p> <p>EL_i = the NOx emission limit from Section 5.2 for each engine.</p> <p>F_i = the actual total fuel used by the engine during the seven (7) consecutive calendar day period.</p> <p>k_i = a constant used to convert an engine's fuel use and NOx emission limit to the amount of NOx emitted. k_i is dependent on the engine and the pollutant emitted. Calculation of k_i shall be accomplished using 40 CFR Part 60, Appendix A, Method 19, or an equivalent method approved by EPA, ARB and the APCO.</p> <p>8.1.3 Only engines in the AECF which were operated during the seven (7) consecutive calendar day period shall be included in the calculations of AE_{Limit} and AE_{Actual}.</p> <p>8.1.4 The operator shall, at least one time each day the AECF is used, calculate and record the actual aggregate NOx emissions (AE_{Actual}) and the aggregate NOx emission limit (AE_{Limit}) for the preceding seven (7) consecutive calendar day period.</p>	
	<p>8.2 The owner shall establish a NOx emission factor limit for each engine. The established NOx emission factor of an engine shall be no less than the NOx emission factor of the engine from the most recent source test conducted pursuant to Section 6.3 and approved by the APCO. The owner shall not operate an AECF engine in such a manner that NOx emissions exceed the established NOx emission factor of the engine.</p>	<p>8.2 The operator shall establish a NOx emission factor limit for each engine. The established NOx emission factor of an engine shall be no less than the NOx emission factor of the engine from the most recent source test conducted pursuant to Section 6.3 and approved by the APCO. The operator shall not operate an AECF engine in such a manner that NOx emissions exceed the established NOx emission factor of the engine.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>8.3 The owner shall submit the AECF to the APCO at least 18 months before compliance with the emission limits in Section 5.1 is required. The AECF shall:</p> <p>8.3.1 Not be implemented prior to APCO approval.</p> <p>8.3.2 Be enforceable on a daily basis by the District.</p> <p>8.3.3 Contain any information necessary to determine eligibility of the engines for alternative emission control, including, but not limited to:</p> <p>8.3.3.1 A list of engines subject to the AECF. All engines in an AECF shall be under the operational control of a single owner and shall be located at a single stationary source.</p> <p>8.3.3.2 The NOx emission factor established by the engine owner for each engine pursuant to Section 8.2.</p> <p>8.3.3.3 The estimated aggregate NOx emissions calculated according to Section 8.1.2.</p> <p>8.3.4 Present the methodology for determining equivalency of actual NOx emissions under the proposed AECF as compared to the estimated NOx emissions allowed by this rule.</p> <p>8.3.5 Detail the method of recording and verifying daily compliance with the AECF.</p> <p>8.3.6 Demonstrate to the satisfaction of the APCO that the difference between the NOx emission limits of this rule and any lower actual NOx emissions will not be used to increase emissions from the same or another source.</p> <p>8.3.7 Demonstrate that the engines subject to the requirements of Section 5.1 are in compliance with or on an approved schedule for compliance with all applicable District rules.</p>	<p>8.3 The operator shall submit the AECF to the APCO at least 18 months before compliance with the emission limits in section 5.2 is required. The AECF shall:</p> <p>8.3.1 Not be implemented prior to APCO approval.</p> <p>8.3.2 Be enforceable on a daily basis by the District.</p> <p>8.3.3 Contain any information necessary to determine eligibility of the engines for alternative emission control, including, but not limited to:</p> <p>8.3.3.1 A list of engines subject to the AECF. All engines in an AECF shall be under the operational control of a single operator and shall be located at a single stationary source,</p> <p>8.3.3.2 The NOx emission factor established by the engine operator for each engine pursuant to Section 8.2, and</p> <p>8.3.3.3 The estimated aggregate NOx emissions calculated according to Section 8.1.2.</p> <p>8.3.4 Present the methodology for determining equivalency of actual NO_x emissions under the proposed AECF as compared to the estimated NO_x emissions allowed by this rule.</p> <p>8.3.5 Detail the method of recording and verifying daily compliance with the AECF.</p> <p>8.3.6 Demonstrate to the satisfaction of the APCO that the difference between the NOx emission limits of this rule and any lower actual NOx emissions will not be used to increase emissions from the same or another source.</p> <p>8.3.7 Demonstrate that the engines subject to the requirements of Section 5.2 are in compliance with or on an approved schedule for compliance with all applicable District rules.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>8.4 The owner shall submit an updated or modified AECF for approval by the APCO prior to any of the following:</p> <p>8.4.1 Modification of the engine(s) which would require an Authority-to-Construct.</p> <p>8.4.2 When new or amended rules are adopted which regulate the emissions from the engines.</p> <p>8.4.3 When the NOx emission factor established by the engine owner for an engine pursuant to Section 8.2 is modified.</p>	<p>8.4 The operator shall submit an updated or modified AECF for approval by the APCO prior to any of the following:</p> <p>8.4.1 Modification of the engine(s) which would require an Authority-to- Construct;</p> <p>8.4.2 When new or amended rules are adopted which regulate the emissions from the engines; or</p> <p>8.4.3 When the NOx emission factor established by the engine operator for an engine pursuant to Section 8.2 is modified.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>8.5 In addition to the records kept pursuant to Section 6.2, the owner shall maintain records, on a daily basis, of the parameters needed to demonstrate compliance with the applicable NOx emission limits when operating under the AECF. These records shall be retained for at least five years, shall be readily available, and be made available to the APCO upon request. The records shall include, but are not limited to, the following for each engine unless otherwise indicated:</p> <p>8.5.1 Total hours of operation.</p> <p>8.5.2 Type and quantity (cubic feet of gas or gallons of liquid) of fuel used.</p> <p>8.5.3 The actual NOx emissions limits to be included in the calculation of AE_{Actual} pursuant to Section 8.1.1.</p> <p>8.5.4 The actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECF calculated pursuant to Section 8.1.1.</p> <p>8.5.5 The estimated NOx emissions limits to be included in the calculation of AE_{Limit} pursuant to Section 8.1.2.</p> <p>8.5.6 The estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECF calculated pursuant to Section 8.1.2.</p> <p>8.5.7 The comparison of the actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECF and 90 percent of the estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECF to demonstrate compliance with Section 8.1.</p> <p>8.5.8 Any other parameters needed to demonstrate daily compliance with the applicable NOx emission limits when operating under the AECF.</p>	<p>8.5 In addition to the records kept pursuant to Section 6.2, the operator shall maintain records, on a daily basis, of the parameters needed to demonstrate compliance with the applicable NOx emission limits when operating under the AECF. These records shall be retained for at least five years, shall be readily available, and be made available to the APCO upon request. The records shall include, but are not limited to, the following for each engine unless otherwise indicated:</p> <p>8.5.1 Total hours of operation,</p> <p>8.5.2 Type and quantity (cubic feet of gas or gallons of liquid) of fuel used,</p> <p>8.5.3 The actual NOx emissions limits to be included in the calculation of AE_{Actual} pursuant to Section 8.1.1,</p> <p>8.5.4 The actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECF calculated pursuant to Section 8.1.1,</p> <p>8.5.5 The estimated NOx emissions limits to be included in the calculation of AE_{Limit} pursuant to Section 8.1.2,</p> <p>8.5.6 The estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECF calculated pursuant to Section 8.1.2,</p> <p>8.5.7 The comparison of the actual aggregate NOx emissions (AE_{Actual}) for all the engines in the AECF and 90 percent of the estimated aggregate NOx emissions (AE_{Limit}) for all the engines in the AECF to demonstrate compliance with Section 8.1, and</p> <p>8.5.8 Any other parameters needed to demonstrate daily compliance with the applicable NOx emission limits when operating under the AECF.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>8.6 For the purpose of determining the quantity of spark-ignited engines in compliance pursuant to Section 7.6, a spark-ignited engine in an AECF shall not be considered to be in compliance until all spark-ignited engines in the AECF that have been designated to meet more stringent NOx emission factors pursuant to Section 8.2 are in compliance with the rule.</p>	<p>8.6 For the purpose of determining the quantity of spark-ignited engines in compliance pursuant to Section 7.5, a spark-ignited engine in an AECF shall not be considered to be in compliance until all spark-ignited engines in the AECF that have been designated to meet more stringent NOx emission factors pursuant to Section 8.2 are in compliance with the rule.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

<p>9.0 Exhaust Control System Certification Requirements</p>	<p>9.1 To be considered for APCO certification, the manufacturer or operator shall comply with all of the following requirements:</p> <p>9.1.1 Certification shall be based upon the emission source testing results of a specific exhaust control system.</p> <p>9.1.2 A source testing protocol shall be submitted in accordance with the provisions of Rule 1081 (Source Sampling) for approval by the APCO prior to conducting the source test. The source testing protocol approved by the APCO shall be strictly adhered to during certification source testing.</p> <p>9.1.3 Source testing shall be conducted over the range of operating parameters for which the unit(s) will be operated.</p> <p>9.1.4 The source testing results shall demonstrate compliance with the emission limits of this rule for each model of exhaust control system(s) to be certified.</p> <p>9.1.5 The source testing procedure and reports shall be prepared by an ARB- approved independent testing laboratory, and shall contain all the elements identified in the APCO-approved source testing protocol.</p> <p>9.1.6 Source testing shall be conducted no more than 90 days prior to the date of submission of request for certification by the APCO.</p> <p>9.1.7 Any additional supporting information required by the APCO to address other performance parameters.</p>	<p>9.1 To be considered for APCO certification, the manufacturer or operator shall comply with all of the following requirements:</p> <p>9.1.1 Certification shall be based upon the emission source testing results of a specific exhaust control system,</p> <p>9.1.2 A source testing protocol shall be submitted in accordance with the provisions of Rule 1081 (Source Sampling) for approval by the APCO prior to conducting the source test. The source testing protocol approved by the APCO shall be strictly adhered to during certification source testing,</p> <p>9.1.3 Source testing shall be conducted over the range of operating parameters for which the unit(s) will be operated,</p> <p>9.1.4 The source testing results shall demonstrate compliance with the emission limits of this rule for each model of exhaust control system(s) to be certified,</p> <p>9.1.5 The source testing procedure and reports shall be prepared by an ARB approved independent testing laboratory, and shall contain all the elements identified in the APCO-approved source testing protocol,</p> <p>9.1.6 Source testing shall be conducted no more than 90 days prior to the date of submission of request for certification by the APCO, and</p> <p>9.1.7 Any additional supporting information required by the APCO to address other performance parameters.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>9.2 The manufacturer or operator requesting certification shall submit to the APCO the following information:</p> <p>9.2.1 Copies of the source testing results conducted pursuant to the requirements of Section 9.1, and other pertinent technical data to demonstrate compliance with the emission limits of this rule.</p> <p>9.2.2 The applicant shall sign and date the statement attesting to the accuracy of all information in the statement.</p> <p>9.2.3 Name and address of the exhaust control system manufacturer or operator, brand name of the exhaust control unit, model number, and description of model of system(s) being certified.</p>	<p>9.2 The manufacturer or operator requesting certification shall submit to the APCO the following information:</p> <p>9.2.1 Copies of the source testing results conducted pursuant to the requirements of Section 9.1, and other pertinent technical data to demonstrate compliance with the emission limits of this rule,</p> <p>9.2.2 The applicant shall sign and date the statement attesting to the accuracy of all information in the statement, and</p> <p>9.2.3 Name and address of the exhaust control system manufacturer or operator, brand name of the exhaust control unit, model number, and description of model of system(s) being certified.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

	<p>9.3 The APCO will only approve an application for certification to the extent that the requirements of Sections 9.1 through 9.2 are met and the source testing results demonstrate that the emission limits of this rule are met.</p>	<p>9.3 The APCO will only approve an application for certification to the extent that the requirements of Sections 9.1 through 9.2 are met and the source testing results demonstrate that the emission limits of this rule are met.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>9.4 The APCO-approved certification is valid only for the range of operating parameters and conditions for which certification is issued.</p>	<p>9.4 The APCO-approved certification is valid only for the range of operating parameters and conditions for which certification is issued.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>
	<p>9.5 The APCO shall publish a list of certified exhaust control systems after the certification process is completed.</p>	<p>9.5 The APCO shall publish a list of certified exhaust control systems after the certification process is completed.</p>	<p>There is no change in the requirements of this section. Therefore, the non-SIP version of the rule is as stringent as the SIP version of the rule.</p>

District Rule 4702 was amended (11/14/2013). As analyzed, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule

SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 1 Emission Limits/Standards for a Spark-Ignited Internal Combustion Engine and Emission Limits/Standards and Compliance Schedule for a Spark-Ignited Engine Used Exclusively in Agricultural Operations (corrected to 15% oxygen on a dry basis)

Engine Type	NOx	CO	VOC
1. Rich-Burn			
a. Waste gas fueled	50 ppmv or 90% reduction	2000 ppmv	250 ppmv
b. Cyclic loaded, field gas fueled	50 ppmv	2000 ppmv	250 ppmv
c. All other engines	25 ppmv or 96% reduction	2000 ppmv	250 ppmv
2. Lean-Burn			
a. Two stroke, gaseous fueled, less than 100 horsepower	75 ppmv or 85% reduction	2000 ppmv	750 ppmv
b. All other engines	65 ppmv or 90% reduction	2000 ppmv	750 ppmv
3. Rich-Burn Engine Used Exclusively in Agricultural Operations			
a. Comply by 1/1/2009, or if owner has an agreement to electrify, comply by 1/1/2010	90 ppmv or 80% reduction	2000 ppmv	250 ppmv
4. Lean-Burn Engine Used Exclusively in Agricultural Operations			
a. Comply by 1/1/2009 or if owner has an agreement to electrify comply by 1/1/2010	150 ppmv or 70% reduction	2000 ppmv	750 ppmv
5. Certified Spark-Ignited Engine Used Exclusively in AO and installed on or before June 16, 2005			
a. Comply by 6/1/2006	Meet Certified Spark-Ignited Engine Standard of HC+NOx < 0.6 g/bhp-hr		

SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 2 Emission Limits/Standards and Compliance Schedule for a Compression-Ignited Internal Combustion Engine (corrected to 15% oxygen on a dry basis)

Engine Type	Emission Limit/ Standard	Compliance Date
1. Non-Certified Compression-Ignited Engine		
a. Greater than 50 bhp but not more than 500 bhp	EPA Tier 3 or Tier 4	1/1/2010
b. Greater than 500 bhp but not more than 750 bhp and less than 1000 annual operating hours	EPA Tier 3	1/1/2010
c. Greater than 750 bhp and less than 1000 annual operating hours	EPA Tier 4	7/1/2011
d. Greater than 500 bhp and greater than or equal to 1000 annual operating hours	80 ppm NOx, 2,000 ppm CO, 750 ppm VOC	1/1/2008 or, if owner has an agreement to electrify, comply by 1/1/2010
2. Certified Compression-Ignited Engine		
a. EPA Certified Tier 1 or Tier 2 Engine	EPA Tier 4	1/1/2015 or 12 years after installation date, whichever is later
b. EPA Certified Tier 3 or Tier 4 Engine	Meet Certified Compression-Ignited Engine Standard in effect at time of installation	At time of installation

SIP APPROVED VERSION OF DISTRICT RULE 4702

Compliance Schedule 1 – Non-AO Spark-Ignited Engine

Quantity of Non-AO Spark-Ignited Engines to be in Compliance at a Stationary Source	Compliance Date
a. 25% or more of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2005	6/1/05
b. 62.5% or more of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2006	6/1/06
c. 100% of the total number of non-AO spark-ignited engines at a stationary source on June 1, 2007	6/1/07

NON-SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 1 Emission Limits/Standards for a Spark-Ignited Internal Combustion Engine rated at >50 bhp Used Exclusively in Non-AO (All ppmv limits are corrected to 15% oxygen on a dry basis.).			
Engine Type	NOx	CO	VOC
1. Rich-Burn			
a. Waste gas fueled	50 ppmv or 90% reduction	2000 ppmv	250 ppmv
b. Cyclic loaded, field gas fueled	50 ppmv	2000 ppmv	250 ppmv
c. All other engines	25 ppmv or 96% reduction	2000 ppmv	250 ppmv
2. Lean-Burn			
a. Two stroke, gaseous fueled, less than 100 horsepower	75 ppmv or 85% reduction	2000 ppmv	750 ppmv
b. All other engines	65 ppmv or 90% reduction	2000 ppmv	750 ppmv

Table 2 Emission Limits for a Spark-Ignited Internal Combustion Engine Rated at >50 bhp Used Exclusively in Non-AO (All ppmv limits are corrected to 15% oxygen on a dry basis). Emission Limits are effective according to the compliance schedule specified in Section 7.5.			
Engine Type	NOx (ppmv)	CO (ppmv)	VOC (ppmv)
1. Rich-Burn			
a. Waste Gas Fueled	50	2000	250
b. Cyclic Loaded, Field Gas Fueled	50	2000	250
c. Limited Use	25	2000	250
d. Rich-Burn Engine, not listed above	11	2000	250
2. Lean-Burn Engines			
a. Two-Stroke, Gaseous Fueled, >50 bhp and < 100 bhp	75	2000	750
b. Limited Use	65	2000	750
c. Lean-Burn Engine used for gas compression	65 ppmv or 93% reduction	2000	750
d. Waste Gas Fueled	65 ppmv or 90% reduction	2000	750
e. Lean-Burn Engine, not listed above	11	2000	750

NON-SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 3 Emission Limits/Standards and Compliance Schedule for a Spark-Ignited Internal Combustion Engine >50 bhp Used Exclusively in AO (All ppmv limits are corrected to 15% oxygen on a dry basis).			
Engine Type	NO _x Limit	CO Limit	VOC Limit
1. Rich-Burn	90 ppmv or 80% reduction	2000 ppmv	250 ppmv
2. Lean-Burn	150 ppmv or 70% reduction	2000 ppmv	750 ppmv
3. Certified and installed on or before June 16, 2005	Meet a Certified Spark-Ignited Engine Standard of HC + NO _x < 0.6 g/bhp-hr		

Table 4 Emission Limits/Standards and Compliance Schedule for Compression-Ignited Internal Combustion Engine (corrected to 15% oxygen on a dry basis)		
Engine Type	Emission Limit/Standard	Compliance Date
1. Non-Certified Compression-Ignited Engine Installed on or before June 1, 2006		
a. Greater than 50 bhp but not more than 500 bhp	EPA Tier 3 or Tier 4	1/1/2010
b. Greater than 500 bhp but not more than 750 bhp and less than 1000 annual operating hours	EPA Tier 3	1/1/2010
c. Greater than 750 bhp and less than 1000 annual operating hours	EPA Tier 4	7/1/2011
d. Greater than 500 bhp and greater than or equal to 1000 annual operating hours	80 ppmv NO _x , 2,000 ppmv CO, 750 ppmv VOC	1/1/2008 or, if owner has an agreement to electrify, comply by 1/1/2010
2. Certified Compression-Ignited Engine		
a. EPA Certified Tier 1 or Tier 2 Engine	EPA Tier 4	1/1/2015 or 12 years after installation date, but not later than 6/1/2018
b. EPA Certified Tier 3 or Tier 4 Engine	Meet Certified Compression-Ignited Engine Standard in effect at time of installation	At time of installation

NON-SIP APPROVED VERSION OF DISTRICT RULE 4702

Table 5 Compliance Schedule for Non-AO Spark-Ignited Engines Subject to Table 2 Emission Limits, and SOx Control and Monitoring Requirements			
Engines to be in Compliance at a Stationary Source	Emission Control Plan	Authority to Construct and Inspection and Monitoring Plan	Full Compliance
Operator with a single engine at a stationary source			
Single Engine	1/1/12	1/1/13	1/1/14
Operator with at least two engines, but less than 12 engines at a stationary source			
33% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/13	1/1/14
66% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/14	1/1/15
100% of the engines subject to Table 2 emission limits	7/1/12	1/1/15	1/1/16
Operator with at least 12 engines at a stationary source			
25% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/13	1/1/14
50% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/14	1/1/15
75% or more of the engines subject to Table 2 emission limits as of August 18, 2011	7/1/12	1/1/15	1/1/16
100% of the engines subject to Table 2 emission limits	7/1/12	1/1/16	1/1/17