

March 17, 2023

Mr. Andrew Robertson
Fresno Cogeneration Partners LP
650 Bercut Dr, Ste C
Sacramento, CA 95811

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: C-14
Project Number: C-1221094

Dear Mr. Robertson:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project consists of the modification of the permit requirements for the existing 23 MW and 45 MW gas turbines to reduce the source testing and relative accuracy test audit (RATA) frequencies in accordance with the provisions of District Rule 4703 and 40 CFR Part 75, respectively.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,



Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo Rios, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

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C-14-11-16 (current conditions)

- Compliance testing to measure the NOx (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur of this permit unit shall be conducted at least once every twelve months. [District Rules 2201 and 4703 and 40 CFR 60.332(a), (b), and 40 CFR 60.333]
- The owner/operator shall perform a relative accuracy test (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080]

The applicant requests to add provisions that the source testing may be conducted biennially, to the extent allowed by applicable regulations, whenever the turbines are operated less than 877 hours per year and that calendar quarters with less than 168 hours of operation shall be excluded when determining the RATA frequency. The applicant also requests grace periods of one calendar quarter for source testing and 720 hours for RATA to meet the testing requirement whenever the extended testing frequency thresholds are exceeded. The source testing and RATA conditions (on the proposed ATC permit) are will be modified as follows:¹

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- Compliance testing to measure the NOx (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. **Compliance testing may be conducted once every 24 months if the turbine operates less than 877 hours in a calendar year. A one calendar quarter grace period is provided if operation equals or exceeds 877 hours in a calendar year and compliance testing cannot be conducted within that year.** [District Rules 2201 and 4703, ~~6.3~~ and 40 CFR 60.332 (a), (b) and 40 CFR 60.333]
- The permittee shall conduct a relative accuracy test audits (RATA) as specified by in 40 CFR Part 60 ~~75~~, Appendix F, ~~5.11~~ **B**, at least once every four calendar quarters ~~two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60 ~~75~~, Appendix F **B**. [District Rule 1080 **and 40 CFR Part 75, Appendix B**]~~

¹ In addition to the proposed changes, conditions are revised administratively, as necessary, to omit inapplicable rule citations and for general consistency in language and format. Added text is shown in bold underlined font and removed text is shown in strikethrough font.

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- Compliance testing to measure the NOx (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur of this permit unit shall be conducted at least once every twelve months. **Compliance testing may be conducted once every 24 months if the turbine operates less than 877 hours in a calendar year. A one calendar quarter grace period is provided if operation equals or exceeds 877 hours in a calendar year and compliance testing cannot be conducted within that year.** [District Rules 2201 and 4703 and 40 CFR 60.332(a), (b), and 40 CFR 60.333]
- The permittee shall conduct a relative accuracy test audits (RATA) as specified by in 40 CFR Part 60 **75**, Appendix F, **5.14 B**, at least once every four calendar quarters **two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA.** The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60 **75**, Appendix F **B**. [District Rule 1080 **and 40 CFR Part 75, Appendix B**]

The proposed changes are consistent with the provisions in the applicable regulations, as follows:

Source Testing

- District Rule 4703: Section 6.3.2 indicates that only biennial source testing for NOx is required for units operating less than 877 hours per year, i.e. no source testing for CO.
- The source testing frequency for VOC and ammonia, and for CO for infrequently operated turbines, is based on Rule 2201, and is therefore subject to the District's source testing frequency policy (APR 1705). Since this policy does not address situations involving infrequent operation of an emissions unit, the District can approve proposed alternate source testing frequencies on a case by case basis when addressing infrequent operation.
- NSPS: The turbines are subject to 40 CFR 60 Subpart GG, which requires only initial source testing for NOx, i.e. not annual source testing.

RATA

- As shown in the sample Applicability Determinations in Appendix C of this evaluation, EPA has previously approved the use of the RATA procedures/provisions in 40 CFR Part 75 (Acid Rain Program) for compliance with the corresponding RATA requirements in 40 CFR 60 (NSPS) for the purpose of addressing RATA frequencies for infrequently operated emissions units such as peaker plants. EPA applicability determinations are considered sufficient precedent for sources in similar circumstances, and the requested changes can therefore be approved without the need for further EPA approval.

Since this proposal involves only monitoring requirements, it does not constitute an NSR modification of any emissions units, pursuant to Section 3.25 of Rule 2201.

Fresno Cogeneration Partners is a Title V facility. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the ATC permit. The facility must submit an administrative amendment application to incorporate the proposed changes into their Title V permit.

II. Applicable Rules

Rule 1080	Stack Monitoring (12/17/92)
Rule 1081	Source Sampling (12/16/933)
Rule 1100	Equipment Breakdown (12/17/92)
Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 2540	Acid Rain Program (11/13/97)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4703	Stationary Gas Turbines (9/20/07)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)	
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines	

III. Project Location

The facility is located at 8105 S Lassen Ave in San Joaquin. The equipment is not located within 1,000 feet of the outer boundary of any K-12 schools. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Fresno Cogeneration Partners operates a power plant which supplies power to the utility grid during periods of peak electricity demand. The plant consists of one 300 MMBtu/hr simple cycle gas turbine engine and one 432 MMBtu/hr simple cycle gas turbine engine. Both turbines are fired exclusively on natural gas.

V. Equipment Listing

Pre-Project Equipment Descriptions:

- C-14-10-14: 23 MW ELECTRICAL GENERATOR POWERED BY A PRATT AND WHITNEY MODEL FT4A9 GAS-FIRED, SIMPLE CYCLE TURBINE ENGINE WITH DRY LOW NOX (DLN) TECHNOLOGY OR WATER INJECTION, A SELECTIVE CATALYTIC REDUCTIONS (SCR) SYSTEM, AN OXIDATION CATALYST, AN INLET AIR EVAPORATIVE COOLER, AND LUBE OIL VENT MIST ELIMINATORS
- C-14-11-16: 45 MW GENERAL ELECTRIC LM-6000PC SIMPLE CYCLE GAS TURBINE WITH SELECTIVE CATALYTIC REDUCTION AND CO OXIDATION CATALYST

Proposed Modifications:

The applicant proposes to be reduce the source testing and RATA frequencies. Source testing will be conducted once every two years when a unit operates less than 877 hours per year, and the reduced RATA frequency will be determined in accordance with the procedures of 40 CFR Part 75 (Acid Rain Program).

- C-14-10-15: MODIFICATION OF 23 MW ELECTRICAL GENERATOR POWERED BY A PRATT AND WHITNEY MODEL FT4A9 GAS-FIRED, SIMPLE CYCLE TURBINE ENGINE WITH DRY LOW NOX (DLN) TECHNOLOGY OR WATER INJECTION, A SELECTIVE CATALYTIC REDUCTIONS (SCR) SYSTEM, AN OXIDATION CATALYST, AN INLET AIR EVAPORATIVE COOLER, AND LUBE OIL VENT MIST ELIMINATORS: REDUCE SOURCE TESTING AND RATA FREQUENCIES
- C-14-11-17: MODIFICATION OF 45 MW GENERAL ELECTRIC LM-6000PC SIMPLE CYCLE GAS TURBINE WITH SELECTIVE CATALYTIC REDUCTION AND CO OXIDATION CATALYST: REDUCE SOURCE TESTING AND RATA FREQUENCIES

Post-Project Equipment Descriptions:

- C-14-10-15: 23 MW ELECTRICAL GENERATOR POWERED BY A PRATT AND WHITNEY MODEL FT4A9 GAS-FIRED, SIMPLE CYCLE TURBINE ENGINE WITH DRY LOW NOX (DLN) TECHNOLOGY OR WATER INJECTION, A SELECTIVE CATALYTIC REDUCTIONS (SCR) SYSTEM, AN OXIDATION CATALYST, AN INLET AIR EVAPORATIVE COOLER, AND LUBE OIL VENT MIST ELIMINATORS
- C-14-11-17: 45 MW GENERAL ELECTRIC LM-6000PC SIMPLE CYCLE GAS TURBINE WITH SELECTIVE CATALYTIC REDUCTION AND CO OXIDATION CATALYST

VI. Emission Control Technology Evaluation

The current project does not involve any modifications of the existing emission control systems, as briefly described below:

NOx Emissions

NO_x emissions are controlled using Dry Low NO_x (DLN) technology or water injection, in combination with a shared selective catalytic reduction (SCR) system.

Dry Low NOx

DLN involves the use of staged combustion to reduce peak combustion temperature, which is a key factor in NO_x formation. Several types of staged combustion may be used, e.g. two-stage lean/lean or two-stage rich/lean.

In two-stage lean/lean combustion, an extremely lean fuel mixture is used in each stage, in combination with a small stoichiometric pilot flame to ignite the premixed fuel and provide flame stability. Low NO_x emission levels are achieved through cooler flame temperatures associated with lean combustion and avoidance of localized 'hot spots' by premixing the fuel and air.

In two-stage rich/lean combustion, the primary zone is operated fuel rich and the secondary zone is operated fuel lean. The rich mixture produces lower temperatures (compared to stoichiometric) and higher concentrations of CO and H₂, because of incomplete combustion. The rich mixture also decreases the amount of oxygen available for NO_x generation. Before entering the secondary zone, the exhaust of the primary zone is quenched (to extinguish the flame) by large amounts of air and a lean mixture is created. The lean mixture is pre-ignited and the combustion completed in the secondary zone. NO_x formation in the second stage are minimized through combustion in a fuel-lean, lower temperature environment.

Water Injection

Water injection is a control method involving the injection of water into the combustion zone. The water is first atomized with the use of specialized injection nozzles in order create a homogeneous spray of water droplets. Once in the combustion zone, the water provides a heat sink that lowers the flame temperature, thereby reducing thermal NO_x formation. The injection rates are based on pre-defined water-to-fuel ratios (WFR). Depending on the type of fuel and WFR used, water injection could provide NO_x reductions of approximately 70 to 80 percent in comparison to uncontrolled levels.

Selective Catalytic Reduction (SCR)

SCR systems selectively reduce NO_x emissions by injecting ammonia (NH₃) into the exhaust gas stream upstream of a catalyst. Nitrogen oxides, NH₃, and O₂ react on the surface of the catalyst to form molecular nitrogen (N₂) and water (H₂O). SCR is capable of

over 90 percent NO_x reduction. Titanium oxide is the SCR catalyst material most commonly used, though vanadium pentoxide, noble metals, or zeolites are also used.

SO_x and PM₁₀ Emissions

The use of PUC-quality natural gas is the primary control for SO_x and PM₁₀ emissions. Air intake filters and the routing of lube oil vent gases into the exhaust stream are also used to further reduce PM₁₀ emissions.

CO and VOC Emissions

CO and VOC emissions are controlled using an oxidation catalyst. The oxidation catalyst promotes the oxidation of CO and hydrocarbon compounds to carbon dioxide (CO₂) and water (H₂O) as the flue gas passes through the catalyst bed. The oxidation process takes place spontaneously, without the requirement for introducing reactants.

VII. General Calculations

The current project involves only monitoring/inspection requirements and does not constitute an NSR modification of any emissions units, pursuant to Section 3.25 of Rule 2201. Calculations are therefore not necessary.

VIII. Compliance Determination

Rule 1080 Stack Monitoring

This rule grants the APCO the authority to request the installation and use of continuous emissions monitoring systems (CEMS), and specifies performance standards for the equipment and administrative requirements for recordkeeping, reporting, and notification.

The turbines are equipped with CEMS for NO_x, CO, and O₂. As discussed below, the conditions on the current permit to operate are consistent with the requirements of this rule.

Proposed Changes

As discussed in the Section I of this evaluation, the current RATA conditions will be modified to reduce the RATA frequencies, in accordance with the requirements in 40 CFR Part 75, Appendix B. The conditions will be modified as shown below:

Current Condition (PTOs 10-14 and 11-16)

- The owner/operator shall perform a relative accuracy test (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080]

Proposed Modified Conditions (ATCs 10-15 and 11-17)

- The permittee shall conduct relative accuracy test audits (RATA) as specified in 40 CFR Part 75, Appendix B, at least once every two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR Part 75, Appendix B]

Unmodified Conditions

The following conditions will be retained on the ATC permits without any changes:

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- In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080]
- A violation of emissions standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080]
- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst), CO, and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.334(b)(2) and District Rule 1080]
- The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2 and 3. [40 CFR 60.334(b)(1) and District Rule 1080]
- 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [40 CFR 60.7(b) and District Rule 1080]

- Cylinder Gas Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]²
- The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080]
- 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 preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j) and District Rule 1080]
- Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080]
- The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080]

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- Calibration gas audit linearity checks shall be performed quarterly or every 168 stack operating hours per 40 CFR Part 75 Appendix B Section 2.2.4. [District Rule 1080]
- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx (before and after the SCR catalyst) and O2 concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 1080 and 40 CFR 60.334(b)(2)]

² This condition was administratively edited to indicate that the 'Audits' referred to are 'Cylinder Gas Audits', per clarification obtained from the permittee.

- The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2, 3, and 4A. [District Rule 1080 and 40 CFR 60.334(b)(1)]
- 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [District Rule 1080 and 40 CFR 60.7(b)]
- Cylinder Gas Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]³
- The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems, this summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080]
- 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 NO_x emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j), (j)(5) and District Rule 1080]
- APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080]
- Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080]
- In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080]

³ This condition was administratively edited to indicate that the 'Audits' referred to are 'Cylinder Gas Audits', per clarification obtained from the permittee.

- Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; and 3) emission measurements. [District Rule 1080]
- Permittee shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: 1) time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; 2) 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; 3) applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and 4) the nature of system repairs and adjustments; 5) a negative declaration when no excess emissions occurred. [District Rule 1080]
- A violation of emission standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080]

Continued compliance with the requirements of this rule is expected.

Rule 1081 Source Sampling

This rule requires adequate and safe facilities for use in sampling to determine compliance with emissions limits, and specifies methods and procedures for source testing and sample collection.

The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance with the requirements of this rule:

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703; and 40 CFR 60.335]
- Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081]
- The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. [District Rule 1081]

- Compliance demonstration (source testing) shall be District witnessed, or authorized and the samples shall be collected by a California Air Resources Board certified testing laboratory. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days of source testing. [District Rule 1081]

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half) or EPA Method 201A/202, NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703; and 40 CFR 60.335]
- 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]
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081]

Continued compliance with the requirements of this rule is expected.

Rule 1100 Equipment Breakdown

This rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified.

The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance with the requirements of this rule:

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- Permittee 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]

- 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]

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- Permittee 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]
- The District shall be notified in writing within 10 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]

Rule 2201 New and Modified Stationary Source Review Rule

Section 3.25 states that a modification is an action including at least one of the following items:

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

The changes proposed by the applicant do not affect the hours of operation, production rate, or method of operation of the existing equipment. The changes only involve source testing and monitoring requirements.

- Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. A Replacement Emissions Unit shall not be considered to be a structural change.

The proposed changes do not involve any structural change or addition to the existing equipment.

- An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

As discussed above, there are no emissions increases associated with this project.

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

The proposed changes do not involve the addition of any new emissions units to the existing operation.

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

The applicant's proposal does not include any exemption from applicable requirements. Modifying the terms of the existing source testing and monitoring requirements as provided for in the applicable regulations does not result in any exemptions.

As discussed above, the applicant's proposal is not a modification as defined by Rule 2201. Therefore, Rule 2201 is not applicable and no new Rule 2201 requirements will be discussed in this project. However, in order to ensure consistency and continuity with regard to permit conditions/requirements, a discussion of the changes to the source testing conditions and summary of the rest of the existing Rule 2201 conditions/requirements are presented in the following sections:

A. Daily Emission Limits (DELs)

The following existing conditions will be retained on the ATC permits as a mechanism to ensure continued compliance with the DEL/Rule 2201 requirements:

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- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
- The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201]
- The heat input to the turbine shall not exceed 1,320,000 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201]
- Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201]
- Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201]
- The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201]
- The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emissions rate, or Permit to Operate is surrendered or sold. [District Rule 2201]

- This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4201]
- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 5.0 ppmvd @ 15% O2 and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O2 and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O2 and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG]
- During transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 20 lb/hr (based on a 3-hour rolling average), VOC: 0.88 lb/hr, CO: 8.07 lb/r (based on a 3-hour rolling average), or ammonia: 20 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703]
- Compliance with the ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(bxc/1,000,000)) \times 1,000,000/b)$, where a = ammonia injection rate (lb/hr)/17 lb/lb.mol, b = dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol), and c = change in measure NOx concentration ppmv @ 15% O2 across catalyst. [District Rule 2201]

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- This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4201]
- Gas turbine heat input shall not exceed 2,824,250 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201]
- Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201]
- Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201]
- The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201]

- Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201]
- The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201]
- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NO_x @ 15% O₂ (based on a 3-hour rolling average), 1.25 lb-SO_x/hr, 2.85 lb-PM₁₀/hr, 20 ppmv CO @ 15% O₂, 2 ppmv VOC @ 15% O₂, or 10 ppmv-ammonia @ 15% O₂ (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102]
- During transitional operation period, emissions rates from the gas turbine shall not exceed any of the following: 20 lb-NO_x/hr (based on a 3-hour rolling average), 1.25 lb-SO_x/hr, 2.85 lb-PM₁₀/hr, 19.40 lb-CO/hr (based on a 3-hour rolling average), 1.12 lb-VOC/hr, or 20 ppmv-ammonia @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4703, and 4102]
- Ammonia slip shall be calculated as follows: ammonia slip ppmv @ 15% O₂ = $\{[a-(b \times c/1,000,000)] \times 1,000,000/b\}$, where a = ammonia injection rate (lb/hr)/17 (lb/lb mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb mol), and c = change in measured NO_x concentration ppmv at 15% O₂ across the catalyst. [District Rule 2201]
- For units equipped with CEM, CEM records shall be used in place of calculated emissions. [District Rule 2201]

B. Compliance Assurance

1. Source Testing

The following existing condition will be retained on the ATC permits as a mechanism to ensure continued compliance with the source requirement for PM₁₀:

- Compliance testing to measure PM₁₀ emissions shall be conducted at least once every 60 months. [District Rule 2201]

The units are also subject to District Rule 4703, Stationary Gas Turbines, NSPS Subpart GG, and the Acid Rain Program. Additional discussions on the applicable source testing requirements are included under the discussion sections for these rules/regulations.

2. Monitoring

Pursuant to the current permit to operate, the turbines are equipped with CEM for NO_x, CO, and O₂. The current project involves changes to the quality assurance requirements for the CEMS, but not the CEM requirement itself.

The following existing permit conditions will be retained on the ATC permits as a mechanism to ensure continued compliance with the monitoring requirements:

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- Gas turbine shall be equipped with a calibrated continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201, 2520, and 4703]
- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst), CO, and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]
- The minimum ammonia injection rate shall be reported to the District and the injection rate shall be monitored by the operator during CEM breakdowns to demonstrate NO_x emission compliance. [District Rule 2201]

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- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst) and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]

The units are also subject to District Rule 4703, Stationary Gas Turbines, NSPS Subpart GG, and the Acid Rain Program. Additional discussions on the applicable monitoring requirements are included under the discussion section for these rules/regulations.

3. Recordkeeping

The current project does not involve any changes to recordkeeping requirements. The following existing permit conditions will be retained on the ATC permits as a mechanism to ensure continued compliance with the recordkeeping requirements:

C-14-10-15

- For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, 4) daily emissions measured by CEMS, 5) and calculated combined annual emissions for NO_x and CO. [District Rule 2201]

- The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520]

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- For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, and 4) daily emissions measured by CEMS. [District Rule 2201]
- Permittee shall maintain records of the following: 1) annual hours of operation, 2) daily and annual fuel consumption, 3) daily and annual continuous emission monitor measurements, 4) daily calculated ammonia slip, and 5) daily and annual emission rates. [District Rules 2201 and 4703]
- Permittee shall maintain on file copies of natural gas bills. [District Rule 2201]
- The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520]

The units are also subject to District Rule 4703, Stationary Gas Turbines, NSPS Subpart GG, and the Acid Rain Program. Additional recordkeeping requirements will be discussed under the discussion section for these rules/regulations.

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201. However, the units are also subject to NSPS Subpart GG and the Acid Rain Program. Any applicable reporting requirements will be discussed under the discussion section for these regulations.

Rule 2410 Prevention of Significant Deterioration

This project consists of actions of an administrative nature (i.e. non-NSR modifications) and therefore does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this rule, and has received their Title V Operating Permit. A significant permit modification is defined as a “permit amendment that does not qualify as a minor permit modification or administrative amendment.”

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions. The

proposed changes are expected to result in source testing and RATA being conducted less frequently, which is a relaxation in monitoring conditions. As a result, the proposed project constitutes a significant modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment prior to operating with the proposed modifications. The facility shall not implement the changes requested until the final permit is issued, following the completion of EPA review.

In addition, public notice is required for significant modifications. Pursuant to Section 11.3.1.1, the APCO shall provide a written notice of the proposed permit and, upon request, copies of the District analysis to interested parties. Interested parties shall include affected states, ARB, and persons who have requested in writing to be notified. The notice, including a copy of the proposed permit, shall also be given by electronic publication on the District's website and by any other means if necessary to assure adequate notice to the affected public. The public shall be given 30 days from the date of publication to submit written comments on the District proposed action. Other details and procedures pertaining to the required notice are specified in Sections 11.3.1.2 through 11.3.1.4 and Sections 11.3.2 through 11.3.8.

Therefore, public notice documents will be submitted to EPA and ARB, and a public notice will be published electronically on the District's website prior to the issuance of the ATC permits for this project. The following conditions will be placed on the ATC permits as a mechanism to ensure compliance with the requirements of this rule:

C-14-10-15

- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]
- Gas turbine shall be equipped with a calibrated continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201, 2520, and 4703]
- The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520]
- The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520]

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- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

- The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NO_x mass emission rates (lb/hr). [District Rules 2201 and 2520]
- The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520]

Continued compliance with the requirements of this rule is expected.

Rule 2540 Acid Rain Program

This rule incorporates the Acid Rain Program permit requirements of 40 CFR Part 72 by reference.

The Acid Rain Program requires emission reductions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x), the primary precursors of acid rain, from the power sector. The regulations pertaining to the program are contained in 40 CFR Parts 72 through 78. The sections pertinent to the current evaluation are Part 72, Permits, and Part 75, Continuous Emissions Monitoring.

Pursuant to §72.6(a)(3)(i), a utility unit that is a new unit is an affected unit, subject to the requirements of the Acid Rain Program. Per §72.2 a *new unit* means a unit that commences commercial operation on or after November 15, 1990, including any such unit that serves a generator with a nameplate capacity of 25 MWe or less or that is a simple combustion turbine; *utility* means any person that sells electricity, and *utility unit* means a unit owned or operated by a utility.

The units involved in this project are subject to the requirements of the Acid Rain Program because they are utility units that commenced commercial operation after November 15, 1990.

Pursuant to §72.9(a), the units are required to have acid rain permits.

The acid rain program requirements for these units have been implemented through the Title V operating permits.

Pursuant to §72.9(b), the units are required to comply with the monitoring requirements of Part 75.

Since the units involved in this project are gas-fired units, continuous emissions monitoring is only required for NO_x and the diluent gas (O₂) that is used for calculation of the mass emissions, as specified in §75.10.

Appendix A to Part 75 contains the specifications and test procedures applicable to the monitoring equipment.

Appendix B to Part 75 contains the quality assurance/quality control procedures applicable to the monitoring equipment.

Section 2.3.1 of Appendix B specifies the Relative Accuracy Test Audit (RATA) requirements. Per Subsection 2.3.1.1, Standard RATA Frequencies, paragraph (a), RATA for the NO_x concentration and NO_x-diluent CEMS shall be performed semiannually, *i.e.*, once every two successive QA operating quarters (as defined in §72.2). A calendar quarter that does not qualify as a QA operating quarter shall be excluded in determining the deadline for the next RATA. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted. If a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a 720 unit (or stack) operating hour grace period (as provided in Section 2.3.3 of this appendix) following the end of the eighth successive elapsed calendar quarter, or data from the CEMS will become invalid.

Per §72.2, a *QA operating quarter* means a calendar quarter in which there are at least 168 unit operating hours (as defined in this section) or, for a common stack or bypass stack, a calendar quarter in which there are at least 168 stack operating hours (as defined in this section).

The current project involves only changes to the RATA frequencies. The pertinent permit condition will be modified to indicate that RATA will be conducted pursuant to the provisions of Part 75, Appendix B, which will also satisfy the RATA requirements of Part 60, Appendix F. The permit condition will be modified as shown below:

Current Condition (PTOs C-14-10-14 and C-14-10-11-16)

- The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080]

Proposed Modified Condition (ATCs C-14-10-10-15 and C-14-10-11-17)

- The permittee shall perform relative accuracy test audits (RATA) as specified in 40 CFR Part 75, Appendix B, at least once every two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR Part 75, Appendix B]

Continued compliance with the requirements of this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

40 CFR 60 Subpart A, §60.8 – Performance Tests

§60.8(a) requires that, except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

Since the current project does not involve any new units, the initial testing requirements of this subpart are not applicable. This subpart does not include any specific requirements of recurring/periodic source tests.

In addition, §60.8(c) states that operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

Continued compliance with the requirements and provisions of this subpart is expected.

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

Pursuant to §60.330, the requirements of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired, which commenced construction, modification, or reconstruction after October 3, 1977.

The facility operates one 300 MMBtu/hr gas turbine that was constructed in 2001 and one 432 MMBtu/hr gas turbine that was constructed in 2004. The turbines are therefore subject to the requirements of this subpart.

§60.332, Standard for Nitrogen Oxides

§60.332(a)(1) 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:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

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.

§60.332(b) requires that electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

Since this facility's gas turbines are used to supply power to an electric utility, they are subject to the standard in paragraph (a)(1).

Based on data from the original permitting action, the values for Y and F for this facility's turbines are 14.4 and 0, respectively. Thus, $STD = 0.0075 = 75$ ppmv.

The turbines are subject to NO_x emission limits of 2.0 and 5.0 ppmv, which are below the applicable standard. The following existing conditions will be retained on the ATC permits as a mechanism to ensure continued compliance:

C-14-10-15

- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SO_x (as SO₂): 0.98 lb/hr, NO_x (as NO₂): 5.0 ppmvd @ 15% O₂ and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O₂ and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O₂ and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG]

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NO_x @ 15% O₂ (based on a 3-hour rolling average), 1.25 lb-SO_x/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O₂, 2 ppmv VOC @ 15% O₂, or 10 ppmv-ammonia @ 15% O₂ (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102]

§60.333, Standard for Sulfur Dioxide

On and after the date on which the performance test required to be conducted by § 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

- (a) 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 percent by volume at 15 percent oxygen and on a dry basis.
- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8,000 ppmw).

The turbines are required by permit condition to be fired on natural gas with a sulfur content no greater than 1 grain per 100 standard cubic feet, or ~ 0.003 ppmw. The following existing condition will be retained on both ATC permits as a mechanism to ensure continued compliance:

- This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4801]

§60.334, Monitoring of Operations

§60.334(a) requires that, except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the provisions of this subpart and using water or steam injection to control NO_x emissions shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine.

§60.334(b) provides that the owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO_x emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and O₂ monitors. As an alternative, a CO₂ monitor may be used to adjust the measured NO_x concentrations to 15 percent O₂ by either converting the CO₂ hourly averages to equivalent O₂ concentrations using Equation F-14a or F-14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O₂, or by using the CO₂ readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as specified in §60.334(b)(1) through §60.334(b)(3).

§60.334(c) provides 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 NO_x 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 NO_x emission limit under § 60.332, that approved procedure may continue to be used.

The turbines are equipped with a CEMS. The following existing conditions will be retained on the ATC permits as a mechanism to ensure continued compliance:

C-14-10-15

- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst), CO, and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.334(b)(2) and District Rule 1080]
- The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2 and 3. [40 CFR 60.334(b)(1) and District Rule 1080]

C-14-11-17

- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst) and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 1080 and 40 CFR 60.334(b)(2)]
- The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2, 3, and 4A. [District Rule 1080 and 40 CFR 60.334(b)(1)]

The monitoring provisions/requirements of §60.334(d) through §60.334(g) are not applicable to this facility's turbines.

§60.334(h) requires that the owner or operator of any stationary gas turbine subject to the provisions of this subpart: (1) shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference—see § 60.17), which measure the major sulfur compounds may be used; and (2) shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.*, if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in § 60.335(b)(9) or an approved alternative.

§60.334(h)(3) provides that, notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

- (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
- (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/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 to part 75 of this chapter is required.

The following existing condition will be retained on both ATC permits as a mechanism to ensure compliance with the sulfur content monitoring requirements:

- The fuel sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, or tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or GAS Processors Association Standard 2377. If the fuel sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel sulfur content exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3)]

Since no allowance for fuel bound nitrogen is claimed for this facility's turbine, monitoring of the nitrogen content of the fuel combusted is not required.

§60.334(h)(4) provides that for any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

Since no custom fuel monitoring schedule has previously been approved for this facility's turbine, this provision is not applicable.

§60.334(i) specifies the frequency of determining the sulfur and nitrogen content of the fuel. §60.334(i)(2) specifies that, for gaseous fuel, any applicable nitrogen content value shall be determined and recorded once per unit operating day; and that for owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

As previously stated, fuel nitrogen content monitoring is not required for this facility's turbines, and compliance with the fuel sulfur content limit is demonstrated as provided in §60.334(h)(3).

§60.334(j) requires that for each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

(1) Nitrogen Oxides

(iii) For turbines using NO_x and diluent CEMS:

- (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO_x concentration" is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour.
- (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_x concentration or diluent (or both).
- (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).

As previously stated, fuel sulfur and nitrogen content monitoring is not required for this facility's turbines. The following existing condition will be placed on both ATC permits as a mechanism to ensure compliance with the applicable reporting requirements:

- 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 NO_x emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j) and District Rule 1080]

The following new condition will be placed on both ATC permits as a mechanism to ensure compliance with the applicable definitions:

- Excess emissions shall be defined as any operating hour in which the 4-hour rolling average NO_x concentration exceeds applicable NO_x concentration 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 NO_x or O₂ (or both). [40 CFR 60.334(j)]

The following existing condition will be omitted from ATC Permit C-14-10-15 because the turbine uses CEMS for the required monitoring:

- The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average-water-to-fuel ratio (when the CEMS is not operational and Dry-Low NO_x technology is not being used), as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO_x emission limit. Each report shall include average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(c)(1)]

§60.335, Test Methods and Procedures

§60.335(a)(1) through §60.335(a)(3) requires that the owner or operator shall conduct the performance tests required in §60.8, using either EPA Method 20, ASTM D6522-00 (incorporated by reference, see §60.17), or EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.

The following existing conditions will be placed on the ATC permits as a mechanism to ensure compliance with the test methods requirements:

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703; and 40 CFR 60.335]

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half) or EPA Method 201A/202, NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335]

Additional procedures for the required initial source test are specified in §60.335(a)(4) through §60.335(a)(6), §60.335(b)(1) through §60.335(b)(11), and §60.335(c). This subpart, however, does not include any requirements of recurring/periodic source tests.

Continued compliance with the requirements and provisions of this subpart is expected.

40 CFR 60 – Subpart KKKK

40 CFR Part 60 Subpart KKKK 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 2/18/05.

The facility operates one 300 MMBtu/hr gas turbine that was constructed in 2001 and one 432 MMBtu/hr gas turbine that was constructed in 2004. Since the turbines did not commence construction, modification, or reconstruction after 2/18/05, they are not subject to the requirements of this subpart

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, are applicable to stationary

combustion turbines that are located at a major source of HAP emissions, as defined in 40 CFR 63.2.

This facility is not major source of HAP emissions, hence the requirements of this subpart are not applicable.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).

Since the turbines are fired exclusively on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. The following condition will be placed on both ATC permits as a mechanism to ensure continued compliance:

- 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]

Continued compliance with the requirements of this rule is expected.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public.

Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. The following condition will be placed on both ATC permits as a mechanism to ensure continued compliance:

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

The following existing conditions will be retained on the ATC permits as a mechanism to ensure continued compliance:

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SO_x (as SO₂): 0.98 lb/hr, NO_x (as NO₂): 5.0 ppmvd @ 15% O₂ and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O₂ and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O₂ and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG]

- During transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 20 lb/hr (based on a 3-hour rolling average), VOC: 0.88 lb/hr, CO: 8.07 lb/r (based on a 3-hour rolling average), or ammonia: 20 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703]

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- {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]
- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NOx @ 15% O2 (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O2, 2 ppmv VOC @ 15% O2, or 10 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102]
- During transitional operation period, emissions rates from the gas turbine shall not exceed any of the following: 20 lb-NOx/hr (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 19.40 lb-CO/hr (based on a 3-hour rolling average), 1.12 lb-VOC/hr, or 20 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4703, and 4102]

Continued compliance with the requirements of this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

Since there are no increases in emissions associated with this project, a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Since the current project does not involve any changes in emissions or exhaust parameters, there will be no change in the particulate matter concentration. An analysis of the particulate matter concentration is therefore not required. The following existing condition will be placed on both ATC permits as a mechanism to ensure continued compliance:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Continued compliance with the requirements of this rule is expected.

Rule 4301 Fuel Burning Equipment

The provisions of this rule shall apply to any fuel burning equipment except air pollution control equipment which is exempted according to Section 4.0. Fuel burning equipment is defined as any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.

Gas turbines primarily produce power mechanically, i.e. the products of combustion pass directly across the turbine blades which causes the turbine shaft to rotate. The turbine shaft is coupled to an electrical generator shaft, which rotates and produces electricity. Because gas turbines primarily produce power by mechanical means, they do not meet the definition of fuel burning equipment (stated above). Therefore, Rule 4301 does not apply to the affected equipment and no further discussion is required.

Rule 4703 Stationary Gas Turbines

The purpose of this rule is to limit oxides of nitrogen (NO_x) emissions from stationary gas turbine systems. The rule is applicable to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour.

The facility operates one 300 MMBtu/hr gas turbine with a power rating of 23 MW and one 432 MMBtu/hr gas turbine with a power rating of 45 MW. The turbines are therefore subject to the requirements of this rule.

Section 5.1 – NO_x Emissions

Pursuant to the compliance schedules in Section 7.2, the Tier 2 NO_x compliance limits specified in Table 5-2 are applicable to these units. The units are gas-fired simple-cycle turbines rated greater than 10 MW and permitted to operate more than 877 hours/year. The applicable limit is therefore 5 ppmvd @15% O₂ (Table 5-2.e, standard option).

The units are limited to 2.0 and 5.0 ppmvd @ 15% O₂, and are therefore compliant. The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance:

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO₂): 0.98 lb/hr, NOx (as NO₂): 5.0 ppmvd @ 15% O₂ and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O₂ and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O₂ and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG]

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NOx @ 15% O₂ (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O₂, 2 ppmv VOC @ 15% O₂, or 10 ppmv-ammonia @ 15% O₂ (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102]

Section 5.2 – CO Emissions

Per Table 5-4, the applicable limit for these units is 200 ppmvd @ 15% O₂.

The units are limited to 12.0 and 20.0 ppmvd @ 15% O₂, and are therefore compliant. The following existing condition will be placed on the ATC permit as a mechanism to ensure continued compliance:

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO₂): 0.98 lb/hr, NOx (as NO₂): 5.0 ppmvd @ 15% O₂ and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O₂ and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O₂ and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG]

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- Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NOx @ 15% O₂ (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O₂, 2 ppmv VOC @ 15% O₂, or 10 ppmv-ammonia @ 15% O₂ (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102]

Section 5.3 – Transitional Operation Periods

This section states that the emission limit requirements of Sections 5.1 and 5.2 shall not apply during startup, shutdown, or a reduced load period provided an operator complies with the requirements specified below:

- The duration of each startup or each shutdown shall not exceed two hours, and the duration of each reduced load period shall not exceed one hour.
- The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during startup, shutdown, or a reduced load period.
- An operator may submit an application to allow more than two hours for each startup or each shutdown or more than one hour for each reduced load period provided the operator meets all of the conditions specified in the rule.

The current project does not involve any changes to the previously approved transitional period conditions. The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance:

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- During transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 20 lb/hr (based on a 3-hour rolling average), VOC: 0.88 lb/hr, CO: 8.07 lb/r (based on a 3-hour rolling average), or ammonia: 20 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703]
- Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period start-up or shutdown. [District Rule 4703]

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- During transitional operation period, emissions rates from the gas turbine shall not exceed any of the following: 20 lb-NOx/hr (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 19.40 lb-CO/hr (based on a 3-hour rolling average), 1.12 lb-VOC/hr, or 20 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4703, and 4102]
- Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period start-up or shutdown. [District Rule 4703]

Section 5.4 – BACT Exemption for Replacement Units

Since the current project does not involve replacement of any units, the provisions of this section are not applicable.

Section 6.1 – Emission Control Plan

The current project involves only existing units that are already compliant with the most current applicable requirements, and there are no requirements with future compliance dates. The requirements of this section are therefore not applicable to the current project.

Section 6.2 - Monitoring and Recordkeeping

Pursuant to the requirements of Section 6.2.1, the owner/operator of the units involved in this project is required to operate and maintain continuous emissions monitoring equipment for NO_x and oxygen, or install and maintain APCO-approved alternate monitoring.

The units are equipped with Continuous Emissions Monitoring System (CEMS) for NO_x and oxygen, and are therefore compliant with the requirements of this section. The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance:

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- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst), CO, and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]

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- The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst) and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)]

Section 6.2.2 specifies monitoring requirements for turbines without exhaust gas NO_x control devices.

Since the units involved in this project are equipped with an SCR system that is designed to control NO_x emissions, the requirements of this section are not applicable.

Section 6.2.3 requires that for units 10 MW and greater that operated an average of more than 4,000 hours per year over the last three years before August 18, 1994, the owner or operator shall monitor the exhaust gas NO_x emissions.

Since the units involved in this project were installed after August 18, 1994, the requirements of this section are not applicable.

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

The following condition will be placed on both ATC permits as a mechanism to ensure compliance with this requirement:

- All records shall be maintained for a period of five years from the date of data entry, and shall be made available for District inspection upon request. [District Rule 4703]

Section 6.2.5 requires that the owner or operator shall submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating parameters to the associated measured NO_x output. This information may be used by the APCO to determine compliance when there is no continuous emission monitoring system for NO_x available or when the continuous emissions monitoring system is not operating properly.

Since the permits have already been issued, this requirement is not applicable in the current project. The existing permit conditions require operation/maintenance of the NO_x emissions monitoring system in a manner that demonstrates compliance with all the applicable limits.

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

The following condition will be placed on both ATC permits as a mechanism to ensure compliance with this requirement:

- The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703]

Section 6.2.7 specifies recordkeeping requirements for units that are exempt pursuant to the requirements of Section 4.2.

Since the units involved in this project are not exempt, the requirements of this section are not applicable.

Section 6.2.8 requires owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown.

Per the current permit to operate, startup and shutdown records are required to be maintained. The following existing condition will be placed both ATC permits as a mechanism to ensure continued compliance:

- The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device

was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703 and 40 CFR 60.7(b)]

Section 6.2.9 requires owners/operators of units subject Section 5.1.3.3 to maintain certain records.

Since the units involved in this project are not subject to Section 5.1.3.3, the requirements of this section are not applicable.

Section 6.2.10 requires that the operator of a unit subject to Section 6.5.2 shall identify in the stationary gas turbine system operating log the date and start time and end time that the unit was operated pursuant to Section 6.5.2 and keep a copy of the emergency declaration.

Since the units involved in this project are not subject to Section 6.5.2, the requirements of this section are not applicable.

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

Since the units involved in this project are simple-cycle, there are no bypass transition periods. The following condition will be placed on both ATC permits as a mechanism to ensure compliance:

- The owner or operator shall keep records of the date, time, and duration of each primary re-ignition period. [District Rule 4703]

Section 6.2.11 requires that the operator of a unit subject to subsection (b) of Table 5-3 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.

Since the units involved in this project are not subject to Table 5-3, the requirements of this section are not applicable.

Sections 6.3 - Compliance Testing

Section 6.3.1 states that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NO_x and CO concentrations. Section 6.3.2 also states that the owner or operator of any stationary gas turbine system operating less than 877 hours per year shall provide source test information biennially regarding the exhaust gas NO_x concentrations.

As previously discussed, the applicant proposes to reduce the testing frequency, such that only source testing for NO_x will be required biennially when the unit is operated less than 877 hours per years, pursuant to Section 6.3.2. The permit conditions will be modified as follows:

Current Conditions

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- Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. [District Rules 2201 and 4703, 6.3 and 40 CFR 60.332 (a), (b) and 40 CFR 60.333]

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- Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur of this permit unit shall be conducted at least once every twelve months. [District Rules 2201 and 4703 and 40 CFR 60.332(a), (b), and 40 CFR 60.333]

Proposed Modified Condition (ATCs C-14-10-15 and C-14-11-17)

- Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. Compliance testing may be conducted once every 24 months if the turbine operates less than 877 hours in a calendar year. A one calendar quarter grace period is provided if operation equals or exceeds 877 hours in a calendar year and compliance testing cannot be conducted within that year [District Rules 2201 and 4703]

Section 6.3.3 specifies source testing requirements for units that are equipped with intermittently operated auxiliary burners.

Since the units involved in this project do not include any auxiliary burners, the requirements of this section are not applicable.

Sections 6.4 – Test Methods

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

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.
- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.
- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.
- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81.

Per the current permit to operate, the specified source testing methods are consistent with the requirements of this section. The following existing conditions will be placed on the ATC permits as a mechanism to ensure continued compliance:

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703; and 40 CFR 60.335] Y

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- The following test methods shall be used. PM10: EPA Method 5 (front half and back half) or EPA Method 201A/202, NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335]

Sections 6.5 – Exempt and Emergency Standby Units

Since the units involved in this project are not exempt or emergency standby units, the requirements of this section are not applicable.

Sections 7.0 – Compliance Schedule

The units involved in this project are existing units that are already compliant with the most current applicable requirements. There are no requirements with future compliance dates. The requirements of this section are therefore not applicable to the current project.

Sections 8.0 – Alternative Emission Control Plan (AECPP)

Since the units involved in this project are not part of AECPP, the requirements of this section are not applicable.

Conclusion

Based on the preceding analysis, continued compliance with the requirements of this rule is expected.

Rule 4801 Sulfur Compounds

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-

tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

Since the current project does not involve any change in emissions or exhaust parameters, there will be no change in the sulfur compounds concentration. An analysis of the sulfur compounds concentration is therefore not required. The following existing condition will be placed on both ATC permits as a mechanism to ensure continued compliance:

- This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4801]

Continued compliance with the requirements of this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that for each emissions unit affected by the project the potential project emission increase is equal to or less than 2 lb per day per pollutant. Therefore, the potential project emission increase is considerably below all annual criteria emissions CEQA significant thresholds. The activity will occur at an existing facility and involves negligible expansion of the existing or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project’s potential for litigation risk, which in turn may be based on a project’s potential to generate public concern, its potential for significant impacts, and the project proponent’s ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATC permits C-14-10-15 and -11-17 subject to the permit conditions on the draft permits in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-14-10-15	3020-08A-F	23,000 kW	\$9,803
C-14-11-17	3020-08B-G	45,000 kW	\$12,254

Appendices

- A: Draft ATC Permits
- B: Current Operating Permits
- C: Copies of EPA Applicability Determinations
- D: Compliance Certification

APPENDIX A

Draft ATC Permits

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-14-10-15

LEGAL OWNER OR OPERATOR: FRESNO COGENERATION PARTNERS

MAILING ADDRESS: 8105-B S LASSEN AVE
SAN JOAQUIN, CA 93660

LOCATION: 8105 S LASSEN AVE
SAN JOAQUIN, CA 93660

EQUIPMENT DESCRIPTION:

MODIFICATION OF 23 MW ELECTRICAL GENERATOR POWERED BY A PRATT AND WHITNEY MODEL FT4A9 GAS-FIRED, SIMPLE CYCLE TURBINE ENGINE WITH DRY LOW NOX (DLN) TECHNOLOGY OR WATER INJECTION, A SELECTIVE CATALYTIC REDUCTIONS (SCR) SYSTEM, AN OXIDATION CATALYST, AN INLET AIR EVAPORATIVE COOLER, AND LUBE OIL VENT MIST ELIMINATORS: REDUCE SOURCE TESTING AND RATA FREQUENCIES

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. {2257} Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

C-14-10-15 : Feb 21 2023 4:04PM -- AIYABEJ : Joint Inspection NOT Required

7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Gas turbine shall be equipped with a calibrated continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201, 2520, and 4703] Federally Enforceable Through Title V Permit
9. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The heat input to the turbine shall not exceed 1,320,000 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emissions rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
15. For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, 4) daily emissions measured by CEMS, 5) and calculated combined annual emissions for NOx and CO. [District Rule 2201] Federally Enforceable Through Title V Permit
16. This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
17. The fuel sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, or tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or GAS Processors Association Standard 2377. If the fuel sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel sulfur content exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
18. Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 5.0 ppmvd @ 15% O2 and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O2 and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O2 and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703; and 40 CFR Part 60 Subpart GG] Federally Enforceable Through Title V Permit
19. During transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SOx (as SO2): 0.98 lb/hr, NOx (as NO2): 20 lb/hr (based on a 3-hour rolling average), VOC: 0.88 lb/hr, CO: 8.07 lb/r (based on a 3-hour rolling average), or ammonia: 20 ppmvd @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4102, and 4703] Federally Enforceable Through Title V Permit
20. Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee 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] Federally Enforceable Through Title V Permit
22. In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit
23. A violation of emissions standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. Compliance with the ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = ((a-(bxc/1,000,000)) x 1,000,000/b), where a = ammonia injection rate (lb/hr)/17 lb/lb.mol, b = dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol), and c = change in measure NO_x concentration ppmv @ 15% O₂ across catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. Compliance testing may be conducted once every 24 months if the turbine operates less than 877 hours in a calendar year. A one calendar quarter grace period is provided if operation equals or exceeds 877 hours in a calendar year and compliance testing cannot be conducted within that year [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
27. Compliance testing to measure PM₁₀ emissions shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The following test methods shall be used. PM₁₀: EPA Method 5 (front half and back half), NO_x: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
29. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
30. Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Compliance demonstration (source testing) shall be District witnessed, or authorized and the samples shall be collected by a California Air Resources Board certified testing laboratory. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days of source testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst), CO, and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit

34. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.334(b)(2) and District Rule 1080] Federally Enforceable Through Title V Permit
35. Results of the CEM system shall be averaged over three hour periods using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO_x, EPA Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O₂, or all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703 5.1, 6.4] Federally Enforceable Through Title V Permit
36. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2 and 3. [40 CFR 60.334(b)(1) and District Rule 1080] Federally Enforceable Through Title V Permit
37. 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [40 CFR 60.7(b) and District Rule 1080] Federally Enforceable Through Title V Permit
38. Cylinder Gas Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
39. The permittee shall conduct relative accuracy test audits (RATA) as specified in 40 CFR Part 75, Appendix B, at least once every two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR Part 75, Appendix B] Federally Enforceable Through Title V Permit
40. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
41. 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 NO_x emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j) and District Rule 1080] Federally Enforceable Through Title V Permit
42. Excess emissions shall be defined as any operating hour in which the 4-hour rolling average NO_x concentration exceeds applicable NO_x concentration 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 NO_x or O₂ (or both). [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
43. Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO_x emissions limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [40 CFR 60.335(b)(2)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. The minimum ammonia injection rate shall be reported to the District and the injection rate shall be monitored by the operator during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
47. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
48. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
49. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
50. The owner or operator shall keep records of the date, time, and duration of each primary re-ignition period. [District Rule 4703] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703] Federally Enforceable Through Title V Permit
52. All records shall be maintained for a period of five years from the date of data entry, and shall be made available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: C-14-11-17

LEGAL OWNER OR OPERATOR: FRESNO COGENERATION PARTNERS

MAILING ADDRESS: 8105-B S LASSEN AVE
SAN JOAQUIN, CA 93660

LOCATION: 8105 S LASSEN AVE
SAN JOAQUIN, CA 93660

EQUIPMENT DESCRIPTION:

MODIFICATION OF 45 MW GENERAL ELECTRIC LM-6000PC SIMPLE CYCLE GAS TURBINE WITH SELECTIVE CATALYTIC REDUCTION AND CO OXIDATION CATALYST: REDUCE SOURCE TESTING AND RATA FREQUENCIES

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Calibration gas audit linearity checks shall be performed quarterly or every 168 stack operating hours per 40 CFR Part 75 Appendix B Section 2.2.4. [District Rule 1080] Federally Enforceable Through Title V Permit
4. {2257} Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

C-14-11-17 : Feb 21 2023 4:04PM - AIYABEJ : Joint Inspection NOT Required

7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. {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]
9. This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
10. The fuel sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If the fuel sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel sulfur content exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
11. Gas turbine heat input shall not exceed 2,824,250 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
16. For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, and 4) daily emissions measured by CEMS. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NOx @ 15% O2 (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O2, 2 ppmv VOC @ 15% O2, or 10 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [40 CFR 60.332; and District Rules 2201, 4703, and 4102] Federally Enforceable Through Title V Permit
19. During transitional operation period, emissions rates from the gas turbine shall not exceed any of the following: 20 lb-NOx/hr (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 19.40 lb-CO/hr (based on a 3-hour rolling average), 1.12 lb-VOC/hr, or 20 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [District Rules 2201, 4703, and 4102] Federally Enforceable Through Title V Permit
20. Ammonia slip shall be calculated as follows: ammonia slip ppmv @ 15% O2 = $\{[a-(b \times c/1,000,000)] \times 1,000,000/b\}$, where a = ammonia injection rate (lb/hr)/17 (lb/lb mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb mol), and c = change in measured NOx concentration ppmv at 15% O2 across the catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period-start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

22. Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. Compliance testing may be conducted once every 24 months if the turbine operates less than 877 hours in a calendar year. A one calendar quarter grace period is provided if operation equals or exceeds 877 hours in a calendar year and compliance testing cannot be conducted within that year [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Compliance testing to measure PM₁₀ emissions shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit
24. The following test methods shall be used. PM₁₀: EPA Method 5 (front half and back half) or EPA Method 201A/202, NO_x: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335] Federally Enforceable Through Title V Permit
25. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703 and 40 CFR 60.332(a)(b)] Federally Enforceable Through Title V Permit
26. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [District Rule 4703 and 40 CFR 60.335(b)(3)] Federally Enforceable Through Title V Permit
27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
29. For units equipped with CEM, CEM records shall be used in place of calculated emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Permittee 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] Federally Enforceable Through Title V Permit
31. The District shall be notified in writing within 10 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] Federally Enforceable Through Title V Permit
32. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst) and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703; and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
33. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
34. Results of the CEM system shall be averaged over three hour periods using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO_x, EPA Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O₂, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [District Rule 4703 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
35. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2, 3, and 4A. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

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36. 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [District Rule 1080 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
37. Cylinder Gas Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
38. Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
39. The permittee shall conduct relative accuracy test audits (RATA) as specified in 40 CFR Part 75, Appendix B, at least once every two successive QA operating quarters (as defined in §72.2). Calendar quarters with less than 168 hours of operating time may be excluded in determining the RATA frequency, in which case the RATA shall be conducted at least once every eight calendar quarters. A grace period of 720 hours is provided if a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR Part 75, Appendix B] Federally Enforceable Through Title V Permit
40. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems, this summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
41. 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 preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j) and District Rule 1080] Federally Enforceable Through Title V Permit
42. Excess emissions shall be defined as any operating hour in which the 4-hour rolling average NOx concentration exceeds applicable NOx concentration 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 O2 (or both). [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
43. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
44. Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080] Federally Enforceable Through Title V Permit
45. In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit
46. Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; and 3) emission measurements. [District Rule 1080] Federally Enforceable Through Title V Permit

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47. Permittee shall maintain records of the following: 1) annual hours of operation, 2) daily and annual fuel consumption, 3) daily and annual continuous emission monitor measurements, 4) daily calculated ammonia slip, and 5) daily and annual emission rates. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
48. Permittee shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: 1) time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; 2) 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; 3) applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and 4) the nature of system repairs and adjustments; 5) a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
49. Permittee shall maintain on file copies of natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
50. A violation of emission standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The minimum ammonia injection rate shall be reported to the District and the injection rate shall be monitored during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703] Federally Enforceable Through Title V Permit
52. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
53. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
54. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
55. The owner or operator shall keep records of the date, time, and duration of each primary re-ignition period. [District Rule 4703] Federally Enforceable Through Title V Permit
56. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703] Federally Enforceable Through Title V Permit
57. All records shall be maintained for a period of five years from the date of data entry, and shall be made available for District inspection upon request. [District Rule 4703] Federally Enforceable Through Title V Permit
58. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
59. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
60. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

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61. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit
62. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit
63. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
64. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
65. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
66. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72] Federally Enforceable Through Title V Permit
67. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72] Federally Enforceable Through Title V Permit
68. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
69. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
70. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
71. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
72. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
73. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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APPENDIX B

Current Operating Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-14-10-14

EXPIRATION DATE: 08/31/2025

EQUIPMENT DESCRIPTION:

23 MW ELECTRICAL GENERATOR POWERED BY A PRATT AND WHITNEY MODEL FT4A9 GAS-FIRED, SIMPLE CYCLE TURBINE ENGINE WITH DRY LOW NOX (DLN) TECHNOLOGY OR WATER INJECTION, A SELECTIVE CATALYTIC REDUCTIONS (SCR) SYSTEM, AN OXIDATION CATALYST, AN INLET AIR EVAPORATIVE COOLER, AND LUBE OIL VENT MIST ELIMINATORS

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Gas turbine shall be equipped with a calibrated continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201, 2520 9.4.2, and 4703 6.2.1] Federally Enforceable Through Title V Permit
5. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The heat input to the turbine shall not exceed 1,320,000 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emissions rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
11. For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, 4) daily emissions measured by CEMS, 5) and calculated combined annual emissions for NOx and CO. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4201] Federally Enforceable Through Title V Permit
13. The fuel sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, or tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or GAS Processors Association Standard 2377. If the fuel sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel sulfur content exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
14. Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SO_x (as SO₂): 0.98 lb/hr, NO_x (as NO₂): 5.0 ppmvd @ 15% O₂ and 6.20 lb/hr (based on a 3-hour average), VOC: 2.0 ppmvd @ 15% O₂ and 0.88 lb/hr, CO: 12.0 ppmvd @ 15% O₂ and 8.07 lb/hr (based on a 3-hour rolling average), or ammonia: 10 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, 4301, 4703 and 40 CFR Part 60 Subpart GG] Federally Enforceable Through Title V Permit
15. During transitional operation period, emission rates from the gas turbine shall not exceed any of the following: PM10: 2.22 lb/hr, SO_x (as SO₂): 0.98 lb/hr, NO_x (as NO₂): 20 lb/hr (based on a 3-hour rolling average), VOC: 0.88 lb/hr, CO: 8.07 lb/r (based on a 3-hour rolling average), or ammonia: 20 ppmvd @ 15% O₂ (based on a 1-hour rolling average). [District Rules 2201, 4102, 4301, 4703 and 40 CFR Part 60 Subpart GG] Federally Enforceable Through Title V Permit
16. Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
17. Permittee 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] Federally Enforceable Through Title V Permit
18. In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
19. A violation of emissions standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
20. 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] Federally Enforceable Through Title V Permit
21. Compliance with the ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = ((a-(bxc/1,000,000)) x 1,000,000/b), where a = ammonia injection rate (lb/hr)/17 lb/lb.mol, b = dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol), and c = change in measure NO_x concentration ppmv @ 15% O₂ across catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Compliance testing to measure the NO_x (as NO₂), VOC, CO, ammonia emissions, and fuel gas sulfur content of this permit unit shall be conducted at least once every twelve months. [District Rules 2201 and 4703, 6.3 and 40 CFR 60.332 (a), (b) and 40 CFR 60.333] Federally Enforceable Through Title V Permit
23. Compliance testing to measure PM10 emissions shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. The following test methods shall be used. PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4703, 6.4, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
25. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
26. Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance demonstration (source testing) shall be District witnessed, or authorized and the samples shall be collected by a California Air Resources Board certified testing laboratory. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days of source testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx (before and after the SCR catalyst), CO, and O2 concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [40 CFR 60.334(b) and District Rules 1080, 2201, and 4703] Federally Enforceable Through Title V Permit
30. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.334(b)(2) and District Rule 1080] Federally Enforceable Through Title V Permit
31. Results of the CEM system shall be averaged over three hour periods using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NOx, EPA Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O2, or all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703 5.1, 6.4] Federally Enforceable Through Title V Permit
32. The NOx, CO, and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2 and 3. [40 CFR 60.334(b)(1) and District Rule 1080] Federally Enforceable Through Title V Permit
33. 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [40 CFR 60.7(b) and District Rule 1080] Federally Enforceable Through Title V Permit
34. Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner/operator shall perform a relative accuracy test (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
36. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

37. 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 NO_x emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j), (j)(5) and District Rule 1080] Federally Enforceable Through Title V Permit
38. The owner or operator shall report periods of excess emissions that are defined as follows: any one-hour period during which the average-water-to-fuel ratio (when the CEMS is not operational and Dry-Low NO_x technology is not being used), as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NO_x emission limit. Each report shall include average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load. [40 CFR 60.334(c)(1)] Federally Enforceable Through Title V Permit
39. Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080, 6.0] Federally Enforceable Through Title V Permit
40. The continuous monitor of fuel, water, and water-to-fuel ratio system shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the NO_x emissions limits at 30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. [40 CFR 60.335(b)(2)] Federally Enforceable Through Title V Permit
41. The minimum ammonia injection rate shall be reported to the District and the injection rate shall be monitored by the operator during CEM breakdowns to demonstrate NO_x emission compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
42. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit
43. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NO_x mass emission rates (lb/hr). [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-14-11-16

EXPIRATION DATE: 08/31/2025

EQUIPMENT DESCRIPTION:

45 MW GENERAL ELECTRIC LM-6000PC SIMPLE CYCLE GAS TURBINE WITH SELECTIVE CATALYTIC REDUCTION AND CO OXIDATION CATALYST

PERMIT UNIT REQUIREMENTS

1. Calibration gas audit linearity checks shall be performed quarterly or every 168 stack operating hours per 40 CFR Part 75 Appendix B Section 2.2.4. [District Rule 1080] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. This unit shall be fired exclusively on PUC-quality natural gas and the PUC-quality natural gas shall have a total sulfur content less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b) and District Rules 2201 and 4201] Federally Enforceable Through Title V Permit
6. The fuel sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If the fuel sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel sulfur content exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
7. Gas turbine heat input shall not exceed 2,824,250 MMBtu/year based on a 12-month rolling sum. Compliance with this limit shall be determined at the end of each month. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Units subject to the Specific Limiting Condition (SLC) plan are C-14-10 and '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Combined emission rate for all units subject to the SLC plan shall not exceed any of the following: 120.9 lb-PM10/day, 50.9 lb-SOx/day, 209.2 lb-NOx/day, 562.7 lb-CO/day, or 45.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The combined annual emissions rates for all units subject to the SLC plan shall not exceed either of the following: 48,539 lb-NOx/year or 199,889 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. For each unit subject to the SLC, the permittee shall maintain all necessary records in order to show compliance with the daily and annual SLC limits, including (but not limited to) the following: 1) amount of fuel used, 2) HHV of fuel, 3) calculated daily emissions for each air contaminant emitted, and 4) daily emissions measured by CEMS. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The permittee shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Except during transitional operation period, emission rates from the gas turbine shall not exceed any of the following: 2.0 ppmvd NOx @ 15% O2 (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 20 ppmv CO @ 15% O2, 2 ppmv VOC @ 15% O2, or 10 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [40 CFR 60.332, District Rules 2201, 4703, and 4102] Federally Enforceable Through Title V Permit
15. During transitional operation period, emissions rates from the gas turbine shall not exceed any of the following: 20 lb-NOx/hr (based on a 3-hour rolling average), 1.25 lb-SOx/hr, 2.85 lb-PM10/hr, 19.40 lb-CO/hr (based on a 3-hour rolling average), 1.12 lb-VOC/hr, or 20 ppmv-ammonia @ 15% O2 (based on a 1-hour rolling average). [40 CFR 60.332, District Rules 2201, 4703, and 4102] Federally Enforceable Through Title V Permit
16. Ammonia slip shall be calculated as follows: ammonia slip ppmv @ 15% O2 = $\{[a-(b \times c/1,000,000)] \times 1,000,000/b\}$, where a = ammonia injection rate (lb/hr)/17 (lb/lb mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb mol), and c = change in measured NOx concentration ppmv at 15% O2 across the catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Transitional operation period shall be any of the following periods as they are define in Rule 4703: bypass transition period, primary re-ignition period, reduced load period start-up or shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
18. Compliance testing to measure the NOx (as NO2), VOC, CO, ammonia emissions, and fuel gas sulfur of this permit unit shall be conducted at least once every twelve months. [District Rules 2201 and 4703 and 40 CFR 60.332(a), (b), and 40 CFR 60.333] Federally Enforceable Through Title V Permit
19. Compliance testing to measure PM10 emissions shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The following test methods shall be used. PM10: EPA Method 5 (front half and back half) or EPA Method 201A/202, NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
21. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703 and 40 CFR 60.332(a)(b)] Federally Enforceable Through Title V Permit
22. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [District Rule 4703 and 40 CFR 60.335(b)(3)] Federally Enforceable Through Title V Permit
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
25. For units equipped with CEM, CEM records shall be used in place of calculated emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Permittee 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The District shall be notified in writing within 10 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] Federally Enforceable Through Title V Permit
28. The owner or operator shall certify, maintain, operate, and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NO_x (before and after the SCR catalyst) and O₂ concentrations. The CEMS shall be capable of monitoring emissions during startups and shutdowns, as well as during normal operating conditions. [District Rules 1080, 2201, and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
29. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
30. Results of the CEM system shall be averaged over three hour periods using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO_x, EPA Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for SO₂, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [District Rule 4703 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
31. The NO_x, CO, and O₂ CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60 Appendix B Performance Specifications 2, 3, and 4A. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit
32. 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, calibration, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emissions measurements. [District Rule 1080 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
33. Audits of continuous emissions monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
34. Permittee shall comply with all applicable source sampling requirements of District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The owner/operator shall perform a relative accuracy test (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
36. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems, this summary shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
37. 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 NO_x emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions 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. [40 CFR 60.334(j), (j)(5) and District Rule 1080] Federally Enforceable Through Title V Permit
38. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

39. Results of the CEM system 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 with the District, the California Air Resources Board, and the Environmental Protection Agency. [District Rule 1080] Federally Enforceable Through Title V Permit
40. In the event of a breakdown of monitoring equipment, the owner shall notify the APCO as soon as reasonably possible, but no later than eight (8) hours after its detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The owner shall inform the APCO of the intent to shut down any monitoring equipment at least 24 hours prior to the event. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; and 3) emission measurements. [District Rule 1080] Federally Enforceable Through Title V Permit
42. Permittee shall maintain records of the following: 1) annual hours of operation, 2) daily and annual fuel consumption, 3) daily and annual continuous emission monitor measurements, 4) daily calculated ammonia slip, and 5) daily and annual emission rates. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. Permittee shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: 1) time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; 2) 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; 3) applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and 4) the nature of system repairs and adjustments; 5) a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
44. Permittee shall maintain on file copies of natural gas bills. [District Rule 2201] Federally Enforceable Through Title V Permit
45. A violation of emission standards indicated by the CEM system shall be reported to the APCO within 96 hours. [District Rule 1080] Federally Enforceable Through Title V Permit
46. The minimum ammonia injection rate shall be reported to the District and the injection rate shall be monitored during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703] Federally Enforceable Through Title V Permit
47. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
48. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
49. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit
50. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
51. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

52. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
53. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit
54. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit
55. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72 and 40 CFR 75] Federally Enforceable Through Title V Permit
56. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
57. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
58. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72] Federally Enforceable Through Title V Permit
59. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72] Federally Enforceable Through Title V Permit
60. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
61. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
62. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
63. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
64. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 75] 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.

65. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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

APPENDIX C

Copies of Applicability Determinations



**U.S. Environmental Protection Agency
Applicability Determination Index**

Control Number: 0200024

Category: NSPS
EPA Office: Region 5
Date: 12/18/2001
Title: Use of Part 75 RATA Procedures for NSPS (Part 60) Facility
Recipient: Richard Savoi
Author: George Czerniak

Subparts: Part 60, Da, Elec. Util. Steam Gen. Units (post 9/18/78)

References: 60.46a(c)
Part 75

Abstract:

Q1: May the QA/QC requirements of Part 75 be used to satisfy Part 60 QA/QC requirements for CEMs at a boiler unit that operates as a peaker?

A1: Yes. NSPS Subpart 60 requires Relative Accuracy Test Audits (RATA) once every four consecutive calendar quarters for CEMs at a continuously operated boiler unit. For an infrequently operated unit, EPA's Acid Rain Program rules at Part 75 may be used in lieu of NSPS requirements, subject to certain conditions.

Q2: May low emission rate criteria adopted under Part 75 rules be used during the RATA?

A2: No. In this case, a problem with past RATA testing had been addressed, so it is no longer necessary to rely on the low emission rate provisions.

Q3: May we use diluent capping procedures of Part 75?

A3: No. It is better to provide regulatory agencies with the actual data, even when the F-factor used creates an inaccuracy in the emission calculations. Moreover, during periods of startup, shutdown, and malfunction, the source is not subject to the nitrogen oxide emissions standards, as set forth at 40 C.F.R. Sec. 60.46a(c). The regulatory agencies will review the data to determine whether the numbers, in fact, represent excess emissions.

Letter:

Richard J. Savoi
 Senior Environmental Planner
 Consumers Energy
 1945 West Parnall Road
 Jackson, Michigan 49201-8643
 Re. NSPS Boiler RATA For B.C. Cobb Plant

Dear Mr. Savoi:

Thank you for your November 13, 2001, letter in which you propose a revision to quality assurance procedures for continuous emissions monitoring system (CEMS) for Consumer Energy's B.C. Cobb Plant in Muskegon, Michigan. According to your letter, Units 1, 2, and 3, which were converted from retired coal-fired units in 1999-2000 to natural gas firing, are operated infrequently as "peaker" units. The units are subject to Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.

Relative Accuracy Test Audit and linearity check:

We concur with the proposed amendments to the Quality Assurance (QA) program found at 40 C.F.R. Part 60, Appendix F, as applied specifically to Units 1, 2, and 3. Because the units are to be operated as peaking units, we agree that it is reasonable to allow some reduction in QA testing for the units, relative to what would be required for base loaded units.

Appendix F of Part 60 requires Relative Accuracy Test Audits (RATA) once every four consecutive calendar quarters for continuous CEMs at a continuously operated boiler unit. We concur with your proposal to apply United States Environmental Protection Agency's (U.S. EPA) Acid Rain Program rules at Part 75 in lieu of NSPS requirements, subject to the following conditions:

1. The units will comply with any applicable Acid Rain Program requirements found at 40 C.F.R. Part 75, Appendix B, including 2.2.1 Linearity Check, 2.24 Linearity Grace Period, 2.3.1.1 Standard RATA Frequencies, and 2.3.3. RATA Grace Period, except 2.3.1.2 (e) and (f) pertaining to low NOx emitting units.
2. Should any of the units return to continuous service, the RATA must be conducted according to Appendix F requirements at least once every four calendar quarters, beginning with the quarter in which it resumes continuous service.
3. If the RATA has not been completed within eight successive calendar quarters, then the RATA must be completed within a 720 operating-hour grace period for the unit.

Low emission criteria:

In consulting with the Michigan Department of Environmental Quality (MDEQ), we learned that a problem with past RATA testing had been addressed, so it is no longer necessary to rely on the low NOx emission rate provision at 2.3.1.2 (e) and (f) of Part 75, Appendix B. Accordingly, we do not approve the request to use this provision.

Diluent capping procedures:

You also requested that we approve adoption of the diluent capping procedures of Part 75 due to the relative frequency of startups and shutdowns associated with peaking units. We do not approve this request on the basis that such procedures are unnecessary and inappropriate for NSPS Subpart Da sources. We believe it is better to provide regulatory agencies with the actual data, even when the F-factor used creates an inaccuracy in the emission calculations. Moreover, during periods of startup, shutdown, and malfunction, the source is not subject to the nitrogen oxide emissions standards, as set forth at 40 C.F.R. Sec. 60.46a(c). The regulatory agencies will review the data to determine whether the numbers, in fact, represent excess emissions.

This concurrence was prepared in consultation with representatives of the MDEQ. If you have any questions, feel free to contact Jeffrey Gahr, of my staff, at (312) 886-6794.

Sincerely,

George T. Czerniak, Chief
 Air Enforcement and Compliance Assurance Branch
 Air and Radiation Division

cc: Karen Kaja-Mills, Michigan Department of Environmental Quality
 Jerry Avery, Michigan Department of Environmental Quality

trains, each including an ABB GT-24 gas turbine, an unfired exhaust heat recovery steam generator, a steam turbine, an electric generator, an air cooled condenser and auxiliary equipment. Natural gas is the sole fuel used. ANP continuously monitors NO_x, CO, and O₂ in accordance with 40 CFR Part 60 as well as 40 CFR Part 75.

EPA has the authority under 40 CFR 60.13(i)(2) to address RATA and CGA frequency changes. As requested, EPA approves of ANP omitting a NO_x, CO and O₂ CGA during any quarter in which the unit is operated less than one hundred sixty-eight unit operating hours (<168).

EPA also approves of ANP's request to conduct a RATA once every four operating quarters (where an operating quarter is defined as one in which the unit operates 168 hours or more) instead of once every four calendar quarters.

This EPA approval allows ANP to follow the grace period provisions of 40 CFR Part 75, Appendix B, Section 2.2.4 (for CGAs) and Section 2.3.3 (for RATAs).

The frequency time line for the 2005 RATA shall begin with the last RATA test date of June 2004.

Regardless of operation, ANP shall conduct a CGA for NO_x, CO and O₂ at least once every four calendar quarters and shall conduct a RATA at least once every eight calendar quarters.

EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted.

If you have any questions regarding this custom monitoring approval, please contact Tom McCusker of my staff at (617) 918-1862.

Sincerely,

Kenneth Moraff, Enforcement Manager
Office of Environmental Stewardship

annual (four calendar quarter) deadline established in 40 CFR Part 60, Appendix F, Section 5. As a result, GE is requesting approval of the following revised RATA timelines for Boiler No. 5, which are consistent with the timelines in 40 CF Part 75:

-- A RATA must be completed once every four operating quarters, or once every eight (8) calendar quarters, whichever comes first. An operating quarter is a calendar quarter in which Boiler No. 5 operates at least 168 hours.

-- In the event a RATA is not completed once every four operating quarters, or once every eight (8) calendar quarters, whichever comes first, Boiler No. 5 has a grace period of up to 720 operating hours to conduct the missed RATA.

Under 40 CFR Sec. 60.13(i)(2), EPA has the authority to address RATA frequency changes. Accordingly, EPA approves GE's request to conduct a RATA once every four operating quarters, instead of once every four calendar quarters. This EPA approval incorporates the applicable grace period provisions of 40 CFR Part 75, Appendix B, Section 2.3.3 for RATAs. The frequency time line for the RATAs shall begin with the last RATA tests conducted on December 6, 2004. If, at the end of the 720 hour operating grace period, a RATA has not been successfully conducted, data from the monitoring system shall be invalid, beginning with the first unit operating hour following the expiration of the grace period until a RATA is completed and passed.

EPA may alter this approval in the future, in accordance with applicable regulations. If you have any questions regarding this approval, please contact Roy Crystal of my staff at (617) 918-1745.

Sincerely,

Joanna Jerison, Acting Enforcement Manager
Office of Environmental Stewardship

cc: Edward Pawlowski, Massachusetts Department of Environmental Protection, Northeast
James Belsky, Massachusetts Department of Environmental Protection, Northeast



U.S. Environmental Protection Agency Applicability Determination Index

Control Number: 0700007

Category: NSPS
EPA Office: Region 1
Date: 08/02/2005
Title: RATA Extension and Alternative Monitoring
Recipient: Robert K. Maggiani
Author: Kenneth Moraff
Comments:

Part 60, Appen

Appen

Appendix B

References: 60.13(i)(2)

Abstract:

Q: Does EPA approve an alternative continuous emission monitoring frequency for NO_x, CO, and O₂, as provided by the quarterly cylinder gas audit (CGA) and the annual relative accuracy test audit (RATA) quality assurance procedures found under 40 CFR part 60, appendix F, for the ANP Bellingham Energy Company, LLC (ANP) facilities located in Bellingham and Blackstone, MA? The facilities propose to follow the "grace period" provisions of 40 CFR part 75, appendix B, section 2.2.4 (for CGAs) and section 2.3.3 (for RATAs).

A: Yes. EPA grants ANP Bellingham permission to conduct CGAs and RATAs following the "grace period" provisions of 40 CFR part 75, appendix B, section 2.2.4 (for CGAs) and section 2.3.3 (for RATAs), which would require that a CGA be conducted at least once every four calendar quarters regardless of operation and conduct a RATA at least once every eight calendar quarters regardless of operation.

Letter:

Robert K. Maggiani, Corporate Environmental Manager ANP Blackstone Energy Company, LLC
204 Elm Street
Blackstone, MA 01504

Re: Part 60 RATA Extension Request and Custom Monitoring Request

Dear Mr. Maggiani:

This is a response to your letter dated July 7, 2005 requesting U.S. Environmental Protection Agency (EPA) approval of extending the annual Relative Accuracy Test Audit (RATA) due date, and seeking alternative Cylinder Gas Audit (CGA) and RATA frequency requirements for NO_x, CO, and O₂ under 40 CFR Part 60, Appendix F.

ANP Blackstone Energy Company, LLC (ANP), located in Blackstone, MA operates two parallel power trains, each including an ABB GT-24 gas turbine, an unfired exhaust heat recovery steam generator, a steam turbine, an electric generator, an air cooled condenser and auxiliary equipment. Natural gas is

the sole fuel used. ANP continuously monitors NOx, CO, and O2 in accordance with 40 CFR Part 60 as well as 40 CFR Part 75.

EPA has the authority under 40 CFR 60.13(i)(2) to address RATA and CGA frequency changes. As requested, EPA approves of ANP omitting a NOx, CO and O2 CGA during any quarter in which the unit is operated less than one hundred sixty-eight unit operating hours (<168).

EPA also approves of ANP's request to conduct a RATA once every four operating quarters (where an operating quarter is defined as one in which the unit operates 168 hours or more) instead of once every four calendar quarters.

This EPA approval allows ANP to follow the grace period provisions of 40 CFR Part 75, Appendix B, Section 2.2.4 (for CGAs) and Section 2.3.3 (for RATAs).

The frequency time line for the RATAs shall begin with the last RATA tests conducted in Quarter 2 of 2005.

Regardless of operation, ANP shall conduct a CGA for NOx, CO and O2 at least once every four calendar quarters and shall conduct a RATA at least once every eight calendar quarters. EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted.

If you have any questions regarding this custom monitoring approval, please contact Tom McCusker of my staff at (617) 918-1862.

Sincerely,

Kenneth Moraff, Enforcement Manager
Office of Environmental Stewardship

May 25, 2010

Sean R. Gregory, P.E., Air Quality Engineer
DSG Solutions, LLC
20 Monadnock Street
Gardiner, MA 01440

Re: Part 60 RATA Extension Request and Custom Monitoring Request

Dear Mr. Gregory:

This is a response to your letter, on behalf of your client Dalkia Energy Services (Dalkia) located at 265 First Street in Cambridge, Massachusetts, dated March 17, 2010, requesting U.S. Environmental Protection Agency (EPA) approval to extend the annual Relative Accuracy Test Audit (RATA) due date, and seeking alternative Cylinder Gas Audit (CGA) and RATA frequency requirements for NO_x, CO, and O₂ under 40 CFR Part 60, Appendix F.

Dalkia operates two, 155 million British Thermal Units per hour (mmBTU/hr) boilers that can burn either natural gas or ultra low sulfur diesel. Both boilers are subject to the federal New Source Performance Standards for industrial, commercial, institutional steam generating units, found at 40 CFR Part 60, Subpart Db. Dalkia continuously monitors NO_x, CO, and O₂ in accordance with 40 CFR Part 60 as well as 40 CFR Part 75, in order to demonstrate compliance with established emission limits.

EPA has the authority under 40 CFR 60.13(i)(2) to address RATA and CGA frequency changes. As requested, EPA approves Dalkia's request to omit a NO_x, CO and O₂ CGA during any calendar quarter in which the unit is operated less than one hundred sixty-eight (<168) unit operating hours (where a unit operating hour means a clock hour during which a unit combusts any fuel, either for part of the hour or for the entire hour).

EPA also approves Dalkia's request to conduct a RATA once every four quality assurance (QA) operating quarters (where a QA operating quarter is defined as one in which the unit operates 168 unit operating hours or more) instead of once every four calendar quarters.

This EPA approval allows Dalkia to follow the grace period provisions of 40 CFR Part 75, Appendix B, Section 2.2.4 (for CGAs) and Section 2.3.3 (for RATAs).

The frequency time line for the RATAs shall begin with the last RATA tests conducted in Quarter 2 of 2009.

Regardless of operation, Dalkia shall conduct a CGA for NO_x, CO and O₂ at least once every four calendar quarters and shall conduct a RATA at least once every eight calendar quarters.

EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted.

If you have any questions regarding this custom monitoring approval, please contact Tom McCusker of my staff at (617) 918-1862.

Sincerely,

Roger Janson, Technical Enforcement Manager
Office of Environmental Stewardship

Edward G. Quinn
Plant Manager, Pawtucket Power Associates
181 Concord St.
Pawtucket, RI 02860

Re: Pawtucket Power Associates' Request to Use 40 CFR Part 75 Relative Accuracy Test Audit Frequency for Its Carbon Monoxide Continuous Monitoring Systems

Mr. Quinn,

You recently submitted a letter, dated August 31, 2010, on behalf of Pawtucket Power Associates (PPA) requesting alternate Relative Accuracy Test Audit (RATA) frequency requirements for the carbon monoxide (CO) Continuous Emissions Monitoring System (CEMS).

PPA operates a combined-cycle gas turbine with duct burners equipped with CEMS for nitrogen oxides (NO_x) and CO. PPA's Title V Operating Permit requires Quality Assurance (QA) testing, including RATAs, of the CEMS in accordance with 40 CFR Part 75, Appendix B (for the NO_x CEMS) and 40 CFR Part 60, Appendix F (for the CO CEMS). Forty CFR Part 75, Appendix B requires a CEMS RATA at least once every four "QA Operating Quarters," where a QA operating quarter is defined as a calendar quarter in which the unit operates at least 168 hours. Forty CFR Part 75, Appendix B also requires a RATA to be performed at least once every eight calendar quarters regardless of operation time. Whereas 40 CFR Part 60, Appendix F requires a CEMS RATA at least once every four calendar quarters regardless of operation time.

In your letter, you state that because the combustion turbine operates infrequently, and the 40 CFR Part 60 RATA frequency requirements do not take into account the frequency of the unit operations, PPA is requesting to follow the 40 CFR Part 75, Appendix B timing requirements for both the NO_x and CO CEMS.

Under 40 CFR 60.13(i)(2), EPA has the authority to address RATA frequency changes. EPA has issued prior approvals allowing a reduction in RATA frequency requirements for NO_x and CO under 40 CFR Part 60, Appendix F. Therefore, after review of your request, EPA is approving PPA's request to follow the 40 CFR Part 75, Appendix B RATA timing requirements for both the NO_x and CO CEMS.

EPA may alter this approval in the future in accordance with applicable regulations if the agency determines that it is warranted.

If you have any questions regarding this approval, please contact Steve Rapp at 617-918-1551.

Sincerely,

Roger Janson, Manager
Office of Technical Enforcement

CC: Ted Burns, RI DEM

Sean R. Gregory, P.E., Air Quality Engineer
DSG Solutions, LLC
20 Monadnock Street
Gardiner, MA 01440

Re: Alternative Part 60 RATA and CGA Frequencies for Mystic Station Auxiliary Boiler EU17

Dear Mr. Gregory:

This is a response to your letter dated September 22, 2010, on behalf of your client Boston Generating, LLC, regarding the Mystic Station in Charlestown, MA ("Mystic" or "Mystic Station"). Your letter requested U.S. Environmental Protection Agency ("EPA") approval of alternative frequency requirements for Cylinder Gas Audits ("CGAs") and Relative Accuracy Test Audits ("RATAs") for EU17's continuous emission monitoring system ("CEMS") for nitrogen oxides ("NOx"), carbon monoxide ("CO"), and oxygen ("O2") under 40 CFR Part 60, Appendix F. In your letter, you state that because EU17 operates on an intermittent and infrequent basis, Mystic is requesting to follow the timing requirements for RATAs and CGAs under 40 CFR Part 75, Appendix B.

Mystic Station houses a Rentech Type D auxiliary boiler, Emissions Unit 17 ("EU17" or "the Unit"), rated at 203.8 million British thermal units per hour ("mmBtu/hr") that burns only natural gas. The unit is subject to federally enforceable Prevention of Significant Deterioration ("PSD") permit limits for NOx and CO, as well as a NOx limit under 40 CFR Part 60, Subpart Db, New Source Performance Standards for industrial-Commercial-Institutional Steam Generating Units. Accordingly, the permit requires EU17 to maintain a CEMS for NOx, CO, and O2 that meets the requirements of 40 CFR Part 60 (including Appendix F).

Under 40 CFR 60.13(i)(2), EPA has the authority to address RATA and CGA frequency changes. As requested, EPA approves Mystic's request to omit a NOx, CO, and O2 CGA during any calendar quarter in which the unit is operated less than one hundred sixty-eight (168) unit operating hours (where a unit operating hour means a clock hour during which a unit combusts any fuel, either for part of the hour or for the entire hour). Regardless of operation, Mystic shall conduct a CGA for NOx, CO, and O2 at least once every four calendar quarters.

EPA also approves Mystic's request to conduct a RATA once every four quality assurance ("QA") operating quarters (where a QA operating quarter is defined as one in which the unit operates 168 unit operating hours or more). Regardless of operation, Mystic shall conduct a RATA at least once every eight calendar quarters. The frequency time line for the RATAs shall begin with the last RATA tests conducted in Quarter 1 of 2010.

This EPA approval also allows Mystic to follow the grace period provisions of 40 CFR Part 75, Appendix B, Section 2.2.4 for CGAs and Section 2.3.3 for RATAs.

EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted. If you have any questions regarding this monitoring approval, please contact Steve Rapp of my staff at (617) 918-1551.

Sincerely,

Roger Janson, Technical Enforcement Manager
Office of Environmental Stewardship

Cc: Gary Basileco, Boston Generating, LLC
Jim Belsky, MassDEP
Joseph Su, MassDEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

August 6, 2015

Blake Pinkerton
Environmental Analyst
Associated Electric Cooperative, Inc.
2814 South Golden
Springfield, MO 65801

Re: Request to use a Relative Accuracy Test Audit Frequency for Carbon Monoxide Continuous Monitoring Systems

Dear Mr. Pinkerton,

This letter is in response to your letter dated July 8, 2015, on behalf of Associated Electric Cooperative, Inc. (AECI). You requested an alternate Relative Accuracy Test Audit (RATA) frequency requirement for the two carbon monoxide (CO) Continuous Emissions Monitoring Systems (CEMS) located at the Dell Power Plant in Dell, Arkansas.

AECI operates two combustion turbines with duct burners at the Dell Power Plant. These turbines are equipped with CEMS for nitrogen oxides (NO_x) and CO. AECI's Title V Operating Permit requires Quality Assurance (QA) testing, including RATAs, of the CEMS in accordance with 40 CFR Part 75, Appendix B (Part 75), for the NO_x CEMS and 40 CFR Part 60, Appendix F (Part 60), for the CO CEMS. Part 75 requires a CEMS RATA at least once every four QA Operating Quarters, where a QA operating quarter is defined as a calendar quarter in which the unit operates at least 168 hours. Part 75 also requires a RATA to be performed at least once every eight calendar quarters regardless of operation time. However, Part 60 requires a CEMS RATA at least once every four calendar quarters regardless of operation time.

In your letter, you state that because the combustion turbines operate infrequently, and Part 60 RATA frequency requirements do not take into account the frequency of the unit operations, AECI is requesting to follow the timing requirements for both the NO_x and CO CEMS found in Part 75.

Under 40 CFR 60.13(i)(2), The Environmental Protection Agency (EPA) has the authority to address RATA frequency changes. The EPA has issued prior approvals allowing a reduction in RATA frequency requirements for NO_x and CO under Part 60, Appendix F. Therefore, after review of your request, EPA is approving AECI's request to follow the Part 75 RATA frequency requirements for both NO_x and CO CEMS.

EPA may alter this approval in the future in accordance with applicable regulations if the agency determines that it is warranted. If you have any questions regarding this approval, please contact Raymond Magyar of my staff at (214) 665-7288 or magyar.raymond@epa.gov.

Sincerely;

A handwritten signature in black ink, appearing to read "Steve Thompson", with a stylized flourish extending to the right.

Steve Thompson
Associate Director
Air/Toxics and
Inspection Coordination Branch

cc: Alan Breshears, ADEQ

APPENDIX D

Compliance Certification



San Joaquin Valley Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

COMPANY NAME: Fresno Cogeneration Partners, LP	FACILITY ID: C-14
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Fresno Cogeneration Partners, LP	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **applicable** circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.
- For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Paul Cummins
Signature of Responsible Official

4/22/2022
Date

Paul Cummins
Name of Responsible Official (please print)

Vice President
Title of Responsible Official (please print)