



March 17, 2023

Mr. Andrew Robertson Delano Energy Center, LLC 650 Bercut Dr, Ste A Sacramento, CA 95811

Proposed ATC / Certificate of Conformity (Significant Mod) Re:

Facility Number: S-6662 Project Number: S-1221564

Dear Mr. Robertson:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate 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 47.6 MW gas turbine to reduce the relative accuracy test audit (RATA) frequency in accordance with the provisions of 40 CFR Part 75.

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 Authority to Construct with a Certificate 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 Authority 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

Gerardo Rios, EPA (w/enclosure) via EPS CC:

> Samir Sheikh Executive Director/Air Pollution Control Officer

# San Joaquin Valley Air Pollution Control District Authority to Construct Application Review

# Reduce RATA Frequency

Facility Name: Delano Energy Center LLC Date: March 16, 2023

Mailing Address: 650 Bercut Dr, Ste A Engineer: Jonah Aiyabei

Sacramento, CA 95811 Lead Engineer: Derek Fukuda

Contact Person: Andrew Robertston

Telephone: (559) 693-2494

E-Mail: arobertson@wellhead.com

Application #s: S-6662-2-5

Project #: S-1221564

Deemed Complete: July 20, 2022

# I. Proposal

Delano Energy Center LLC has submitted an Authority to Construct (ATC) permit application to reduce the RATA frequency of the NOx, CO, and O2 CEMS on their existing 47.6 MW turbine. The applicant requests that RATA be conducted in line with the procedures of 40 CFR Part 75 (Acid Rain Program), which includes a provision that calendar quarters with less than 168 hours of operation shall be excluded when determining the RATA frequency, and also provides a grace period of 720 hours to meet the testing requirement whenever the extended testing frequency thresholds are exceeded. The applicant further states that the equipment is infrequently operated, and a reduced testing frequency would eliminate the need to operate the equipment solely for testing. Currently, the RATA for CO monitoring is required on an annual basis, while the RATA for NOx and O<sub>2</sub> monitoring is required semi-annually, pursuant to the following permit conditions on the current permit to operate:

- For the CO CEMS, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.1.1, 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]
- For the NOx and O<sub>2</sub> CEMS, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 75, Appendix A, at least once every two operating quarters, unless incentive criteria has been met which allows the RATA to be performed once every fourth operating quarter. The permittee shall comply with the

<sup>&</sup>lt;sup>1</sup> The original application included a request to reduce the source testing frequency as well, but the application was subsequently amended to omit source testing frequency change, primarily due to a requirement in 40 CFR 60 Subpart KKKK that source testing for NOx emissions shall be conducted on an annual basis. Reducing this testing frequency would have required written approval from EPA.

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 A. [District Rule 1080]

The current RATA conditions will be replaced with the following condition (on the proposed ATC permit) reflecting these provisions:

• For the NOx, CO, and O<sub>2</sub> CEMS, the owner/operator shall conduct relative accuracy test audits (RATA) as specified by 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 emissions monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR 75 Appendix B]

The proposed changes are consistent with the provisions in the applicable regulations. 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.

Delano Energy Center LLC 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 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 north of County Line Rd and east of Casey Ave Extension (Section 32, Township 24S, Range 25E) in Delano. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

# **IV.** Process Description

Delano Energy Center LLC operates a 47.6 MW power plant. The simple-cycle gas turbine engine fires only on natural gas and is used to provide power to California's electricity grid during periods of high electricity demand.

# V. Equipment Listing

## Pre-Project Equipment Description:

S-6662-2-4: 47.6 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 PC SPRINT NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH INLET AIR "CHILLER", INLET AIR "FOGGER", OR HYBRID OF BOTH COMBINED, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND AN OXIDATION CATALYST

## **Proposed Modifications:**

The applicant proposes to reduce the RATA frequency in accordance with the procedures of 40 CFR Part 75 (Acid Rain Program).

S-6662-2-5: MODIFICATION OF 47.6 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 PC SPRINT NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH INLET AIR "CHILLER", INLET AIR "FOGGER", OR HYBRID OF BOTH COMBINED, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND AN OXIDATION CATALYST: REDUCE RATA FREQUENCY

# Post-Project Equipment Descriptions:

S-6662-2-5: 47.6 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER

GENERATING SYSTEM CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 PC SPRINT NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH INLET AIR "CHILLER", INLET AIR "FOGGER", OR HYBRID OF BOTH COMBINED, SERVED BY A SELECTIVE CATALYTIC REDUCTION

(SCR) SYSTEM AND AN 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:

## Water Injection and a Selective Catalytic Reduction (SCR)

(NO<sub>x</sub>) emissions are controlled using water injection and a selective catalytic reduction (SCR) system.

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 NOx 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 NOx reductions of approximately 70 to 80 percent in comparison to uncontrolled levels.

SCR systems selectively reduce  $NO_X$  emissions by injecting ammonia (NH<sub>3</sub>) into the exhaust gas stream upstream of a catalyst. Nitrogen oxides, NH<sub>3</sub>, and O<sub>2</sub> react on the surface of the catalyst to form molecular nitrogen (N<sub>2</sub>) and H<sub>2</sub>O. SCR is capable of over 90 percent NO<sub>X</sub> reduction. Titanium oxide is the SCR catalyst material most commonly used, though vanadium pentoxide, noble metals, or zeolites are also used. The ideal operating temperature for a conventional SCR catalyst is 600 to 750 °F.

#### Oxidation Catalyst

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.

# **Natural Gas**

The use of PUC-quality natural gas is the primary control for SOx and PM<sub>10</sub> emissions. Air intake filters and the routing of lube oil vent gases into the exhaust stream are also used to further reduce PM<sub>10</sub> emissions.

#### 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 CTG is equipped with CEMS for  $NO_X$ , CO, and  $O_2$ . 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 frequency, pursuant to the applicant's request and the provisions in the applicable regulations. The conditions will be modified as shown below:

#### Current Conditions (PTO 2-4)

- For the CO CEMS, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.1.1, 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]
- For the NOx and O2 CEMS, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 75, Appendix A, at least once every two operating quarters, unless incentive criteria has been met which allows the RATA to be performed once every fourth operating quarter. 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 A. [District Rule 1080]

# Proposed Replacement Condition (ATC 2-5)

• For the NOx, CO, and O<sub>2</sub> CEMS, the owner/operator shall conduct relative accuracy test audits (RATA) as specified by 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 emissions monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR 75 Appendix B]

# **Unmodified Conditions**

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

- The exhaust stack shall be equipped with a continuous emissions monitoring system (CEMS) for NOx, CO, and O2. The CEMS shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703, 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)]
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)]
- The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080]
- Upon notice by the District that the facility's CEM system is not providing polling data, the
  facility may continue to operate without providing automated data for a maximum of 30
  days per calendar year provided the CEM data is sent to the District by a District-approved
  alternative method. [District Rule 1080]
- Results of continuous emissions monitoring 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 ARB, and the EPA. [District Rule 1080, and 40 CFR 60.4350(a)]
- Cylinder Gas Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the

audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]<sup>2</sup>

- The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.4375(a) and 60.4395]
- 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]

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 conditions on the current permit to operate are consistent with the requirements of this rule. The following conditions will be retained on the ATC permit without any changes:

- The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081]
- Compliance testing to measure startup NOx, CO, and VOC mass emission rates shall be conducted at least once every seven years. [District Rule 1081]
- Compliance testing to measure the NOx, CO, VOC, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) shall be conducted at least once every twelve months. [District Rules 1081 and 4703, 40 CFR 60.4340 and 40 CFR 60.4400]

<sup>&</sup>lt;sup>2</sup> This condition was administratively edited to indicate that the 'Audits' referred to are 'Cylinder Gas Audits', per clarification obtained from the permittee.

- Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. 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 thereafter. [District Rule 1081]
- The following test methods shall be used: NOx EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO EPA Method 10 or 10B or ARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or ARB 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)]

Continued compliance with the requirements of this rule is expected.

# 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 summary 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 permit as a mechanism to ensure continued compliance with the DEL/Rule 2201 requirements:

- A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. Exhaust ducting may be equipped (if required) with a fresh air inlet blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201]
- 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]
- Combustion turbine generator (CTG) and electrical 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 a period or periods not exceeding three minutes in any one hour. [District Rules 2201 and 4101]
- The CTG shall be fired exclusively on PUC regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rules 2201 and 4801; and 40 CFR 60.4330(a)(2)]
- During startup periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) - 20.0 lb/hr, CO - 15 lb/hr, VOC - 1.21 lb/hr, averaged over the length of the startup period. [District Rules 2201 and 4102]
- During shutdown periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) - 7.0 lb/hr, CO - 12 lb/hr, VOC - 1.21 lb/hr, averaged over the length of the shutdown period. [District Rules 2201 and 4102]

- Startup and shutdown times shall not exceed 2 hours each in any day.
   Startup/shutdown emissions shall be counted toward all applicable emission limits (lb/day and lb/year). [District Rules 2201 and 4703]
- Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO2) 4.3 lb/hr or 2.5 ppmvd @ 15% O2; SOx (as SO2) 1.35 lb/hr; PM10 3.12 lb/hr; CO 10.58 lb/hr or 10.0 ppmvd @ 15% O2; or VOC (as methane) 1.21 lb/hr or 2.0 ppmvd @ 15% O2. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)]
- Each one hour period in a three hour rolling average will commence on the hour. The
  three hour average will be compiled from the three most recent one hour periods.
  Each one hour period in a twenty-four hour average will commence on the hour. The
  twenty-four hour average will be calculated starting and ending at twelve-midnight.
  [District Rule 2201]
- Emissions from this unit, on days when a startup and/or shutdown occurs, shall not exceed the following: NOx (as NO2) 141.0 lb/day; SOx (as SO2) 32.4 lb/day; PM10 74.9 lb/day; CO 265.6 lb/day; or VOC 29.0 lb/day. [District Rule 2201]
- Annual baseline fuel use (excludes startup and shutdown periods) shall not exceed 1,498,804 MMBtu/year. Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: NOx (as NO2) 19,999 lb/year; SOx (as SO2) 4,891 lb/year; PM10 11,325 lb/year; CO 39,783 lb/year; or VOC 4,462 lb/year. [District Rule 2201]
- Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201]
- Water or chemical/organic stabilizers/suppressants shall be applied when handling bulk materials as required to limit Visible Dust Emissions to a maximum of 20% opacity. When necessary to achieve this opacity limitation, wind barriers with less than 50% opacity shall also be used. [District Rules 2201 and 4101]
- All bulk material transport vehicles shall limit Visible Dust Emissions to 20% opacity by either limiting vehicular speed, maintaining sufficient freeboard on the load, applying water to the top of the load, or covering the load with a tarp or other suitable cover. [District Rules 2201 and 4101]

# **B.** Compliance Assurance

# 1. Source Testing

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

• Compliance testing to measure PM10 emission rate (lb/hr) shall be conducted at least once every 60 months. [District Rule 2201]

The unit is also subject to District Rule 4703, <u>Stationary Gas Turbines</u>, NSPS Subpart KKKK, 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 NOx, CO, and O<sub>2</sub>. The current project involves changes to the quality assurance requirements for the CEMS, but not the CEM requirement itself.

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

- The turbine shall be equipped with a continuous monitoring system to measure and record hours of operation, mass ratio of water-to-fuel injected, and fuel consumption. [District Rules 2201 and 4703, 40 CFR 60.4335(b)(1)]
- The exhaust stack shall be equipped with a continuous emissions monitor (CEM) for NOx, CO, and O2. The CEMs shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703, 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)]

The unit is also subject to District Rule 4703, <u>Stationary Gas Turbines</u>, NSPS Subpart KKKK, and the Acid Rain Program. Additional discussions on the applicable monitoring requirements are included under the discussion sections 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 permit as a mechanism to ensure continued compliance with the recordkeeping requirements:

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 Rules 2201 and 4703]

- The permittee shall maintain the following records: baseline MMBtu of fuel consumed (excludes startup and shutdown periods), total annual MMBtu of fuel consumed, continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rules 2201 and 4703]
- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703]

The unit is also subject to District Rule 4703, <u>Stationary Gas Turbines</u>, NSPS Subpart KKKK, and the Acid Rain Program. Additional recordkeeping requirements will be discussed under the discussion sections for these rules/regulations.

## 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201. However, the unit is also subject District Rule 4703, <u>Stationary Gas Turbines</u>, NSPS Subpart KKKK, and the Acid Rain Program. Any applicable reporting requirements will be discussed under the discussion sections for these rules/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 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 for this project.

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 (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), 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, <u>Permits</u>, and Part 75, <u>Continuous Emissions Monitoring</u>.

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 unit involved in this project is subject to the requirements of the Acid Rain Program because it is a utility unit that commenced commercial operation after November 15, 1990.

Pursuant to §72.9(a), the unit is required to have an acid rain permit.

The acid rain program requirements for this unit have been implemented through the Title V operating permit.

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

Since the unit involved in this project is a gas-fired unit, the continuous emissions monitoring is only required for NOx and the diluent gas (O<sub>2</sub>) 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, <u>Standard RATA Frequencies</u>, paragraph (a), RATA for the NOx concentration and NOx-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 frequency, pursuant to the provisions in Appendix B Part 75, as summarized above. The corresponding permit conditions will be modified as shown below:

# Current Condition (PTO 2-4)

• For the NOx and O2 CEMS, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 75, Appendix A, at least once every two operating quarters, unless incentive criteria has been met which allows the RATA to be performed once every fourth operating quarter. 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 A. [District Rule 1080]

# Proposed Replacement Condition (ATC 2-5)

• For the NOx, CO, and O<sub>2</sub> CEMS, the owner/operator shall conduct relative accuracy test audits (RATA) as specified by 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 emissions monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR 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 GG

40 CFR Part 60 Subpart GG applies to all stationary gas turbines with a heat input greater than 10.7 gigajoules per hour (10.2 MMBtu/hr), that commence construction, modification, or reconstruction after October 3, 1977. The installation and construction of the turbine was completed after 1977. Therefore, this turbine meets the applicability requirements of this subpart.

40 CFR 60 Subpart KKKK, Section 60.4305(a), states that this subpart applies to all stationary gas turbines with a heat input greater than 10.7 gigajoules (10 MMBtu) per hour, which commenced construction, modification, or reconstruction after February 18, 2005. Therefore, this turbine also meets the applicability requirements of this subpart.

40 CFR 60 Subpart KKKK, Section 60.4305(b), states that stationary combustion turbines regulated under this subpart are exempt from the requirements of 40 CFR 60 Subpart GG. As discussed above, 40 CFR 60 Subpart KKKK is applicable to the turbine being modified in this project. Therefore, it is exempt from the requirements of 40 CFR 60 Subpart GG and no further discussion is required.

# 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 February 18, 2005. Therefore, this subpart applies to the turbine in this project.

## Section 60.4320 - Standards for Nitrogen Oxides:

Paragraph (a) states that NO<sub>X</sub> emissions shall not exceed the emission limits specified in Table 1 of this subpart. Paragraph (b) states that if you have two or more turbines that are connected to a single generator, each turbine must meet the emission limits for NO<sub>X</sub>. Table 1 states that new turbines firing natural gas with a combustion turbine heat input at peak load of greater than 850 MMBtu/hr shall meet a NO<sub>X</sub> emissions limit of 15 ppmvd @ 15% O<sub>2</sub> or 54 ng/J of useful output (0.43 lb/MWh). Table 1 also states that new turbines firing fuel other

than natural gas with a combustion turbine heat input at peak load of greater than 850 MMBtu/hr shall meet a NO<sub>x</sub> emissions limit of 42 ppmvd @ 15% O<sub>2</sub> or 1604 ng/J of useful output (1.3 lb/MWh).

The combustion turbine's NO $_X$  emission concentration is limited to 2.5 ppmvd @ 15% O2 (1-hour average) when firing on natural gas, except during startup/shutdown. Therefore, the turbine will be operating in compliance with the NO $_X$  emission requirements of this section.

The following existing condition will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO2) - 4.3 lb/hr or 2.5 ppmvd @ 15% O2; SOx (as SO2) - 1.35 lb/hr; PM10 - 3.12 lb/hr; CO - 10.58 lb/hr or 10.0 ppmvd @ 15% O2; or VOC (as methane) - 1.21 lb/hr or 2.0 ppmvd @ 15% O2. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)]

#### Section 60.4330 - Standards for Sulfur Dioxide:

Paragraph (a) states that a turbine located in a continental area must comply with one of the following:

- (1) Operator must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO<sub>2</sub> in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output; or
- (2) Operator must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

The turbine burns natural gas fuel with a maximum sulfur content of 1.0 grain/ 100 scf (0.00285 lb-SO2/MMBtu). Therefore, the turbine will be operating in compliance with the SO<sub>X</sub> emission requirements of this section.

The following existing condition will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

• The CTG shall be fired exclusively on PUC regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rules 2201 and 4801; and 40 CFR 60.4330(a)(2)]

# Section 60.4335 – NO<sub>X</sub> Compliance Demonstration, with Water or Steam Injection:

Paragraph (a) states that when a turbine is using water or steam injection to reduce NOx emissions, the permittee must 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 when burning a fuel that requires water or steam injection for compliance.

Paragraph (b) states that alternatively, an operator may use continuous emission monitoring, as follows:

- (1) Install, certify, maintain and operate a continuous emissions monitoring system (CEMS) consisting of a NOx monitor and a diluent gas (oxygen (O2) or carbon dioxide (CO2)) monitor, to determine hourly NOx emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu); and
- (2) For units complying with the output-based standard, install, calibrate, maintain and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and
- (3) For units complying with the output based standard, install, calibrate, maintain and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and
- (4) For combined heat and power units complying with the output-based standard, install, calibrate, maintain and operate meters for useful recovered energy flow rate, temperature, and pressure, to continuously measure the total thermal energy output in British thermal units per hour (Btu/hr).

The turbine utilizes water injection, and utilizes CEMS consisting of a NOx monitor and an O<sub>2</sub> monitor to determine hourly NOx emission rate in ppm that satisfies the requirements of this section.

The following existing conditions will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

- The turbine shall be equipped with a continuous monitoring system to measure and record hours of operation, mass ratio of water-to-fuel injected and fuel consumption. [District Rules 2201 and 4703, 40 CFR 60.4335(a)]<sup>3</sup>
- The exhaust stack shall be equipped with a continuous emissions monitoring system (CEMS) for NOx, CO, and O2. The CEMS shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703; 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)]

<sup>&</sup>lt;sup>3</sup> As previously stated, the NSPS citation for this requirement is administratively corrected from '40 CFR 60.4335(b)(1)' to '40 CFR 60.4335(a).' Paragraph (b)(1) refers to the alternative to use CEMS for the required monitoring.

# Section 60.4340 – NOx Compliance Demonstration, without Water or Steam Injection:

This section specifies the requirements for units not equipped with water or steam injection. As discussed above, steam injection is used to reduce NOx emissions in the turbine. Therefore, the requirements of this section are not applicable and no further discussion is required.

## <u>Section 60.4345 – CEMS Equipment Requirements:</u>

Paragraph (a) states that each NOx diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part is not required. Alternatively, a NOx diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

Paragraph (b) states that as specified in §60.13(e)(2), during each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOx emission rate for the hour.

Paragraph (c) states that each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart.

Paragraph (d) states that each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

Paragraph (e) states that the owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter.

The following existing conditions will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

 The exhaust stack shall be equipped with a continuous emissions monitoring system (CEMS) for NOx, CO, and O2. The CEMS shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703; 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)]

• The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)]

# Section 60.4350 - CEMS Data and Excess NO<sub>X</sub> Emissions:

Section 60.4350 states that for purposes of identifying excess emissions:

- (a) All CEMS data must be reduced to hourly averages as specified in §60.13(h).
- (b) For each unit operating hour in which a valid hourly average, as described in  $\S60.4345(b)$ , is obtained for both  $NO_X$  and diluent monitors, the data acquisition and handling system must calculate and record the hourly  $NO_X$  emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in appendix A of this part. For any hour in which the hourly average  $O_2$  concentration exceeds 19.0 percent  $O_2$  (or the hourly average  $O_2$  concentration is less than 1.0 percent  $O_2$ ), a diluent cap value of 19.0 percent  $O_2$  or 1.0 percent  $O_2$  (as applicable) may be used in the emission calculations.
- (c) Correction of measured NO<sub>X</sub> concentrations to 15 percent O<sub>2</sub> is not allowed.
- (d) If you have installed and certified a NO<sub>x</sub> diluent CEMS to meet the requirements of part 75 of this chapter, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this subpart. Periods where the missing data substitution procedures in subpart D of part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under §60.7(c).
- (e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.
- (f) Calculate the hourly average NO $_{\rm X}$  emission rates, in units of the emission standards under §60.4320, using either ppm for units complying with the concentration limit or the equations 1 (simple cycle turbines) or 2 (combined cycle turbines) listed in §60.4350, paragraph (f).

The facility monitors the  $NO_X$  emissions rates from the turbine with a CEMS. The CEMS system is used to determine if, and when, any excess  $NO_X$  emissions are released to the atmosphere from the turbine exhaust stack. The CEMS is operated in accordance with the methods and procedures described above. Therefore, the turbine operates in compliance with the requirements of this section.

The following existing conditions will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

- Results of continuous emissions monitoring 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 ARB, and the EPA. [District Rule 1080, and 40 CFR 60.4350(a)]
- Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. 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 60.4350(h) and 40 CFR 60.4380(b)(1)]
- For the purpose of determining excess NOx emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19 percent O2 may be used in the emission calculations. [40 CFR 60.4350(b)]

## Section 60.4355 – Parameter Monitoring Plan:

This section sets forth the requirements for operators that elect to continuously monitor parameters in lieu of installing a CEMS for  $NO_X$  emissions. As discussed above, the facility installed CEMS on the turbine that will directly measure  $NO_X$  emissions. Therefore, the requirements of this section are not applicable and no further discussion is required.

## Sections 60.4360, 60.4365 and 60.4370 – Monitoring of Fuel Sulfur Content:

Section 60.4360 states that an operator must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.

Section 60.4365 states that an operator may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur

emissions of 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for units located in continental areas and 180 ng SO<sub>2</sub>/J (0.42 lb SO<sub>2</sub>/MMBtu) heat input for units located in non-continental areas or a continental area that the administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. One of the following sources of information must be used to make the required demonstration:

- (a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO<sub>2</sub>/J (0.42 lb SO<sub>2</sub>/MMBtu) heat input for noncontinental areas; or
- (b) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for continental areas or 180 ng SO<sub>2</sub>/J (0.42 lb SO<sub>2</sub>/MMBtu) heat input for noncontinental areas. 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 the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

• The sulfur content of each natural gas fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated within 60 days after the end of the commissioning period and monitored weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [40 CFR 60.4360, 60.4365(a) and 60.4370(c)]

Section 60.4370 states that the frequency of determining the sulfur content of the fuel must be as follows:

- (a) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).
- (b) Gaseous fuel. If you elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

(c) Custom schedules. Notwithstanding the requirements of paragraph (b) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.4330.

When actually required to physically monitor the sulfur content in the fuel burned in the turbine, the District and EPA have previously approved a custom monitoring schedule of at least once per week. Then, if compliance with the fuel sulfur content limit is demonstrated for eight consecutive weeks, the monitoring frequency shall be at least once every six months. If any six month monitoring period shows an exceedance, weekly monitoring shall resume.

The following existing condition will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

• The sulfur content of each natural gas fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated within 60 days after the end of the commissioning period and monitored weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [40 CFR 60.4360, 60.4365(a) and 60.4370(c)]

# Section 60.4380 – Excess NO<sub>X</sub> Emissions:

Section 60.4380 establishes reporting requirements for periods of excess emissions and monitor downtime. Paragraph (a) lists requirements for operators choosing to monitor parameters associated with water or steam to fuel ratios. As discussed above, the facility is not proposing to monitor parameters associated with water or steam to fuel ratios to predict what the NO<sub>X</sub> emissions from the turbines will be. Therefore, the requirements of this paragraph are not applicable and no further discussion is required.

Paragraph (b) states that for turbines using CEMS:

(1) An excess emissions is any unit operating period in which the 4-hour or 30-day rolling average NO<sub>X</sub> emission rate exceeds the applicable emission limit in §60.4320. For the purposes of this subpart, a "4-hour rolling average NO<sub>X</sub> emission rate" is the arithmetic average of the average NO<sub>X</sub> emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO<sub>X</sub> emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO<sub>X</sub> emission rate is obtained for at least 3 of the 4 hours. For the purposes of this subpart, a "30-day rolling average NO<sub>X</sub> emission rate" is the arithmetic average of all hourly NO<sub>X</sub> emission data in ppm or ng/J (lb/MWh)

measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NOx emissions rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours.

- (2) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOX concentration, CO2 or O2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.
- (3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

Paragraph (c) lists requirements for operators who choose to monitor combustion parameters that document proper operation of the  $NO_X$  emission controls. The facility is not proposing to monitor combustion parameters that document proper operation of the  $NO_X$  emission controls. Therefore, the requirements of this paragraph are not applicable and no further discussion is required.

The following existing condition will be retained on the draft ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

- Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. 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 60.4350(h) and 40 CFR 60.4380(b)(1)]
- Permittee shall provide notification and recordkeeping as required under 40 CFR, Part 60, Subpart A, 60.7. [40 CFR 60.4380]

#### Section 60.4385 – Excess SO<sub>X</sub> Emissions:

Section 60.4385 states that if an operator chooses the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

- (a) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (b) If the option to sample each delivery of fuel oil has been selected, you must immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.
- (c) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

The following existing conditions will ensure continued compliance with the requirements of this section:

• Excess SOx emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385(a) and (c)]

#### Sections 60.4375, 60.4380, 60.4385 and 60.4395 – Reporting:

These sections establish the reporting requirements for the turbine. These requirements include methods and procedures for submitting reports of monitoring parameters, annual performance tests, excess emissions and periods of monitor downtime. The permittee maintains records and submits reports in accordance with the requirements specified in these sections. Therefore, the turbine will be operating in compliance with the requirements of this section.

The following existing conditions will ensure continued compliance with the requirements of this section:

 The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEMS was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.4375(a) and 60.4395]

• Permittee shall provide notification and recordkeeping as required under 40 CFR, Part 60, Subpart A, 60.7. [40 CFR 60.4380]

# Section 60.4400 – NO<sub>X</sub> Performance Testing:

Section §60.4400, paragraph (a) states that an operator must conduct an initial performance test, as required in §60.8. Subsequent NO<sub>X</sub> performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).

Paragraphs (1), (2) and (3) set forth the requirements for the methods that are to be used during source testing.

The permittee is be required to source test the exhaust of the turbine at least once every 12 months. The permittee is required to source test in accordance with the methods and procedures specified in paragraphs (1), (2), and (3).

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

- Compliance testing to measure the NOx, CO, VOC, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) shall be conducted at least once every twelve months. [District Rules 1081 and 4703, 40 CFR 60.4340 and 40 CFR 60.4400]
- The following test methods shall be used: NOx EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO EPA Method 10 or 10B or ARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or ARB 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)]

# <u>Section 60.4405 – Initial CEMS Relative Accuracy Testing:</u>

Section 60.4405 states that if you elect to install and certify a NO<sub>x</sub>-diluent CEMS, then the initial performance test required under §60.8 may be performed in the alternative manner described in paragraphs (a), (b), (c) and (d).

Since the current project does not involve the installation of new CEMS, the requirements of this section are not applicable.

# Section 60.4410 – Parameter Monitoring Ranges:

Section 60.4410 sets forth requirements for operators that elect to monitor combustion parameters or parameters indicative of proper operation of NO<sub>X</sub> emission controls.

As discussed above, the permittee installed a CEMS system to monitor the  $NO_X$  emissions from the turbine and is not proposing to monitor combustion parameters or parameters indicative of proper operation. Therefore, the requirements of this section are not applicable.

# <u>Section 60.4415 – SO<sub>X</sub> Performance Testing</u>:

Section 60.4415 states that an operator must conduct an initial performance test, as required in §60.8. Subsequent SO<sub>2</sub> performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). There are three methodologies that may be used to conduct the performance tests.

- (1) If the applicant chooses to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see §60.17) for natural gas or ASTM D4177 (incorporated by reference, see §60.17) for oil. Alternatively, for oil, the applicant may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057 (incorporated by reference, see §60.17). The fuel analyses of this section may be performed either by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. The samples should be analyzed for the total sulfur content of the fuel using:
  - (i) For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all of which are incorporated by reference, see §60.17); or
  - (ii) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17).

The permittee periodically determines the sulfur content of the fuel combusted in the turbine when valid purchase contracts, tariff sheets or transportation contract are not available. The sulfur content is determined using the methods specified above.

Therefore, the turbine will be operating in compliance with the requirements of this section.

The following existing condition will be placed on the ATC permit as a mechanism to ensure continued compliance with the requirements of this section:

 Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4415(a)(1)(i)]

#### Conclusion:

Conditions will be incorporated into the draft permit in order to ensure compliance with each applicable section of this subpart. Therefore, compliance with the requirements of this subpart is expected.

# 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 – Definitions).

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 turbine is fired exclusively on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. The following existing condition will be placed on the ATC permit 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.

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 the ATC permit as a mechanism to ensure continued compliance:

• {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 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 change 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 the ATC permit 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, it does 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

This rule is applicable to stationary gas turbines with a rating greater than 0.3 megawatts (MW). Since the unit involved in this project is rated 47.6 MW, it is subject to the requirements of this rule.

# Section 5.1 – NO<sub>X</sub> 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 this unit. The unit is a gas-fired simple-cycle turbine rated greater than 10 MW and permitted to operate more than 877 hours/year. The applicable limit is therefore 5 ppmvd @15%  $O_2$  (Table 5-2.e, standard option).

Per the current permit conditions, the unit is limited to 2.5 ppmv @ 15% O<sub>2</sub>, and is therefore compliant. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO<sub>2</sub>) - 4.3 lb/hr or 2.5 ppmvd @ 15% O<sub>2</sub>; SOx (as SO<sub>2</sub>) - 1.35 lb/hr; PM<sub>10</sub> - 3.12 lb/hr; CO - 10.58 lb/hr or 10.0 ppmvd @ 15% O<sub>2</sub>; or VOC (as methane) - 1.21 lb/hr or 2.0 ppmvd @ 15% O<sub>2</sub>. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)]

# Section 5.2 – CO Emissions:

Per Table 5-4, the applicable limit for this unit is 200 ppmvd @ 15% O<sub>2</sub>.

Per the current permit conditions, the unit is limited to 10.0 ppmvd @ 15% O<sub>2</sub>, and is therefore compliant. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO<sub>2</sub>) - 4.3 lb/hr or 2.5 ppmvd @ 15% O<sub>2</sub>; SOx (as SO<sub>2</sub>) - 1.35 lb/hr; PM<sub>10</sub> - 3.12 lb/hr; CO - 10.58 lb/hr or 10.0 ppmvd @ 15% O<sub>2</sub>; or VOC (as methane) - 1.21 lb/hr or 2.0 ppmvd @ 15% O<sub>2</sub>. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)]

#### 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 include any changes to the previously approved transitional period conditions. The following existing conditions will be retained on the ATC permit as a mechanism to ensure continued compliance:

- Startup is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703]
- Startup and shutdown times shall not exceed 2 hours each in any day. Startup/shutdown
  emissions shall be counted toward all applicable emission limits (lb/day and lb/year).
  [District Rules 2201 and 4703]
- The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703 and 40 CFR 60.4333(a)]

## Section 5.4 – BACT Exemption for Replacement Units

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

# Section 6.1 – Emission Control Plan

The existing unit is 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

Per the requirements of Section 6.2.1, the owner/operator of the unit involved in this project is required to operate and maintain continuous emissions monitoring equipment for NO<sub>X</sub> and oxygen, or install and maintain APCO-approved alternate monitoring.

The unit is equipped with Continuous Emissions Monitoring System (CEMS) for NO<sub>X</sub> and oxygen, and is therefore compliant with the requirements of this section. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• The exhaust stack shall be equipped with a continuous emissions monitoring system (CEMS) for NOx, CO, and O<sub>2</sub>. The CEMS shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O<sub>2</sub>) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703, 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)]

Section 6.2.2 specifies monitoring requirements for turbines without exhaust gas NO<sub>x</sub> control devices. Since the unit involved in this project is equipped with an SCR system that is designed to control NO<sub>x</sub> 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<sub>X</sub> emissions. Since the unit involved in this project was 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.

Per the current permit to operate, records are required to be maintained for at least five years and to be made available to the APCO upon request. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

 All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 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 to the associated measure NO<sub>x</sub> output. This information may be used by the APCO to determine compliance when

there is no continuous emission monitoring system for NO<sub>X</sub> available or when the continuous emissions monitoring system is not operating properly.

Since the Permit to Operate has already been issued, this requirement is no applicable in the current project. The existing permit conditions require operation/maintenance of the NOx 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.

Per the current permit to operate, the log with pertinent records is required to be maintained. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time 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 establishes recordkeeping requirements for units that are exempt pursuant to the requirements of Section 4.2.

Since the unit involved in this project is 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 retained on the ATC permit 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 Rules 2201 and 4703]

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

Since the unit involved in this project is 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 unit involved in this project is 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.

Per the current permit to operate, startup and shutdown records are required to be maintained. The following existing condition will be retained on the ATC permit 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 Rules 2201 and 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 unit involved in this project is 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<sub>x</sub> 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<sub>x</sub> concentrations.

Per the current permit to operate, annual source testing for NOx and CO emissions is required. The following existing condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• Compliance testing to measure the NOx, CO, VOC, and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) shall be conducted at least once every twelve months. [District Rules 1081 and 4703, 40 CFR 60.4340 and 40 CFR 60.4400]

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

Since the unit involved in this project does 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<sub>X</sub> 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 condition will be retained on the ATC permit as a mechanism to ensure continued compliance:

• The following test methods shall be used: NOx - EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO - EPA Method 10 or 10B or ARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or ARB 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)]

## Sections 6.5 – Exempt and Emergency Standby Units

Since the unit involved in this project is not an exempt or emergency standby unit, the requirements of this section are no applicable.

# Sections 7.0 – Compliance Schedule

The unit involved in this project is an existing unit that is 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 (AECP)

Since the unit involved in this project is not part of AECP, 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 (SO<sub>2</sub>) 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 the ATC permit as a mechanism to ensure continued compliance:

• The CTG shall be fired exclusively on PUC regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rules 2201 and 4801; and 40 CFR 60.4330(a)(2)]

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 S-6662-2-5 subject to the permit conditions on the draft permit in Appendix A.

## X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-6662-2-5	3020-08B-G	47,600 kW	\$12,254

## **Appendices**

A: Draft ATC Permit

B: Current Operating Permit

C: Copies of EPA Applicability Determinations

D: Compliance Certification

# **APPENDIX A**

**Draft ATC Permit** 

# San Joaquin Valley Air Pollution Control District

**AUTHORITY TO CONSTRUCT** 

PERMIT NO: S-6662-2-5

ISSUANCE PATE: PRAF

**LEGAL OWNER OR OPERATOR:** DELANO ENERGY CENTER LLC

**MAILING ADDRESS:** 650 BERCUT DR - STE A

SACRAMENTO, CA 95811-0100

LOCATION: SECTION 32, TOWNSHIP 24S, RANGE 25E

N/O COUNTY LINE RD. E/O CASEY AVE. EXTENSION

**DELANO, CA 93215** 

SECTION: 32 TOWNSHIP: 24S RANGE: 25E

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF 47.6 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 PC SPRINT NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH INLET AIR "CHILLER", INLET AIR "FOGGER", OR HYBRID OF BOTH COMBINED, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND AN OXIDATION CATALYST: REDUCE RATA FREQUENCY

## **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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 4. 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

#### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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

- 5. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. Exhaust ducting may be equipped (if required) with a fresh air inlet blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. 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
- 7. Combustion turbine generator (CTG) and electrical 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 a period or periods not exceeding three minutes in any one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 8. The turbine shall be equipped with a continuous monitoring system to measure and record hours of operation, mass ratio of water-to-fuel injected, and fuel consumption. [District Rules 2201 and 4703, 40 CFR 60.4335(a)] Federally Enforceable Through Title V Permit
- 9. The exhaust stack shall be equipped with a continuous emissions monitor (CEM) for NOx, CO, and O2. The CEMs shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703, 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
- 10. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
- 11. The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
- 12. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
- 13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The CTG shall be fired exclusively on PUC regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rules 2201 and 4801; and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
- 15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
- 16. During startup periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) 20.0 lb/hr, CO 15 lb/hr, VOC 1.21 lb/hr, averaged over the length of the startup period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 17. During shutdown periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) 7.0 lb/hr, CO 12 lb/hr, VOC 1.21 lb/hr, averaged over the length-of the shutdown period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

- 18. Startup and shutdown times shall not exceed 2 hours each in any day. Startup/shutdown emissions shall be counted toward all applicable emission limits (lb/day and lb/year). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 19. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [40 CFR 60.4333(a)] Federally Enforceable Through Title V Permit
- 20. Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO2) 4.3 lb/hr or 2.5 ppmvd @ 15% O2; SOx (as SO2) 1.35 lb/hr; PM10 3.12 lb/hr; CO 10.58 lb/hr or 10.0 ppmvd @ 15% O2; or VOC (as methane) 1.21 lb/hr or 2.0 ppmvd @ 15% O2. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
- 21. Ammonia (NH3) emissions shall not exceed either of the following limits: 6.42 lb/hr or 10 ppmvd @ 15% O2 (based on a 24 hour rolling average). [District Rule 4102]
- 22. Each one hour period in a three hour rolling average will commence on the hour. The three hour average will be compiled from the three most recent one hour periods. Each one hour period in a twenty-four hour average will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. Emissions from this unit, on days when a startup and/or shutdown occurs, shall not exceed the following: NOx (as NO2) 141.0 lb/day; SOx (as SO2) 32.4 lb/day; PM10 74.9 lb/day; CO 265.6 lb/day; or VOC 29.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. Annual baseline fuel use (excludes startup and shutdown periods) shall not exceed 1,498,804 MMBtu/year. Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: NOx (as NO2) 19,999 lb/year; SOx (as SO2) 4,891 lb/year; PM10 11,325 lb/year; CO 39,783 lb/year; or VOC 4,462 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit
- 26. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
- 27. Compliance testing to measure startup NOx, CO, and VOC mass emission rates shall be conducted at least once every seven years. [District Rule 1081] Federally Enforceable Through Title V Permit
- 28. Compliance testing to measure the NOx, CO, VOC, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) shall be conducted at least once every twelve months. [District Rules 1081 and 4703, 40 CFR 60.4340 and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
- 29. Compliance testing to measure PM10 emission rate (lb/hr) shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit

- 30. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. 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 thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 31. The following test methods shall be used: NOx EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO EPA Method 10 or 10B or ARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or ARB 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)] Federally Enforceable Through Title V Permit
- 32. The sulfur content of each natural gas fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated within 60 days after the end of the commissioning period and monitored weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
- 33. Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4415(a)(1)(i)] Federally Enforceable Through Title V Permit
- 34. For the NOx, CO, and O2 CEMS, the owner/operator shall conduct relative accuracy test audits (RATA) as specified by 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 emissions monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 75, Appendix B. [District Rule 1080 and 40 CFR 75 Appendix B] Federally Enforceable Through Title V Permit
- 35. Results of continuous emissions monitoring 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 ARB, and the EPA. [District Rule 1080, and 40 CFR 60.4350(a)] Federally Enforceable Through Title V Permit
- 36. Cylinder Gas Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
- 37. Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. 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 60.4350(h) and 40 CFR 60.4380(b)(1)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

- 38. For the purpose of determining excess NOx emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19 percent O2 may be used in the emission calculations. [40 CFR 60.4350(b)] Federally Enforceable Through Title V Permit
- 39. Excess SOx emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385(a) and (c)] Federally Enforceable Through Title V Permit
- 40. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.4375(a) and 60.4395] Federally Enforceable Through Title V Permit
- 41. The owner/operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit during times that the CEMS is not functioning properly. [District Rule 4703] 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. Water or chemical/organic stabilizers/suppressants shall be applied when handling bulk materials as required to limit Visible Dust Emissions to a maximum of 20% opacity. When necessary to achieve this opacity limitation, wind barriers with less than 50% opacity shall also be used. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 44. All bulk material transport vehicles shall limit Visible Dust Emissions to 20% opacity by either limiting vehicular speed, maintaining sufficient freeboard on the load, applying water to the top of the load, or covering the load with a tarp or other suitable cover. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 45. Permittee shall provide notification and recordkeeping as required under 40 CFR, Part 60, Subpart A, 60.7. [40 CFR 60.4380] Federally Enforceable Through Title V Permit
- 46. 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 Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 47. The permittee shall maintain the following records: baseline MMBtu of fuel consumed (excludes startup and shutdown periods), total annual MMBtu of fuel consumed, continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 48. The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time 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
- 49. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

# **APPENDIX B**

**Current Operating Permit** 

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-6662-2-4 **EXPIRATION DATE:** 11/30/2024

SECTION: 32 TOWNSHIP: 24S RANGE: 25E

### **EQUIPMENT DESCRIPTION:**

47.6 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 PC SPRINT NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH INLET AIR "CHILLER", INLET AIR "FOGGER", OR HYBRID OF BOTH COMBINED, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND AN OXIDATION CATALYST

## PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 2. 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
- 3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. A selective catalytic reduction (SCR) system and an oxidation catalyst shall serve the gas turbine engine. Exhaust ducting may be equipped (if required) with a fresh air inlet blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. 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
- 6. Combustion turbine generator (CTG) and electrical 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 a period or periods not exceeding three minutes in any one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 7. The turbine shall be equipped with a continuous monitoring system to measure and record hours of operation, mass ratio of water-to-fuel injected and fuel consumption. [District Rules 2201 and 4703, 40 CFR 60.4335(b)(1)] Federally Enforceable Through Title V Permit
- 8. The exhaust stack shall be equipped with a continuous emissions monitor (CEM) for NOx, CO, and O2. The CEMs shall meet the requirements of 40 CFR part 60, Appendices B and F (for CO), and 40 CFR part 75, Appendices A and B (for NOx and O2) and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 1080, 2201 and 4703, 40 CFR 60.4335(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
- 9. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
- 10. The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit

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

Facility Name: DELANO ENERGY CENTER LLC

Location: SECTION 32, TOWNSHIP 24S, RANGE 25E,N/O COUNTY LINE RD. E/O CASEY AVE. EXTENSION, DELANO, CA 93215 S-6662-24: Jan 17 2023 2:04PM - AIYABEIJ

- 11. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
- 12. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 13. The CTG shall be fired exclusively on PUC regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
- 14. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
- 15. During startup periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) 20.0 lb/hr, CO 15 lb/hr, VOC 1.21 lb/hr, averaged over the length of the startup period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 16. During shutdown periods, CTG exhaust emissions shall not exceed any of the following limits: NOx (as NO2) 7.0 lb/hr, CO 12 lb/hr, VOC 1.21 lb/hr, averaged over the length of the shutdown period. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 17. Startup and shutdown times shall not exceed 2 hours each in any day. Startup/shutdown emissions shall be counted toward all applicable emission limits (lb/day and lb/year). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 18. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [40 CFR 60.4333(a)] Federally Enforceable Through Title V Permit
- 19. Emission rates from this unit, except during startup and shutdown, shall not exceed any of the following limits: NOx (as NO2) 4.3 lb/hr or 2.5 ppmvd @ 15% O2; SOx (as SO2) 1.35 lb/hr; PM10 3.12 lb/hr; CO 10.58 lb/hr or 10.0 ppmvd @ 15% O2; or VOC (as methane) 1.21 lb/hr or 2.0 ppmvd @ 15% O2. All emission concentration limits are based on three hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60.4320(a) & (b)] Federally Enforceable Through Title V Permit
- 20. Ammonia (NH3) emissions shall not exceed either of the following limits: 6.42 lb/hr or 10 ppmvd @ 15% O2 (based on a 24 hour rolling average). [District Rule 4102]
- 21. Each one hour period in a three hour rolling average will commence on the hour. The three hour average will be compiled from the three most recent one hour periods. Each one hour period in a twenty-four hour average will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. Emissions from this unit, on days when a startup and/or shutdown occurs, shall not exceed the following: NOx (as NO2) 141.0 lb/day; SOx (as SO2) 32.4 lb/day; PM10 74.9 lb/day; CO 265.6 lb/day; or VOC 29.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. Annual baseline fuel use (excludes startup and shutdown periods) shall not exceed 1,498,804 MMBtu/year. Annual emissions from the CTG, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following: NOx (as NO2) 19,999 lb/year; SOx (as SO2) 4,891 lb/year; PM10 11,325 lb/year; CO 39,783 lb/year; or VOC 4,462 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

- 24. Daily emissions will be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each month in the twelve consecutive month rolling average emissions shall commence at the beginning of the first day of the month. The twelve consecutive month rolling average emissions to determine compliance with annual emissions limitations shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
- 26. Compliance testing to measure startup NOx, CO, and VOC mass emission rates shall be conducted at least once every seven years. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. Compliance testing to measure the NOx, CO, VOC, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) shall be conducted at least once every twelve months. [District Rules 1081 and 4703, 40 CFR 60.4340 and 40 CFR 60.4400] Federally Enforceable Through Title V Permit
- 28. Compliance testing to measure PM10 emission rate (lb/hr) shall be conducted at least once every 60 months. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. 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 thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. The following test methods shall be used: NOx EPA Method 7E or 20 or ARB Method 100 and EPA Method 19 (Acid Rain Program); CO EPA Method 10 or 10B or ARB Method 100; VOC EPA Method 18 or 25; PM10 EPA Method 5 and 202 (front half and back half) or 201a and 202; ammonia BAAQMD ST-1B; and O2 EPA Method 3, 3A, or 20 or ARB 100. NOx testing shall also be conducted in accordance with the requirements of 40 CFR 60.4400(a)(2), (3), and (b). EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i) and 40 CFR 60.4400(a)(2), (3), and (b)] Federally Enforceable Through Title V Permit
- 31. The sulfur content of each natural gas fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated within 60 days after the end of the commissioning period and monitored weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
- 32. Fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4415(a)(1)(i)] Federally Enforceable Through Title V Permit

- 33. For the CO CEMs, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.1.1, 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
- 34. For the NOx and O2 CEMs, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 75, Appendix A, at least once every two operating quarters, unless incentive criteria has been met which allows the RATA to be performed once every fourth operating quarter. 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 A. [District Rule 1080] Federally Enforceable Through Title V Permit
- 35. Results of continuous emissions monitoring 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 ARB, and the EPA. [District Rule 1080, and 40 CFR 60.4350(a)] Federally Enforceable Through Title V Permit
- 36. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
- 37. Excess NOx emissions shall be defined as any 30 day operating period in which the 30 day rolling average NOx concentration exceeds an applicable emissions limit. A 30 day rolling average NOx emission rate is the arithmetic average of all hourly NOx emission data in ppm measured by the continuous monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30 day average is calculated each unit operating day as the average of all hourly NOx emission rates for the preceding 30 unit operating days if a valid NOx emission rate is obtained for at least 75 percent of all operating hours. 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 60.4350(h) and 40 CFR 60.4380(b)(1)] Federally Enforceable Through Title V Permit
- 38. For the purpose of determining excess NOx emissions, for each unit operating hour in which a valid hourly average is obtained, the data acquisition system and handling system must calculate and record the hourly NOx emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 of 40 CFR 60 Appendix A. For any hour in which the hourly O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19 percent O2 may be used in the emission calculations. [40 CFR 60.4350(b)] Federally Enforceable Through Title V Permit
- 39. Excess SOx emissions is each unit operating hour included in the period beginning on the date and hour of any sample for which the fuel sulfur content exceeds the applicable limits listed in this permit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitoring downtime for SOx begins when a sample is not taken by its due date. A period of monitor downtime for SOx also begins on the date and hour of a required sample, if invalid results are obtained. A period of SOx monitoring downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385(a) and (c)] Federally Enforceable Through Title V Permit
- 40. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.4375(a) and 60.4395] Federally Enforceable Through Title V Permit

- 41. The owner/operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit during times that the CEMS is not functioning properly. [District Rule 4703] 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. Water or chemical/organic stabilizers/suppressants shall be applied when handling bulk materials as required to limit Visible Dust Emissions to a maximum of 20% opacity. When necessary to achieve this opacity limitation, wind barriers with less than 50% opacity shall also be used. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 44. All bulk material transport vehicles shall limit Visible Dust Emissions to 20% opacity by either limiting vehicular speed, maintaining sufficient freeboard on the load, applying water to the top of the load, or covering the load with a tarp or other suitable cover. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
- 45. Permittee shall provide notification and recordkeeping as required under 40 CFR, Part 60, Subpart A, 60.7. [40 CFR 60.4380] Federally Enforceable Through Title V Permit
- 46. 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 Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 47. The permittee shall maintain the following records: baseline MMBtu of fuel consumed (excludes startup and shutdown periods), total annual MMBtu of fuel consumed, continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 48. The owner/operator shall maintain a system operating log, updated on a daily basis, which includes the following information: The actual local start-up time 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
- 49. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

# **APPENDIX C**

**Copies of EPA 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

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, EPAS 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. 60.466(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 Boller RATA For B.C. Cobb Plant

Dear Mr. Savo

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-tired units in 1999-2000 to natural gas fring, 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 checks

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:

- 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.
- 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 Gahris, of my staff, at (312) 886-6794.

Sincerely

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

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



# U.S. Environmental Protection Agency Applicability Determination Index

## Control Number: 0600049

Category:

**NSPS** 

**EPA Office:** 

Region 1

Date:

06/29/2005

Title:

Part 75 Monitoring as Alternative to Part 60

Recipient:

Robert K. Maggiani

Author:

Kenneth Moraff

**Comments:** 

See related determination, ADI Control No. 0600050.

Part 60, A

General Provisions

References:

60.13(i)

App. F

#### Abstract:

Q: Does EPA approve changing the frequency of Relative Accuracy Test Audits (RATAs) and Cylinder Gas Audits (CGAs) under 40 CFR part 60, Appendix F, at the ANP Bellingham Energy Company facilities in Bellingham and Blackstone, Massachusetts, so that the frequency is consistent with similar requirements under 40 CFR part 75?

A: Yes. Pursuant to 40 CFR 60.13(i)(2), EPA approves changing the annual RATA due date to once every four operating quarters instead of once every four calendar quarters, and approves a NOx, CO and O2 CGA every operating quarter. An operating quarter is defined as one in which the unit operates 168 hours or more. Regardless of operation, the facility must conduct a CGA for NOx, CO and O2 at least once every four calendar quarters, and must conduct a RATA at least once every eight 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).

#### Letter:

6/29/2005

Robert K. Maggiani, Corporate Environmental Manager ANP Bellingham Energy Company, LLC 155 Maple Street Bellingham, MA 02019

Re: Part 60 RATA Extension Request and Custom Monitoring Request

Dear Mr. Maggiani:

This is a response to your letter dated June 24, 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 NOx, CO, and O2 under 40 CFR Part 60, Appendix F.

ANP Bellingham Energy Company, LLC (ANP), located in Bellingham, MA operates two parallel power

# EP Admiliability Determinations Indiana Landon Physics Proceedings of the Procedings of

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 2005 RATA shall begin with the last RATA test date of June 2004.

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 2



# U.S. Environmental Protection Agency Applicability Determination Index

## Control Number: 0600054

**Category:** 

**NSPS** 

**EPA Office:** 

Region 1

Date:

12/22/2005

Title:

Part 75 Monitoring as Alternative to Part 60

Recipient:

Willard H. Currier, III

Author:

Joanna Jerison

Comments:

Part 60, Db

Indust.-Comm.-Inst. Steam Gen. Units

References:

60.F

#### Abstract:

Q: Does EPA approve the use of the extended testing timelines outlined in 40 CFR part 75 instead of the timelines outlined in 40 CFR part 60, subpart Db (by referenced 40 CFR part 60, appendix F) for conducting a Relative Accuracy Test Audit (RATA) for a continuous emission monitoring system at the General Electric facility in Lynn, Massachusetts?

A: Yes. EPA approves the use of the part 75 timeline instead of NSPS subpart Db timeline. This alternative will ensure that the facility does not need to start up the boiler for the sole purpose of conducting the RATA test within the annual (four calendar quarter) deadline established in 40 CFR part 60, Appendix F, Section 5, given that the boiler is used only between 10 to 50 percent of the year.

#### Letter:

12/22/05

Willard H. Currier, III, Manager Utilities and Plant Services GE Aircraft Engines 1000 Western Ave. Lynn, MA 01910

Re: Request to Use 40 CFR Part 75 RATA Testing Timelines for a Boiler Subject to 40 CFR Part 60, Subpart Db

Dear Mr. Currier:

As required by 40 CFR Part 60, Subpart Db, a Relative Accuracy Test Audit (RATA) is required for the Continuous Emission Monitor (CEM) serving "Boiler No. 5" at your Lynn, Massachusetts facility. In your December 7, 2004 letter, you requested EPA approval to follow the extended testing timelines for the RATA outlined in 40 CFR Part 75 instead of the timelines outlined in 40 CFR Part 60 Subpart Db.

In your letter, you indicated that because Boiler No. 5 is used between 10-50% of the year, in some years the unit may need to be put in service for the sole purpose of completing a RATA within the

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, Northeas



# 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 NOx, 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 NOx, 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

### EP A Applicability Determinations Indox DocuSign Envelope ID: 09482B4B-DCC1-4829-85DF-0AB22E2C7816

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 NOx, 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 NOx, 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 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).

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 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,

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 (NOx) 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 NOx 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 NOx 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 NOx 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 NOx 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 Basilesco, 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 (NOx) 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 NOx 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 NOx 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 NOx 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 NOx 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;

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 appropria	ite box)
☐ ADMINISTRATIVE AMENDMENT ☐ MINOR MO	ODIFICATION SIGNIFICANT MODIFICATION
COMPANY NAME: Delano Energy Center LLC	FACILITY ID: S-6662
1. Type of Organization: Corporation Sole Ownersh	hip Government Partnership Utility
Owner's Name: Delano Energy Center LLC	
3. Agent to the Owner:	
II. COMPLIANCE CERTIFICATION (Read each stateme	ent carefully and initial applicable circles for confirmation):
Based on information and belief formed after reasons to comply with the applicable federal requirement(s)	able inquiry, the equipment identified in this application will continue.
	able inquiry, the equipment identified in this application will comply me effective during the permit term, on a timely basis.
Corrected information will be provided to the District been submitted.	et when I become aware that incorrect or incomplete information has
Based on information and belief formed after reasons package, including all accompanying reports, and recompanying reports.	able inquiry, information and statements in the submitted application quired certifications are true, accurate, and complete.
For minor modifications, this application meets the continuous District Rule 2520.	criteria for use of minor permit modification procedures pursuant to
I declare, under penalty of perjury under the laws of the state of	of California, that the forgoing is correct and true:
<u>kara Miles</u>	01/19/2023
Signature of Responsible Official	Date
Kara J. Miles	
Name of Responsible Official (please print)	
President	
Title of Responsible Official (please print)	