



APR 02 2013

Mr. George Davies  
Turlock Irrigation District  
P O Box 949  
Turlock, CA 95381-0949

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # N-3299  
Project # N-1123796**

Dear Mr. Davies:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to allow representative testing on one of the three identical gas turbines for measuring startup and shutdown NO<sub>x</sub>, CO, and VOC emissions, and to modify fuel flow meter requirements to match with the fuel flow scheme used for each turbine.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the Authorities to Construct will be issued to the facility with Certificates of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,



David Warner  
Director of Permit Services

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**Modesto Bee**

**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND  
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY  
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed significant modification of Turlock Irrigation District at 4500 Crows Landing Road, Modesto, California. This project is to allow representative testing on one of the three identical gas turbines for measuring startup and shutdown NO<sub>x</sub>, CO, and VOC emissions, and to modify fuel flow meter requirements to match with the fuel flow scheme used for each turbine.

The District's analysis of the legal and factual basis for this proposed action, project #N-1123796, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and at any District office. There are no emission increases associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact the District at (209) 557-6400. Written comments on the proposed initial permit must be submitted by May 6, 2013 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA 95356-8718.**

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

Facility Name: Turlock Irrigation District  
Mailing Address: P O Box 949  
Turlock, CA 95381-0949  
Contact Person: George Davies IV  
Telephone: (209) 883-3451  
Fax: (209) 656-2188  
Application #(s): N-3299-4-1, '-5-1 and '-6-1  
Project #: N-1123796  
Deemed Complete: January 4, 2013

Date: March 11, 2013  
Engineer: Jagmeet Kahlon  
Lead Engineer: Rupi Gill

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**I. Proposal**

Turlock Irrigation District (TID) submitted a permit application to modify the permit requirements issued in a Final Determination of Compliance (FDOC) prepared for Application for Certification Docket #: 09-AFC-02, District project #N1091384 for the three identical 54.2 MW (each) simple cycle peak-demand power generating systems operating under permits N-3299-4, '-5 and '-6 as follows:

1. The facility has requested representative testing on one of the three identical gas turbines for measuring startup and shutdown NO<sub>x</sub>, CO, and VOC emissions rather than testing each gas turbine system for measuring startup and shutdown emissions.

This proposed change will require the marked changes to the existing permit condition:

*"Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted ~~before the end of the commissioning period~~ and at least once every seven years thereafter on one of the three gas turbines (N-3299-4, '-5 or '-6). CEM relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emission limits, then startup and shutdown NO<sub>x</sub> and CO testing on one of the three gas turbines (N-3299-4, '-5 or '-6) shall be conducted every 12 months. If an annual startup and shutdown NO<sub>x</sub> and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NO<sub>x</sub> and CO testing frequency shall return to the once every seven years schedule. [District Rule 1081] Federally Enforceable Through Title V Permit"*

The District has previously approved representative testing proposals for other similar power plants as part of the FDOC. However, this change is a “relaxation” to the existing monitoring requirement, and is therefore, “significant” modification to the Title V permit.

Note that TID has already measured startup and shutdown emissions on one of the units (N-3299-4, '-5 or '-6) in June 2012 before the end of the commissioning period. Thus, conditions related to the “commissioning period” will not be included in the permit.

2. Modify the fuel flow meter condition as follows:

*“A ~~non-resettable, totalizing~~ mass or volumetric fuel flow meter that meets the requirements of 40 CFR Part 75 to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained to measure the amount of natural gas combusted in the unit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit”*

Fuel use in gas turbines is measured and totalized by a computerized data acquisition and handling system. This system processes and performs calculations using fuel flow meter data and other data collected by the continuous emissions monitoring system (CEMS) to determine the exact amount of fuel combusted in each turbine. The flow meters reset to zero during power outage or system crashes as the fuel flow signal is lost; however, the fuel use data records remains unaffected as they are stored in a long-term storage. TID believes that the fuel meters and associated data acquisition and handling system provide a permanent cumulative record of fuel in each gas turbine and satisfy the intent of this condition. However, the type of fuel metering system used with gas turbine CEMS is not “non-resettable” and “totalizing”, in a traditional sense to a meter installed on a typical boiler fuel line or on an emergency internal combustion engine. To avoid any potential future compliance issues, TID has proposed to modify the condition to match the installed fuel flow meter system set-up. The proposed technique is considered equivalent to the intent of the existing requirement. Therefore, it is not viewed as a relaxation of the monitoring requirement, and will be considered “minor” modification to the Title V permit.

TID possesses a Title V permit for this site. As explained above, one of the proposed changes is a “significant” modification to the Title V permit. Therefore, this project triggers a 30-day public notice, which includes publication of this project in a local newspaper “Modesto Bee” and publication of the project on District’s website ([http://www.valleyair.org/notices/public\\_notices\\_idx.htm#Permitting](http://www.valleyair.org/notices/public_notices_idx.htm#Permitting) and Emission Reduction Credit Certificate Notices). In addition, TID has also proposed to receive the ATCs with Certificates of Conformity (COC) in accordance with the requirements of 40 CFR 70.6(c), 70.7 and 70.8. Therefore, 45-day EPA notice will be conducted prior to the issuance of the ATCs. Both COC and public notice will run concurrently.

## II. Applicable Rules

- Rule 1080 Stack Monitoring (12/17/92)
- Rule 1081 Source Sampling (12/16/93)
- Rule 1100 Equipment Breakdown (12/17/92)
- Rule 2010 Permits Required (12/17/92)
- Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)
- Rule 2410 Prevention of Significant Deterioration (6/16/11)
- Rule 2520 Federally Mandated Operating Permits (6/21/01)
- Rule 2540 Acid Rain Program (11/13/97)
- Rule 2550 Federally Mandated Preconstruction Review for Major Sources of Air Toxics (6/18/1998)
- Rule 4001 New Source Performance Standards (4/14/99)
  - 40 CFR Part 60 Subpart GG - Standards of Performance for Stationary Gas Turbines
  - 40 CFR Part 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines
- Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/18/00)
- Rule 4101 Visible Emissions (02/17/05)
- Rule 4102 Nuisance (12/17/92)
- Rule 4201 Particulate Matter Concentration (12/17/92)
- Rule 4202 Particulate Matter Emission Rate (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)
- Rule 8011 General Requirements (8/19/04)
- Rule 8021 Construction, Demolition, Excavation, Extraction and Other Earthmoving Activities (8/19/04)
- Rule 8031 Bulk Materials (8/19/04)
- Rule 8041 Carryout and Trackout (8/19/04)
- Rule 8051 Open Areas (8/19/04)
- Rule 8061 Paved and Unpaved Roads (8/19/04)
- Rule 8071 Unpaved Vehicle/Equipment Traffic Areas (9/16/04)
- California Health & Safety Code Section 41700 (Public Nuisance)
- California Health & Safety Code Section 42301.6 (School Notice)
- California Health & Safety Code Section 44300 (Air Toxic "Hot Spots")
- 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 proposed equipment will be located at 4500 Crows Landing Road, Modesto, California. There is no K-12 school within 1,000 feet of this location. Therefore, school notice, under California Health & Safety Code 42301.6 is not required.

#### **IV. Process Description**

The combustion air will flow through the inlet air filters, evaporative cooler and associated air inlet ductwork, be compressed in the combustion turbine generator (CTG) compressor section, and then enter the CTG combustion section. Natural gas fuel will be injected into the compressed air in the combustion section and the mixture is ignited. The hot combustion gases will expand through the power turbine section of the CTG, causing the shaft to rotate that drives both the electrical generator and CTG compressor.

Flue gases due to combustion of natural gas fuel in the CTG burners will be vented through SCR system for NO<sub>x</sub> emissions control, and an oxidation catalyst for CO control.

CTGs can be operated 24 hr/day, 7 days/week and 52 weeks/year. CTG will be operated exclusively on natural gas fuel.

#### **V. Equipment Listing**

N-3299-4-1, '-5-1 and '-6-1

54.2 MW NOMINAL (ISO) RATING SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A 523.2 MMBTU/HR (AT NOMINAL ISO MW RATING) GENERAL ELECTRIC, AERO DERIVATIVE, MODEL LM6000 PG SPRINT, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH A WATER SPRAY PREMIXED COMBUSTION SYSTEM, AN OXIDATION CATALYST AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION

#### **VI. Emission Control Technology Evaluation**

The applicant is not proposing any changes to the existing emission control technologies. Therefore, emission control technology evaluation is not required for these permit units.

#### **VII. General Calculations**

##### **A. Potential to Emit**

##### **1. Pre-Project Potential to Emit (PE1)**

Per project N1091384, PE1 for each gas turbine is as follows:

Pollutant	PE2 (lb/day) with startup/shutdown	PE2 (lb/day) Without startup/shutdown	PE2 (lb/yr)
NO <sub>x</sub>	160.4	120.5	47,187
SO <sub>x</sub>	37.4	37.4	12,912
PM <sub>10</sub>	60.0	60.0	21,901
CO	187.6	117.4	51,619
VOC	34.8	33.6	11,331
NH <sub>3</sub>	178.6	178.6	61,564

2. Post Project Potential to Emit (PE2)

The proposed project will not result in an increase in emissions for any pollutant. Therefore, PE2 will be same as PE1.

3. Quarterly Emissions Changes (QECs)

$$QEC = (PE2 - PE1)/4$$

PE2 is equal to PE1. Therefore, QEC is equal to zero for each pollutant.

4. Adjusted Increase in Permitted Emissions (AIPE)

AIPE is used to determine if BACT is required for emission units that are being modified. AIPE is calculated using the equations mentioned in Section 4.3 and 4.4 of Rule 2201.

$$AIPE = PE2 - \left( \frac{EF2}{EF1} \right) (PE1)$$

Where, PE2 = Post-project potential to emit  
 PE1 = Pre-project potential to emit  
 EF2 = Post-project emission factor  
 EF1 = Pre-project emission factor

TID is not proposing any changes to the existing emission factors. Furthermore, PE2 will be same as PE1. Therefore, AIPE will be zero for each pollutant.

B. Facility Emissions

1. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all emission units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. The potential emissions in the following table are taken from the application review prepared under project N1091384.

SSPE1 (lb/yr)					
Permit #	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
N-3299-1-2	97	0	4	23	7
N-3299-3-2	52,049	11,459	17,520	136,413	10,454
N-3299-4-0	47,187	12,912	21,901	51,619	11,331
N-3299-5-0	47,187	12,912	21,901	51,619	11,331
N-3299-6-0	47,187	12,912	21,901	51,619	11,331
ERC	0	0	0	0	0
Total	193,707	50,195	83,227	291,293	44,454

2. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/yr)					
Permit #	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
N-3299-1-2	97	0	4	23	7
N-3299-3-2	52,049	11,459	17,520	136,413	10,454
N-3299-4-1	47,187	12,912	21,901	51,619	11,331
N-3299-5-1	47,187	12,912	21,901	51,619	11,331
N-3299-6-1	47,187	12,912	21,901	51,619	11,331
ERC	0	0	0	0	0
Total	193,707	50,195	83,227	291,293	44,454



### 3. Major Source Determination

#### Rule 2201 Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- Any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)					
Category	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE1	193,707	50,195	83,227	291,293	44,454
SSPE2	193,707	50,195	83,227	291,293	44,454
Major Source Thresholds	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	Yes	Yes

From the above table, the facility is an existing Major Source for NO<sub>x</sub>, CO and VOC emissions.

#### Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
Category	NO <sub>2</sub>	VOC	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>	*CO <sub>2</sub> e
Estimated Facility PE before Project Increase	96.9	22.2	25.1	145.6	41.6	41.6	1,036,485
PSD Major Source Thresholds	100	100	100	100	100	100	100,000
PSD Major Source ?	No	No	No	Yes	No	No	Yes

\*CO<sub>2</sub>e = [(161.6 lb/MMBtu) x (12.73 gal/hr) x (100 hr/yr) x (0.137 MMBtu/gal) x ton/2,000 lb = 14.1 tons/yr] for N-3299-1-2; [(116.5 lb-CO<sub>2</sub>e/MMBtu) x (459 MMBtu/hr) x (8,760 hr/yr) x (ton/2,000 lb)= 234,214 tons/yr] for N-3299-3-2; [727,671 metric tons/yr page 55 of the application filed under 1275691.pdf x 2,205 lb/metric ton x ton/2,000 lb = 802,257 tons/yr] for N-3299-4-0, '-5-0 and '-6-0; Total CO<sub>2</sub>e = 14.1 tons/yr + 234,214 tons/yr + 802,257 tons/yr = 1,036,485.1 tons/yr

From the above table, the facility is an existing major source for PSD.

4. Stationary Source Increase in Potential Emissions (SSIPE)

SSIPE is the difference of SSPE2 and SSPE1. Since SSPE2 is equal to SSPE1 for each pollutant, SSIPE will be zero for each pollutant.

5. SB-288 Major Modification

The purpose of Major Modification calculations is to determine the following:

- A. If Best Available Control Technology (BACT) is triggered for a new or modified emission unit; and
- B. If a public notification is triggered (District Rule 2201, Section 5.4.1).

Per section VII.D.2 of this document, this facility is a Major Source for NO<sub>x</sub>, CO, and VOC emissions. However, there is no SB-288 Major Modification threshold for CO in Table 3-5 of Rule 2201 since the San Joaquin Valley is in attainment for CO. Thus, analysis will be limited to NO<sub>x</sub> and VOC emissions only.

The District draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and approved by EPA on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications (2/8/11)" is referenced to determine the emissions increase (EI). Page 4 of this policy states the project's emissions increase for each pollutant is equal to the sum of the differences between the potential to emit and the baseline actual emissions (BAE) for existing units. Furthermore, this policy states that for fully offset units (as defined in Rule 2201), the actual emissions are equal to the pre-project potential to emit (PE1). Therefore,

$$EI = PE2 - BAE$$

The gas turbines are existing fully offset units for NO<sub>x</sub> and VOC, and therefore, BAE is set equal to PE1 for these pollutants.

$$EI = PE2 - PE1$$

PE2 is equal to PE1 for NO<sub>x</sub> as well as VOC. Thus,

$$EI = 0$$

Since EI is less than 50,000 lb/yr threshold for NO<sub>x</sub> and VOC emissions (separately); therefore, this project is not a Major Modification.

## 6. Federal Major Modification

The purpose of Federal Major Modification calculations is to determine the following:

- A. If a Rule-compliance project qualifies for Rule 2201's BACT and offset exemptions (District Rule 2201, §4.2.3.5); and
- B. If an Alternate Siting analysis must be performed (Rule 2201, §4.15.1);
- C. If the applicant must provide certification that all California stationary sources owned, operated, or controlled by the applicant that are subject to emission limits are in compliance with those limits or are on a schedule for compliance with all applicable emission limits and standards (Rule 2201, §4.15.2); and
- D. If a public notification is triggered. (Rule 2201, §5.4.1)

Per section VII.D.2 of this document, this facility is a Major Source for NO<sub>x</sub>, CO, and VOC emissions. However, there is no Federal Major Modification threshold for CO in Table 3-5 of Rule 2201 since the San Joaquin Valley is in attainment for CO. Thus, analysis will be limited to NO<sub>x</sub> and VOC emissions only.

The District draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and approved by EPA on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications (2/8/11)" is referenced to determine the emissions increase. Case 2 in the draft policy states "If the proposed modification does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, then the unused baseline capacity emissions can also be excluded from the emission increase (EI).

Neither the rating nor the utilization rate of any gas turbine will increase, therefore, the above referenced draft policy allows the unused baseline capacity to be included in the EI calculation. EI is as follows:

$$EI = PAE - BAE - \text{unused baseline capacity}$$

Where, PAE = post-project projected actual emissions  
BAE = pre-project baseline actual emissions  
Unused baseline capacity = PE1 - BAE

The proposed modification will not increase the permitted utilization rate of the gas turbines, therefore:

$$\begin{aligned} EI &= PE2 - BAE - (PE1 - BAE) \\ &= PE2 - BAE - PE1 + BAE \\ &= PE2 - PE1 \end{aligned}$$

PE2 is equal to PE1 for NO<sub>x</sub> as well as VOC. Thus,

$$EI = 0$$

Since EI is not greater than 0 lb/yr threshold for NO<sub>x</sub> and VOC emissions (separately); therefore, this project is not a Major Modification.

### VIII. Compliance

<b>Rule 1080</b>	<b>Stack Monitoring</b>
<b>Rule 1081</b>	<b>Source Sampling</b>
<b>Rule 1100</b>	<b>Equipment Breakdown</b>
<b>Rule 2010</b>	<b>Permits Required</b>

The original FDOC was issued about 3 year ago (February 11, 2010). These rules have not been revised since that time. The existing permits N-3299-4-0, '5-0 and '6-0 contain sufficient conditions to enforce the requirements in these rules. These conditions will be replicated in the permits associated with this project.

#### **Rule 2201 New and Modified Stationary Source Review Rule**

##### 1. Best Available Control Technology (BACT)

BACT requirements shall be triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT shall be required for the following actions\*:

- Any new emissions unit or relocation from one Stationary Source to another of an existing emissions unit with a Potential to Emit (PE2) exceeding 2.0 pounds in any one day;
- Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds in any one day;
- Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined in this rule.

\*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

N-3299-4-1, '5-1 and '6-1

Per section VII.C.4 of this document, AIPE from the proposed modifications is not greater than 2.0 pounds per day. Furthermore, the proposed project is not an SB-288 or Federal Major Modification per section VII.D.5 and VII.D.6. Therefore, BACT is not triggered for these units.

2. Offsets

Offsets are examined on a pollutant-by-pollutant basis, and are triggered for any pollutant with a SSPE2 equal to or greater than the threshold listed in following table.

Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Offset Thresholds (lb/yr)	Offset Triggered?
NO <sub>x</sub>	193,707	193,707	20,000	Yes
SO <sub>x</sub>	50,195	50,195	54,750	No
PM <sub>10</sub>	83,227	83,227	29,200	Yes
CO	291,293	291,293	200,000	Yes
VOC	44,454	44,454	20,000	Yes

Section 4.7.1 of Rule 2201 states that for pollutants with SSPE1 greater than the emission offset threshold levels, emission offsets shall be provided for all increases in Stationary Source emissions, calculated as the differences of post-project Potential to Emit (PE2) and the Baseline Emissions (BE) of all new and modified emissions units, plus all increases in Cargo Carrier emissions. Thus,

$$EOQ = \Sigma(PE2 - BE) + ICCE, \text{ where}$$

- PE2 = Post-Project Potential to Emit
- BE = Baseline Emissions
- ICCE = Increase in Cargo Carrier emissions

There is no increase in Cargo Carrier emissions from this project. Thus,

$$EOQ = \Sigma(PE2 - BE)$$

According to Section 3.7 of Rule 2201, BE shall be equal to PE1 for Clean Emissions Unit, located at a Major Source.

Clean Emissions Unit is defined in Section 3.13 of Rule 2201, as an emission unit that is either equipped with an emission control technology with a minimum control efficiency of at least 95% or equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

FDOC for these gas turbines was issued about 3 year ago (February 11, 2010) where it was ensured that these turbines will achieve the applicable BACT standard for each pollutant. Since the period of issuance of the FDOC falls within the previous five year period, these gas turbines are clean emission units, and the BE can be set equal to PE1.

EOQ = PE2 – PE1

NO<sub>x</sub>, PM<sub>10</sub>, VOC

PE2 is equal to PE1 for each pollutant. Thus, EOQ is equal to zero for each pollutant.

CO

The increase in CO emissions did not violate Ambient Air Quality Standard in the affected area under project N1091384. Therefore, offsets for CO were not required.

The proposed project does result in an increase in CO emissions. Therefore, previous determination is valid for this project.

### 3. Public Notification

District Rule 2201, section 5.4, requires a public notification for the affected pollutants from the following types of projects:

- New Major Sources
- Major Modifications (SB -288, Federal)
- New emission units with a PE>100 lb/day of any one pollutant
- Modifications with SSPE1 below an Offset threshold and SSPE2 above an Offset threshold on a pollutant-by-pollutant basis
- New stationary sources with SSPE2 exceeding Offset thresholds
- Any permitting action with a SSIPE exceeding 20,000 lb/yr for any one pollutant

Per section VII of this document, this project is not in exceedance of the thresholds in any of the above listed items. Therefore, public notice is not required due to the above items.

### 4. Daily Emission Limits

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.17 to restrict a unit's maximum daily emissions. The emissions limits in permits N-3299-4-0, '-5-0 and '-6-0 will be replicated in the permits associated with this project.

## 5. Compliance Assurance

### Source Testing

Except for the changes to source testing during startup and shutdown periods (as discussed in the proposal section), source testing from permits N-3299-4-0, '5-0 and '6-0 will be replicated into the permits associated with this project. No additional testing is required. Please note that these turbines were tested in June, 2012; therefore, initial testing is not considered.

### Monitoring

Monitoring requirements from permits N-3299-4-0, '5-0 and '6-0 will be replicated into the permits associated with this project. No additional monitoring is required.

### Recordkeeping

Recordkeeping requirements from permits N-3299-4-0, '5-0 and '6-0 will be replicated into the permits associated with this project. No additional recordkeeping is required.

### Reporting

Reporting requirements from permits N-3299-4-0, '5-0 and '6-0 will be replicated into the permits associated with this project. No additional reporting is required.

Compliance is expected with this Rule.

## **Rule 2410 Prevention of Significant Deterioration**

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>
- Greenhouse gases (GHG): CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>

### **Step 1:**

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not. Per section VII.D.3 of this document, this facility is an existing major source for PSD.

### **Step 2:**

The second step of the PSD evaluation is to determine if the project results in a PSD significant increase along with the project location relative to Class 1 area.

I. Project Location Relative to Class 1 Area

This facility is an existing major source for PSD. However, it is not located within 10 km of a Class 1 area, which in this case is “Yosemite National Park” – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Significance of Project Emission Increase Determination

a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)						
Category	NO <sub>2</sub>	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>	CO <sub>2e</sub>
N-3299-4-1, '5-1 and '6-1	70.8	19.4	77.4	32.9	32.9	802,257
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	Yes	No	No	Yes	Yes	Yes

As demonstrated above, because the project has a total potential to emit from all new and modified emission units greater than PSD significant emission increase thresholds, further analysis is required to determine if the project has an emission increase greater than the PSD significant emission increase thresholds, see step below.

b. Emission Increase (EI) for Each Attainment/Unclassified Pollutant with a Significant Emission Increase vs PSD Significant Emission Increase Thresholds

In this step, the emission increase for each attainment/unclassified pollutant is compared to the PSD significant emission increase thresholds, and if the emission increase for each attainment pollutant is below this threshold, no further analysis is needed.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.



$$EI = PE2$$

There is no new unit involved in this project. Therefore, EI is equal to zero.

For the existing emissions units, the increase in emissions is calculated as follows:

$$EI = PAE - BAE - UBC$$

Where: PAE = Projected Actual Emissions, and  
 BAE = Baseline Actual Emissions  
 UBC = Unused baseline capacity

Since this project does not result in an increase in design capacity or potential to emit from the existing emission units, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period. Therefore,

$$UBC = PE1 - BAE$$

To estimate EI, PAE is set equal PE2. Thus,

$$\begin{aligned} EI &= PE2 - BAE - (PE1 - BAE) \\ &= PE2 - BAE - PE1 + BAE \\ &= PE2 - PE1 \end{aligned}$$

PE2 is equal to PE1 for each pollutant for each gas turbine. Thus, EI would be 0 for each pollutant.

The project's combined total emission increases are compared to the PSD significant emission increase thresholds in the following table.

PSD Significant Emission Increase Determination: Emission Increase (tons/year)						
Category	NO <sub>2</sub>	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>	CO <sub>2e</sub>
Emission Increases (only)	0	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	No	No	No	No	No	No

As shown in the table above, the project's emission increase, for all new and modified emission units, does not exceed any of the PSD significant emission increase thresholds. Therefore, the project does not result in a PSD major modification due to a significant emission increase and no further discussion is required.

### **Rule 2520 Federally Mandated Operating Permits**

This facility is a Major Source for NO<sub>x</sub>, CO and VOC emissions. Therefore, they are subject to the requirements of this rule. As explained previously, one of the proposed changes results in a "significant" modification to the Title V permit. Therefore, this project triggers a 30-day public notice, which includes publication of this project in a local newspaper "Modesto Bee". In addition, TID has also requested to receive the ATCs with Certificates of Conformity in accordance with the requirements of 40 CFR 70.6(c), 70.7 and 70.8. Therefore, 45-day EPA notice will be conducted prior to the issuance of the ATCs. The following conditions will be included in each permit.

- 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]
- 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]

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs and
- The source's suggested draft permit (Appendix I of this document) and
- Certification by a responsible official that the proposed modification meets the criteria for use of major permit modification procedures and a request that such procedures be used (Appendix II of this document).

Section 5.3.4 of this rule requires the permittee shall file an application for administrative permit amendments prior to implementing the requested change except when allowed by the operational flexibility provisions of section 6.4 of this rule. TID is expected to notify the District by filing TV Form -008 upon implementing the ATCs. After successful compliance demonstration, the District Compliance Division is expected to submit a change order to implement these ATCs into Permits to Operate.

Compliance is expected with this Rule.

Rule 2540	Acid Rain Program
Rule 2550	Federally Mandated Preconstruction Review for Major Sources of Air Toxics
Rule 4001	New Source Performance Standards 40 CFR Part 60 Subpart GG - Standards of Performance for Stationary Gas Turbines 40 CFR Part 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines
Rule 4002	National Emissions Standards for Hazardous Air Pollutants
Rule 4101	Visible Emissions
Rule 4102	Nuisance
Rule 4201	Particulate Matter Concentration
Rule 4202	Particulate Matter Emission Rate
Rule 4301	Fuel Burning Equipment
Rule 4703	Stationary Gas Turbines
Rule 4801	Sulfur Compounds
Rule 8011	General Requirements
Rule 8021	Construction, Demolition, Excavation, Extraction and Other Earthmoving Activities
Rule 8031	Bulk Materials
Rule 8041	Carryout and Trackout
Rule 8051	Open Areas
Rule 8061	Paved and Unpaved Roads
Rule 8071	Unpaved Vehicle/Equipment Traffic Areas

The original FDOC was issued about 3 year ago (February 11, 2010). These rules have not been revised since that time. The existing permits N-3299-4-0, '-5-0 and '-6-0 contain sufficient conditions to enforce the requirements in these rules. These conditions will be replicated in the permits associated with this project. Thus, compliance is expected with these rules.

### **California Environmental Quality Act (CEQA)**

The California Environmental Quality Act (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 San Joaquin Valley Unified Air Pollution Control District (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.
- 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.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the proposed modifications did not trigger Best Available Control Technology (BACT) requirements. Furthermore, the District concludes that potential health impacts are less than significant from the proposed emission units. Therefore, this project does not require discretionary judgment or deliberation. Consequently, this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts CEQA for those projects over which a public agency exercises only ministerial approval; therefore, the District finds that this project to be exempt from the provisions of CEQA.

## **IX. Recommendation**

The following changes are made to some of the conditions in permits in N-3299-4-0, '-5-0 and '-6-0:

TID has constructed the gas turbines after satisfying the CEQA requirements of the Lead Agency (California Energy Commission). Therefore, the following condition should not be included in the permits associated with this project.

1. The permittee shall not begin actual on-site construction of the equipment authorized by this Authority to Construct until the lead agency satisfies the requirements of the California Environmental Quality Act (CEQA). [California Environmental Quality Act]

The following requirements are related to the commissioning activities, which have been completed; therefore, these conditions should not be included in the permits associated with this project.

11. Commissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to ensure safe and reliable steady state operation of the gas turbine and associated electrical delivery systems. [District Rule 2201]

12. Commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when a gas turbine is first fired, whichever occurs first. The commissioning period shall terminate when the plant has completed initial source testing, completed final plant tuning, and is available for commercial operation. [District Rule 2201]
13. Emission rates from the gas turbine system during the commissioning period shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 40.40 lb/hr and 969.6 lb/day; VOC (as CH<sub>4</sub>) - 8.41 lb/hr and 201.8 lb/day; CO - 40.00 lb/hr and 704.6 lb/day; PM<sub>10</sub> - 2.50 lb/hr and 60.0 lb/day; or SO<sub>x</sub> (as SO<sub>2</sub>) - 1.56 lb/hr and 37.4 lb/day. [District Rule 2201]
14. During commissioning period, NO<sub>x</sub> and CO emission rate shall be monitored using installed and calibrated CEMS. [District Rule 2201]
15. The total mass emissions of NO<sub>x</sub>, VOC, CO, PM<sub>10</sub> and SO<sub>x</sub> that are emitted during the commissioning period shall accrue towards the quarterly emission limits. [District Rule 2201]
16. During commissioning period, the owner or operator shall keep records of the natural gas fuel combusted in the gas turbine system on hourly and daily basis. [District Rule 2201]

The following conditions require establishing minimum temperature at the SCR catalyst face to start ammonia injection system. TID has supplied a minimum catalyst face temperature of 540°F at which ammonia injection into the SCR system would occur. Therefore, the following changes are recommended to these conditions:

19. During all types of operation (~~with an exception of ammonia injection tuning prior to the initial source test during the commissioning period~~), including startup and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature of 540°F at the catalyst face has been reached to ensure NO<sub>x</sub> emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. ~~The minimum catalyst face temperature shall be determined during the final design phase of this project and shall be submitted to the District at least 30 days prior to commencement of construction.~~ [District Rule 2201]
20. ~~The District shall administratively add the minimum temperature limitation established pursuant to the above condition in the final Permit to Operate. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material.~~ [District Rule 2201]

TID has supplied the amount of offsets required by the District as well as the CEC. Therefore, offset conditions should not be included in the permits associated with this project.

65. Prior to operating under ATCs N-3299-4-0, N-3299-5-0 and N-3299-6-0, the permittee shall mitigate the following quantities of NOx: 1st quarter: 34,905 lb, 2nd quarter: 35,292 lb, 3rd quarter: 35,682 lb, and 4th quarter: 35,682 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]
66. NOx ERC S-3113-2 (or a certificate split from this certificate) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]
67. Prior to operating under ATCs N-3299-4-0, N-3299-5-0 and N-3299-6-0, the permittee shall mitigate the following quantities of VOC: 1st quarter: 6,113 lb, 2nd quarter: 6,113 lb, 3rd quarter: 6,114 lb, and 4th quarter: 6,114 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]
68. VOC ERC C-1008-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]
69. Prior to operating under ATCs N-3299-4-0, N-3299-5-0 and N-3299-6-0, the permittee shall mitigate the following quantities of PM10: 1st quarter: 13,506 lb, 2nd quarter: 13,507 lb, 3rd quarter: 13,507 lb, and 4th quarter: 13,507 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]
70. SOx ERC S-3129-5 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]
71. The District has authorized to use SOx reductions to offset emissions increase in PM10 at SOx/PM10 interpollutant offset ratio of 1.00. [District Rule 2201]

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct (ATC) permits N-3299-4-1, '-5-1 and '-6-1 subject to the permit conditions on the attached draft ATC permits in Appendix I after addressing comments from the applicant, CEC, CARB, EPA and the public.

**X. Billing Information**

Permit #	Fee Schedule	Fee Description	Previous Fee Schedule
N-3299-4-1	3020-08B G	54,200 kW	3020-08B G
N-3299-5-1	3020-08B G	54,200 kW	3020-08B G
N-3299-6-1	3020-08B G	54,200 kW	3020-08B G

**Appendices**

Appendix I: Draft Authority to Construct Permits

Appendix II: Compliance Certification

Appendix I  
Draft Authority to Construct Permits



San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: N-3299-4-1

LEGAL OWNER OR OPERATOR: TURLOCK IRRIGATION DISTRICT  
MAILING ADDRESS: PO BOX 949  
TURLOCK, CA 95381

LOCATION: 4500 CROWS LANDING ROAD  
MODESTO, CA 95381

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 54.2 MW NOMINAL (ISO) RATING SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A 523.2 MMBTU/HR (AT NOMINAL ISO MW RATING) GENERAL ELECTRIC, AERO DERIVATIVE, MODEL LM6000 PG SPRINT, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH A WATER SPRAY PREMIXED COMBUSTION SYSTEM, AN OXIDATION CATALYST AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION: TO ALLOW REPRESENTATIVE TESTING FOR STARTUP/SHUTDOWN EMISSIONS FROM PERMIT UNITS N-3299-4, '-5 AND '-6, AND TO MODIFY THE LANGUAGE OF FUEL FLOW METER PERMIT CONDITION

**CONDITIONS**

1. The Authority to Construct N-3299-4-0 shall be converted into Permit to Operate prior to or concurrently with the implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. {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
3. {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
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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.

Seyed Sadredin, Executive Director, APCO

**DAVID WARNER, Director of Permit Services**

N-3299-4-1 : Apr 1 2013 11:15AM - KAHLONJ : Joint Inspection NOT Required

5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Particulate matter emissions from the gas turbine system shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. 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
10. 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
11. Startup of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
12. Shutdown of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. During all types of operation including startup and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature of 540°F at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During start-up or shutdown period, the emissions shall not exceed any of the following limits: NOx (as NO2) - 25.00 lb/hr; CO - 40.00 lb/hr; VOC (as methane) - 2.00 lb/hr; PM10 - 2.50 lb/hr; SOx (as SO2) - 1.56 lb/hr; or NH3 - 7.44 lb/hr. [District Rules 2201 and 4703] 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. [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit
16. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status ending when the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26] Federally Enforceable Through Title V Permit
17. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
18. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 5.02 lb/hr and 2.5 ppmvd @ 15% O2; CO - 4.89 lb/hr and 4.0 ppmvd @ 15% O2; VOC (as methane) - 1.40 lb/hr and 2.0 ppmvd @ 15% O2; PM10 - 2.50 lb/hr; or SOx (as SO2) - 1.56 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
19. NH3 emissions shall not exceed 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average period will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour rolling average for ammonia slip will commence on the hour. The twenty-four hour rolling average shall be calculated using the most recent twenty-four one-hour periods. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Emissions from the gas turbine system, on days when a startup and/or shutdown occurs, shall not exceed the following limits: NOx (as NO<sub>2</sub>) - 160.4 lb/day; CO - 187.6 lb/day; VOC - 34.8 lb/day; PM<sub>10</sub> - 60.0 lb/day; SOx (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emissions from the gas turbine system, on days when a startup and/or shutdown does not occur, shall not exceed the following: NOx (as NO<sub>2</sub>) - 120.5 lb/day; CO - 117.4 lb/day; VOC - 33.6 lb/day; PM<sub>10</sub> - 60.0 lb/day; SOx (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
24. NOx (as NO<sub>2</sub>) emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 11,635 lb; 2nd quarter: 11,764 lb; 3rd quarter: 11,894 lb; 4th quarter: 11,894 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 12,728 lb; 2nd quarter: 12,869 lb; 3rd quarter: 13,011 lb; 4th quarter: 13,011 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
26. VOC emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 2,794 lb; 2nd quarter: 2,825 lb; 3rd quarter: 2,856 lb; 4th quarter: 2,856 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NH<sub>3</sub> emissions from the SCR system associated with this gas turbine system shall not exceed any of the following: 1st quarter: 15,181 lb; 2nd quarter: 15,349 lb; 3rd quarter: 15,517 lb; 4th quarter: 15,517 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
28. PM<sub>10</sub> emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 5,400 lb; 2nd quarter: 5,461 lb; 3rd quarter: 5,520 lb; 4th quarter: 5,520 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
29. SOx (as SO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 3,183 lb; 2nd quarter: 3,219 lb; 3rd quarter: 3,255 lb; 4th quarter: 3,255 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
30. A water injection system, a selective catalytic reduction (SCR) system and an oxidation catalyst shall serve this gas turbine system. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing to measure startup and shutdown NOx, CO, and VOC mass emission rates shall be conducted at least once every seven years on one of the three gas turbines (N-3299-4, '-5 or '-6). CEM relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NOx and CO startup emission limits, then startup and shutdown NOx and CO testing on one of the three gas turbines (N-3299-4, '-5 or '-6) shall be conducted every 12 months. If an annual startup and shutdown NOx and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NOx and CO testing frequency shall return to the once every seven years schedule. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
36. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days after the end of commissioning period and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf 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 until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
37. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.4400(1)(i)] Federally Enforceable Through Title V Permit
38. 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
39. 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
40. A mass or volumetric fuel flow meter that meets the requirements of 40 CFR Part 75 shall be installed, utilized and maintained to measure the amount of natural gas combusted in the unit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Continuous emissions monitor(s) shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.4340(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
42. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure I and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
43. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
44. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) and in accordance with 40 CFR 60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4350] Federally Enforceable Through Title V Permit
45. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CO CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
46. The owner/operator shall perform a RATA for CO 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

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CONDITIONS CONTINUE ON NEXT PAGE

47. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
48. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
49. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS 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 CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
51. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> 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 Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Monitor Downtime is defined as any unit operating hour in which the data for NO<sub>x</sub>, or O<sub>2</sub> concentrations is either missing or invalid. [40 CFR 60.4380(b)(2)] Federally Enforceable Through Title V Permit
53. The owner or operator shall maintain records of the following items: 1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup and or shutdown of the gas turbine system occurs, 2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup and or shutdown of the gas turbine system does not occur, 3) quarterly emissions, in pounds, for each pollutant listed in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, date/time and duration of each start-up and each shutdown event. [District Rule 2201 and 4703, 6.2.6, 6.2.8, 6.2.11] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30<sup>th</sup> day following the end of the calendar quarter and shall include the following: Date, time intervals, data and magnitude of excess NO<sub>x</sub> 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, 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
57. The owner or operator shall submit to the District information correlating the NO<sub>x</sub> control system operating parameters to the associated measured NO<sub>x</sub> output. The information must be sufficient to allow the District to determine compliance with the NO<sub>x</sub> emission limits of this permit when the CEMS is not operating properly. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

58. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
59. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
60. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
61. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 or Rule 8011. [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
62. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 or Rule 8011. [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
63. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
64. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
65. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
66. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
67. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031 and 8071] Federally Enforceable Through Title V Permit
68. The owners and operators of each affected source and each affected unit at the source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
69. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
70. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley  
Air Pollution Control District

## AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-3299-5-1

LEGAL OWNER OR OPERATOR: TURLOCK IRRIGATION DISTRICT

MAILING ADDRESS: PO BOX 949  
TURLOCK, CA 95381

LOCATION: 4500 CROWS LANDING ROAD  
MODESTO, CA 95381

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 54.2 MW NOMINAL (ISO) RATING SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A 523.2 MMBTU/HR (AT NOMINAL ISO MW RATING) GENERAL ELECTRIC, AERO DERIVATIVE, MODEL LM6000 PG SPRINT, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH A WATER SPRAY PREMIXED COMBUSTION SYSTEM, AN OXIDATION CATALYST AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION: TO ALLOW REPRESENTATIVE TESTING FOR STARTUP/SHUTDOWN EMISSIONS FROM PERMIT UNITS N-3299-4, '-5 AND '-6, AND TO MODIFY THE LANGUAGE OF FUEL FLOW METER PERMIT CONDITION

## CONDITIONS

1. The Authority to Construct N-3299-5-0 shall be converted into Permit to Operate prior to or concurrently with the implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. {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
3. {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
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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.

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

N-3299-5-1 : Apr 1 2013 11:15AM - KAHLONU : Joint Inspection NOT Required



5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Particulate matter emissions from the gas turbine system shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. 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
10. 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
11. Startup of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
12. Shutdown of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. During all types of operation including startup and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature of 540°F at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During start-up or shutdown period, the emissions shall not exceed any of the following limits: NOx (as NO2) - 25.00 lb/hr; CO - 40.00 lb/hr; VOC (as methane) - 2.00 lb/hr; PM10 - 2.50 lb/hr; SOx (as SO2) - 1.56 lb/hr; or NH3 - 7.44 lb/hr. [District Rules 2201 and 4703] 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. [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit
16. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status ending when the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26] Federally Enforceable Through Title V Permit
17. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
18. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 5.02 lb/hr and 2.5 ppmvd @ 15% O2; CO - 4.89 lb/hr and 4.0 ppmvd @ 15% O2; VOC (as methane) - 1.40 lb/hr and 2.0 ppmvd @ 15% O2; PM10 - 2.50 lb/hr; or SOx (as SO2) - 1.56 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
19. NH3 emissions shall not exceed 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average period will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour rolling average for ammonia slip will commence on the hour. The twenty-four hour rolling average shall be calculated using the most recent twenty-four one-hour periods. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Emissions from the gas turbine system, on days when a startup and/or shutdown occurs, shall not exceed the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 160.4 lb/day; CO - 187.6 lb/day; VOC - 34.8 lb/day; PM<sub>10</sub> - 60.0 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emissions from the gas turbine system, on days when a startup and/or shutdown does not occur, shall not exceed the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 120.5 lb/day; CO - 117.4 lb/day; VOC - 33.6 lb/day; PM<sub>10</sub> - 60.0 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
24. NO<sub>x</sub> (as NO<sub>2</sub>) emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 11,635 lb; 2nd quarter: 11,764 lb; 3rd quarter: 11,894 lb; 4th quarter: 11,894 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 12,728 lb; 2nd quarter: 12,869 lb; 3rd quarter: 13,011 lb; 4th quarter: 13,011 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
26. VOC emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 2,794 lb; 2nd quarter: 2,825 lb; 3rd quarter: 2,856 lb; 4th quarter: 2,856 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NH<sub>3</sub> emissions from the SCR system associated with this gas turbine system shall not exceed any of the following: 1st quarter: 15,181 lb; 2nd quarter: 15,349 lb; 3rd quarter: 15,517 lb; 4th quarter: 15,517 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
28. PM<sub>10</sub> emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 5,400 lb; 2nd quarter: 5,461 lb; 3rd quarter: 5,520 lb; 4th quarter: 5,520 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
29. SO<sub>x</sub> (as SO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 3,183 lb; 2nd quarter: 3,219 lb; 3rd quarter: 3,255 lb; 4th quarter: 3,255 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
30. A water injection system, a selective catalytic reduction (SCR) system and an oxidation catalyst shall serve this gas turbine system. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted at least once every seven years on one of the three gas turbines (N-3299-4, '-5 or '-6). CEM relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emission limits, then startup and shutdown NO<sub>x</sub> and CO testing on one of the three gas turbines (N-3299-4, '-5 or '-6) shall be conducted every 12 months. If an annual startup and shutdown NO<sub>x</sub> and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NO<sub>x</sub> and CO testing frequency shall return to the once every seven years schedule. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
36. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days after the end of commissioning period and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf 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 until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
37. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.4400(1)(i)] Federally Enforceable Through Title V Permit
38. 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
39. 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
40. A mass or volumetric fuel flow meter that meets the requirements of 40 CFR Part 75 shall be installed, utilized and maintained to measure the amount of natural gas combusted in the unit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Continuous emissions monitor(s) shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.4340(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
42. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
43. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
44. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) and in accordance with 40 CFR 60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4350] Federally Enforceable Through Title V Permit
45. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CO CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
46. The owner/operator shall perform a RATA for CO 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

CONDITIONS CONTINUE ON NEXT PAGE

47. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
48. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
49. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS 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 CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
51. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> 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 Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Monitor Downtime is defined as any unit operating hour in which the data for NO<sub>x</sub>, or O<sub>2</sub> concentrations is either missing or invalid. [40 CFR 60.4380(b)(2)] Federally Enforceable Through Title V Permit
53. The owner or operator shall maintain records of the following items: 1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup and or shutdown of the gas turbine system occurs, 2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup and or shutdown of the gas turbine system does not occur, 3) quarterly emissions, in pounds, for each pollutant listed in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, date/time and duration of each start-up and each shutdown event. [District Rule 2201 and 4703, 6.2.6, 6.2.8, 6.2.11] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Date, time intervals, data and magnitude of excess NO<sub>x</sub> 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, 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
57. The owner or operator shall submit to the District information correlating the NO<sub>x</sub> control system operating parameters to the associated measured NO<sub>x</sub> output. The information must be sufficient to allow the District to determine compliance with the NO<sub>x</sub> emission limits of this permit when the CEMS is not operating properly. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

58. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
59. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
60. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
61. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 or Rule 8011. [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
62. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 or Rule 8011. [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
63. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
64. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
65. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
66. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
67. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031 and 8071] Federally Enforceable Through Title V Permit
68. The owners and operators of each affected source and each affected unit at the source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
69. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
70. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: N-3299-6-1

LEGAL OWNER OR OPERATOR: TURLOCK IRRIGATION DISTRICT  
MAILING ADDRESS: PO BOX 949  
TURLOCK, CA 95381

LOCATION: 4500 CROWS LANDING ROAD  
MODESTO, CA 95381

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 54.2 MW NOMINAL (ISO) RATING SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM CONSISTING OF A 523.2 MMBTU/HR (AT NOMINAL ISO MW RATING) GENERAL ELECTRIC, AERO DERIVATIVE, MODEL LM6000 PG SPRINT, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH A WATER SPRAY PREMIXED COMBUSTION SYSTEM, AN OXIDATION CATALYST AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION; TO ALLOW REPRESENTATIVE TESTING FOR STARTUP/SHUTDOWN EMISSIONS FROM PERMIT UNITS N-3299-4, '-5 AND '-6, AND TO MODIFY THE LANGUAGE OF FUEL FLOW METER PERMIT CONDITION

**CONDITIONS**

1. The Authority to Construct N-3299-6-0 shall be converted into Permit to Operate prior to or concurrently with the implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
2. {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
3. {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
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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.

Seyed Sadredin, Executive Director, APCO

**DAVID WARNER**, Director of Permit Services

N-3299-6-1: Apr 1 2013 11:15AM - KAHLONU - Joint Inspection NOT Required

5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Particulate matter emissions from the gas turbine system shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. 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
10. 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
11. Startup of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
12. Shutdown of this gas turbine system shall not exceed one-hour per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
13. During all types of operation including startup and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature of 540°F at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The District may administratively modify the temperature as necessary following any replacement of the SCR catalyst material. [District Rule 2201] Federally Enforceable Through Title V Permit
14. During start-up or shutdown period, the emissions shall not exceed any of the following limits: NOx (as NO2) - 25.00 lb/hr; CO - 40.00 lb/hr; VOC (as methane) - 2.00 lb/hr; PM10 - 2.50 lb/hr; SOx (as SO2) - 1.56 lb/hr; or NH3 - 7.44 lb/hr. [District Rules 2201 and 4703] 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. [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit
16. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status ending when the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26] Federally Enforceable Through Title V Permit
17. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
18. Except during startup and shutdown periods, emissions from the gas turbine system shall not exceed any of the following limits: NOx (as NO2) - 5.02 lb/hr and 2.5 ppmvd @ 15% O2; CO - 4.89 lb/hr and 4.0 ppmvd @ 15% O2; VOC (as methane) - 1.40 lb/hr and 2.0 ppmvd @ 15% O2; PM10 - 2.50 lb/hr; or SOx (as SO2) - 1.56 lb/hr. NOx (as NO2) emission limits are based on 1-hour rolling average period. All other emission limits are based on 3-hour rolling average period. [District Rules 2201, 4001 and 4703] Federally Enforceable Through Title V Permit
19. NH3 emissions shall not exceed 10.0 ppmvd @ 15% O2 over a 24-hour rolling average period. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Each 3-hour rolling average period will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour rolling average for ammonia slip will commence on the hour. The twenty-four hour rolling average shall be calculated using the most recent twenty-four one-hour periods. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE



21. Emissions from the gas turbine system, on days when a startup and/or shutdown occurs, shall not exceed the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 160.4 lb/day; CO - 187.6 lb/day; VOC - 34.8 lb/day; PM<sub>10</sub> - 60.0 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emissions from the gas turbine system, on days when a startup and/or shutdown does not occur, shall not exceed the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 120.5 lb/day; CO - 117.4 lb/day; VOC - 33.6 lb/day; PM<sub>10</sub> - 60.0 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 37.4 lb/day, or NH<sub>3</sub> - 178.6 lb/day. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Gas turbine system shall be fired on PUC-regulated natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
24. NO<sub>x</sub> (as NO<sub>2</sub>) emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 11,635 lb; 2nd quarter: 11,764 lb; 3rd quarter: 11,894 lb; 4th quarter: 11,894 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 12,728 lb; 2nd quarter: 12,869 lb; 3rd quarter: 13,011 lb; 4th quarter: 13,011 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
26. VOC emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 2,794 lb; 2nd quarter: 2,825 lb; 3rd quarter: 2,856 lb; 4th quarter: 2,856 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NH<sub>3</sub> emissions from the SCR system associated with this gas turbine system shall not exceed any of the following: 1st quarter: 15,181 lb; 2nd quarter: 15,349 lb; 3rd quarter: 15,517 lb; 4th quarter: 15,517 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
28. PM<sub>10</sub> emissions from this gas turbine system shall not exceed any of the following: 1st quarter: 5,400 lb; 2nd quarter: 5,461 lb; 3rd quarter: 5,520 lb; 4th quarter: 5,520 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
29. SO<sub>x</sub> (as SO<sub>2</sub>) emissions from the gas turbine system shall not exceed any of the following: 1st quarter: 3,183 lb; 2nd quarter: 3,219 lb; 3rd quarter: 3,255 lb; 4th quarter: 3,255 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
30. A water injection system, a selective catalytic reduction (SCR) system and an oxidation catalyst shall serve this gas turbine system. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing to measure startup and shutdown NO<sub>x</sub>, CO, and VOC mass emission rates shall be conducted at least once every seven years on one of the three gas turbines (N-3299-4, '-5 or '-6). CEM relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). If CEM data is not certifiable to determine compliance with NO<sub>x</sub> and CO startup emission limits, then startup and shutdown NO<sub>x</sub> and CO testing on one of the three gas turbines (N-3299-4, '-5 or '-6) shall be conducted every 12 months. If an annual startup and shutdown NO<sub>x</sub> and CO relative accuracy audit demonstrates that the CEM data is certifiable, the startup and shutdown NO<sub>x</sub> and CO testing frequency shall return to the once every seven years schedule. [District Rule 1081] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

35. Source testing to determine compliance with the NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emission rates (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> emission rate (lb/hr) shall be conducted at least once every 12 months. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
36. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days after the end of commissioning period and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf 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 until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
37. The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.4400(1)(i)] Federally Enforceable Through Title V Permit
38. 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
39. 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
40. A mass or volumetric fuel flow meter that meets the requirements of 40 CFR Part 75 shall be installed, utilized and maintained to measure the amount of natural gas combusted in the unit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Continuous emissions monitor(s) shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.4340(b)(1) and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
42. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be installed and certified in accordance with the requirements of 40 CFR Part 75. The CO CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 4A (PS 4A), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4345(a)] Federally Enforceable Through Title V Permit
43. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.4345(b)] Federally Enforceable Through Title V Permit
44. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h) and in accordance with 40 CFR 60.4350, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.4350] Federally Enforceable Through Title V Permit
45. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CO CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
46. The owner/operator shall perform a RATA for CO 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

CONDITIONS CONTINUE ON NEXT PAGE

47. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. Linearity reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
48. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
49. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. Upon notice by the District that the facility's CEMS 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 CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
50. The owner or operator shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
51. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> 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 Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
52. Monitor Downtime is defined as any unit operating hour in which the data for NO<sub>x</sub>, or O<sub>2</sub> concentrations is either missing or invalid. [40 CFR 60.4380(b)(2)] Federally Enforceable Through Title V Permit
53. The owner or operator shall maintain records of the following items: 1) hourly and daily emissions, in pounds, for each pollutant listed in this permit on the days startup and or shutdown of the gas turbine system occurs, 2) hourly and daily emissions, in pounds, for each pollutant in this permit on the days startup and or shutdown of the gas turbine system does not occur, 3) quarterly emissions, in pounds, for each pollutant listed in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
54. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, total hours of operation, the type and quantity of fuel used, date/time and duration of each start-up and each shutdown event. [District Rule 2201 and 4703, 6.2.6, 6.2.8, 6.2.11] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Date, time intervals, data and magnitude of excess NO<sub>x</sub> 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, 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
57. The owner or operator shall submit to the District information correlating the NO<sub>x</sub> control system operating parameters to the associated measured NO<sub>x</sub> output. The information must be sufficient to allow the District to determine compliance with the NO<sub>x</sub> emission limits of this permit when the CEMS is not operating properly. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

58. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
59. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
60. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 or Rule 8011. [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
61. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 or Rule 8011. [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
62. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 or Rule 8011. [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
63. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
64. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
65. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071] Federally Enforceable Through Title V Permit
66. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
67. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031 and 8071] Federally Enforceable Through Title V Permit
68. The owners and operators of each affected source and each affected unit at the source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
69. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
70. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

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

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Appendix II  
Compliance Certification



**WATER & POWER**  
 Serving Central California since 1887

Board of Directors:  
 Joe Alamo  
 Charles Fernandes  
 Michael Frantz  
 Ron Macedo  
 Rob Santos

December 19, 2012

RECEIVED  
 DEC 20 2012  
 SJVAPCD  
 NORTHERN REGION

Rupi Gill  
 Permit Services  
 San Joaquin Valley Air Pollution Control District  
 4800 Enterprise Way  
 Modesto, CA 95356-8718

Subject: Compliance Statement for the TID Almond 2 Power Plant Permit Modification

Dear Mr. Gill:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," Turlock Irrigation District (TID) is pleased to provide this compliance statement regarding its proposed Almond 2 Power Plant permit modifications.

All major stationary sources in California owned or operated by TID, or by any entity controlling, controlled by, or under common control with TID, and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

- Almond Power Plant;
- Walnut Energy Center; and
- Walnut Power Plant.

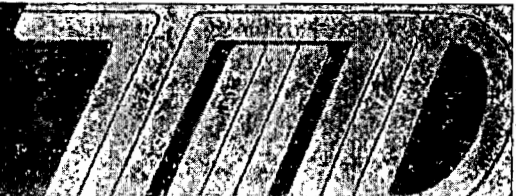
Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Please contact me if you have any questions regarding this certification.

Sincerely,

George Davies, IV  
 Combustion Turbine Department Manager  
 Turlock Irrigation District

cc: Jeffrey Adkins, Sierra Research  
 Susan Strachan, Strachan Consulting



## San Joaquin Valley Unified Air Pollution Control District

### TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

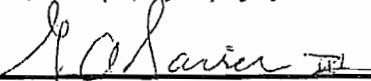
- SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: Turlock Irrigation District	FACILITY ID: N -3299
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Utility	
2. Owner's Name: Turlock Irrigation District	
3. Agent to the Owner: George Davies, IV	

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

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

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



Signature of Responsible Official

1/2/2013

Date

George Davies, IV

Name of Responsible Official (please print)

Combustion Turbine Department Manager

Title of Responsible Official (please print)