



**NCT 06 2011** 

Glenn Mount **Modesto Irrigation District** PO Box 4060 Modesto, CA 95352-5060

Revised Notice of Final Action - Title V Permit Renewal Re:

**District Facility # N-3233 Project # N-1091426** 

Dear Mr. Mount:

The District has issued the Final Renewed Title V Permit for Modesto Irrigation District. The preliminary decision for this project was made on September 9, 2010. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,

David Warner

Director of Permit Services

**Attachments** 

cc: Juscelino Siongco, Permit Services Engineer

Seyed Sadredin

**Executive Director/Air Pollution Control Officer** 





OCT **06 2011** 

Gerardo C. Rios, Chief Permits Office (AIR-3) U.S. EPA - Region IX 75 Hawthorne St. San Francisco, CA 94105

Revised Notice of Final Action - Title V Permit Renewal

District Facility # N-3233 Project # N-1091426

Dear Mr. Rios:

The District has issued the Final Renewed Title V Permit for Modesto Irrigation District. The preliminary decision for this project was made on September 9, 2010. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

I would like to thank you and your staff for working with us. We appreciate your concurrence with this action. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely.

David Warner

Director of Permit Services

**Attachments** 

cc: Juscelino Siongco, Permit Services Engineer

Seved Sadredin

Executive Director/Air Pollution Control Officer





OCT 06 2011

Mike Tollstrup, Chief **Project Assessment Branch** Air Resources Board P O Box 2815 Sacramento, CA 95812-2815

Revised Notice of Final Action - Title V Permit Renewal

District Facility # N-3233 Project # N-1091426

Dear Mr. Tollstrup:

The District has issued the Final Renewed Title V Permit for Modesto Irrigation District. The preliminary decision for this project was made on September 9, 2010. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

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I would like to thank you and your staff for working with us. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

Director of Permit Services

**Attachments** 

cc: Juscelino Siongco, Permit Services Engineer

Seyed Sadredin

Executive Director/Air Pollution Control Officer

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT REVISED NOTICE OF FINAL DECISION TO ISSUE RENEWED FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue the renewed Federally Mandated Operating Permit to Modesto Irrigation District for its electrical generating facility, 920 Woodland Ave, Modesto, California.

The District's analysis of the legal and factual basis for this proposed action, project #N-1091426, is available for public inspection at http://www.valleyair.org/notices/public\_notices\_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.

## SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

### Final Title V Permit Renewal Evaluation Modesto Irrigation District N-3233

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### TITLE V PERMIT RENEWAL EVALUATION

### **Electrical Generating Facility**

Engineer: Juscelino Siongco

Date: September 6, 2011

Facility Number: N-3233

Facility Name: Modesto Irrigation District

Mailing Address: PO Box 4060

Modesto, CA 95352-4060

Contact Name: Glenn Mount

**Phone:** (209) 526-7616

Responsible Official: Glenn Mount

Title: Generation Manager

**Project #:** N-1091426

**Deemed Complete:** March 31, 2009

#### I. PROPOSAL

Modesto Irrigation District was issued a Title V permit on January 13, 2000. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

### II. FACILITY LOCATION

Modesto Irrigation District is located at 920 Woodland Ave in Modesto, CA.

### III. EQUIPMENT LISTING

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

### IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit Templates:

### A. Template SJV-UM-0-3 Facility Wide Umbrella

The applicant has requested to utilize template No. SJV-UM-0-3, <u>Facility Wide Umbrella</u>. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

### B. Template SJV-GT-1-3 Series 1 Gas Turbines

The applicant has requested to utilize template no. SJV-GT-1-3, <u>Series 1 Gas Turbines</u> for the 466 MMBtu/hr General Electric LM6000 Sprint model natural gas-fired turbine for permit number N-3233-4.

The applicant qualifies to use this template but the template has not been updated to the current version of District Rule 4703 (amended September 20, 2007). Therefore, the template SJV-GT-1-3 will not be used in this evaluation.

### V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

Conditions 1 through 40 of the requirements for permit unit N-3233-0-3.

### VI. FEDERALLY ENFORCEABLE REQUIREMENTS

### A. Rules Updated

- District Rule 2020, <u>Exemptions</u>
   (amended September 21, 2006 ⇒ amended December 20, 2007)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended September 21, 2006 ⇒ December 18, 2008)
- District Rule 4101, <u>Visible Emissions</u>
   (amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4601, <u>Architectural Coatings</u>
   (amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4703, <u>Stationary Gas Turbines</u>
   (amended August 17, 2006 ⇒ amended September 20, 2007)
- District Rule 8011, <u>General Requirements</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8021, <u>Construction</u>, <u>Demolition</u>, <u>Excavation</u>, <u>Extraction</u>, <u>and</u>
   Other Earthmoving Activities
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8031, <u>Bulk Materials</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8041, <u>Carryout and Trackout</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8051, <u>Open Areas</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8061, <u>Paved and Unpaved Roads</u>
   (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8071, <u>Unpaved Vehicle/Equipment Traffic Areas</u> (adopted November 15, 2001 ⇒ amended September 16, 2004)

- 40 CFR 60, Subpart GG Standards for Performance of Stationary Gas Turbines (amended February 24, 2006)
- 40 CFR Part 63, Subpart YYYY, <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines</u> (amended April 20, 2008)
- 40 CFR Part 82, Subpart B, <u>Stratospheric Ozone</u> (amended November 9, 2007)
- 40 CFR Part 82, Subpart F, <u>Stratospheric Ozone</u> (amended June 8, 2008)

### **B.** Rules Not Updated

- District Rule 1100, <u>Equipment Breakdown</u> (amended December 17,1992)
- District Rule 1160, <u>Emission Statements</u> (adopted November 18, 1992)
- District Rule 2010, <u>Permits Required</u> (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, <u>Standards for Granting Applications</u> (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 4201, <u>Particulate Matter Concentration</u> (amended December 17, 1992)
  - 40 CFR Part 60, Subpart KKKK, <u>Standards of Performance for Stationary</u> <u>Combustion Turbines</u>
  - 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u> (amended September 18, 2003)
  - 40 CFR Part 64, <u>Compliance Assurance Monitoring</u>

- 40 CFR Part 72, Acid Rain Program
- 40 CFR Part 73, Sulfur Dioxide Allowance System
- 40 CFR Part 75, Continuous Emission Monitoring
- 40 CFR Part 77, Excess Emissions

### VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

For this facility, the following are not federally enforceable and will not be discussed in further detail:

### A. District Rule 4102 - Nuisance

- 1. N-3233-0-3 Facility-Wide Requirements
  - Condition 42 of the proposed permit is based on this rule.

### B. District Rule 7012 - Hexavalent Chromium - Cooling Towers

- 1. N-3233-5-3 Cooling Tower
  - Condition 1 of the proposed permit is based on this rule.

### VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit.

### A. District Rule 2020 - Exemptions

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

### B. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

- Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

### C. District Rule 4703 - Stationary Gas Turbines

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

### 1. N-3233-1-6 - General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine

- Condition 4 on the current permit to operate (PTO) was revised to replace "thermal stabilization period" with the definition of start-up and shutdown stated in condition #10 of N-3233-4-5.
- Conditions 28, 33, 35, and 44 on the proposed permit assure compliance with the rule.

### 2. N-3233-4-5 – 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine

- Conditions 5, 8, and 10 on the proposed permit assure compliance with the rule.
- Condition 23 on the current permit to operate was deleted since "thermal stabilization period" had been removed from the rule and replaced with the definitions of start-up and shutdown.
- Conditions 25, 32, 39, and 40 on the proposed permit assure compliance with the rule.

### D. 40 CFR 60, Subpart GG, - <u>Standards of Performance for Stationary</u> <u>Gas Turbines</u>

The provisions of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10 million Btu per hour. Section 60.334 and 60.335 of this Subpart was amended February 24, 2006.

The amended provisions, 40 CFR 60.334(c), (e), and (f) clarify that the monitoring methods are options rather than requirements for turbines that do not use water or steam to control  $NO_X$  emissions. In addition, the introductory text of 46 CFR 60.334(j), 60.334(j)(1)(iv), and 40 CFR 60.335(b)(8) were also revised to reflect the amended provisions of 40 CFR 60.334(c), (e), and (f). Since this permit unit uses water/steam injection to control  $NO_X$  emissions, the amended provisions are not applicable this gas turbine.

- N-3233-1-6 General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine
  - Conditions 2, 3, 7, 28, 29, and 33 on the proposed permit assure compliance with the rule.
- 2 . N-3233-4-5 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine
  - Conditions 5, 6, 21, 22, 25, 38, and 40 on the proposed permit assure compliance with the rule.

### E. 40 CFR 60, Subpart KKKK, - <u>Standards of Performance for Stationary</u> <u>Combustion Turbines</u>

This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.

These permit unit are not subject to this subpart since the units had not undergone construction, modification or reconstruction after the February 18, 2005.

### F. 40 CFR Part 63, Subpart YYYY, - <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines</u>

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

The facility is not a major or area source of HAP emissions and is not subject to this subpart.

### G. 40 CFR Part 64, - Compliance Assurance Monitoring

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

### 1. N-3233-1-6 — General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine

The permit unit has emissions limits for all five criteria pollutants ( $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, and VOC. There are no add-on controls for  $SO_X$  and  $PM_{10}$ , therefore CAM is not applicable for  $SO_X$  and  $PM_{10}$ .

Based on 40 CFR 64.2(b)(1)(vi),  $NO_X$  and CO emissions limits are exempt from CAM since the Part 70 permit already specifies a continuous compliance determination method for both  $NO_X$  and CO. This permit unit may be subject to CAM for VOC since there is a VOC limit and it has add-on control in the form of an oxidation catalytic system. However, the precontrol VOC potential to emit is less than the major source threshold of 50,000 lb-VOC/year as shown below. Therefore, this unit is not subject to CAM.

The natural gas-fired turbine uncontrolled emission factor is 0.0021 lb-VOC/MMBtu (AP-42, Table 3.1-2a, April 2000). This unit's rating is approximately 460 MMBtu/hr (HHV).

460 MMBtu/hr x 0.0021 lb-VOC/MMBtu x 8,760 hr/yr = 8,462 lb-VOC/yr

The distillate-fired turbine uncontrolled emission factor is 0.00041 lb-VOC/MMBtu (AP-42, Table 3.1-2a, April 2000). This unit's rating is approximately 460 MMBtu/hr (HHV).

460 MMBtu/hr x 0.0004 lb-VOC/MMBtu x 8,760 hr/yr = 1,652 lb-VOC/yr

2 . N-3233-4-5 – 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine with a 234 MMBtu/hr Duct Burner

The permit unit has emissions limits for all five criteria pollutants ( $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, and VOC. There are no add-on controls for  $SO_X$  and  $PM_{10}$ , therefore CAM is not applicable for  $SO_X$  and  $PM_{10}$ .

Based on 40 CFR 64.2(b)(1)(vi),  $NO_X$  and CO emissions limits are exempt from CAM since the Part 70 permit already specifies a continuous compliance determination method for both  $NO_X$  and CO. This permit unit may be subject to CAM for VOC since there is a VOC limit and it has add-on control in the form of an oxidation catalytic system. However, the precontrol VOC potential to emit is less than the major source threshold of 50,000 lb-VOC/year as shown below. Therefore, this unit is not subject to CAM.

The natural gas-fired turbine uncontrolled emission factor is 0.0021 lb-VOC/MMBtu (AP-42, Table 3.1-2a, April 2000). This unit's rating is approximately 460 MMBtu/hr (HHV).

 $(466 \text{ MMBtu/hr} + 234 \text{ MMBtu/hr}) \times 0.0021 \text{ lb-VOC/MMBtu} \times 8,760 \text{ hr/yr} = 12,877 \text{ lb-VOC/yr}$ 

### 3 . N-3233-5-3 - Cooling Tower

The permit unit is not subject to CAM since it does not have add-on controls

### H. 40 CFR Part 72, Acid Rain Program

The purpose of this part is to establish certain general provisions and the operating permit program requirements for affected sources and affected units under the Acid Rain Program,

- 1. N-3233-1-6 General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine
  - Conditions 46, 51, 54, 55, 56, and 59 on the proposed permit assure compliance with the rule.
- 2 . N-3233-4-5 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine
  - Conditions 41, 46, 47, 49, 50, 51, and 54 on the proposed permit assure compliance with the rule.

### I. 40 CFR Part 73, Sulfur Dioxide Allowance System

The purpose of this part is to establish the requirements and procedures for the following:

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

- N-3233-1-6 General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine
  - Conditions 49 and 53 on the proposed permit assure compliance with the rule.
- 2 . N-3233-4-5 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine
  - Conditions 44 and 48 on the proposed permit assure compliance with the rule.

### J. 40 CFR Part 75, Continuous Emission Monitoring

The purpose of this part is to establish requirements for the monitoring, recordkeeping, and reporting of sulfur dioxide ( $SO_2$ ), nitrogen oxides ( $NO_X$ ), and carbon dioxide ( $CO_2$ ) emissions, volumetric flow, and opacity data from affected units under the Acid Rain Program.

- N-3233-1-6 General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine
  - Conditions 47, 48, 50, 60, and 61 on the proposed permit assure compliance with the rule.
- 2 . N-3233-4-5 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine
  - Conditions 42, 43, 46, 55, and 56 on the proposed permit assure compliance with the rule.

### K. 40 CFR Part 77, Excess Emissions

This part sets forth the excess emissions offset planning and offset penalty requirements under section 411 of the Clean Air Act. These requirements shall apply to the owners and operators and, to the extent applicable, the designated representative of each affected unit and affected source under the Acid Rain Program.

 N-3233-1-6 – General Electric LM5000 PD Aero-Derivative 460 MMBtu/hr Gas Turbine Engine

- Conditions 50, 57, and 58 on the proposed permit assure compliance with the rule.
- 2 . N-3233-4-5 87 MW Load Following Power Plant Served by a 466 MMBtu/hr General Electric LM6000 Sprint Natural Gas-Fired Turbine
  - Conditions 45, 52, and 53 on the proposed permit assure compliance with the rule.

### IX. PERMIT SHIELD

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

### A. Requirements Addressed by Model General Permit Templates

1. Model General Permit Template SJV-UM-0-3

By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 39 and 40 of the facility-wide requirements (N-3233-0-3).

### X. PERMIT CONDITIONS

See Attachment A - Renewed Title V Operating Permit.

### XI. ATTACHMENTS

- A. Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Facility List
- D. Public Comments

### **ATTACHMENT A**

Renewed Title V Operating Permit





## **Permit to Operate**

**FACILITY:** N-3233 **EXPIRATION DATE:** 11/30/2015

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT GENERATION DEPT ADMIN OFFICES

P O BOX 4060

MODESTO, CA 95352

FACILITY LOCATION: 920 WOODLAND AVENUE

MODESTO, CA 95351

FACILITY DESCRIPTION: POWER GENERATION FACILITY

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

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



David Warner
Director of Permit Services

### San Joaquin Valley Air Pollution Control District

**EXPIRATION DATE: 11/30/2015 FACILITY: N-3233-0-3** 

### **FACILITY-WIDE REQUIREMENTS**

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-0-3: Sep 18 2011 1:58PM - SIONGCOJ

- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation), [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

Facility Name: MODESTO IRRIGATION DISTRICT Location:

Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-0-3 : Sep 16 2011 1:58PM - SIONGCOJ

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V **Permit**
- 41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1st every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

ocation: 920 WOODLAND AVENUE, MODESTO, CA 95351

### San Joaquin Valley Air Pollution Control District

**PERMIT UNIT: N-3233-1-6** 

**EXPIRATION DATE: 11/30/2015** 

#### **EQUIPMENT DESCRIPTION:**

ONE (1) GENERAL ELECTRIC LM5000 PD AERO-DERIVATIVE 460 MMBTU/HR (HHV) GAS TURBINE ENGINE WITH STEAM INJECTION, OXIDIZATION CATALYST, AMMONIA INJECTION, AND SELECTIVE CATALYTIC REDUCTION **SERVING A 49.9 MW ELECTRICAL GENERATOR** 

### PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- When operating on natural gas, the unit shall be fired exclusively on PUC-regulated natural gas which has a sulfur content of less than or equal to 0.017% by weight. When operating on liquid fuel, the unit shall be fired on low sulfur light distillate fuel with less than or equal to 0.05% sulfur by weight. [District NSR Rule; 40 CFR 60.333(b); Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
- The sulfur content of each fuel source shall be documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- Start-up is defined as the period beginning with the initial firing of the turbine and ending when the turbine meets the NOx and CO limits for steady state operation. Shutdown is defined as the period beginning with initiation of the turbine shutdown sequence and ending with cessation of firing of the gas turbine. [District Rule 4703] Federally Enforceable Through Title V Permit
- A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
- Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
- The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report shall be received by the District within 30 days of the end of the quarter and shall include the following: time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess emissions (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 a CEM was inoperative (monitor downtime), except for zero and span checks and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device was inoperative and emission measurements. [40 CFR 60.7 (b) and District Rules 1080, 7.3 and District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT 920 WOODLAND AVENUE, MODESTO, CA 95351 Location:

- The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year from the date the facility is notified of the problem by the District, provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
- 10. The Turbine and associated ancillary equipment must be properly maintained and kept in good operating condition at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. The Turbine and associated ancillary equipment shall only be operated by personnel properly trained in its operation. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Natural gas; OGT; JP4; Jet A; Jet B; No. 1d; No 1; 1GT; No. 2d; No. 2; and 2GT are the only fuels permitted for combustion in the Turbine. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. The Turbine shall be equipped and operated with an Automatic Combustion Control System. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. The Turbine shall not be operated unless the exhaust gas is subjected to the Oxidation (CO) Catalyst System and the Selective Catalytic Reduction (SCR) System prior to discharge to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. The CO Catalyst System and the SCR Systems must be in full use whenever the Turbine is in operation, except during start-up and shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 16. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. The facility-wide SOx emissions shall not exceed 54,750 pounds per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. The Ammonia Injection System must be utilized whenever the flue gas temperature at the inlet of the SCR System exceeds 550 degrees F, except during start up and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. The NOx emission concentration, measured as NO2, shall not exceed 3.5 ppmv, dry, corrected to 15% O2 when operating on natural gas; and 6.2 ppmv, dry, corrected to 15% O2 when operating on fuel oil, except for start-up or shut-down periods. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
- 20. A visible emissions inspection shall be conducted after every 400 cumulative hours of operation on fuel oil. If a visible emissions inspection documents opacity, a EPA Method 9 evaluation shall be completed within three working days, or during the next period of operation if the unit ceases firing on fuel oil within the three working day period. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 21. The CO emission concentration, at maximum heat input capacity shall not exceed 16.0 ppmv, dry, corrected to 15% O2, when operating on Natural Gas, and 20.0 ppmv, dry, corrected to 15% O2, when operating on Fuel Oil, except for start-up and shut-down periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. The NMHC emission concentration, at maximum heat input capacity shall not exceed 0.000475% by weight, wet, while operating on Natural Gas and 0.000713% by weight, wet, while operating on Fuel Oil, except for start-up and shut-down periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. The NH3 emission concentration shall not exceed 25.0 ppmv, dry, corrected to 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081, 3.0, and 6.0 (as amended 12/16/93). [District Rule 1081, 3.0, and 6.0] Federally Enforceable Through Title V Permit
- 25. All concentrations of gaseous emissions must be expressed in parts per million, by volume, dry basis, corrected to 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

- 26. A complete laboratory analysis of Fuel Oil combusted during any source test shall be provided along with the source test results. Testing shall include, but not be limited to, an ultimate analysis of Fuel Oil & a full set of metals pursuant to AB2588, [District NSR Rule] Federally Enforceable Through Title V Permit
- 27. Annual performance testing shall include, but not be limited to, an analysis of the exhaust stream directly after the HRSG for: A. Flow rate; B. Oxides of Nitrogen; C. Carbon Monoxide; D. Hydrocarbons: Methane & Non-Methane, including saturated and unsaturated; E. Ammonia; F. Particulates (Fuel Oil only); G. Oxides of Sulfur (Fuel Oil only). [District NSR Rule] Federally Enforceable Through Title V Permit
- 28. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests for NOx RATA purposes, shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 29. Annual performance testing shall be performed at representative performance as specified by the APCO or between 90 and 100 percent of peak (or the highest physically achievable) load. Annual performance testing is required for Natural Gas only, unless Fuel Oil usage exceeds 200 hours per year. [District NSR Rule and 40 CFR 60.335(b)(7) and 60.8(c)] Federally Enforceable Through Title V Permit
- 30. The District shall be notified at least 30 days prior to any performance testing and a test plan shall be submitted for District approval at least 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 31. Performance testing shall be witnessed or authorized by District personnel. Test results shall be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V **Permit**
- 32. A Continuous Monitoring System shall be installed and operated to measure and record the fuel consumption, the mass ratio of steam-to-fuel injected, the mass ratio of water-to-fuel injected into the Combustor, the flue gas temperature at the inlet of the SCR System, NOx, SOx (when firing on fuel oil), O2 or CO2 and CO emission concentration in the exhaust gas after the HRSG. [District NSR Rule] Federally Enforceable Through Title V Permit
- 33. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) for NOx, CO, and O2. The CEMS shall continuously measure and record the exhaust gas NOx and O2 concentrations, hours of operation and fuel consumption. The CEMS shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b)(2) and District NSR Rule and 4703, 6.2.1] Federally Enforceable Through Title V Permit
- The Continuous Monitoring System shall convert the actual NOx, SOx (when firing on fuel oil), and CO concentrations to corrected concentrations at 15% O2, dry basis. The System shall also record the total lb/day emissions of NOx, SOx (when firing on fuel oil), and CO. [District NSR Rule] Federally Enforceable Through Title V **Permit**
- 35. Results of the CEM system shall be averaged over a three hour time period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 36. The NOx emission rate shall not exceed 150.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 37. The CO emission rate shall not exceed 550.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V
- 38. The NMHC emission rate shall not exceed 143.0 lb/day while operating on Natural Gas and 143.4 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit
- 39. The SOx emission rate shall not exceed 12.9 lb/day while operating on Natural Gas and 150.0 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit

- 40. The PM10 emission rate shall not exceed 10.0 lb/hr while operating on either Natural Gas or Fuel Oil. The PM10 emission rate shall not exceed 74.4 lb/day while operating on Natural Gas and 80.0 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit
- 41. The cold start-up period must not exceed two (2) hours in any one day, commencing at midnight. The shut-down period must not exceed two (2) hours in any one day, commencing at midnight. [District NSR Rule] Federally Enforceable Through Title V Permit
- 42. The emissions during the start-up and shut-down periods must be counted towards the applicable daily emission limitations. [District NSR Rule] Federally Enforceable Through Title V Permit
- 43. There shall be no visible emissions from the turbine, except for uncombined water and except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 44. The owner or operator shall maintain a stationary gas turbine system operating log that includes on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, the quantity and type of fuel used, steam-to-fuel ratios, water-to-fuel ratios and ammonia usage. [40 CFR 60.334 (j) and District Rule 4703; 6.2.61 Federally Enforceable Through Title V Permit
- 45. The permittee shall retain records of the cumulative annual facility-wide CO and SOx emissions. The record shall be updated daily. [District NSR Rule] Federally Enforceable Through Title V Permit
- 46. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
- 47. 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
- 48. 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
- 49. 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**
- 50. 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
- 51. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
- 52. 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
- 53. 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
- 54. 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
- 55. 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

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

Facility Name: MODESTO IRRIGATION DISTRICT

Location: 920 WOODLAN N-3233-1-8 : Sep 16 2011 1:58PM - SIONGCOU 920 WOODLAND AVENUE, MODESTO, CA 95351

- 56. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
- 57. 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
- 58. 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
- 59. 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
- 60. 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
- 61. 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

### San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-4-5

EXPIRATION DATE: 11/30/2015

#### **EQUIPMENT DESCRIPTION:**

87 MW LOAD FOLLOWING POWER PLANT SERVED BY A 466 MMBTU/HR GENERAL ELECTRIC LM6000 SPRINT MODEL NATURAL GAS FIRED TURBINE WITH WATER INJECTION, A 234 MMBTU/HR JOHN ZINK LDRW-LE OR EQUIVALENT DUCT BURNER, A HEAT RECOVERY STEAM GENERATOR, A CONDENSING STEAM TURBINE, AN INLET AIR COOLING/FILTERING SYSTEM, A SELECTIVE CATALYTIC REDUCTION SYSTEM, AN OXIDATION CATALYST AND A LUBE OIL COALESCER

### PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The exhaust stack exit shall be at least 90 feet in height, the exhaust shall be vertical and the stack exhaust flow shall not be impeded. [District NSR Rule] Federally Enforceable Through Title V Permit
- The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) for NOx, CO, and O2. The CEMS shall continuously measure and record the exhaust gas NOx and O2 concentrations, hours of operation and fuel consumption. The CEMS shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b)(2) and District NSR Rule and 4703, 6.2.1] Federally Enforceable Through Title V Permit
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V
- The CEMS shall be linked to a data logger which is compatible with the DIstrict's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
- The permittee shall monitor and record the NOx emission rate, the ammonia injection rate, the water injection rate, the exhaust temperature and the calculated exhaust flow rate. [District Rule 4703 and 4001] Federally Enforceable Through Title V Permit
- The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081, 3.0, and 6.0 (as amended 12/16/93). [District Rule 1081, 3.0, and 6.0] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT

ocation: 920 WOODLAND AVENUE, MODESTO, CA 95351 Location:

- 10. Start-up and shutdown durations shall not exceed 2 hours per day and 365 hours per calendar year. Start-up is defined as the period beginning with the initial firing of the turbine and ending when the turbine meets the NOx and CO limits for steady state operation. Shutdown is defined as the period beginning with initiation of the turbine shutdown sequence and ending with cessation of firing of the gas turbine. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
- 11. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. The NOx emissions from this unit shall not exceed 58,340 pounds during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. The NOx emissions during start-up and shutdown periods shall not exceed 24.6 pounds during any one hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. The NOx emissions, except during start-up and shutdown periods, shall not exceed 2.5 ppmvd @ 15% O2 over a 1 hour rolling average. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
- 16. The CO emissions during start-up and shutdown periods shall not exceed 40.8 pounds during any one hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. The CO emissions, except during start-up and shutdown periods, shall not exceed 6.0 ppmvd @ 15% O2 over a 3 hour rolling average. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. The VOC emissions shall not exceed 2.0 ppmvd, as methane, @ 15% O2 over a 3 hour rolling average. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. The PM10 emissions shall not exceed 2.5 pounds during any one hour while only the turbine is operating. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. The PM10 emission shall not exceed 3.0 pounds during any one hour while both the turbine and duct burner are operating. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. This unit shall be fired exclusively on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 scf. [40 CFR 60.333(b), Stanislaus County Rule 407, and District NSR Rule] Federally Enforceable Through Title V Permit
- 22. 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 weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V **Permit**
- 23. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. Ammonia slip shall be calculated utilizing the following procedure: ammonia slip ppmvd @ 15% O2 = ((a (b x c/1,000,000) x (1,000,000 / b) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Should the calculated ammonia slip value indicate a violation of the emission limit, source testing for ammonia ship shall be conducted with the turbine system operating under conditions similar to those it was operating at during the calculated violation. Source testing shall be conducted within 60 days of the calculated violation. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102] Federally Enforceable Through Title V Permit

Facility Name: MODESTO IRRIGATION DISTRICT Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-4-5 Sep 16 2011 1:58PM - SIGNGCOJ

- 25. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests for NOx RATA purposes, shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 26. Performance testing to demonstrate compliance with the VOC, PM10 and NH3 requirements of this permit shall be conducted at least once every twelve months. [District NSR Rule and 4001] Federally Enforceable Through Title V Permit
- 27. The District shall be notified at least 30 days prior to any performance testing and a test plan shall be submitted for District approval at least 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 28. Performance testing shall be witnessed or authorized by District personnel. Test results shall be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
- 29. Performance testing for VOC shall be conducted utilizing EPA method 18 or EPA method 25. Alternative source testing methods will be allowed provided prior written approval is received from both the District and the EPA. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Performance testing to measure concentrations of PM10 shall be conducted using EPA methods 201 and 202, or EPA methods 201A and 202, or CARB method 501 in conjunction with CARB method 5. Alternative source testing methods will be allowed provided prior written approval is received from both the District and the EPA. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device was inoperative and emission measurements. [40 CFR 60.7 (b) and District Rule 1080, 7.3 and District NSR Rule] Federally Enforceable Through Title V Permit
- 32. The owner or operator shall maintain a stationary gas turbine system operating log that includes on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and the quantity and type of fuel used. [District Rule 4703; 6.2.6] Federally Enforceable Through Title V Permit
- 33. The permittee shall retain records of the cumulative annual facility-wide CO and SOx emissions. The record shall be updated daily. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. The annual facility SOx emissions for natural gas shall be calculated utilizing the annual quantity of natural gas burned and the permitted natural gas sulfur content limit. The annual facility SOx emissions for liquid fuels shall be calculated utilizing the annual quantity of liquid fuels burned and either the permitted fuel sulfur content limit or the actual measured sulfur content of the liquid fuels burned. [District NSR Rule] Federally Enforceable Through Title V Permit
- 35. The annual CO emissions from the turbines shall be determined utilizing CEMS data. [District NSR Rule] Federally Enforceable Through Title V Permit
- 36. The permittee shall maintain hourly records of the NOx, CO and ammonia concentrations (ppmv @ 15% O2). [District NSR Rule and 4201] Federally Enforceable Through Title V Permit
- 37. The permittee shall maintain records of the cumulative annual NOx emissions from this unit. The record shall be updated daily. [District NSR Rule] Federally Enforceable Through Title V Permit

- 38. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report shall be received by the District within 30 days of the end of the quarter and shall include the following: time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess emissions (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 a CEM was inoperative (monitor downtime), except for zero and span checks and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 39. Results of the CEM system shall be averaged over the time period applicable to each emission limit listed on this permit, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 40. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b)(3) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
- 41. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
- 42. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
- 43. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
- 44. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit
- 45. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit
- 46. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
- 47. 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
- 48. 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
- 49. 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
- 50. 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
- 51. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit

- 52. 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
- 53. 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
- 54. 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
- 55. 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
- 56. 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

### San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-3233-5-2

**EXPIRATION DATE: 11/30/2015** 

**EQUIPMENT DESCRIPTION:** 

27,000 GALLON PER MINUTE COOLING TOWER WITH A HIGH EFFICIENCY DRIFT ELIMINATOR

### PERMIT UNIT REQUIREMENTS

- No hexavalent chromium containing compounds shall be added to the water that is circulating through the cooling tower or will circulate through the cooling tower. [District Rule 7012]
- The drift rate shall not exceed 0.0005%. [District NSR Rule] Federally Enforceable Through Title V Permit 2.
- The PM10 emission rate shall not exceed 0.17 pounds during any one hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- Compliance with the PM10 daily emission limit shall be demonstrated as follows: PM10 lb/day = circulating water recirculation rate \* total dissolved solids concentration in the blowdown water \* design drift rate. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- Total Dissolved Solids (TDS) in the blowdown water shall be sampled and analyzed using a conductivity analyzer at least quarterly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- Water recirculation rate shall be measured and recorded quarterly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- The operator shall maintain records of all circulating water tests performed. Records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT

920 WOODLAND AVENUE, MODESTO, CA 95351 Location:

-3233-5-2 : Sep 16 2011

### **ATTACHMENT B**

Previous Title V Operating Permit





## **Permit to Operate**

FACILITY: N-3233 EXPIRATION DATE: 11/30/2009

**LEGAL OWNER OR OPERATOR:** MODESTO IRRIGATION DISTRICT GENERATION DEPT ADMIN OFFICES

P O BOX 4060

**MODESTO. CA 95352** 

**FACILITY LOCATION:** 920 WOODLAND AVENUE

MODESTO, CA 95351

FACILITY DESCRIPTION: POWER GENERATION FACILITY

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

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

Seyed Sadredin
Executive Director / APCO

David Warner
Director of Permit Services

**EXPIRATION DATE: 11/30/2009 FACILITY:** N-3233-0-2

### **FACILITY-WIDE REQUIREMENTS**

- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
- A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MODESTO IRRIGATION DISTRICT

Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-0-2 : Aug 24 2010 1:27PM - SIONGCOJ

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (11/15/01). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

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

- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (10/31/01) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials for architectural coatings subject to Rule 4601 (10/31/01) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (10/31/01). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

Facility Name: MODESTO IRRIGATION DISTRICT
Location: 920 WOODLAND AVENUE, MODESTO, CA 95351
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- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), and Rule 111 (Kern, Tulare, Kings). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (11/15/01); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8041 (11/15/01); 8051 (11/15/01); 8061 (11/15/01); and 8071 (11/15/01). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1st every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

**PERMIT UNIT: N-3233-1-4** 

**EXPIRATION DATE: 11/30/2009** 

#### **EQUIPMENT DESCRIPTION:**

ONE (1) GENERAL ELECTRIC LM5000 PD AERO-DERIVATIVE 460 MMBTU/HR (HHV) GAS TURBINE ENGINE WITH STEAM INJECTION, OXIDIZATION CATALYST, AMMONIA INJECTION, AND SELECTIVE CATALYTIC REDUCTION SERVING A 49.9 MW ELECTRICAL GENERATOR

### PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 2. When operating on natural gas, the unit shall be fired exclusively on PUC-regulated natural gas which has a sulfur content of less than or equal to 0.017% by weight. When operating on liquid fuel, the unit shall be fired on low sulfur light distillate fuel with less than or equal to 0.05% sulfur by weight. [District NSR Rule; 40 CFR 60.333(b); Stanislaus Rule 407] Federally Enforceable Through Title V Permit
- 3. The sulfur content of each fuel source shall be documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 4. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 5. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
- 6. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
- 7. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report shall be received by the District within 30 days of the end of the quarter and shall include the following: time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess emissions (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 a CEM was inoperative (monitor downtime), except for zero and span checks and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 8. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device was inoperative and emission measurements. [40 CFR 60.7 (b) and District Rules 1080, 7.3 and 2201] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT Location: 920 WOODLAND AVENUE,MODESTO, CA 95351

- The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year from the date the facility is notified of the problem by the District, provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
- 10. The Turbine and associated ancillary equipment must be properly maintained and kept in good operating condition at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. The Turbine and associated ancillary equipment shall only be operated by personnel properly trained in its operation. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Natural gas; OGT; JP4; Jet A; Jet B; No. 1d; No 1; IGT; No. 2d; No. 2; and 2GT are the only fuels permitted for combustion in the Turbine. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. The Turbine shall be equipped and operated with an Automatic Combustion Control System. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. The Turbine shall not be operated unless the exhaust gas is subjected to the Oxidation (CO) Catalyst System and the Selective Catalytic Reduction (SCR) System prior to discharge to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. The CO Catalyst System and the SCR Systems must be in full use whenever the Turbine is in operation, except during start-up and shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 16. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 17. The facility-wide SOx emissions shall not exceed 54,750 pounds per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. The Ammonia Injection System must be utilized whenever the flue gas temperature at the inlet of the SCR System exceeds 550 degrees F, except during start up and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. The NOx emission concentration, measured as NO2, shall not exceed 3.5 ppmv, dry, corrected to 15% O2 when operating on natural gas; and 6.2 ppmv, dry, corrected to 15% O2 when operating on fuel oil, except for start-up or shut-down periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. A visible emissions inspection shall be conducted after every 400 cumulative hours of operation on fuel oil. If a visible emissions inspection documents opacity, a method 9 evaluation shall be completed within three working days, or during the next period of operation if the unit ceases firing on fuel oil within the three working day period. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 21. The CO emission concentration, at maximum heat input capacity shall not exceed 16.0 ppmv, dry, corrected to 15% O2, when operating on Natural Gas, and 20.0 ppmv, dry, corrected to 15% O2, when operating on Fuel Oil, except for start-up and shut-down periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. The NMHC emission concentration, at maximum heat input capacity shall not exceed 0.000475% by weight, wet, while operating on Natural Gas and 0.000713% by weight, wet, while operating on Fuel Oil, except for start-up and shut-down periods. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. The NH3 emission concentration shall not exceed 25.0 ppmv, dry, corrected to 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081, 3.0, and 6.0 (as amended 12/16/93). [District Rule 1081, 3.0, and 6.0] Federally Enforceable Through Title V Permit
- 25. All concentrations of gaseous emissions must be expressed in parts per million, by volume, dry basis, corrected to 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

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

- 26. A complete laboratory analysis of Fuel Oil combusted during any source test shall be provided along with the source test results. Testing shall include, but not be limited to, an ultimate analysis of Fuel Oil & a full set of metals pursuant to AB2588. [District NSR Rule] Federally Enforceable Through Title V Permit
- 27. Annual performance testing shall include, but not be limited to, an analysis of the exhaust stream directly after the HRSG for: A. Flow rate; B. Oxides of Nitrogen; C. Carbon Monoxide; D. Hydrocarbons: Methane & Non-Methane, including saturated and unsaturated; E. Ammonia; F. Particulates (Fuel Oil only); G. Oxides of Sulfur (Fuel Oil only). [District NSR Rule] Federally Enforceable Through Title V Permit
- 28. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests for NOx RATA purposes, shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 29. Annual performance testing shall be performed at representative performance as specified by the APCO or between 90 and 100 percent of peak (or the highest physically achievable) load. Annual performance testing is required for Natural Gas only, unless Fuel Oil usage exceeds 200 hours per year. [District NSR Rule and 40 CFR 60.335(b)(7) and 60.8(c)] Federally Enforceable Through Title V Permit
- 30. The District shall be notified at least 30 days prior to any performance testing and a test plan shall be submitted for District approval at least 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 31. Performance testing shall be witnessed or authorized by District personnel. Test results shall be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
- 32. A Continuous Monitoring System shall be installed and operated to measure and record the fuel consumption, the mass ratio of steam-to-fuel injected, the mass ratio of water-to-fuel injected into the Combustor, the flue gas temperature at the inlet of the SCR System, NOx, SOx (when firing on fuel oil), O2 or CO2 and CO emission concentration in the exhaust gas after the HRSG. [District NSR Rule] Federally Enforceable Through Title V Permit
- 33. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) for NOx, CO, and O2. The CEMS shall continuously measure and record the exhaust gas NOx and O2 concentrations, hours of operation and fuel consumption. The CEMS shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b)(2) and District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
- 34. The Continuous Monitoring System shall convert the actual NOx, SOx (when firing on fuel oil), and CO concentrations to corrected concentrations at 15% O2, dry basis. The System shall also record the total lb/day emissions of NOx, SOx (when firing on fuel oil), and CO. [District NSR Rule] Federally Enforceable Through Title V Permit
- 35. Results of the CEM system shall be averaged over a three hour time period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 36. The NOx emission rate shall not exceed 150.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 37. The CO emission rate shall not exceed 550.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 38. The NMHC emission rate shall not exceed 143.0 lb/day while operating on Natural Gas and 143.4 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit
- 39. The SOx emission rate shall not exceed 12.9 lb/day while operating on Natural Gas and 150.0 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT

Location: 920 WOODLAND AVENUE, MODESTO, CA 95351

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- 40. The PM10 emission rate shall not exceed 10.0 lb/hr while operating on either Natural Gas or Fuel Oil. The PM10 emission rate shall not exceed 74.4 lb/day while operating on Natural Gas and 80.0 lb/day when operating on Fuel Oil. [District NSR Rule] Federally Enforceable Through Title V Permit
- 41. The cold start-up period must not exceed two (2) hours in any one day, commencing at midnight. The shut-down period must not exceed two (2) hours in any one day, commencing at midnight. [District NSR Rule] Federally Enforceable Through Title V Permit
- 42. The emissions during the start-up and shut-down periods must be counted towards the applicable daily emission limitations. [District NSR Rule] Federally Enforceable Through Title V Permit
- 43. There shall be no visible emissions from the turbine, except for uncombined water and except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 44. The owner or operator shall maintain a stationary gas turbine system operating log that includes on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, the quantity and type of fuel used, steam-to-fuel ratios, water-to-fuel ratios and ammonia usage. [40 CFR 60.334 (j) and District Rule 4703; 6.2.6] Federally Enforceable Through Title V Permit
- 45. The permittee shall retain records of the cumulative annual facility-wide CO and SOx emissions. The record shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- 46. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
- 47. 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
- 48. 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
- 49. 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
- 50. 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
- 51. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
- 52. 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
- 53. 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
- 54. 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
- 55. 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

- 56. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
- 57. 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
- 58. 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
- 59. 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
- 60. 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
- 61. 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

Facility Name: MODESTO IRRIGATION DISTRICT Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-14: Aug 24 2010 1.27PM - SIONGCOJ

**PERMIT UNIT:** N-3233-4-4

**EXPIRATION DATE: 11/30/2009** 

#### **EQUIPMENT DESCRIPTION:**

87 MW LOAD FOLLOWING POWER PLANT SERVED BY A 466 MMBTU/HR GENERAL ELECTRIC LM6000 SPRINT MODEL NATURAL GAS FIRED TURBINE WITH WATER INJECTION, A 234 MMBTU/HR JOHN ZINK LDRW-LE OR EQUIVALENT DUCT BURNER, A HEAT RECOVERY STEAM GENERATOR, A CONDENSING STEAM TURBINE, AN INLET AIR COOLING/FILTERING SYSTEM, A SELECTIVE CATALYTIC REDUCTION SYSTEM, AN OXIDATION CATALYST AND A LUBE OIL COALESCER

# **PERMIT UNIT REQUIREMENTS**

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The exhaust stack exit shall be at least 90 feet in height, the exhaust shall be vertical and the stack exhaust flow shall not be impeded. [District Rule 2201] Federally Enforceable Through Title V Permit
- The gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
- All equipment shall be maintained in proper operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) for NOx, CO, and O2. The CEMS which continuously measures and records the exhaust gas NOx and O2 concentrations, hours of operation and fuel consumption. The CEMS shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334 (b)(2) and District Rules 2201 and 4703, 6.2.1] Federally Enforceable Through Title V Permit
- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V **Permit**
- The CEMS shall be linked to a data logger which is compatible with the DIstrict's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V **Permit**
- The permittee shall monitor and record the NOx emission rate, the ammonia injection rate, the water injection rate, the exhaust temperature and the calculated exhaust flow rate. [District Rule 4703 and 4001] Federally Enforceable Through Title V Permit
- The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081, 3.0, and 6.0 (as amended 12/16/93). [District Rule 1081, 3.0, and 6.0] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT

Location: 920 WOODLAND AVENUE, MODESTO, CA 95351 N-3233-4-4: Aug 24 2010 1:27PM - SIONGCOJ

- 10. Start-up and shutdown durations shall not exceed 2 hours per day and 365 hours per calendar year. Start-up is defined as the period beginning with the initial firing of the turbine and ending when the turbine meets the NOx and CO limits for steady state operation. Shutdown is defined as the period beginning with initiation of the turbine shutdown sequence and ending with cessation of firing of the gas turbine. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 11. The facility-wide CO emissions shall not exceed 199,999 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. The facility-wide SOx emissions shall not exceed 54,750 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The NOx emissions from this unit shall not exceed 58,340 pounds during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. The NOx emissions during start-up and shutdown periods shall not exceed 24.6 pounds during any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. The NOx emissions, except during start-up and shutdown periods, shall not exceed 2.5 ppmvd @ 15% O2 over a 1 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. The CO emissions during start-up and shutdown periods shall not exceed 40.8 pounds during any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. The CO emissions, except during start-up and shutdown periods, shall not exceed 6.0 ppmvd @ 15% O2 over a 3 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. The VOC emissions shall not exceed 2.0 ppmvd, as methane, @ 15% O2 over a 3 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. The PM10 emissions shall not exceed 2.5 pounds during any one hour while only the turbine is operating. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. The PM10 emission shall not exceed 3.0 pounds during any one hour while both the turbine and duct burner are operating. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. This unit shall be fired exclusively on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 scf. [40 CFR 60.333(b), County Rule 407 (Stanislaus) and District Rule 2201] Federally Enforceable Through Title V Permit
- 22. 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 weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 23. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 24. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

- 25. Ammonia slip shall be calculated utilizing the following procedure: ammonia slip ppmvd @ 15% O2 = ((a (b x c/1.000.000) x (1.000.000 / b) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Should the calculated ammonia slip value indicate a violation of the emission limit, source testing for ammonia ship shall be conducted with the turbine system operating under conditions similar to those it was operating at during the calculated violation. Source testing shall be conducted within 60 days of the calculated violation. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102] Federally Enforceable Through Title V Permit
- 26. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests for NOx RATA purposes, shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 27. Performance testing to demonstrate compliance with the VOC, PM10 and NH3 requirements of this permit shall be conducted at least once every twelve months. [District Rule 2201 and 4001] Federally Enforceable Through Title V **Permit**
- 28. The District shall be notified at least 30 days prior to any performance testing and a test plan shall be submitted for District approval at least 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V
- 29. Performance testing shall be witnessed or authorized by District personnel. Test results shall be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
- 30. Performance testing for VOC shall be conducted utilizing EPA method 18 or EPA method 25. Alternative source testing methods will be allowed provided prior written approval is received from both the District and the EPA. [District Rule 2201] Federally Enforceable Through Title V Permit
- 31. Performance testing to measure concentrations of PM10 shall be conducted using EPA methods 201 and 202, or EPA methods 201A and 202, or CARB method 501 in conjunction with CARB method 5. Alternative source testing methods will be allowed provided prior written approval is received from both the District and the EPA. [District Rule 2201] Federally Enforceable Through Title V Permit
- 32. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance. duration of any periods during which a continuous monitoring system or monitoring device was inoperative and emission measurements. [40 CFR 60.7 (b) and District Rules 1080, 7.3 and 2201] Federally Enforceable Through Title V Permit
- 33. The owner or operator shall maintain a stationary gas turbine system operating log that includes on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and the quantity and type of fuel used. [District Rule 4703; 6.2.6] Federally Enforceable Through Title V Permit
- 34. The permittee shall retain records of the cumulative annual facility-wide CO and SOx emissions. The record shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- 35. The annual facility SOx emissions for natural gas shall be calculated utilizing the annual quantity of natural gas burned and the permitted natural gas sulfur content limit. The annual facility SOx emissions for liquid fuels shall be calculated utilizing the annual quantity of liquid fuels burned and either the permitted fuel sulfur content limit or the actual measured sulfur content of the liquid fuels burned. [District Rule 2201] Federally Enforceable Through Title V
- 36. The annual CO emissions from the turbines shall be determined utilizing CEMS data. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: MODESTO IRRIGATION DISTRICT

Location: 920 WOODLAND AVENUE, MODESTO, CA 95351

- 37. The permittee shall maintain hourly records of the NOx, CO and ammonia concentrations (ppmv @ 15% O2). [District Rules 2201 and 4201] Federally Enforceable Through Title V Permit
- 38. The permittee shall maintain records of the cumulative annual NOx emissions from this unit. The record shall be updated daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report shall be received by the District within 30 days of the end of the quarter and shall include the following: time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess emissions (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 a CEM was inoperative (monitor downtime), except for zero and span checks and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 40. Results of the CEM system shall be averaged over the time period applicable to each emission limit listed on this permit, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 41. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b)(3) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
- 42. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit
- 43. 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
- 44. 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
- 45. 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
- 46. 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
- 47. An affected unit shall be subject to the sulfur dioxide requirements starting on the later of January 1, 2000, or the deadline for monitoring certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3) that is not a substitution or compensating unit. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
- 48. 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
- 49. 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
- 50. 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

Facility Name: MODESTO IRRIGATION DISTRICT
Location: 920 WOODLAND AVENUE, MODESTO, CA 95351
N-3233-44 : Aug 24 2010 1:27PM - SIONSCOJ

- 51. 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
- 52. The owners and operators of each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides. [40 CFR 72] Federally Enforceable Through Title V Permit
- 53. 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
- 54. 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
- 55. 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
- 56. 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
- 57. 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

**PERMIT UNIT:** N-3233-5-2

**EXPIRATION DATE: 11/30/2009** 

**EQUIPMENT DESCRIPTION:** 

27,000 GALLON PER MINUTE COOLING TOWER WITH A HIGH EFFICIENCY DRIFT ELIMINATOR

### PERMIT UNIT REQUIREMENTS

- 1. No hexavalent chromium containing compounds shall be added to the water that is circulating through the cooling tower or will circulate through the cooling tower. [District Rule 7012] Federally Enforceable Through Title V Permit
- 2. The drift rate shall not exceed 0.0005%. [District NSR Rule] Federally Enforceable Through Title V Permit
- The PM10 emission rate shall not exceed 0.17 pounds during any one hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Compliance with the PM10 daily emission limit shall be demonstrated as follows: PM10 lb/day = circulating water recirculation rate \* total dissolved solids concentration in the blowdown water \* design drift rate. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 5. Total Dissolved Solids (TDS) in the blowdown water shall be sampled and analyzed using a conductivity analyzer at least quarterly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 6. Water recirculation rate shall be measured and recorded quarterly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 8. The operator shall maintain records of all circulating water tests performed. Records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

# ATTACHMENT C

**Detailed Facility List** 

**SJVUAPCD NORTHERN** 

Detailed Facility Report
For Facility=3233 and excluding Deleted Permits Sorted by Facility Name and Permit Number

9/16/11 2:11 pm

MODESTO IRRIGATION DISTRICT 920 WOODLAND AVENUE MODESTO, CA 95351			FAC # STATUS: TELEPHONE:		N 3233 A 2095267616	·	TYPE: TitleV EXPIRE ON: 11/30/2015 TOXIC ID: 51162 AREA: 16 / INSP. DATE: 07/12
PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-3233-1-6	49,900 kW electrical generation	3020-08A G	1	10,215.00	10,215.00	A	ONE (1) GENERAL ELECTRIC LM5000 PD AERO-DERIVATIVE 460 MMBTU/HR (HHV) GAS TURBINE ENGINE WITH STEAM INJECTION, OXIDIZATION CATALYST, AMMONIA INJECTION, AND SELECTIVE CATALYTIC REDUCTION SERVING A 49.9 MW ELECTRICAL GENERATOR
N-3233-4-5	87,000 kW electrical generation	3020-08B G	1	10,215.00	10,215.00	A	87 MW LOAD FOLLOWING POWER PLANT SERVED BY A 466 MMBTU/HR GENERAL ELECTRIC LM6000 SPRINT MODEL NATURAL GAS FIRED TURBINE WITH WATER INJECTION, A 234 MMBTU/HR JOHN ZINK LDRW-LE OR EQUIVALENT DUCT BURNER, A HEAT RECOVERY STEAM GENERATOR, A CONDENSING STEAM TURBINE, AN INLET AIR COOLING/FILTERING SYSTEM, A SELECTIVE CATALYTIC REDUCTION SYSTEM, AN OXIDATION CATALYST AND A

0.00

999-99

0.00

LUBE OIL COALESCER

**EFFICIENCY DRIFT ELIMINATOR** 

27,000 GALLON PER MINUTE COOLING TOWER WITH A HIGH

Number of Facilities Reported: 1

N-3233-5-2

No applicable fee

# ATTACHMENT D

**Public Comments** 

# Public Comments/District Response

Modesto Irrigation District (MID) submitted public comments regarding the District's analysis and preliminary decision. A copy of the September 21, 2010 letter containing these comments is available at the District.

#### **PUBLIC COMMENT**

MID is requesting a change to the startup and shutdown definitions in condition #4 of permit N-3233-1-6 to be consistent with the startup and shutdown definitions used in condition #10 of permit N-3233-4-5.

### DISTRICT RESPONSE

Revised condition #4 of permit N-3233-1-6 to be consistent with the startup and shutdown definitions in condition #10 of permit N-3233-4-5.

#### **PUBLIC COMMENT**

MID also requests a change to condition #5 of permit N-3233-4-5 to be consistent with condition #33 of permit N-3233-1-6.

#### DISTRICT RESPONSE

Revised condition condition #5 of permit N-3233-4-5 to be consistent with condition #33 of permit N-3233-1-6.