

# Bay Area Air Quality Management District

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

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**Final**

## MAJOR FACILITY REVIEW PERMIT

Issued To:  
**Los Medanos Energy Center**  
**Facility #B1866**

**Facility Address:**  
750 East Third Street  
Pittsburg, CA 94565

**Mailing Address:**  
P. O. Box 551  
Pittsburg, CA 94565

**Responsible Official**  
Ed Warner, Plant Manager  
415-431-1323

**Facility Contact**  
David Zeiger, Compliance Manager  
925-431-1324

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**Type of Facility:** Power Plant  
**Primary SIC:** 4913  
**Product:** Generation of Electricity

BAAQMD Permit Division Contact:  
Dennis Jang

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

Signed by Ellen Garvey \_\_\_\_\_ September 6, 2001  
Ellen Garvey, Executive Officer/Air Pollution Control Officer Date

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## I. STANDARD CONDITIONS

### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

- BAAQMD Regulation 1 - General Provisions and Definitions  
(as amended by the District Board on 5/2/01);  
SIP Regulation 1 - General Provisions and Definitions  
(as approved by EPA through 8/27/99);  
BAAQMD Regulation 2, Rule 1 - Permits, General Requirements  
(as amended by the District Board on 8/1/01);  
SIP Regulation 2, Rule 1 - Permits, General Requirements  
(as approved by EPA through 2/25/99);  
BAAQMD Regulation 2, Rule 2 - Permits, New Source Review  
(as amended by the District Board on 5/17/00);  
SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration  
(as approved by EPA through 2/25/99);  
BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking  
(as amended by the District Board on 5/17/00);  
SIP Regulation 2, Rule 4 - Permits, Emissions Banking  
(as approved by EPA through 2/25/99); and  
BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review  
(as amended by the District Board on 5/2/01).

### B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was issued on September 6, 2001, and expires on September 6, 2006. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than March 6, 2006 and no earlier than September 6, 2005. **If a complete application for renewal has not been submitted in accordance with this deadlines, the facility may not operate after September 6, 2006.** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)

## **I. Standard Conditions**

4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility.

### **C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

## **I. Standard Conditions**

### **D. Inspection and Entry**

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

### **E. Records**

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)
2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of creation of the record. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

### **F. Monitoring Reports**

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The first reporting period for this permit shall be September 6, 2001, to February 28, 2002. The report shall be submitted by March 31, 2002. Subsequent reports shall be for the following periods: March 1st through August 31st and September 1st through February 28th or 29th, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109  
Attn: Title V Reports

(Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

## **I. Standard Conditions**

### **G. Compliance Certification**

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be September 1st to August 31st. The certification shall be submitted by September 30th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

Director of the Air Division  
USEPA, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105  
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

### **H. Emergency Provisions**

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement. (MOP Volume II, Part 3, §4.8)

### **I. Severability**

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part

## **I. Standard Conditions**

3, §4.10)

## **J. Miscellaneous Conditions**

1. The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

## **K. Accidental Release**

This facility is subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The permit holder shall submit a risk management plan (RMP) by the date specified in §68.10. The permit holder shall also certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by Regulation 2, Rule 6. (40 CFR Part 68, Regulation 2, Rule 6)

## **L. Conditions to Implement Regulation 2, Rule 7, Acid Rain**

1. Every year starting January 30, 2000, the permit holder shall hold one sulfur dioxide allowance on January 30 for each ton of sulfur dioxide emitted during the preceding year from January 1 through December 31. (MOP Volume II, Part 3, §4.9)
2. The equipment installed for the continuous monitoring of CO<sub>2</sub> and NO<sub>x</sub> shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (Regulation 2-7, Acid Rain)
3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO<sub>x</sub> which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO<sub>2</sub> emissions in accordance with 40 CFR Part 72 and 75. (Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for S-1 and S-3, Turbines, and S-2 and S-4, Heat Recovery Steam Generators. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

## II. EQUIPMENT

**Table II A – Permitted Sources**

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
1	Turbine (natural gas)	General Electric	Frame 7FA Model PG 7241	170 MW 1,929 MM BTU/hr
2	Heat Recovery Steam Generator (natural gas)			333 MM BTU/hr
3	Turbine (natural gas)	General Electric	Frame 7FA Model PG 7241	170 MW 1,929 MM BTU/hr
4	Heat Recovery Steam Generator (natural gas)			333 MM BTU/hr
5	Auxiliary Boiler (natural gas)	Nebraska	N25-8/5- 126	320 MM BTU/hr (provides backup steam only, not used to generate electricity)

## II. Equipment

**Table II B – Abatement Devices**

<b>A-#</b>	<b>Description</b>	<b>Source(s) Controlled</b>	<b>Applicable Requirement</b>	<b>Operating Parameters</b>	<b>Limit or Efficiency</b>
1	Selective Catalytic Reduction System	S-1, S-2	BAAQMD Condition #16676, part 21b	None	2.5 ppmv NOx @ 15% O2, dry, 1-hr average
2	Oxidation Catalyst	S-1, S-2	BAAQMD Condition #16676, part 21d	None	6 ppmv CO @ 15% O2, dry, 3-hr average
3	Selective Catalytic Reduction System	S-3, S-4	BAAQMD Condition #16676, part 21b	None	2.5 ppmv NOx @ 15% O2, dry, 1-hr average
4	Oxidation Catalyst	S-3, S-4	BAAQMD Condition #16676, part 21d	None	6 ppmv CO @ 15% O2, dry, 3-hr average
5	Selective Catalytic Reduction System	S-5	BAAQMD Condition #16676, part 29	None	9 ppmv NOx @ 3% O2, dry, 3-hr average

### III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full language of SIP requirements is included in Appendix A of this permit if the SIP requirement is different from the current BAAQMD requirement.

**NOTE:**

There are differences between the current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with both versions of the rule until US EPA has reviewed and approved the District's revision of the regulation.

**Table III  
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)	N
SIP Regulation 1	General Provisions and Definitions (8/27/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (5/2/01)	N
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y
SIP Regulation 2, Rule 1	General Requirements (8/27/99)	Y

### III. Generally Applicable Requirements

**Table III**  
**Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (11/2/94)	Y
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (12/20/95)	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	Y
BAAQMD Condition 16676, Part 54	Implementation of BAAQMD Regulation 4, Air Pollution Episode Plan	Y

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board.
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date.

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is included in Appendix A of this permit if the SIP requirements are different from the current BAAQMD requirements. All other text may be found in the regulations themselves.

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, TURBINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (11/3/93)</b>		
1-107	Combination of Emissions	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>		

#### IV. Source Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-1, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)</b>		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated $\geq$ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b> <b>General Provisions</b>	Y	
60.7(a)	Written notification	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>Subpart Da</b>	<b>Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978 (6/14/79)</b>	Y	
60.42a(a)(1)	Particulate Limit	Y	
60.42a(b)	Opacity Limit	Y	
60.43a(b)(2)	SO2 limit	Y	
60.44a(a)(1)	NOx concentration limit	Y	
60.44a(a)(2)	NOx reduction requirement	Y	
60.44a(d)(1)	NOX limit-lbs/MW-hr	Y	

## IV. Source Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-1, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (1/27/82)</b>		
60.332(a)(1)	NOx limit	Y	
60.333	Performance Standards, SO2	Y	
60.334(b)(2)	Sulfur and nitrogen content of fuel	Y	
60.335	Test Methods and Procedures	Y	
<b>40 CFR Part 72</b>	<b>Title IV – Acid Rain Program</b>	Y	
<b>40 CFR Part 75</b>	<b>Code of Federal Regulations, Continuous Emissions Monitoring</b>	Y	
<b>BAAQMD Condition #16676</b>			
Definitions	Definitions	Y	
part 1	Minimization of emissions during commissioning period	Y	
part 2	Tuning to minimize emissions	Y	
part 3	Installation of SCR and oxidation catalyst as early as possible	Y	
part 4	Compliance with NOx and CO emission limits	Y	
part 5	Submittal of commissioning plan	Y	
part 6	Continuous emission monitors and recorders for firing hours, fuel flow rates, NOx, CO, and oxygen concentrations	Y	
part 7	Monitors installed prior to first firing.	Y	
part 8	Limit on uncontrolled operation during commissioning	Y	
part 10	Mass emission rates during commissioning included in annual limits	Y	
part 11	Mass emission rates during commissioning	Y	
part 13	Startup/shutdown source test	Y	
part 14	Requirement for combustion of natural gas with a maximum sulfur content of 1 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 15	Hourly heat input limit (PSD for NO <sub>x</sub> )	Y	
part 16	Daily heat input limit (PSD for PM <sub>10</sub> )	Y	
part 17	Annual heat input limit (Offsets)	Y	
part 19	Oxidizing catalyst and SCR requirement (BACT for NO <sub>x</sub> and CO)	Y	
part 21	Emission limits (BACT, PSD, and Toxic Risk Management Policy)	Y	
part 21a	Hourly and heat-input rate NOx limits (PSD for NOx)	Y	

#### IV. Source Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-1, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 21b	NOx concentration limit (BACT for NO <sub>x</sub> )	Y	
part 21c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 21d	CO concentration limit (BACT for CO)	Y	
part 21e	Ammonia concentration limit and monitoring (TRMP for NH <sub>3</sub> )	N	
part 21f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 21g	Hourly and heat-input rate SO <sub>2</sub> limits (BACT for SO <sub>2</sub> )	Y	
part 21h	Hourly and heat-input rate PM <sub>10</sub> limits (BACT for PM <sub>10</sub> )	Y	
part 22	NOx emissions from transient, non-steady state operating conditions (BACT for NO <sub>x</sub> )	Y	
part 23	Limits during startup or shutdown (PSD)	Y	
part 24	Turbines may not be in startup mode simultaneously	Y	
part 30	Facility daily heat input limit (PSD, CEC Offsets)	Y	
part 31	Facility annual heat input limit (Offsets)	Y	
part 32	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 33	Facility annual emission limits (Offsets, PSD, Cumulative Increase)	Y	
part 34	Facility annual emission limits for toxic air contaminants (TRMP)	Y	
part 35	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 36	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 37	Calculation of emissions and recordkeeping for toxic air contaminants (TRMP)	N	
part 38	Ammonia source test (TRMP)	N	
part 39	Source to assure compliance with part 21a, b, c, d and f (BACT, offsets)	Y	
part 41	District review of source test procedures (BACT)	Y	
part 42	Initial and biennial source tests for toxic air contaminants (TRMP)	N	
part 43	Submittal of reports (2-6-502)	Y	
part 44	Retention of records for five years (2-6-502)	Y	
part 45	Notification of violations to District (2-1-403)	Y	
part 46	Stack heights (PSD, TRMP)	Y	
part 47	Sampling ports and platforms (1-501)	Y	
part 48	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	

#### IV. Source Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-1, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 49	Review of offsets (Offsets)	Y	
part 50	Facility shall provide emission reduction credits (Offsets)	Y	
part 51	Submittal of Title V application (2-6-404.1)	Y	
part 53	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NO <sub>x</sub> , CO <sub>2</sub> , or O <sub>2</sub>	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (5/2/01)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 3</b>	<b>Inorganic Gaseous Pollutants – Nitrogen Oxides from Heat Transfer Operations (3/17/82)</b>		
9-303	Nitrogen oxide emission limitation	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>		
<b>40 CFR 60</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
<b>Subpart A</b>	<b>General Provisions</b>	Y	
60.4(b)	Reports to EPA and District	Y	
60.7	Notification and record keeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirement	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>Subpart Da</b>	<b>Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978 (6/14/79)</b>	Y	
60.42a(a)(1)	Particulate Limit	Y	

## IV. Source Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.42a(b)	Opacity Limit	Y	
60.43a(b)(2)	SO2 limit	Y	
60.43a(g)	Averaging (24-hour for Bay Area)	Y	
60.44a(a)(1)	NOX concentration limit	Y	
60.44a(a)(2)	NOx reduction requirement	Y	
60.44a(d)(1)	NOX limit-lbs/MW-hr	Y	
60.46a(a)	Compliance, particulate limitation	Y	
60.46a(b)	Compliance, NOX limitation	Y	
60.46a(c)	Applicability of Limits	Y	
60.47a(f)	Availability of information	Y	
60.48a	Compliance determination procedures and methods	Y	
60.49a(a)	Performance test reports	Y	
60.49a(b)	NOX emission reports	Y	
60.49a(c)	Reports regarding lack of minimum data	Y	
60.49a(d)	Exceedances during emergency conditions	Y	
60.49a(f)	Reports regarding data availability	Y	
60.49a(g)	Signed statements	Y	
60.49a(h)	Opacity exceedance definition	Y	
60.49a(i)	Reports to Administrator (Also required to District)	Y	
<b>Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (1/27/82)</b>		
60.332(a)(1)	NOx limit	Y	
60.333	Performance Standards, SO2	Y	
<b>40 CFR Part 72</b>	<b>Title IV – Acid Rain Program</b>	Y	
<b>40 CFR Part 75</b>	<b>Code of Federal Regulations, Continuous Emissions Monitoring</b>	Y	
<b>BAAQMD Condition #16676</b>			
Definitions	Definitions	Y	
part 1	Minimization of emissions during commissioning period	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 2	Tuning to minimize emissions	Y	
part 3	Installation of SCR and oxidation catalyst as early as possible	Y	
part 4	Compliance with NO <sub>x</sub> and CO emission limits	Y	
part 5	Submittal of commissioning plan	Y	
part 6	Continuous emission monitors and recorders for firing hours, fuel flow rates, NO <sub>x</sub> , CO, and oxygen concentrations	Y	
part 7	Monitors installed prior to first firing.	Y	
part 8	Limit on uncontrolled operation during commissioning	Y	
part 10	Mass emission rates during commissioning included in annual limits	Y	
part 11	Mass emission rates during commissioning	Y	
part 14	Requirement for combustion of natural gas with a maximum sulfur content of 1 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 15	Hourly heat input limit (PSD for NO <sub>x</sub> )	Y	
part 16	Daily heat input limit (PSD for PM <sub>10</sub> )	Y	
part 17	Annual heat input limit (Offsets)	Y	
part 18	Duct burners shall not be fired unless turbines are in operation (BACT for NO <sub>x</sub> , CO, POC)	Y	
part 19	Oxidizing catalyst and SCR requirement (BACT for NO <sub>x</sub> and CO)	Y	
part 21	Emission limits (BACT, PSD, and Toxic Risk Management Policy)	Y	
part 21a	Hourly and heat input rate NO <sub>x</sub> limits (PSD for NO <sub>x</sub> )	Y	
part 21b	NO <sub>x</sub> concentration limit (BACT for NO <sub>x</sub> )	Y	
part 21c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 21d	CO concentration limit (BACT for CO)	Y	
part 21e	Ammonia concentration limit and monitoring (TRMP for NH <sub>3</sub> )	N	
part 21f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 21g	Hourly and heat-input rate SO <sub>2</sub> limits (BACT for SO <sub>2</sub> )	Y	
part 21h	Hourly and heat-input rate PM <sub>10</sub> limits (BACT for PM <sub>10</sub> )	Y	
part 22	NO <sub>x</sub> emissions from transient, non-steady state operating conditions (BACT for NO <sub>x</sub> )	Y	
part 23	Limits during startup or shutdown (PSD)	Y	

## IV. Source Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 24	Turbines may not be in startup mode simultaneously	Y	
part 30	Facility daily heat input limit (PSD, CEC Offsets)	Y	
part 31	Facility annual heat input limit (Offsets)	Y	
part 32	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 33	Facility annual emission limits (Offsets, PSD, Cumulative Increase)	Y	
part 34	Facility annual emission limits for toxic air contaminants (TRMP)	N	
part 35	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 36	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 37	Calculation of emissions and recordkeeping for toxic air contaminants (TRMP)	N	
part 38	Ammonia source test (TRMP)	N	
part 39	Source to assure compliance with part 21a, b, c, d and f (BACT, offsets)	Y	
part 41	District review of source test procedures (BACT)	Y	
part 42	Initial and biennial source tests for toxic air contaminants (TRMP)	N	
part 43	Submittal of reports (2-6-502)	Y	
part 44	Retention of records for five years (2-6-502)	Y	
part 45	Notification of violations to District (2-1-403)	Y	
part 46	Stack heights (PSD, TRMP)	Y	
part 47	Sampling ports and platforms (1-501)	Y	
part 48	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	
part 49	Review of offsets (Offsets)	Y	
part 50	Facility shall provide emission reduction credits (Offsets)	Y	
part 51	Submittal of Title V application (2-6-404.1)	Y	
part 53	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	

## IV. Source Specific Applicable Requirements

**Table IV – C**  
**Source-specific Applicable Requirements**  
**S-3, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (11/3/93)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)</b>		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated $\geq$ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
	<b>General Provisions</b>	Y	
60.7(a)	Written notification	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – C**  
**Source-specific Applicable Requirements**  
**S-3, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>Subpart Da</b>	<b>Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978 (6/14/79)</b>	Y	
60.42a(a)(1)	Particulate Limit	Y	
60.42a(b)	Opacity Limit	Y	
60.43a(b)(2)	SO2 limit	Y	
60.44a(a)(1)	NOX concentration limit	Y	
60.44a(a)(2)	NOx reduction requirement	Y	
60.44a(d)(1)	NOX limit-lbs/MW-hr	Y	
<b>Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (1/27/82)</b>		
60.332(a)(1)	NOx limit	Y	
60.333	Performance Standards, SO2	Y	
60.334(b)(2)	Sulfur and nitrogen content of fuel	Y	
60.335	Test Methods and Procedures	Y	
<b>40 CFR Part 72</b>	<b>Title IV – Acid Rain Program</b>	Y	
<b>40 CFR Part 75</b>	<b>Code of Federal Regulations, Continuous Emissions Monitoring</b>	Y	
<b>BAAQMD Condition #16676</b>			
Definitions	Definitions	Y	
part 1	Minimization of emissions during commissioning period	Y	
part 2	Tuning to minimize emissions	Y	
part 3	Installation of SCR and oxidation catalyst as early as possible	Y	
part 4	Compliance with NOx and CO emission limits	Y	
part 5	Submittal of commissioning plan	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – C**  
**Source-specific Applicable Requirements**  
**S-3, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 6	Continuous emission monitors and recorders for firing hours, fuel flow rates, NO <sub>x</sub> , CO, and oxygen concentrations	Y	
part 7	Monitors installed prior to first firing.	Y	
part 9	Limit on uncontrolled operation during commissioning	Y	
part 10	Mass emission rates during commissioning included in annual limits	Y	
part 11	Mass emission rates during commissioning	Y	
part 13	Startup/shutdown source test	Y	
part 14	Requirement for combustion of natural gas with a maximum sulfur content of 1 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 15	Hourly heat input limit (PSD for NO <sub>x</sub> )	Y	
part 16	Daily heat input limit (PSD for PM <sub>10</sub> )	Y	
part 17	Annual heat input limit (Offsets)	Y	
part 19	Oxidizing catalyst and SCR requirement (BACT for NO <sub>x</sub> and CO)	Y	
part 21	Emission limits (BACT, PSD, and Toxic Risk Management Policy)	Y	
part 21a	Hourly and heat-input rate NO <sub>x</sub> limits (PSD for NO <sub>x</sub> )	Y	
part 21b	NO <sub>x</sub> concentration limit (BACT for NO <sub>x</sub> )	Y	
part 21c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 21d	CO concentration limit (BACT for CO)	Y	
part 21e	Ammonia concentration limit and monitoring (TRMP for NH <sub>3</sub> )	N	
part 21f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 21g	Hourly and heat-input rate SO <sub>2</sub> limits (BACT for SO <sub>2</sub> )	Y	
part 21h	Hourly and heat-input rate PM <sub>10</sub> limits (BACT for PM <sub>10</sub> )	Y	
part 22	NO <sub>x</sub> emissions from transient, non-steady state operating conditions (BACT for NO <sub>x</sub> )	Y	
part 23	Limits during startup or shutdown (PSD)	Y	
part 24	Turbines may not be in startup mode simultaneously	Y	
part 30	Facility daily heat input limit (PSD, CEC Offsets)	Y	
part 31	Facility annual heat input limit (Offsets)	Y	
part 32	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 33	Facility annual emission limits (Offsets, PSD, Cumulative Increase)	Y	
part 34	Facility annual emission limits for toxic air contaminants (TRMP)	N	

#### IV. Source Specific Applicable Requirements

**Table IV – C**  
**Source-specific Applicable Requirements**  
**S-3, TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 35	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 36	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 37	Calculation of emissions and recordkeeping for toxic air contaminants (TRMP)	N	
part 38	Ammonia source test (TRMP)	N	
part 39	Source to assure compliance with part 21a, b, c, d and f (BACT, offsets)	Y	
part 41	District review of source test procedures (BACT)	Y	
part 42	Initial and biennial source tests for toxic air contaminants (TRMP)	N	
part 43	Submittal of reports (2-6-502)	Y	
part 44	Retention of records for five years (2-6-502)	Y	
part 45	Notification of violations to District (2-1-403)	Y	
part 46	Stack heights (PSD, TRMP)	Y	
part 47	Sampling ports and platforms (1-501)	Y	
part 48	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	
part 49	Review of offsets (Offsets)	Y	
part 50	Facility shall provide emission reduction credits (Offsets)	Y	
part 51	Submittal of Title V application (2-6-404.1)	Y	
part 53	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	

**Table IV – D**  
**Source-specific Applicable Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
BAAQMD			

#### IV. Source Specific Applicable Requirements

**Table IV – D  
 Source-specific Applicable Requirements  
 S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NOx, CO <sub>2</sub> , or O <sub>2</sub>	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (5/2/01)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 3</b>	<b>Inorganic Gaseous Pollutants – Nitrogen Oxides from Heat Transfer Operations (3/17/82)</b>		
9-303	Nitrogen oxide emission limitation	Y	
<b>BAAQMD Manual of</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>		

## IV. Source Specific Applicable Requirements

**Table IV – D**  
**Source-specific Applicable Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>Procedures, Volume V</b>			
<b>40 CFR 60</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
<b>Subpart A</b>	<b>General Provisions</b>	Y	
60.4(b)	Reports to EPA and District	Y	
60.7	Notification and record keeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirement	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>Subpart Da</b>	<b>Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978 (6/14/79)</b>	Y	
60.42a(a)(1)	Particulate Limit	Y	
60.42a(b)	Opacity Limit	Y	
60.43a(b)(2)	SO2 limit	Y	
60.43a(g)	Averaging (24-hour for Bay Area)	Y	
60.44a(a)(1)	NOx concentration limit	Y	
60.44a(a)(2)	NOx reduction requirement	Y	
60.44a(d)(1)	NOX limit-lbs/MW-hr	Y	
60.46a(a)	Compliance, particulate limitation	Y	
60.46a(b)	Compliance, NOx limitation	Y	
60.46a(c)	Applicability of Limits	Y	
60.47a(f)	Availability of information	Y	
60.48a	Compliance determination procedures and methods	Y	
60.49a(a)	Performance test reports	Y	
60.49a(b)	NOX emission reports	Y	
60.49a(c)	Reports regarding lack of minimum data	Y	
60.49a(d)	Exceedances during emergency conditions	Y	

## IV. Source Specific Applicable Requirements

**Table IV – D**  
**Source-specific Applicable Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.49a(f)	Reports regarding data availability	Y	
60.49a(g)	Signed statements	Y	
60.49a(h)	Opacity exceedance definition	Y	
60.49a(i)	Reports to Administrator (Also required to District)	Y	
<b>Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (1/27/82)</b>		
60.332(a)(1)	NOx limit	Y	
60.333	Performance Standards, SO2	Y	
<b>40 CFR Part 72</b>	<b>Title IV – Acid Rain Program</b>	Y	
<b>40 CFR Part 75</b>	<b>Code of Federal Regulations, Continuous Emissions Monitoring</b>	Y	
<b>BAAQMD Condition #16676</b>			
Definitions	Definitions	Y	
part 1	Minimization of emissions during commissioning period	Y	
part 2	Tuning to minimize emissions	Y	
part 3	Installation of SCR and oxidation catalyst as early as possible	Y	
part 4	Compliance with NOx and CO emission limits	Y	
part 5	Submittal of commissioning plan	Y	
part 6	Continuous emission monitors and recorders for firing hours, fuel flow rates, NOx, CO, and oxygen concentrations	Y	
part 7	Monitors installed prior to first firing.	Y	
part 9	Limit on uncontrolled operation during commissioning	Y	
part 10	Mass emission rates during commissioning included in annual limits	Y	
part 11	Mass emission rates during commissioning	Y	
part 14	Requirement for combustion of natural gas with a maximum sulfur content of 1 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 15	Hourly heat input limit (PSD for NO <sub>x</sub> )	Y	
part 16	Daily heat input limit (PSD for PM <sub>10</sub> )	Y	
part 17	Annual heat input limit (Offsets)	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – D**  
**Source-specific Applicable Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATORS**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 18	Duct burners shall not be fired unless turbines are in operation (BACT for NO <sub>x</sub> , CO, POC)	Y	
part 19	Oxidizing catalyst and SCR requirement (BACT for NO <sub>x</sub> and CO)	Y	
part 21	Emission limits (BACT, PSD, and Toxic Risk Management Policy)	Y	
part 21a	Hourly and heat-input rate NO <sub>x</sub> limits (PSD for NO <sub>x</sub> )	Y	
part 21b	NO <sub>x</sub> concentration limit (BACT for NO <sub>x</sub> )	Y	
part 21c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 21d	CO concentration limit (BACT for CO)	Y	
part 21e	Ammonia concentration limit and monitoring (TRMP for NH <sub>3</sub> )	N	
part 21f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 21g	Hourly and heat-input rate SO <sub>2</sub> limits (BACT for SO <sub>2</sub> )	Y	
part 21h	Hourly and heat-input rate PM <sub>10</sub> limits (BACT for PM <sub>10</sub> )	Y	
part 22	NO <sub>x</sub> emissions from transient, non-steady state operating conditions (BACT for NO <sub>x</sub> )	Y	
part 23	Limits during startup or shutdown (PSD)	Y	
part 24	Turbines may not be in startup mode simultaneously	Y	
part 30	Facility daily heat input limit (PSD, CEC Offsets)	Y	
part 31	Facility annual heat input limit (Offsets)	Y	
part 32	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 33	Facility annual emission limits (Offsets, PSD, Cumulative Increase)	Y	
part 34	Facility annual emission limits for toxic air contaminants (TRMP)	Y	
part 35	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 36	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 37	Calculation of emissions and recordkeeping for toxic air contaminants (TRMP)	N	
part 38	Ammonia source test (TRMP)	N	
part 39	Source to assure compliance with part 21a, b, c, d and f (BACT, offsets)	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – D  
 Source-specific Applicable Requirements  
 S-4, HEAT RECOVERY STEAM GENERATORS**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 41	District review of source test procedures (BACT)	Y	
part 42	Initial and biennial source tests for toxic air contaminants (TRMP)	N	
part 43	Submittal of reports (2-6-502)	Y	
part 44	Retention of records for five years (2-6-502)	Y	
part 45	Notification of violations to District (2-1-403)	Y	
part 46	Stack heights (PSD, TRMP)	Y	
part 47	Sampling ports and platforms (1-501)	Y	
part 48	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	
part 49	Review of offsets (Offsets)	Y	
part 50	Facility shall provide emission reduction credits (Offsets)	Y	
part 51	Submittal of Title V application (2-6-404.1)	Y	
part 53	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	

**Table IV – E  
 Source-specific Applicable Requirements  
 S-5, AUXILIARY BOILER**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (11/3/93)</b>		
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NO <sub>x</sub> , CO <sub>2</sub> or O <sub>2</sub>	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>BAAQMD</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		

#### IV. Source Specific Applicable Requirements

**Table IV – E**  
**Source-specific Applicable Requirements**  
**S-5, AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>Regulation 6</b>			
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 3</b>	<b>Inorganic Gaseous Pollutants, Nitrogen Oxides From Heat Transfer Operations (3/17/82)</b>		
9-3-303	New or Modified Heat Transfer Operation Limits	N	
<b>BAAQMD Regulation 9, Rule 7</b>	<b>Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)</b>		
9-7-301	Emission Limits-Gaseous Fuel	Y	
9-7-301.1	Emission Limits-NOx	Y	
9-7-301.2	Emission Limits-CO	Y	
9-7-503	Records	Y	
9-7-503.4	Source test records	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>		
<b>40 CFR 60</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
<b>Subpart A</b>	<b>General Provisions</b>	Y	
60.4(b)	Reports to EPA and District	Y	

#### IV. Source Specific Applicable Requirements

**Table IV – E**  
**Source-specific Applicable Requirements**  
**S-5, AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.7	Notification and record keeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirement	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>Subpart Db</b>	<b>Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (12/16/87)</b>	Y	
60.44b(l)(1)	NOx Emission Limit	Y	
60.44b(h)	NOx limit applicable at all times	Y	
60.44b(j)	Compliance: 24-hr day basis	Y	
60.46b(c)	Compliance with NOx limit	Y	
60.46b(e)	Performance test for NOx	Y	
60.46b(e)(1)	Performance test for NOx (24-hr basis)	Y	
60.48b(f)	Standby Monitoring	Y	
60.49b(a)	Notification of Initial Startup	Y	
60.49b(b)	Report Performance Tests and CEM performance	Y	
60.49b(d)	Fuel records	Y	
60.49b(g)	Records for each day of operation	Y	
60.49b(h)(2)	Excess emission reports	Y	
60.49b(o)	Records retention for two years	Y	
<b>BAAQMD Condition #16676</b>			
Definitions	Definitions	Y	
part 1	Minimization of emissions during commissioning period	Y	
part 2	Tuning to minimize emissions	Y	
part 5	Submittal of commissioning plan	Y	
part 6	Continuous emission monitors and recorders for firing hours, fuel flow rates, NOx, CO, and oxygen concentrations	Y	
part 7	Monitors installed prior to first firing.	Y	

## IV. Source Specific Applicable Requirements

**Table IV – E**  
**Source-specific Applicable Requirements**  
**S-5, AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 10	Mass emission rates during commissioning included in annual limits	Y	
part 12	Mass emission rates during commissioning	Y	
part 13	Source tests before end of commissioning	Y	
part 25	Requirement for combustion of natural gas with a maximum sulfur content of 1 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 26	Hourly heat input limit (Cumulative Increase)	Y	
part 27	Annual heat input limit (Cumulative Increase)	Y	
part 28	Emission limits (BACT, PSD)	Y	
part 28a	Hourly NOx limits (PSD for NOx)	Y	
part 28b	NOx concentration limit (BACT for NOx)	Y	
part 28c	Hourly CO limit (PSD for CO)	Y	
part 28d	CO concentration limit (BACT for CO)	Y	
part 28e	Hourly POC limit (BACT for POC)	Y	
part 28f	Hourly SO <sub>2</sub> limit (BACT for SO <sub>2</sub> )	Y	
part 28g	Hourly PM <sub>10</sub> limit (BACT for PM <sub>10</sub> )	Y	
part 28h	NH <sub>3</sub> concentration limit (TRMP)	N	
part 29	Requirement for design for future installation of Oxidizing Catalyst (BACT for CO)	Y	
Part 29	Requirement for SCR system (BACT for NOx)	Y	
part 30	Facility daily heat input limit (PSD, CEC Offsets)	Y	
part 31	Facility annual heat input limit (Offsets)	Y	
part 32	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 33	Facility annual emission limits (Offsets, PSD, Cumulative Increase)	Y	
part 34	Facility annual emission limits for toxic air contaminants (TRMP)	Y	
part 35	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 36	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 37	Calculation of emissions and recordkeeping for toxic air contaminants (TRMP)	N	

#### IV. Source Specific Applicable Requirements

**Table IV – E**  
**Source-specific Applicable Requirements**  
**S-5, AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 40	Source to assure compliance with part 28a-d (BACT, offsets)	Y	
part 41	District review of source test procedures (BACT)	Y	
part 43	Submittal of reports (2-6-502)	Y	
part 44	Retention of records for five years (2-6-502)	Y	
part 45	Notification of violations to District (2-1-403)	Y	
part 47	Sampling ports and platforms (1-501)	Y	
part 48	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	
part 49	Review of offsets (Offsets)	Y	
part 50	Facility shall provide emission reduction credits (Offsets)	Y	
part 51	Submittal of Title V application (2-6-404.1)	Y	
part 53	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	

## V. SCHEDULE OF COMPLIANCE

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

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#### For All Sources:

#### Definitions:

Clock Hour:	Any continuous 60-minute period beginning on the hour.
Calendar Day:	Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
Year:	Any consecutive twelve-month period of time
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in BTU/scf.
Rolling 3-hour period:	Any three-hour period that begins on the hour and does not include start-up or shutdown periods.
Firing Hours:	Period of time during which fuel is flowing to a unit, measured in fifteen minute increments.
MM BTU:	million British thermal units
Gas Turbine Start-up Mode:	The lesser of the first 120 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of conditions 21(b) and 21(d).
Gas Turbine Shutdown Mode:	The lesser of the 30 minute period immediately prior to the termination of fuel flow to the Gas Turbine or the period of time from non-compliance with any requirement listed in Conditions 21(a) through 21(f) until termination of fuel flow to the Gas Turbine.
Auxiliary Boiler Start-up:	The lesser of the first 120 minutes of continuous fuel flow to an Auxiliary Boiler after fuel flow is initiated; or the period of time from fuel flow initiation until the Boiler achieves two consecutive CEM data points in compliance with the emission concentration limits of conditions 28(b) and 28(d).

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#### For All Sources:

Auxiliary Boiler Shutdown:	The lesser of the 30 minute period immediately prior the termination of fuel flow to the Auxiliary Boiler; or the period of time from non-compliance with any requirement listed in Conditions 28(a) through 28(d) until termination of fuel flow to the auxiliary boiler.
Specified PAHs:	The polycyclic aromatic hydrocarbons listed below shall be considered to Specified PAHs for these permit conditions. Any emission limits for Specified PAHs refer to the sum of the emissions for all six of the following compounds. Benzo[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[a]pyrene Dibenzo[a,h]anthracene Indeno[1,2,3-cd]pyrene
Corrected Concentration:	The concentration of any pollutant (generally NO <sub>x</sub> , CO, or NH <sub>3</sub> ) corrected to a standard stack gas oxygen concentration. For emission point P-1 (Gas Turbine S-1 and HRSG S-2) and emission point P-2 (Gas Turbine S-3 and HRSG S-4) the standard stack gas oxygen concentration is 15% O <sub>2</sub> by volume on a dry basis. For emission point P-3 (Auxiliary Boiler S-5), the standard stack gas oxygen concentration is 3% O <sub>2</sub> by volume on a dry basis.
Commissioning Activities:	All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the LMEC construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, auxiliary boiler, and associated electrical delivery systems.
Commissioning Period:	The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed performance testing, is available for commercial operation, and has initiated sales to the power exchange.
Precursor Organic Compounds (POCs):	Any compound of carbon, excluding methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate
CEC CPM:	California Energy Commission Compliance Program Manager

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#### For All Sources:

#### Conditions for the Commissioning Period

1. The owner/operator of the Los Medanos Energy Center (LMEC) shall minimize emissions of carbon monoxide and nitrogen oxides from S-1 & S-3 Gas Turbines, S-2 & S-4 Heat Recovery Steam Generators (HRSG), and S-5 Auxiliary Boiler to the maximum extent possible during the commissioning period. Conditions 1 through 13 shall only apply during the commissioning period as defined above. Unless otherwise indicated, Conditions 14 through 51 shall apply after the commissioning period has ended.
2. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the combustors of S-1 & S-3 Gas Turbines, S-2 & S-4 Heat Recovery Steam Generators, and S-5 Auxiliary Boiler shall be tuned to minimize the emissions of carbon monoxide and nitrogen oxides.
3. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, A-1 & A-3 SCR Systems and A-2 & A-4 Oxidation Catalysts shall be installed, adjusted, and operated to minimize the emissions of carbon monoxide and nitrogen oxides from S-1 & S-3 Gas Turbines and S-2 & S-4 Heat Recovery Steam Generators.
4. Coincident with the steady-state operation of A-1 & A-3 SCR Systems and A-2 & A-4 Oxidation Catalysts pursuant to conditions 3, 8, and 9, the Gas Turbines (S-1 & S-3) and the HRSGs (S-2 & S-4) shall comply with the NO<sub>x</sub> and CO emission limitations specified in conditions 21(a) through 21(d).
5. The owner/operator of the LMEC shall submit a plan to the District Permit Services Division and the CEC CPM at least four weeks prior to first firing of S-1 and S-3 Gas Turbines describing the procedures to be followed during the commissioning of the turbines, HRSGs, auxiliary boiler, and steam turbine. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the Dry-Low-NO<sub>x</sub> combustors, the installation and operation of the SCR systems and oxidation catalysts, the installation, calibration, and testing of the CO and NO<sub>x</sub> continuous emission monitors, and any activities requiring the firing of S-1 and S-3 Gas Turbines and S-2 and S-4 HRSGs without abatement by the SCR Systems or oxidation catalysts.

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#### For All Sources:

6. During the commissioning period, the owner/operator of the LMEC shall demonstrate compliance with conditions 11 and 12 through the use of properly operated and maintained continuous emission monitors and recorders for the following parameters:

- firing hours
- fuel flow rates
- stack gas nitrogen oxide emission concentrations,
- stack gas carbon monoxide emission concentrations
- stack gas oxygen concentrations.

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for S-1 and S-3 Gas Turbines, S-2 and S-4 HRSGs, and S-5 Auxiliary Boiler. The owner/operator shall use District-approved methods to calculate heat input rates, nitrogen oxide mass emission rates, carbon monoxide mass emission rates, and NO<sub>x</sub> and CO emission concentrations, summarized for each clock hour and each calendar day. All records shall be retained on site for at least 5 years from the date of entry and made available to District personnel upon request.

7. The District-approved continuous monitors specified in condition 6 shall be installed, calibrated, and operational prior to first firing of S-1 & S-3 Gas Turbines, S-2 & S-4 Heat Recovery Steam Generators, and S-5 Auxiliary Boiler. After first firing of the turbines and auxiliary boiler, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the resulting range of CO and NO<sub>x</sub> emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval.
8. The total number of firing hours of S-1 Gas Turbine and S-2 Heat Recovery Steam Generator without abatement of nitrogen oxide and carbon monoxide emissions by A-1 SCR System and A-2 Oxidation Catalyst shall not exceed 250 hours during the commissioning period. Such operation of S-1 Gas Turbine and S-2 HRSG without abatement shall be limited to discrete commissioning activities that can only be properly executed without SCR and oxidation catalysts in place. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 250 firing hours without abatement shall expire.

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9. The total number of firing hours of S-3 Gas Turbine and S-4 Heat Recovery Steam Generator without abatement of nitrogen oxide and carbon monoxide emissions by A-3 SCR System and A-4 Oxidation Catalyst shall not exceed 250 hours during the commissioning period. Such operation of S-3 Gas Turbine and S-4 HRSG without abatement shall be limited to discrete commissioning activities that can only be properly executed without SCR and oxidation catalysts in place. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 250 firing hours without abatement shall expire.
10. The total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM<sub>10</sub>, and sulfur dioxide that are emitted by S-1, S-2, S-3, S-4, and S-5 during the commissioning period shall accrue towards the consecutive twelve month emission limits specified in condition 33.
11. Combined pollutant emissions from S-1 & S-3 Gas Turbines and S-2 & S-4 Heat Recovery Steam Generators shall not exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of S-1 & S-3 Gas Turbines.

NO <sub>x</sub> (as NO <sub>2</sub> )	3,511 pounds per calendar day	616 pounds/hour
CO	10,848 pounds per calendar day	5,053.8 pounds/hour
POC (as CH <sub>4</sub> )	720 pounds per calendar day	
PM <sub>10</sub>	816 pounds per calendar day	
SO <sub>2</sub>	268 pounds per calendar day	

12. Pollutant emissions from S-5 Auxiliary Boiler shall not exceed the following limits during the commissioning period. These emission limits shall include emissions that occur during S-5 Auxiliary Boiler start-ups.

NO <sub>x</sub> (as NO <sub>2</sub> )	268 pounds per calendar day	2.91 pounds per hour
CO	233.8 pounds per calendar day	9.74 pounds per hour
POC (as CH <sub>4</sub> )	16 pounds per calendar day	
PM <sub>10</sub>	60 pounds per calendar day	
SO <sub>2</sub>	8 pounds per calendar day	

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#### For All Sources:

13. Prior to the end of the Commissioning Period, the Owner/Operator shall conduct a District and CEC approved source test using external continuous emission monitors to determine compliance with condition 23. The source test shall determine NO<sub>x</sub>, CO, and POC emissions during start-up and shutdown of the gas turbines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start-up and three shutdown periods. Twenty calendar days before the execution of the source tests, the Owner/Operator shall submit to the District and the CEC CPM a detailed source test plan designed to satisfy the requirements of this condition. The District and the CEC CPM will notify the Owner/Operator of any necessary modifications to the plan within 20 working days of receipt of the plan; otherwise, the plan shall be deemed approved. The Owner/Operator shall incorporate the District and CEC CPM comments into the test plan. The Owner/Operator shall notify the District and the CEC CPM within seven (7) working days prior to the planned source testing date. Source test results shall be submitted to the District and the CEC CPM within 30 days of the source testing date.

#### Conditions for the Gas Turbines (S-1 & S-3) and the Heat Recovery Steam Generators (HRSGs) (S-2 & S-4).

14. The Gas Turbines (S-1 and S-3) and HRSGs (S-2 and S-4) shall be fired exclusively on natural gas with a maximum sulfur content of 1 grain per 100 standard cubic feet. To demonstrate compliance with this limit, the operator of S-1, S-2, S-3, and S-4 shall sample and analyze the gas from each supply source at least once every 30 consecutive days to determine the sulfur content of the gas. (BACT for SO<sub>2</sub> and PM<sub>10</sub>)
15. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2 and S-3 & S-4) shall not exceed 2,225.1 MM BTU per hour, averaged over any rolling 3-hour period. (PSD for NO<sub>x</sub>)
16. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2 and S-3 & S-4) shall not exceed 50,738.24 MM BTU per calendar day. (PSD for PM<sub>10</sub>)
17. The combined cumulative heat input rate for both Gas Turbines (S-1 and S-3) and both HRSGs (S-2 and S-4) shall not exceed 34,010,400 MM BTU per year. (Offsets)

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18. The HRSG duct burners shall not be fired unless its associated Gas Turbine is in operation. (BACT for NO<sub>x</sub>, CO, POC)
19. The Gas Turbine (S-1) and HRSG (S-2) shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-2) and Selective Catalytic Reduction System (A-1), in series. (BACT for NO<sub>x</sub> and CO)
20. The Gas Turbine (S-3) and HRSG (S-4) shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-4) and Selective Catalytic Reduction System (A-3), in series. (BACT for NO<sub>x</sub> and CO)
21. The owner/operator of the Gas Turbines (S-1 and S-3) and HRSGs (S-2 and S-4) shall meet all of the requirements listed in (a) through (h) below, except during a Gas Turbine Start-up or a Gas Turbine Shutdown. (BACT, PSD, and Toxic Risk Management Policy)
  - (a) Nitrogen oxide emissions at P-1 (the combined exhaust point for the S-1 Gas Turbine and the S-2 HRSG after control by the A-1 SCR System and A-2 Oxidation Catalyst) shall not exceed 20 pounds per hour, calculated as NO<sub>2</sub>, nor 0.009 lbs/MM BTU of natural gas fired. Nitrogen oxide emissions at P-2 (the combined exhaust point for the S-3 Gas Turbine and the S-4 HRSG after control by the A-3 SCR System and A-4 Oxidation Catalyst) shall not exceed 20 pounds per hour, calculated as NO<sub>2</sub>, nor 0.009 lbs/MM BTU of natural gas fired. (PSD for NO<sub>x</sub>)
  - (b) The nitrogen oxide concentration at P-1 and P-2 each shall not exceed 2.5 ppmv, corrected to 15% O<sub>2</sub>, on a dry basis, averaged over any 1-hour period. (BACT for NO<sub>x</sub>)
  - (c) Carbon monoxide emissions at P-1 and P-2 each shall not exceed 29.2 pounds per hour, nor 0.0132 lb/MM BTU of natural gas fired. (PSD for CO)
  - (d) The carbon monoxide concentration at P-1 and P-2 each shall not exceed 6 ppmv, corrected to 15% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. (BACT for CO)
  - (e) Ammonia (NH<sub>3</sub>) emissions at P-1 and P-2 each shall not exceed 10 ppmv, corrected to 15% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous records of the ammonia injection rate to A-1 and A-3 SCR Systems. The correlation between the gas turbine and HRSG heat input

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rates, A-1 and A-3 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-1 and P-2 shall be determined in accordance with permit condition 38. (TRMP for NH<sub>3</sub>)

- (f) Precursor organic compound (POC) emissions at P-1 and P-2 each shall not exceed 3.8 pounds per hour, nor 0.0017 lb/MM BTU of natural gas fired. (BACT for POC)
  - (g) Sulfur dioxide (SO<sub>2</sub>) mass emissions at P-1 and P-2 each shall not exceed 6.2 pounds per hour or 0.00277 lb/MM BTU of natural gas fired. (BACT for SO<sub>2</sub>)
  - (h) Particulate matter (PM<sub>10</sub>) mass emissions at P-1 and P-2 each shall not exceed 16.3 pounds per hour or 0.0073 lb/MM BTU of natural gas fired. (BACT for PM<sub>10</sub>)
22. The following conditions shall apply to NO<sub>x</sub> emissions resulting from or attributable to transient, non-steady state operating conditions. (BACT for NO<sub>x</sub>)
- (a) CEM NO<sub>x</sub> emission concentration data points that result from or are attributable to transient, non-steady state conditions shall not be subject to the emission limitations specified in Condition 21(b). In any event, the nitrogen oxide concentration at P-1 and P-2 each shall not exceed 2.5 ppmv, corrected to 15% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. All CEM NO<sub>x</sub> emission concentration data points shall be utilized when determining compliance with this emission concentration limit.
  - (b) The emission limitation specified in Condition 22(a) shall be valid for a period not to exceed 24 months from the end of the Commissioning period. At such time the emission limitation specified in Condition 21(b) shall apply for all operating conditions except gas turbine start-up and shutdown periods, unless specific transient, non-steady state conditions are identified pursuant to conditions 22(f) and (g).
  - (c) Definitions

A transient, non-steady state condition shall occur when the following conditions exist:

- (1) One or more equipment design features is unable to support rapid changes in operation and respond to and adjust all operating parameters required to maintain the steady-state NO<sub>x</sub> emission limit specified in condition 21(b). A change in operation shall be limited to one or more of the following: a change in combustion turbine load greater than 6 MW/minute; a change in SCR system space velocity greater than 50 ft/minute; initiation/shutdown of the evaporative cooler; initiation/shutdown of the duct burners;

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and a change in duct burner firing rate greater than 600,000 BTU/minute. Additional non-steady state conditions may be defined based upon operational experience and mutual written agreement of the owner/operator, the District, ARB, and EPA.

- (2) For purposes of this condition, transient, non-steady state conditions shall not include the start-up and shutdown periods that are the subject of condition 23.
- (d) The owner/operator shall maintain continuous emission monitor (CEM) data and complete records of plant emission performance under transient, non-steady state conditions. The owner/operator shall record the NO<sub>x</sub> emission concentration and document the cause of each transient, non-steady state condition with operational data. A description of the specific parameters that will be monitored to document a transient, non-steady state condition shall be submitted to the District, ARB, and EPA for approval at least 60 days prior to the end of the Commissioning period.
- (e) Within 6 months of the end of the Commissioning period, the owner/operator shall compile and submit source test data, using a District-approved test protocol, to assess NO<sub>x</sub> emissions under transient, non-steady state conditions. A source test protocol shall be submitted to the District and EPA for approval at least 60 days prior to testing.
- (f) Within 15 months of the end of the Commissioning period, the owner/operator shall submit a plan to the District and EPA designed to minimize emissions during transient, non-steady state conditions. The plan shall identify reasonable measures that will be taken to control NO<sub>x</sub> emissions. This plan shall be based upon the CEM and source test data developed in accordance with condition 22(e) and actual operating experience during the preceding months of plant operation. The plan shall be developed in consultation with the manufacturers selected for the gas turbine, HRSG, control systems, and air pollution control units. After the plan has been approved by the District and EPA, the owner/operator shall use the procedures described in the plan to minimize NO<sub>x</sub> emissions during transient, non-steady state conditions.
- (g) On a semi-annual basis, for the first 24 months after the end of the Commissioning period, the owner/operator shall provide a report to the District with continuous emission monitoring and source test data developed in accordance with this condition. The District will use the data and related operating experience to establish maximum NO<sub>x</sub> emission limits for transient, non-steady state conditions for the following 6 month period. The District will consider operations at similar (e.g., electrical generation and fuel-type) facilities in determining the revised emission limits. In no event shall the NO<sub>x</sub> emission limits established

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pursuant to section (g) be less than the NO<sub>x</sub> emission limits specified in Condition 21(b). In addition, if appropriate, on a semi-annual basis the district will use all data and related operating experience to establish (i) a revised definition of transient, non-steady state conditions to which the NO<sub>x</sub> emission limitations established pursuant to this section (g) shall apply, and (ii) the data collection and recordkeeping requirements that the owner/operator shall use to document the occurrence of transient non-steady state conditions. The Title V operating permit shall be amended as necessary to reflect the data collection and recordkeeping requirements established under 22(g)(ii).

23. The pollutant emission rates from each of the Gas Turbines (S-1 and S-3) during a start-up or shutdown shall not exceed the limits established below. These limits apply to any 60-minute period, not a three-hour average. (PSD)

	Start-Up (lb/start-up)	Shutdown (lb/shutdown)
(a) Oxides of Nitrogen (as NO <sub>2</sub> )	240	20
(b) Carbon Monoxide (CO)	2514	44.1
(c) Precursor Organic Compounds (as CH <sub>4</sub> )	48	8

Within three months of the end of the Commissioning period, the owner/operator shall submit a plan designed to minimize emissions during the transient conditions encountered during gas turbine start-ups and shutdowns. This plan shall indicate what steps will be taken to start controlling NO<sub>x</sub> emissions as soon as feasible, including when ammonia can be fed to the SCR system without producing ammonia slip in excess of 10 ppmvd @ 15% O<sub>2</sub>. This plan shall be based upon the experience gathered from the source tests performed per condition #13 and actual operating experience gained during the first six-months of operation. This plan shall also be developed in consultation with the manufacturers of the gas turbines, HRSGs, control systems, and air pollution control units. This plan shall be submitted to the CEC CPM for approval. After the plan has been approved, the owner/operator shall use the procedures included in the plan to minimize NO<sub>x</sub> emissions during gas turbine start-ups and shutdowns.

Within 24 months of the end of the Commissioning period, the owner/operator shall submit a report to the District and the CEC CPM that establishes reasonable maximum hourly mass emission rates for start-up and shutdown conditions. The revised mass emission rates shall be based upon source test and continuous emission monitoring data. Pending approval of the District and the CEC CPM, these revised mass emission rates shall be established as new emission

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limitations that will supersede the limits included in this condition.

24. The Gas Turbines (S-1 and S-3) shall not be in start-up mode simultaneously. (PSD)

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#### Conditions for the Auxiliary Boiler (S-5)

25. The Auxiliary Boiler (S-5) shall be fired exclusively on natural gas with a maximum sulfur content of 1 grain per 100 standard cubic feet. To demonstrate compliance with this limit, the operator of S-5 shall sample and test the gas from each supply source at least once every 30 consecutive days to determine the sulfur content of the gas. (BACT for SO<sub>2</sub> and PM<sub>10</sub>)
26. The heat input rate to the Auxiliary Boiler (S-5) shall not exceed 320 million BTU per hour, averaged over any rolling 3-hour period. (Cumulative Increase)
27. The cumulative heat input rate to the Auxiliary Boiler (S-5) shall not exceed 480,000 million BTU per year. (Cumulative Increase)
28. The owner/operator of the Auxiliary Boiler (S-5) shall meet all of the requirements listed in (a) through (d) below, except during an Auxiliary Boiler Start-up or an Auxiliary Boiler Shutdown. (BACT, PSD)
  - (a) Nitrogen oxide emissions at P-3 (the exhaust point for the Auxiliary Boiler) shall not exceed 3.5 pounds per hour, calculated as NO<sub>x</sub>. (PSD for NO<sub>x</sub>)
  - (b) The nitrogen oxide concentration at P-3 shall not exceed 90 ppmv, measured as NO<sub>x</sub>, corrected to 3% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. (BACT for NO<sub>x</sub>)
  - (c) Carbon monoxide emissions at P-3 shall not exceed 11.8 pounds per hour. (PSD for CO)
  - (d) The carbon monoxide concentration at P-3 shall not exceed 50 ppmv, corrected to 3% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. (BACT for CO)
  - (e) Precursor organic compound (POC) emissions at P-3 shall not exceed 1.7 pounds per hour. (BACT for POC)
  - (f) Sulfur dioxide (SO<sub>2</sub>) mass emissions at P-3 shall not exceed 0.5 pounds per hour. (BACT for SO<sub>2</sub>)
  - (g) Particulate matter (PM<sub>10</sub>) mass emissions at P-3 shall not exceed 1.6 pounds per hour.

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(BACT for PM<sub>10</sub>)

- (h) Ammonia (NH<sub>3</sub>) emissions at P-3 shall not exceed 10 ppmv, corrected to 3% O<sub>2</sub>, on a dry basis, averaged over any rolling 3-hour period. This ammonia concentration shall be verified by the continuous recording of the ammonia injection rate at the A-5 SCR System. The correlation between the auxiliary boiler heat input rate, A-5 SCR System ammonia injection rate, and corresponding ammonia emission concentration at P-3 shall be determined in accordance with permit condition 38. (TRMP)
29. The Auxiliary Boiler (S-5), its burners, combustion chamber, and exhaust system shall be designed and constructed so that the boiler can be retrofitted with an oxidizing catalyst in the event the Auxiliary Boiler cannot consistently comply with the emission limitations specified in condition 28. S-5 Auxiliary Boiler shall be abated by the properly operating and maintained A-5 Selective Catalytic Reduction System. (BACT for NO<sub>x</sub>, CO)

#### Conditions for All Sources

##### (S-1, S-2, S-3, S-4, and S-5)

30. The combined heat input rate to the Gas Turbines (S-1 and S-3), HRSGs (S-2 and S-4), and Auxiliary Boiler (S-5) shall not exceed 109,157 million BTU per calendar day. (PSD, CEC Offsets)
31. The cumulative heat input rate to the Gas Turbines (S-1 and S-3), HRSGs (S-2 and S-4), and Auxiliary Boiler (S-5) combined shall not exceed 34,490,400 million BTU per year. (Offsets)
32. Total combined emissions from the Gas Turbines, HRSGs, and Auxiliary Boiler (S-1, S-2, S-3, S-4, and S-5), including emissions generated during Gas Turbine Start-ups, Gas Turbine Shutdowns, Auxiliary Boiler Start-ups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any calendar day:
- |     |  |        |
|-----|--|--------|
| (a) | 1342 pounds of NO <sub>x</sub> (as NO <sub>2</sub> ) per day | (CEQA) |
| (b) | 6445 pounds of CO per day                                    | (PSD)  |
| (c) | 271.3 pounds of POC (as CH <sub>4</sub> ) per day            | (CEQA) |
| (d) | 742 pounds of PM <sub>10</sub> per day                       | (PSD)  |
| (e) | 282.6 pounds of SO <sub>2</sub> per day                      | (BACT) |

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33. Cumulative emissions from the Gas Turbines, HRSGs, and the Auxiliary Boiler combined (S-1, S-2, S-3, S-4, and S-5), including emissions generated during Gas Turbine Start-ups, Gas Turbine Shutdowns, Auxiliary Boiler Start-ups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any consecutive twelve-month period:

- (a) 175.7 tons of NO<sub>x</sub> (as NO<sub>2</sub>) per year (Offsets, PSD)
- (b) 506.4 tons of CO per year (Cumulative Increase)
- (c) 33.9 tons of POC (as CH<sub>4</sub>) per year (Offsets)
- (d) 131.6 tons of PM<sub>10</sub> per year (Offsets, PSD)
- (e) 47.11 tons of SO<sub>2</sub> per year (Cumulative Increase)

34. The maximum projected annual toxic air contaminant emissions from the Gas Turbines, HRSGs, and the Auxiliary Boiler combined (S-1, S-2, S-3, S-4, and S-5) shall not exceed the following limits:

- (a) 3,817 pounds of formaldehyde per year
- (b) 460.9 pounds of benzene per year
- (c) 78.5 pounds of Specified polycyclic aromatic hydrocarbons (PAHs) per year

unless the owner/operator meets the requirements of (d), (e), and (f) below:

(d) The owner/operator shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District (District) approved procedures and unit risk factors in effect at the time of the analysis. The calculated excess cancer risk shall not exceed 1.0 in one million.

(e) The owner/operator shall perform a second risk analysis using the emission rates determined by source test and the procedures and unit risk factors in effect when the Determination of Compliance was issued. The calculated excess cancer risk shall not exceed 1.0 in one million.

(f) Both of these risk analyses shall be submitted to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will satisfy the conditions stated in parts (d) and (e) above, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed

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#### For All Sources:

above. The Title V operating permit shall be amended to reflect these adjustments. (TRMP)

35. The owner/operator shall demonstrate compliance with conditions 15 through 18, 21(a) through 21(d), 23, 24, 26, 28(a) through 28(d), 32(a), 32(b), 33(a), and 33(b) by using properly operated and maintained continuous monitors (during all hours of operation including equipment Start-up and Shutdown periods) for all of the following parameters:

- (a) Firing Hours and Fuel Flow Rates for each of the following sources: S-1 and S-2 combined, S-3 and S-4 combined, and S-5.
- (b) Oxygen (O<sub>2</sub>) Concentrations, Nitrogen Oxides (NO<sub>x</sub>) Concentrations, and Carbon Monoxide (CO) Concentrations at each of the following exhaust points: P-1, P-2 and P-3.
- (c) Ammonia injection rate at A-1 and A-3 SCR Systems

The owner/operator shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, the owner/operator shall calculate and record the total Firing Hours, the average hourly Fuel Flow Rates, and pollutant emission concentrations.

The owner/operator shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

- (c) Heat Input Rate for each of the following sources: S-1 and S-2 combined, S-3 and S-4 combined, and S-5.
- (d) Corrected NO<sub>x</sub> concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO concentrations, and CO mass emissions at each of the following exhaust points: P-1, P-2, and P-3.

For each source, source grouping, or exhaust point, the owner/operator shall record the parameters specified in conditions 35(c) and 35(d) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

- (e) total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.

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#### **For All Sources:**

- (f) on an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each Gas Turbine and associated HRSG combined, the Auxiliary Boiler, and all five sources (S-1, S-2, S-3, S-4, and S-5) combined.

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- (g) the average NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), CO mass emissions, and corrected NO<sub>x</sub> and CO emission concentrations for every clock hour and for every rolling 3-hour period.
- (h) on an hourly basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and associated HRSG combined, the Auxiliary Boiler, and all five sources (S-1, S-2, S-3, S-4, and S-5) combined.
- (i) For each calendar day, the average hourly Heat Input Rates, Corrected NO<sub>x</sub> emission concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined and the Auxiliary Boiler.
- (j) on a daily basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and cumulative total CO mass emissions, for each calendar year for all five sources (S-1, S-2, S-3, S-4, and S-5) combined.

(1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

36. To demonstrate compliance with conditions 23(c), 32(c) through 32(e), and 33(c) through 33(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM<sub>10</sub>) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO<sub>2</sub>) mass emissions from each power train and the auxiliary boiler. The owner/operator shall use the actual Heat Input Rates calculated pursuant to condition 35, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, and CEC and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows:

- (a) For each calendar day, POC, PM<sub>10</sub>, and SO<sub>2</sub> Emissions shall be summarized for: each power train (Gas Turbine and its respective HRSG combined); the Auxiliary Boiler; and the five sources (S-1, S-2, S-3, S-4, and S-5) combined.
- (b) on a daily basis, the cumulative total POC, PM<sub>10</sub>, and SO<sub>2</sub> mass emissions, for each year for all five sources (S-1, S-2, S-3, S-4, and S-5) combined.

(Offsets, PSD, Cumulative Increase)

37. To demonstrate compliance with Condition 34, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAH's. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 39,390,400 MM BTU/year and the highest emission factor (pounds of

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### Condition #16676

#### For All Sources:

pollutant per MM BTU of Heat Input) determined by any source test at the Gas Turbine, HRSG, or Auxiliary Boiler. (TRMP)

38. Within 60 days of start-up of the LMEC, the owner/operator shall conduct a District-approved source test on exhaust point P-1 or P-2 and P-3 to determine the corrected ammonia ( $\text{NH}_3$ ) emission concentration to determine compliance with condition 21(e) and 28(h). The source test shall determine the correlation between the heat input rates of the gas turbine and associated HRSG, A-1 or A-3 SCR System ammonia injection rate, and the corresponding  $\text{NH}_3$  emission concentration at emission point P-1 or P-2 and the correlation between the heat input rate of the auxiliary boiler, A-5 SCR System ammonia injection rate, and the corresponding  $\text{NH}_3$  emission concentration at emission point P-3. The source test shall be conducted over the expected operating range of the turbine (at a minimum, 60%, 80%, and 100% load) to establish the range of ammonia injection rates necessary to achieve  $\text{NO}_x$  emission reductions while maintaining ammonia slip levels. Continuing compliance with condition 21(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (TRMP)
39. Within 60 days of start-up of the LMEC and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-1 and P-2 while each Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum load to determine compliance with Conditions 21(a), (b), (c), (d), (f), (g), & (h) and while each Gas Turbine and associated Heat Recovery Steam Generator are operating at minimum load to determine compliance with Conditions 21(c), (d), & (f) and to verify the accuracy of the continuous emission monitors required in condition 35. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and emissions, methane, ethane, and particulate matter ( $\text{PM}_{10}$ ) emissions including condensable particulate matter. (BACT, offsets)
40. Within 60 days of start-up of the LMEC and on an annual basis thereafter, the owner/operator shall conduct a District approved source test on exhaust point P-3 while the Auxiliary Boiler (S-5) is operating at maximum allowable operating rates to determine compliance with the emission limitations of Condition 28(a) through 28(g) and to verify the accuracy of the continuous emission monitors required in condition 35. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and emissions, and particulate matter ( $\text{PM}_{10}$ ) emissions including condensable particulate matter. (BACT, offsets)

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41. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section and the CEC CPM prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emission monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section and the CEC CPM in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s). As indicated above, the Owner/Operator shall measure the contribution of condensable PM (back half) to the total PM<sub>10</sub> emissions. However, the Owner/Operator may propose alternative measuring techniques to measure condensable PM such as the use of a dilution tunnel or other appropriate method used to capture semi-volatile organic compounds. Source test results shall be submitted to the District and the CEC CPM within 30 days of conducting the tests. (BACT)
42. Within 60 days of start-up of the LMEC and on an biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-1 or P-2 while the Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum allowable operating rates to demonstrate compliance with Condition 34. Unless the requirements of condition 42(b) have been met, the owner/operator shall determine the formaldehyde, benzene, and Specified PAH emission rates (in pounds/MM BTU). If any of the above pollutants are not detected (below the analytical detection limit), the emission concentration for that pollutant shall be deemed to be one half (50%) of the detection limit concentration. (TRMP)
- (a) The owner/operator shall calculate the maximum projected annual emission rate for each pollutant by multiplying the pollutant emission rate (in pounds/MM BTU; determined by source testing) by 34,490,400 MM BTU/year.
- (b) If three consecutive biennial source tests demonstrate that the emission rates calculated pursuant to part (a) for any of the compounds listed below are less than the annual emission rates shown, then the owner/operator may reduce the frequency of future testing for that pollutant to once every five years.
- |                 |   |                   |
|-----------------|---|-------------------|
| Benzene         | ≤ | 221 pounds/year   |
| Formaldehyde    | ≤ | 1,834 pounds/year |
| Specified PAH's | ≤ | 38 pounds/year    |
- (TRMP)
43. The owner/operator shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as

## VI. Permit Conditions

### Condition #16676

#### For All Sources:

required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. (Regulation 2-6-502)

44. The owner/operator shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emissions, monitor excesses, breakdowns, etc.), source test and analytical records, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District and the CEC CPM staff upon request. (Regulation 2-6-501)
45. The owner/operator shall notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Regulation 2-1-403)
46. The stack heights of the emission points P-1 and P-2 shall be at least 150 feet above mean sea level (approximately 138.8 feet above grade level at the stack base). The stack height of the emission point P-3 shall be at least 100.6 feet above mean sea level (approximately 88.6 feet above grade level at the stack base). (PSD, TRMP)
47. The Owner/Operator of LMEC shall maintain adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall comply with the Manual of Procedures, Volume IV, Source Test Policy and Procedures, and shall be subject to BAAQMD review and approval. (Regulation 1-501)
48. Within 180 days of the issuance of the Authority to Construct, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous monitors, sampling ports, platforms, and source tests required by Conditions 38, 39, 40, and 42. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)
49. Prior to the issuance of the BAAQMD Authority to Construct for the Los Medanos Energy Center, the Owner/Operator shall demonstrate that valid emission reduction credits in the amount

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of 25.88 tons/year of Nitrogen Oxides and 8.05 tons/year of PM<sub>10</sub> or equivalent as defined by District Regulations 2-2-302.1, 2-2-302.2, and 2-2-303.1 are under their control through option to purchase contracts or equivalent binding legal documents. (Offsets)

50. Prior to the start of construction of the Los Medanos Energy Center, the Owner/Operator shall provide emission reduction credits in the amount of 25.88 tons/year of Nitrogen Oxides and 8.05 tons/year of PM<sub>10</sub> or equivalent as defined by District Regulations 2-2-302.1, 2-2-302.2, and 2-2-303.1. (Offsets)
51. Pursuant to BAAQMD Regulation 2, Rule 6, section 404.1, the owner/operator of LMEC shall submit an application to the District for a Federal (Title V) Operating Permit within 12 months of the date of issuance of the BAAQMD Permit to Operate for the LMEC. (Regulation 2-6-404.1)
52. The heat input to the fire pump diesel engine resulting from maintenance and testing activities shall not exceed 211 MM BTU totaled over any consecutive twelve month period. (TRMP)
53. Deleted August, 2001.
54. The Owner/Operator shall submit a Preplanned Abatement Strategy as described in BAAQMD Regulation 4, Air Pollution Episode Plan, within 120 days after issuance of the Title V permit. After the plan has been approved by the APCO, the owner/operator shall keep records of implementation on an event basis. (Basis: BAAQMD Regulation 4)

## VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

**Table VII – A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
	NSPS 40 CFR 60.44a (a)(1)	Y		0.2 lb/MM BTU except during startup, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (a)(2)	Y		0.17 lb/mmbtu reduction of NOx	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	NSPS 40 CFR 60.44a (d)(1)	Y		1.6 lbs/MW-hr	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS, 40 CFR 60.332 (a)(1)	Y		100 ppmv, @ 15% O <sub>2</sub> , dry	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
		Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #16676, part 11	Y		616 lb/hr for turbines and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 11	Y		3511 lb/day for turbines and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 21b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 1-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
NOx	BAAQMD condition #16676, part 22a	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average including data points attributable to transient, non-steady state operating conditions (limit valid for 24 months from the end of commissioning period)	BAAQMD condition #16676, part 22d	C	CEM
	BAAQMD condition #16676, part 23(a)	Y		240 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 23(a)	Y		20 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
NOx	BAAQMD condition #16676, part 32a	Y		1342 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
	BAAQMD condition #16676, part 33a	Y		175.7 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQMD condition #16676, part 11	Y		5053.8 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
CO	BAAQMD condition #16676, part 11	Y		10,840 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21c	Y		29.2 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21c	Y		0.0132 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21d	Y		6 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #16676, part 23(b)	Y		2514 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 23(b)	Y		44.1 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 32b	Y		6445 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQMD condition #16676, part 33b	Y		506.4 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO <sub>2</sub>		Y		None	40 CFR 75.10	C	fuel flow monitor and CO <sub>2</sub> calculation
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MM BTU, 24 hr average except during startup, shutdown		N	
SO2	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @ 15% O <sub>2</sub> (dry)	Monitoring Requirement (40 CFR 60.334(b)(2)) subsumed by maximum sulfur content requirement for natural gas. See Permit Shield.	N	
		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations
SO2	BAAQMD condition #16676, part 11	Y		268 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 14	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #16676, part 14	P/M	Fuel testing

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21g	Y		6.2 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
SO2	BAAQMD condition #16676, part 21g	Y		0.00277 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32e	Y		282.6 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33e	Y		47.11 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
Opacity	BAAQMD 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-310.3	Y		0.15 grain/dscf @ 6% O2		N	
PM10	BAAQMD condition #16676, part 11	Y		60 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21h	Y		16.3 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
PM10	BAAQMD condition #16676, part 21h	Y		0.0073 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32d	Y		742 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33d	Y		131.6 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 11	Y		720 lb/day (as CH <sub>4</sub> ) for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 21f	Y		3.8 lb/hr (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21f	Y		0.0017 lb/MM BTU (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 23(c)	Y		48 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 23(c)	Y		8 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 32c	Y		742 lb/day (as CH <sub>4</sub> ) for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33c	Y		33.9 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
NH <sub>3</sub>	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O <sub>2</sub> , dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 35c	C	CEM
	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O <sub>2</sub> , dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 21e	C	Ammonia injection rate monitor

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Formaldehyde	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Specified PAH's	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Heat input limit	BAAQMD condition #16676, part 15	Y		2,225.1 MM BTU/hr, 3-hr average for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	Fuel meter, firing monitor, calculations
Heat Input Limit	BAAQMD condition #16676, part 16	Y		50,738.24 MM BTU/calendar day, for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 17	Y		34,010,400 MM BTU/yr for S-1, S-3, Turbines and S-2, S-4, HRSGs combined	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQMD condition #16676, part 30			109,157 MM BTU/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
Heat input limit	BAAQMD condition #16676, part 30	Y		109,157 MM BTU/day, for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQMD condition #16676, part 31	Y		34,490,400 MM BTU/yr for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
Unabated firing	BAAQMD condition #16676, part 8	Y		250 hours during commissioning	BAAQMD condition #16676, part 8	P/H	records

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
	NSPS 40 CFR 60.44a (a)(1)	Y		0.2 lb/MM BTU except during startup, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (a)(2)	Y		0.17 lb/mmbtu reduction of NOx	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (d)(1)	Y		1.6 lbs/MW-hr	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y		100 ppmv, @ 15% O <sub>2</sub> , dry	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
		Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #16676, part 11	Y		616 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 11	Y		3511 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
NOx	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 21b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 1-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 22a	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average including data points attributable to transient, non-steady state operating conditions (limit valid for 24 months from the end of commissioning period)	BAAQMD condition #16676, part 22d	C	CEM
	BAAQMD condition #16676, part 32a	Y		1342 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #16676, part 33a	Y		175.7 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQMD condition #16676, part 11	Y		5053.8 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
CO	BAAQMD condition #16676, part 11	Y		10,840 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21c	Y		29.2 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21c	Y		0.0132 lb/MM BTU , for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21d	Y		6 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 32b	Y		6445 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
	BAAQMD condition #16676, part 33b	Y		506.4 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO2		Y		None	40 CFR 75.10	C	fuel flow monitor and CO2 calculation
SO2	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MM BTU, 24 hr average except during startup, shutdown		N	
SO2	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @15% O <sub>2</sub> (dry)	Monitoring requirement (40 CFR 60.334(b)(2)) subsumed by sulfur content requirement for natural gas. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations
SO2	BAAQMD condition #16676, part 11	Y		268 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 14	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #16676, part 14	P/M	Fuel testing
SO2	BAAQMD condition #16676, part 21g	Y		6.2 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21g	Y		0.00277 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32e	Y		282.6 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33e	Y		47.11 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
PM	NSPS 40 CFR 60.42a(b)	Y		< 20% opacity, 6 minute average, except one six minute period/hr up to 27% opacity		N	
PM10	BAAQMD condition #16676, part 11	Y		60 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 21h	Y		16.3 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21h	Y		0.0073 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32d	Y		742 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 33d	Y		131.6 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 11	Y		720 lb/day (as CH <sub>4</sub> ) for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 21f	Y		3.8 lb/hr (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21f	Y		0.0017 lb/MM BTU (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32c	Y		742 lb/day (as CH <sub>4</sub> ) for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33c	Y		33.9 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NH3	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 35c	C	CEM
	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 21e	C	Ammonia injection rate monitor
Formaldehyde	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
Formaldehyde	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Specified PAH's	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Heat input limit	BAAQMD condition #16676, part 15	Y		2,225.1 MM BTU/hr, 3-hr average for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	Fuel meter, firing monitor, calculations
	BAAQMD condition #16676, part 16	Y		50,738.24 MM BTU/calendar day, for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQMD condition #16676, part 17	Y		34,010,400 MM BTU/yr for S-1, S-3, Turbines and S-2, S-4, HRSGs combined	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #16676, part 30			109,157 MM BTU/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQMD condition #16676, part 30	Y		109,157 MM BTU/day, for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQMD condition #16676, part 31	Y		34,490,400 MM BTU/yr for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Unabated firing	BAAQMD condition #16676, part 8	Y		250 hours during commissioning	BAAQMD condition #16676, part 8	P/H	records
Prohibited firing	BAAQMD condition #16676, part 18			Duct burner may not be fired if turbine, S-1, is not fired	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQM D 9-9-301.3	Y		9 ppmv @ 15% O <sub>2</sub> , dry	BAAQMD 9-9-501	C	CEM
NOx	NSPS 40 CFR 60.44a (a)(1)	Y		0.2 lb/MM BTU except during start-up, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (a)(2)	Y		0.17 lb/mmbtu reduction of NOx	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (d)(1)	Y		1.6 lbs/MW-hr	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.332 (a)(1)	Y		100 ppmv, @ 15% O <sub>2</sub> , dry	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
		Y		None	40 CFR 75.10	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQM D condition #16676, part 11	Y		616 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQM D condition #16676, part 11	Y		3511 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQM D condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
NOx	BAAQM D condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQM D condition #16676, part 21a	Y		0.009 lb/MM BTU , for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
NOx	BAAQM D condition #16676, part 21b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 1-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQM D condition #16676, part 22a	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average including data points attributable to transient, non-steady state operating conditions (limit valid for 24 months from the end of commissioning period)	BAAQMD condition #16676, part 22d	C	CEM
NOx	BAAQM D condition #16676, part 23(a)	Y		240 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 23(a)	Y		20 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 32a	Y		1342 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
NO <sub>x</sub>	BAAQM D condition #16676, part 33a	Y		175.7 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQM D condition #16676, part 11	Y		5053.8 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQM D condition #16676, part 11	Y		10,840 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 21c	Y		29.2 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
CO	BAAQM D condition #16676, part 21c	Y		0.0132 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 21d	Y		6 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
CO	BAAQM D condition #16676, part 23(b)	Y		2514 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 23(b)	Y		44.1 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 32b	Y		6445 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 33b	Y		506.4 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO2		Y		None	40 CFR 75.10	C	fuel flow monitor and CO2 calculation
SO2	BAAQM D 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQM D 9-1-302	Y		300 ppm (dry)		N	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MM BTU, 24 hr average except during startup, shutdown		N	
SO2	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @ 15% O <sub>2</sub> (dry)	Monitoring Requirement (40 CFR 60.334(b)(2)) subsumed by sulfur content requirement for natural gas. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQM D condition #16676, part 11	Y		268 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 14	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #16676, part 14	P/M	Fuel testing
	BAAQM D condition #16676, part 21g	Y		6.2 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 21g	Y		0.00277 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
SO2	BAAQM D condition #16676, part 32e	Y		282.6 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
SO2	BAAQM D condition #16676, part 33e	Y		47.11 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQM D 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQM D 6-310	Y		0.15 grain/dscf		N	
	BAAQM D 6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
PM10	BAAQM D condition #16676, part 11	Y		60 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 21h	Y		16.3 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 21h	Y		0.0073 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 32d	Y		742 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
PM10	BAAQM D condition #16676, part 33d	Y		131.6 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQM D condition #16676, part 11	Y		720 lb/day (as CH4) for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 21f	Y		3.8 lb/hr (as CH4) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 21f	Y		0.0017 lb/MM BTU (as CH4) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 23(c)	Y		48 lb/turbine during start-up	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 23(c)	Y		8 lb/turbine during shutdown	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQM D condition #16676, part 32c	Y		742 lb/day (as CH <sub>4</sub> ) for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 33c	Y		33.9 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
NH <sub>3</sub>	BAAQM D condition #16676, Part 21e	N		10 ppmv, @ 15% O <sub>2</sub> , dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 35c	C	CEM
	BAAQM D condition #16676, Part 21e	N		10 ppmv, @ 15% O <sub>2</sub> , dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 21e	C	Ammonia injection rate monitor

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Formaldehyde	BAAQM D condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Benzene	BAAQM D condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
Benzene	BAAQM D condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Specified PAH's	BAAQM D condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat input limit	BAAQM D condition #16676, part 15	Y		2,225.1 MM BTU/hr, 3-hr average for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	Fuel meter, firing monitor, calculations
	BAAQM D condition #16676, part 16	Y		50,738.24 MM BTU/calendar day, for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQM D condition #16676, part 17	Y		34,010,400 MM BTU/yr for S-1, S-3, Turbines and S-2, S-4, HRSGs combined	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQM D condition #16676, part 30			109,157 MM BTU/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQM D condition #16676, part 30	Y		109,157 MM BTU/day, for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
Heat input limit	BAAQM D condition #16676, part 31	Y		34,490,400 MM BTU/yr for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3, TURBINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Unabated firing	BAAQMD condition #16676, part 9	Y		250 hours during commissioning	BAAQMD condition #16676, part 9	P/H	records

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
	NSPS 40 CFR 60.44a (a)(1)	Y		0.2 lb/MM BTU except during startup, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (a)(2)	Y		0.17 lb/mmbtu reduction of NOx	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	NSPS 40 CFR 60.44a (d)(1)	Y		1.6 lbs/MW-hr	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y		100 ppmv, @ 15% O <sub>2</sub> , dry	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
		Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #16676, part 11	Y		616 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 11	Y		3511 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
NOx	BAAQMD condition #16676, part 21a	Y		20 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
NOx	BAAQMD condition #16676, part 21a	Y		0.009 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 21b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 1-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum load
	BAAQMD condition #16676, part 22a	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average including data points attributable to transient, non-steady state operating conditions (limit valid for 24 months from the end of commissioning period)	BAAQMD condition #16676, part 22d	C	CEM
	BAAQMD condition #16676, part 32a	Y		1342 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD condition #16676, part 33a	Y		175.7 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQMD condition #16676, part 11	Y		5053.8 lb/hr for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
CO	BAAQMD condition #16676, part 11	Y		10,840 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 7	C	CEM
	BAAQMD condition #16676, part 21c	Y		29.2 lb/hr, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21c	Y		0.0132 lb/MM BTU, for turbine and HRSG combined, except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21d	Y		6 ppmv, @ 15% O <sub>2</sub> , dry, for turbine and HRSG combined, 3-hr average except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 32b	Y		6445 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQMD condition #16676, part 33b	Y		506.4 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO <sub>2</sub>		Y		None	40 CFR 75.10	C	fuel flow monitor and CO <sub>2</sub> calculation
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MM BTU, 24-hr average except during turbine start-up, shutdown		N	
SO <sub>2</sub>	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @15% O <sub>2</sub> (dry)	Monitoring Requirement (40 CFR 60.334(b)(2)) subsumed by sulfur content requirement for natural gas. See Permit Shield.	N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations
SO2	BAAQMD condition #16676, part 11	Y		268 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 14	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #16676, part 14	P/M	Fuel testing
SO2	BAAQMD condition #16676, part 21g	Y		6.2 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21g	Y		0.00277 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32e	Y		282.6 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33e	Y		47.11 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
PM	NSPS 40 CFR 60.42a(a) (1)	Y		0.03 lb TSP/MM BTU except during start-up, shutdown, or malfunction		N	
PM10	BAAQMD condition #16676, part 11	Y		60 lb/day for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 21h	Y		16.3 lb/hr, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21h	Y		0.0073 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32d	Y		742 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, part 33d	Y		131.6 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 11	Y		720 lb/day (as CH <sub>4</sub> ) for turbines, and HRSGs combined during commissioning and including startup and shutdown of turbines	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQMD condition #16676, part 21f	Y		3.8 lb/hr (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 21f	Y		0.0017 lb/MM BTU (as CH <sub>4</sub> ) for turbine, and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 39	P/A	Source test at maximum and minimum load
	BAAQMD condition #16676, part 32c	Y		742 lb/day (as CH <sub>4</sub> ) for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 33c	Y		33.9 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NH3	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 35c	C	CEM
	BAAQMD condition #16676, Part 21e	N		10 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #16676, part 21e	C	Ammonia injection rate monitor
Formaldehyde	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
Formaldehyde	BAAQMD condition #16676, part 34a	N		3817 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQMD condition #16676, part 34a	N		460.9 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Specified PAH's	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #16676, Part 34c	N		78.5 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #16676, part 42	P/every two years on P-1 or P-2	Source test
Heat input limit	BAAQMD condition #16676, part 15	Y		2,225.1 MM BTU/hr, 3-hr average for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	Fuel meter, firing monitor, calculations
	BAAQMD condition #16676, part 16	Y		50,738.24 MM BTU/calendar day, for S-1, Turbine and S-2, HRSG, total	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQMD condition #16676, part 17	Y		34,010,400 MM BTU/yr for S-1, S-3, Turbines and S-2, S-4, HRSGs combined	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #16676, part 30			109,157 MM BTU/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQMD condition #16676, part 30	Y		109,157 MM BTU/day, for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQMD condition #16676, part 31	Y		34,490,400 MM BTU/yr for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-4, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Unabated firing	BAAQMD condition #16676, part 9	Y		250 hours during commissioning	BAAQMD condition #16676, part 9	P/H	records
Prohibited firing	BAAQMD condition #16676, part 18			Duct burner may not be fired if turbine, S-1, is not fired	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - E**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-5, AUXILIARY BOILER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQM D9-3-303	N		125 ppm	BAAQMD 1-520.1	C	CEM
	BAAQM D 9-7-301.1	Y		30 ppmv @3%O2, dry	BAAQMD 1-520.1	C	CEM
NOx	NSPS 40 CFR 60.44b (a)(1)(ii)	Y		0.2 lb/MM BTU except during start-up, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
		Y		None	40 CFR 75.10	C	CEM
	BAAQM D condition #16676, part 12	Y		3.5 lb/hr during commissioning and including startup	BAAQMD condition #16676, part 7	C	CEM
NOx	BAAQM D condition #16676, part 12	Y		69.8 lb/calendar day during commissioning including startup	BAAQMD condition #16676, part 7	C	CEM
	BAAQM D condition #16676, part 28a	Y		3.5 lb/hr except during startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
	BAAQM D condition #16676, part 28b	Y		9.0 ppmv @ 3% O2, 3-hr average	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - E**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-5, AUXILIARY BOILER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D condition #16676, part 32a	Y		1342 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
NOx	BAAQM D condition #16676, part 33a	Y		175.7 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM
CO	BAAQM D 9-7-301.2	Y		400 ppmv @ 3% O <sub>2</sub> , dry	BAAQMD condition #16676, part 35(b)	C	CEM
	BAAQM D condition #16676, part 28c			9.0 lb/hr except during startup or shutdown	BAAQMD condition #16676, part 35b	C	CEM
	BAAQM D condition #16676, part 28d			50 ppmv @ 3% O <sub>2</sub> , 3-hr average	BAAQMD condition #16676, part 35b	C	CEM
	BAAQM D condition #16676, part 32b	Y		6445 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 35b	C	CEM
	BAAQM D condition #16676, part 33b	Y		506.4 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 35b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - E**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-5, AUXILIARY BOILER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQM D 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQM D 9-1-302	Y		300 ppm (dry)		N	
SO2	BAAQM D condition #16676, part 25	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #16676, part 25	P/M	Fuel testing
	BAAQM D condition #16676, part 28f	Y		0.5 lb/hr	BAAQMD condition #16676, part 40	P/A	Source test at maximum and minimum load
SO2	BAAQM D condition #16676, part 32e	Y		282.6 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 33e	Y		47.11 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
Opacity	BAAQM D 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	BAAQM D 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - E**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-5, AUXILIARY BOILER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQM D 6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
PM10	BAAQM D condition #16676, part 28g	Y		1.6 lb/hr	BAAQMD condition #16676, part 40	P/A	Source test at maximum and minimum load
	BAAQM D condition #16676, part 32d	Y		742 lb/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
	BAAQM D condition #16676, part 33d	Y		131.6 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQM D condition #16676, part 28e	Y		1.7 lb/hr (as CH <sub>4</sub> )	BAAQMD condition #16676, part 40	P/A	Source test
POC	BAAQM D condition #16676, part 32c	Y		742 lb/day (as CH <sub>4</sub> ) for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 36	P/D	Records, calculations
POC	BAAQM D condition #16676, part 33c	Y		33.9 ton/yr for turbines, HRSGs, and boiler combined (includes emissions from commissioning period)	BAAQMD condition #16676, part 36	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - E**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-5, AUXILIARY BOILER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat input limits	BAAQM D condition #16676, part 26	Y		320 MM BTU/hr, 3-hr average	BAAQMD condition #16676, part 35a	C	fuel meter, firing monitor, calculations
	BAAQM D condition #16676, part 27	Y		480,000 MM BTU/yr			
	BAAQM D condition #16676, part 30			109,157 MM BTU/day for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters
	BAAQM D condition #16676, part 31	Y		34,490,400 MM BTU/yr for turbines, HRSGs, and boiler combined	BAAQMD condition #16676, part 6	C	Fuel meters

## VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally referenced in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII, Applicable Emission Limits & Compliance Monitoring Requirements, of this permit.

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-3-303	New or Modified Heat Transfer Operation Limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling
BAAQMD 9-7-301.1	Performance Standard, NO <sub>x</sub> , Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
<b>NSPS</b>		
Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978	
60.42a (a)(1)	Particulate Limit	EPA Method 5, Determination of Particulate Emissions from Stationary Sources

## VIII. Test Methods

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
60.42a (b)	Opacity Limit	EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
60.43a (b)(2)	SO <sub>2</sub> limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
60.44a (a)(1)	NO <sub>x</sub> limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	
60.44b (a)(1)(i)	NO <sub>x</sub> Limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
Subpart GG	Standards of Performance for Stationary Gas Turbines	
60.332 (a)(1)	Performance Standard, NO <sub>x</sub>	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO <sub>2</sub> Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation

**IX. TITLE IV ACID RAIN PERMIT**

**Effective September 6, 2001 through September 6, 2006**

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**ISSUED TO:**

Calpine Energy  
Los Medanos Energy Center  
P. O. Box 551  
Pittsburg, CA 94565

**PLANT SITE LOCATION:**

750 East Third Street  
Pittsburg, CA 94565

**ISSUED BY:**

Signed by Ellen Garvey \_\_\_\_\_  
Ellen Garvey, Executive Officer/  
Air Pollution Control Officer

September 6, 2001  
Date

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**Type of Facility:** Power Plant  
**Primary SIC:** 4913  
**Product:** Electricity

**DESIGNATED REPRESENTATIVE:**

**Name:** Bryan J. Bertacchi  
**Title:** VP Western Region Operations  
**Phone:** (925) 431-1305

**ALTERNATE DESIGNATED REPRESENTATIVE:**

**Name:** Duane Null  
**Title:** Operations Manager  
**Phone:** (925) 431-1304

## IX. Title IV Acid Rain Permit

### ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO<sub>2</sub> allowance allocated under this permit and NO<sub>x</sub> requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements of conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

#### 1) STATEMENT OF BASIS

**Statutory and regulatory Authorities: In accordance with District Regulation 2, Rule 7 and Titles IV and V of the Clean Air Act, the Bay Area Air Quality Management District issues this permit pursuant to District Rule Regulation 2, Rule 7.**

#### 2) SO<sub>2</sub> ALLOWANCE ALLOCATIONS

	Year	2001	2002	2003	2004	2005
	SO <sub>2</sub> allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-1, Turbine	NO <sub>x</sub> Limit	This unit is not subject to the NO <sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

	Year	2001	2002	2003	2004	2005
	SO <sub>2</sub> allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None

**IX. Title IV Acid Rain Permit**

<b>S-2, Heat Recovery Steam Generator</b>	<b>NOx Limit</b>	<b>This unit is not subject to the NOx requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>
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	<b>Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-3, Turbine</b>	<b>NOx Limit</b>	<b>This unit is not subject to the NOx requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

	<b>Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-4, Heat Recovery Steam Generator</b>	<b>NOx Limit</b>	<b>This unit is not subject to the NOx requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

3) **COMMENTS, NOTES AND JUSTIFICATIONS**

**None**

4) **PERMIT APPLICATION**

**Attached**

## X. PERMIT SHIELD

### A. Non-applicable Requirements

None.

### B. Subsumed Requirements

Pursuant to District Regulations 2-6-233.2 and 2-6-409.12, as of the date this permit is issued, the federally enforceable monitoring, recordkeeping, and reporting requirements cited in the following table for the source or group of sources identified at the top of the table[s] are subsumed by the monitoring, recordkeeping, and reporting for more stringent requirements or by a “hybrid” monitoring scheme. The District has determined that compliance with the requirements listed below and elsewhere in this permit will assure compliance with the substantive requirements of the subsumed monitoring requirements. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the subsumed monitoring requirements cited.

**Table X B - 1**  
**Permit Shield for Subsumed Requirements**  
**S-1, S-3, TURBINES**

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
40 CFR 60.44a(a)(1)	NOx Emission Limit	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen
40 CFR 60.44a (a)(2)	NOx Reduction Requirement	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen
40 CFR 60.44a (d)(1)	New Source NOx Emission Limit	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen
40 CFR 60.334(b)(2)	Fuel Nitrogen Content monitoring (natural gas)	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen

## X. Permit Shield

**Table X B - 1**  
**Permit Shield for Subsumed Requirements**  
**S-1, S-3, TURBINES**

<b>Subsumed Requirement Citation</b>	<b>Title or Description</b>	<b>Streamlined Requirements</b>	<b>Title or Description</b>
40 CFR 60.334(b)(2)	Fuel Sulfur Content monitoring (natural gas)	BAAQMD Condition 16676, part 14	Requirement for exclusive use of natural gas with a maximum sulfur content of 1 gr/100 scf with monthly fuel testing
40 CFR 60.334(c)(1)	Periods of excess emissions, NOx	BAAQMD Condition 16676, Part 6	Requirement for continuous emission monitor for NOx

**Table X B - 2**  
**Permit Shield for Subsumed Requirements**  
**S-2, S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Subsumed Requirement Citation</b>	<b>Title or Description</b>	<b>Streamlined Requirements</b>	<b>Title or Description</b>
40 CFR 60.44(a)(1)	NOx Emission Limit	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen
40 CFR 60.44a(a)(2)	NOx Reduction Requirement	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen
40 CFR 60.44a(d)(1)	New Source NOx Emission Limit	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen

**X. Permit Shield**

**Table X B - 2  
 Permit Shield for Subsumed Requirements  
 S-2, S-4, HEAT RECOVERY STEAM GENERATORS**

<b>Subsumed Requirement Citation</b>	<b>Title or Description</b>	<b>Streamlined Requirements</b>	<b>Title or Description</b>
40 CFR 60.47a(c)	Continuous Monitoring of Nitrogen Oxides	BAAQMD Condition 16676, part 39	Continuous emission monitoring for 2.5 ppmv limit @ 15% oxygen

**Table X B - 3  
 Permit Shield for Subsumed Requirements  
 S-5, AUXILIARY BOILER**

<b>Subsumed Requirement Citation</b>	<b>Title or Description</b>	<b>Streamlined Requirements</b>	<b>Title or Description</b>
40 CFR 60.44b (1)(1)	NOx Emission limitation	BAAQMD Condition 16676, part 40	Continuous emission monitoring for 9.0 ppmv limit @ 3% oxygen
40 CFR 60.47a(c)	Continuous Monitoring of Nitrogen Oxides	BAAQMD Condition 16676, part 6	Requirement for continuous emission monitor for NOx

## **XI. GLOSSARY**

### **ACT**

Federal Clean Air Act

### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

### **CAA**

The federal Clean Air Act

### **CAAQS**

California Ambient Air Quality Standards

### **CEQA**

California Environmental Quality Act

### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

### **CO**

Carbon Monoxide

### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

### **District**

The Bay Area Air Quality Management District

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District regulations.

## **XI. Glossary**

### **Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

### **FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

### **HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

### **Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

### **MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

### **MOP**

The District's Manual of Procedures.

### **NAAQS**

National Ambient Air Quality Standards

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63

### **NMHC**

Non-methane Hydrocarbons

### **NO<sub>x</sub>**

Oxides of nitrogen.

### **NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

## **XI. Glossary**

### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

### **Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

### **POC**

Precursor Organic Compounds

### **PM**

Particulate Matter

### **PM10**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

### **SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

### **SO2**

Sulfur dioxide

### **Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

## **XI. Glossary**

### **TRMP**

Toxic Risk Management Plan

### **TSP**

Total Suspended Particulate

### **VOC**

Volatile Organic Compounds

### **Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

## **XII. APPLICABLE STATE IMPLEMENTATION PLAN**

See Attachments