

# Bay Area Air Quality Management District

375 Beale Street, Suite 600

San Francisco, CA 94105

(415) 771-6000

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**Final**

## MAJOR FACILITY REVIEW PERMIT

**Issued To:**

**Marsh Landing Generating Station**

**Facility #B9169**

**Facility Address:**

3201-C Wilbur Avenue

Antioch, CA 94509

**Mailing Address:**

P.O. Box 1687

Antioch, CA 94509

**Responsible Official**

Joseph Moura

Operations and Maintenance Manager

(925) 779-6685

**Facility Contact**

Scott Seipel

Environmental Manager

(909) 648-5008

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**Type of Facility:** Generation of Electricity

**Primary SIC:** 4911

**Product:** Electricity

BAAQMD Engineering Division Contact:

Xuna Cai, Senior Air Quality Engineer

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

Signed by Damian Breen for Jack P. Broadbent  
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

September 9, 201  
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 5/4/11);
- SIP Regulation 1 - General Provisions and Definitions  
(as approved by EPA through 6/28/99);
- BAAQMD Regulation 2, Rule 1 - Permits, General Requirements  
(as amended by the District Board on 4/18/12);
- SIP Regulation 2, Rule 1 - Permits, General Requirements  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 2 - Permits, New Source Review  
(as amended by the District Board on 6/15/05);
- SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking  
(as amended by the District Board on 12/21/04);
- SIP Regulation 2, Rule 4 - Permits, Emissions Banking  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants  
(as amended by the District Board on 1/6/10); and
- BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review  
(as amended by the District Board on 4/16/03).
- SIP Regulation 2, Rule 6 – Permits, Major Facility Review  
(as approved by EPA through 6/23/95).

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

1. This Major Facility Review Permit will be issued on November 3, 2015, and expires on November 2, 2020. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than May 2, 2020 and no earlier than November 2, 2019. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after November 2, 2020.** If the permit renewal has not been issued by November 2, 2020, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (BAAQMD 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. (BAAQMD Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

## I. Standard Conditions

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)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (BAAQMD 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. (BAAQMD 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. (BAAQMD 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. (BAAQMD Regulation 1-441, BAAQMD 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. (BAAQMD 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. (BAAQMD Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)

## I. Standard Conditions

12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors (BAAQMD Regulation 2-6-307)

### C. Requirement to Pay Fees

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

### D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment that is subject to this permit to the APCO and/or to his or her designee. (BAAQMD Regulation 1-440, BAAQMD 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. (BAAQMD Regulation 1-441, BAAQMD 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. (BAAQMD Regulation 2-6-501, 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 from November 2, 2015 to December 31, 2015. The report shall be submitted by January 31, 2016. Subsequent reports shall be for the following periods: January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup> and are due on the last day of the month following 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  
375 Beale Street, Suite 600  
San Francisco, CA 94105  
Attn: Title V Reports

(BAAQMD Regulation 2-6-502, 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 from January 1<sup>st</sup> through December 31<sup>st</sup> and must be submitted by January 31<sup>st</sup> 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 certification should be directed to the District's Compliance and Enforcement Division at the address listed in section F above and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

Director  
Enforcement Division, TRI & Air Section (ENF-2-1)  
USEPA Region 9  
75 Hawthorne Street  
San Francisco, California 94105

(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 BAAQMD Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with BAAQMD 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. (BAAQMD Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

## I. Standard Conditions

### 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 BAAQMD Regulation 2, Rule 1, Section 301. (BAAQMD Regulation 2-1-301)

### K. Accidental Release

This facility utilizes 19% aqueous ammonia and as such is not subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The permit holder shall certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by BAAQMD Regulation 2, Rule 6. (40 CFR Part 68, BAAQMD Regulation 2, Rule 6)

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

1. The permit holder shall hold one sulfur dioxide allowance on March 1 (February 29<sup>th</sup> during leap year) 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> or O<sub>2</sub> and NO<sub>x</sub> shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (BAAQMD 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. (BAAQMD 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. (BAAQMD Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for Turbines S-1, S-2, S-3, and S-4. 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.1 and BAAQMD Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
1	Combustion Turbine Generator, Natural Gas Fired, 190 MW, Nominal	Siemens	SGT6-5000F	2202 MMBtu/hour (HHV)
2	Combustion Turbine Generator, Natural Gas Fired, 190 MW, Nominal	Siemens	SGT6-5000F	2202 MMBtu/hour (HHV)
3	Combustion Turbine Generator, Natural Gas Fired, 190 MW, Nominal	Siemens	SGT6-5000F	2202 MMBtu/hour (HHV)
4	Combustion Turbine Generator, Natural Gas Fired, 190 MW, Nominal	Siemens	SGT6-5000F	2202 MMBtu/hour (HHV)
7	Emergency Standby Diesel Engine Generator Set	Caterpillar	C15 ATAAC	779 bhp
8	Emergency Standby Diesel Fire Pump Engine	Cummins	CFP9E-F20	299 bhp

**Table II B – Abatement Devices**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
1	Oxidation catalyst	1	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	CO $\leq$ 2.0 ppm <sup>1</sup> POC $\leq$ 2.9 lbs/hour and 0.00132 lbs/MMBtu
2	Selective Catalytic Reduction System	1	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	NOx $\leq$ 2.5 ppm <sup>2</sup>



**Table II B – Abatement Devices**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
3	Oxidation catalyst	2	BAAQMD Condition #24732 Part 17	All conditions except startup ,shutdown and tuning	CO ≤ 2.0 ppm <sup>1</sup> POC ≤ 2.9 lbs/hour and 0.00132 lbs/MMBtu
4	Selective Catalytic Reduction System	2	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	NOx ≤ 2.5 ppm <sup>3</sup>
5	Oxidation catalyst	3	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	CO ≤ 2.0 ppm <sup>1</sup> POC ≤ 2.9 lbs/hour and 0.00132 lbs/MMBtu
6	Selective Catalytic Reduction System	3	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	NOx ≤ 2.5 ppm <sup>2</sup>
7	Oxidation catalyst	4	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	CO ≤ 2.0 ppm <sup>1</sup> POC ≤ 2.9 lbs/hour and 0.00132 lbs/MMBtu
8	Selective Catalytic Reduction System	4	BAAQMD Condition #24732 Part 17	All conditions except startup, shutdown and tuning	NOx ≤ 2.5 ppm <sup>2</sup>

<sup>1</sup>Condition #24732 Part 17(c) limits CO to 10.0 lb/hr or 0.00454 lb CO/MMBtu

<sup>2</sup>Condition #24732 Part 17 (a) limits NOx to 20.83 lb/hr or 0.00946 lb NOx/MMBtu

### 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 will 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.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

Portable equipment operating in accordance with the ARB portable equipment registration program and temporary equipment such as sandblasting equipment may be operated at the facility as long as the source is not significant under Rule 2-6-239. Otherwise significant sources would need to be included in the Title V 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 text of the SIP requirements is available on the EPA Region 9 website. The address is <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>.

**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 a rule until US EPA has reviewed and approved the District's revision of the regulation.

### 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 1	General Provisions and Definitions (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (04/18/12)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 2	Permits, New Source Review (6/15/05)	N
SIP Regulation 2, Rule 2	Permits, New Source Review (1/26/99)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/21/04)	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (1/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (1/6/10)	N
BAAQMD Regulation 2, Rule 6	Permits, Major Facility Review (4/16/03)	N
SIP Regulation 2, Rule 6	Permits, Major Facility Review (6/23/95)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (6/19/13)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/05/07)	N
SIP Regulation 6	Particulate Matter and Visible Emission (9/4/98)	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 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (7/1/9)	Y
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds- Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N

### 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>
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compound – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/26/95)	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 (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds – Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	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>
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	Y
Subpart F, 40 CFR 82.156	Leak Repair	Y
Subpart F, 40 CFR 82.161	Certification of Technicians	Y
Subpart F, 40 CFR 82.166	Records of Refrigerant	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 regulations: 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 text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full text of the SIP requirements is available on the EPA Region 9 website. The address is <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>. All other text may be found in the regulations themselves.

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 (5/4/11)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures		
1-522.1	approval of plans and specifications	Y	
1-522.2	scheduling requirements	Y	
1-522.3	CEM performance testing	Y	
1-522.4	reporting of inoperative CEMs	Y	
1-522.5	CEM calibration requirements	Y	
1-522.6	CEM accuracy requirements	Y	
1-522.7	emission limit exceedance reporting requirements	N	
1-522.8	monitoring data submittal requirements	Y	
1-522.9	recordkeeping requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Parametric monitor periods of non-operation	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
1-523.2	Limits on periods of non-operation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	N	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (6/28/99)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.3	Reports of Violations	Y	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (11/19/08)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6, Rule 1</b>	<b>Particulate Matter, General Requirements (12/05/07)</b>		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (09/04/98)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	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	

**IV. Source-Specific Applicable Requirements**

**Table IV - A  
 Source-Specific Applicable Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

<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 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/06/06)</b>		
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	
9-9-301.1.3	Emission Limits- Turbines Rated $\geq$ 10 MW w/SCR	N	
9-9-301.2	Emission Limits - Turbine heat input rated > 500 MM Btu/hr	N	
9-9-501	Monitoring and recordkeeping requirements	N	
<b>SIP Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/97)</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>	N	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (1/28/09) General Provisions</b>		
60.7	Notification and Recordkeeping	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	



#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>40 CFR 60 Subpart KKKK</b>	<b>Standards of Performance for Stationary Combustion Turbines (7/6/06)</b>		
60.4300	Control of emissions from stationary combustion turbines (SCT) that commenced construction, modification, or reconstruction after February 18, 2005	Y	
60.4305(a)	Applicable to SCT with heat input $\geq$ 10 MMBtu/hr (at turbine only).	Y	
60.4305(b)	SCT exempt from Subpart GG	Y	
60.4320(a)	Comply with Table 1 NOx requirements for new, modified, or reconstructed turbine firing natural gas, electric generating turbine $\geq$ 850 MMBtu/hr: 15 ppm at 15% O2 for turbines operating at or above 75% of peak load	Y	
60.4320(a)	Comply with Table 1 NOx requirements for new, modified, or reconstructed turbine firing natural gas, electric generating turbine $\geq$ 850 MMBtu/hr: 96 ppm at 15% O2 for turbines operating below 75% of peak load	Y	
60.4330(a)	Turbines located in continental area must comply with SO <sub>2</sub> limits in (a)(1), (a)(2), or (a)(3)	Y	
60.4330(a)(2)	SO <sub>2</sub> emissions to not exceed 0.060 lb/MMBtu	Y	
60.4333(a)	General Requirements for operation and maintenance	Y	
60.4340	How do I demonstrate compliance for NOx if I do not use water or steam injection		
60.4340(b)(1)	NOx and CO <sub>2</sub> or O <sub>2</sub> CEMs to determine NOx emissions	Y	
60.4345	What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?	Y	
60.4345(a)	NOx CEMs installed and certified pursuant to Performance Specification 2 in appendix B, or appendix A of Part 75. The RATA shall be performed on a lb/MMBtu basis.	Y	
60.4345(b)	NOx CEMs operating requirements	Y	
60.4345(c)	Fuel flow meter requirements	Y	
60.4345(e)	QA plan for CEMs	Y	
60.4350	How do I use data from the continuous emission monitoring equipment to identify excess emissions?	Y	

**IV. Source-Specific Applicable Requirements**

**Table IV - A  
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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.4365	How can I be exempted from monitoring the total sulfur content of the fuel?	Y	
60.4365	Exemption from sulfur content monitoring for firing natural gas with less than 20 grains of sulfur per 100 scf	Y	
60.4375(a)	Reporting requirements in accordance with 60.7(c)	Y	
60.4380	How are excess emissions and monitor downtime defined for NOX?	Y	
60.4380(b)	NOx excess emissions and downtime for turbines with CEMs	Y	
60.4380(b)(1)	Excess emissions is any unit operating period in which the 4-hour rolling average NO <sub>x</sub> emission rate exceeds the applicable emission limit in § 60.4320		
60.4395	When must I submit my reports? All reports must be postmarked by the 30th day following the end of each 6-month period as set forth in the Standard Conditions	Y	
60.4405	Alternative NOx initial performance test for turbines with NOx CEMs and diluent CEM	Y	
60.4415	SO <sub>2</sub> initial and subsequent performance test requirements and methodologies	Y	
60.4420	Definitions	Y	
<b>40 CFR Part 72</b>	<b>Permits Regulation (Title IV – Acid Rain Program)</b>		
	Subpart A – Acid Rain Program General Requirements		
72.6	Applicability	Y	
72.6(a)(3)(i)	New utility unit (at the time of commencement of commercial operation)	Y	
72.9	Standard Requirements	Y	
72.9(b)	Monitoring Requirements	Y	
72.9(c)	Sulfur Dioxide Requirements	Y	
72.9(e)	Excess emissions requirements	Y	
72.9(f)	Recordkeeping and Reporting Requirements	Y	
	Subpart E – Acid Rain Permit Contents		

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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
72.50	General	Y	
72.50(a)	Acid Rain Permits	Y	
72.50(a)(1)	Permits must contain all elements of complete Acid Rain Application under 40 CFR 72.31	Y	
72.50(b)	Permits include terms in 40 CFR 72.2	Y	
72.51	Permit Shield	Y	
<b>40 CFR Part 75</b>	<b>Continuous Emissions Monitoring</b>		
	Subpart A – General		
75.2	Applicability	Y	
75.2(a)	Applicability to affected units subject to Acid Rain emission limitations	Y	
75.4	Compliance Dates	Y	
75.4(b)	New affected unit (at the time of the commencement of commercial operation) shall ensure that all monitoring systems required under this part for monitoring of SO <sub>2</sub> , NO <sub>x</sub> , CO <sub>2</sub> , opacity, and volumetric flow are installed and all certification tests are completed on or before the later of the following dates	Y	
75.4(b)(2)	180 calendar days after the date the unit commences commercial operation, notice of which date shall be provided under subpart G of this part.	Y	
75.5	Prohibitions	Y	
	Subpart B – Monitoring Provisions		
75.10	General Operating Requirements	Y	
75.10(a)	Primary Measurement Requirement	Y	
75.10(a)(1)	SO <sub>2</sub> Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NO <sub>x</sub> Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO <sub>2</sub> Emissions	Y	
75.10(a)(3)(ii)	CO <sub>2</sub> Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.10 (a)(4)	Opacity Monitoring, except as provided in §§75.14	Y	
75.10(b)	Primary Equipment Performance Requirements	Y	
75.10(c)	Heat Input Rate Measurement Requirement	Y	
75.10(d)	Primary equipment hourly operating requirements	Y	
75.10(d)(1)	Cycles of operation for each 15 minute period. Hourly average calculated from a minimum of four 15 minute periods.	Y	
75.10(d)(3)	Validity of data and data substitution	Y	
75.10(f)	Minimum measurement capability requirement	Y	
75.10(g)	Minimum recording and recordkeeping requirements	Y	
75.11	Specific provisions for monitoring SO <sub>2</sub> emissions	Y	
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO <sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units to monitor SO <sub>2</sub> emissions.	Y	
75.12	Specific provisions for monitoring NO <sub>x</sub> emission rate	Y	
75.12(a)	NO <sub>x</sub> continuous emission monitor and diluents monitoring requirement	Y	
75.12(c)	NO <sub>x</sub> mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO <sub>2</sub> emissions	Y	
75.13(b)	Determination of CO <sub>2</sub> emissions using Appendix G	Y	
75.14	Specific Provisions for monitoring opacity	Y	
75.14(c)	Gas-Fired Units Exempt from Opacity Monitoring	Y	
	Subpart C – Operation and Maintenance Requirements		
75.20	Initial certification and recertification procedures	Y	
75.20(a)	Initial certification and approval process	Y	
75.20(b)	Recertification approval process	Y	
75.20(c)	Initial certification and recertification procedures	Y	
75.20(g)	Initial certification and recertification procedures for excepted monitoring systems under appendices D and E	Y	
75.21	Quality assurance and quality control requirements	Y	
75.21(a)	Continuous emission monitoring systems	Y	
75.21(c)	Calibration gases	Y	
75.21(d)	Notification for periodic Relative Accuracy Test Audits	Y	
75.21(e)	Consequences of audits	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.22	Reference test methods	Y	
75.24	Out-of-control periods and adjustment for system bias	Y	
	Subpart D – Missing Data Substitution Procedures		
75.30	General Provisions	Y	
75.30(a)	Owner/operator shall provide substitute data for each affected unit using a continuous emission monitor according to this subpart whenever the unit is combusting fuel.	Y	
75.31	Initial missing data procedures	Y	
75.32	Determination of monitor data availability for standard missing data procedures	Y	
75.33	Standard missing data procedures for SO <sub>2</sub> , NO <sub>x</sub> , and flow rate	Y	
75.33(a)	Following initial certification and after following initial missing data procedures after three years have elapsed from initial certification and less than 2,160 quality assured operating hours for NO <sub>x</sub> continuous emissions monitors system the owner/operator shall follow the data substitution procedures in paragraph (b) and (c) of this section.	Y	
75.33(c)	Volumetric flow rate, NO <sub>x</sub> emission rate and NO <sub>x</sub> concentration data	Y	
75.34	Units with add-on emission controls	Y	
	Subpart F – Recordkeeping Requirements		
75.53	Monitoring plan	Y	
75.53(a)	General provisions	Y	
75.53(b)	Updates to monitoring plan	Y	
75.53(g)	Contents of the monitoring plan after January 1, 2009	Y	
75.53(h)	Contents of monitoring plan for specific situations	Y	
75.57	General recordkeeping provisions	Y	
75.57(a)	General recordkeeping provisions for affected sources	Y	
75.57(b)	Operating parameter record provisions. The owner or operator shall record for each hour the following information on unit operating time, heat input rate, and load, separately for each affected unit.	Y	
75.57(c)	SO <sub>2</sub> emission record provisions	Y	
75.57(d)	NO <sub>x</sub> emission record provisions	Y	
75.57(e)	CO <sub>2</sub> emission record provisions	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.57(h)	Missing data records	Y	
75.58	General recordkeeping provisions for specific situations	Y	
75.58(b)	Specific parametric data record provisions for calculating substitute emissions data for units with add-on emission controls	Y	
75.58(c)	Specific SO <sub>2</sub> emission record provisions for gas-fired or oil-fired units using optional protocol in appendix D to this part. In lieu of recording the information in §75.57(c), the owner or operator shall record the applicable information in this paragraph for each affected gas-fired or oil-fired unit for which the owner or operator is using the optional protocol in appendix D to this part for estimating SO <sub>2</sub> mass emissions	Y	
75.59	Certification, quality assurance, and quality control record provisions	Y	
75.59(a)	Continuous emission or opacity monitoring systems	Y	
75.59(b)	Accepted monitoring systems for gas-fired and oil-fired units. The owner or operator shall record the applicable information in this section for each excepted monitoring system following the requirements of appendix D to this part or appendix E to this part for determining and recording emissions from an affected unit.	Y	
75.59(c)	Except as otherwise provided in §75.58(b)(3)(i), units with add-on SO <sub>2</sub> or NO <sub>x</sub> emission controls following the provisions of §75.34(a)(1) or (a)(2), the owner or operator shall keep the following records on-site in the quality assurance/quality control plan required by section 1 of appendix B to this part:	Y	
75.59(e)	DAHS Verification. For each DAHS (missing data and formula) verification that is required for initial certification, recertification, or for certain diagnostic testing of a monitoring system, record the date and hour that the DAHS verification is successfully completed. (This requirement only applies to units that report monitoring plan data in accordance with §75.53(g) and (h).)	Y	
	Subpart G – Reporting Requirements		
75.60	General Provisions	Y	
75.61	Notifications	Y	
75.62	Monitoring plan submittals	Y	
75.63	Initial certification or recertification application	Y	
75.64	Quarterly reports	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
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**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.66	Petitions to the administrator	Y	
<b>BAAQMD Condition #24732</b>	<b>Conditions to the Permit to Operate for S-1, S-2, S-3 and S-4 Combustion Gas Turbines</b>		
Definitions	Definitions	Y	
Part 11	Fire Exclusively with natural gas (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
Part 12	Hourly Heat input limit (BACT for NO <sub>x</sub> )	Y	
Part 13	Daily Heat input limit (Cumulative Increase for PM <sub>10</sub> )	Y	
Part 14	Annual Heat input limit (Offsets)	Y	
Part 15	Operational limit - 7,008 hrs/yr/unit (Offsets, Cumulative Increase)	Y	
Part 16	Abatement requirement (BACT for NO <sub>x</sub> , POC, and CO)	Y	
Part 17a	NO <sub>x</sub> mass emission limit (BACT for NO <sub>x</sub> )	Y	
Part 17b	NO <sub>x</sub> emission concentration limit (BACT for NO <sub>x</sub> )	Y	
Part 17c	CO mass emission limit (BACT for CO)	Y	
Part 17d	CO emission concentration limit (BACT for CO)	Y	
Part 17e	NH <sub>3</sub> emission concentration limit (Reg. 2-5)	N	
Part 17f	POC mass emission limit (BACT for POC)	Y	
Part 17g	SO <sub>2</sub> mass emission limit (BACT for SO <sub>2</sub> )	Y	
Part 17h	PM <sub>10</sub> mass emission limit (BACT for PM <sub>10</sub> )	Y	
Part 17i	Total particulate mass emission limit (Reg 2-2-419)	Y	
Part 18	Start-up emission limits for NO <sub>x</sub> , CO and POC (BACT)	Y	
Part 19	Combustor tuning emission limits for NO <sub>x</sub> , CO and POC (Offsets, Cumulative Increase)	Y	
Part 20	Combined daily emission limits for NO <sub>x</sub> , CO, POC, PM <sub>10</sub> and SO <sub>2</sub> during startup and shutdown (Cumulative Increase)	Y	
Part 21	Combined daily emission limits for NO <sub>x</sub> , CO, POC, PM <sub>10</sub> and SO <sub>2</sub> during combustor tuning (Cumulative Increase)	Y	
Part 22	Combined annual emission limits for NO <sub>x</sub> , CO, POC, PM <sub>10</sub> and SO <sub>2</sub> during all types of operation (Cumulative Increase)	Y	
Part 23	TAC annual emission limits (Reg. 2-5)	N	
Part 24	Continuous monitor requirements (Regs 1-520.1, 9-9-501, BACT, Offsets, Cumulative Increase)	Y	
Part 25	Record keeping requirements (Offsets, Cumulative Increase)	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
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**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 26	TAC emission calculation methods (Reg 2-5)	N	
Part 27	Source test requirement for NH3 (Reg 2-5)	N	
Part 28	Source test requirement for POC, NOx, CO, SO2, and PM10 emissions (BACT, Offsets)	Y	
Part 29	Source test notification requirements (Reg 2-2-419)	Y	
Part 30	Source test for TAC (Reg 2-5)	Y	
Part 31	Sulfuric acid mist calculation requirement (Reg 2-2-306)	N	
Part 32	Sulfuric acid mist source test requirement (Reg 2-2-306, 2-2-419)	Y	
Part 33	Sulfuric acid mist mass emission limit (Regs 2-2-306, 2-2-419)	Y	
Part 34	Stack height requirement (Reg 2-5)	N	
Part 35	Reporting requirements ( Reg 2-1-403)	Y	
Part 36	Record retention requirement (Regs 2-1-403, 2-6-501)	Y	
Part 37	Violation notification requirements (Reg 2-1-403)	Y	
Part 38	Sampling port requirements (Reg 1-501)	Y	
Part 39	Notification requirement (Reg 1-501)	Y	
Part 40	CEM requirements (Reg 2-7)	Y	
Part 41	Operation limit for Commissioning Activities for Black Start Capability (BACT)	Y	
Part 42	Emission limits for Commissioning Activities for Black Start Capability (BACT)	Y	
Part 43	Monitoring requirements for Commissioning Activities for Black Start Capability. (BACT)	Y	
Part 44a	NOx daily emission limit for Black Start Operations. (BACT)	Y	
Part 44b	CO daily emission limit for Black Start Operations. (BACT)	Y	
Part 44c	POC daily emission limit for Black Start Operations. (BACT)	Y	
Part 44d	PM10/PM2.5 daily emission limit for Black Start Operations. (BACT)	Y	
Part 44e	SO2 daily emission limit for Black Start Operations. (BACT)	Y	
Part 45a	NOx annual emission limit for Readiness Testing for Black Start Capability (BACT)	Y	
Part 45b	CO annual emission limit for Readiness Testing for Black Start Capability (BACT)	Y	
Part 45c	POC annual emission limit for Readiness Testing for Black Start Capability (BACT)	Y	



**IV. Source-Specific Applicable Requirements**

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 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Part 45d	PM10/PM2.5 annual emission limit for Readiness Testing for Black Start Capability (BACT)	Y	
Part 45e	SO2 annual emission limit for Readiness Testing for Black Start Capability (BACT)	Y	
Part 46a	NOx annual emission limit for Black Start Operations. (BACT; Offsets)	Y	
Part 46b	CO annual emission limit for Black Start Operations. (BACT; Cumulative Increase)	Y	
Part 46c	POC annual emission limit for Black Start Operations. (BACT; Offsets)	Y	
Part 46d	PM10/PM2.5 annual emission limit for Black Start Operations. (BACT; Cumulative Increase)	Y	
Part 46e	SO2 annual emission limit for Black Start Operations. (BACT; Cumulative Increase)	Y	
Part 47	Additional offset credits when exceed annual emission limits for NOx and POC (Reg. 2-2-302)	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
**Source-specific Applicable Requirements**  
**S-7 STANDBY DIESEL ENGINE GENERATOR SET**  
**S-8 EMERGENCY STANDBY DIESEL FIRE PUMP ENGINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 6, Rule 1</b>	<b>Particulate Matter, General Requirements (12/5/07)</b>		
6-1-303	Ringelmann Number 2 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (9/4/98)</b>		
6-303	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	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	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
<b>BAAQMD Regulation 9, Rule 8</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Engines (7/25/07)</b>		
9-8-110.5	Limited Exemption Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, Hours of Operation	N	
9-8-330.1	Unlimited hours for emergency use	N	
9-8-330.3	50 hours for reliability and maintenance	N	
9-8-502	Recordkeeping	N	
9-8-502.1	Monthly records of usage	N	
9-8-530	Emergency standby engines, monitoring and recordkeeping	N	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (1/28/09)</b> <b>General Provisions</b>		
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	

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**Table IV - B**  
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**S-7 STANDBY DIESEL ENGINE GENERATOR SET**  
**S-8 EMERGENCY STANDBY DIESEL FIRE PUMP ENGINE**

<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>40 CFR 60 Subpart III</b>	<b>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</b>		
60.4200(a)(1)(i)	Applicability of Subpart III	Y	
60.4200(a)(2)(ii)	Applicability of Subpart III for fire pump	Y	
60.4205	What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?		
60.4205(b)	Pollutants emission standards	Y	
60.4205(c)	Pollutants emission standards for fire pump	Y	
60.4206	How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?	Y	
60.4207	What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?		
60.4207(a)	Fuel requirements – max sulfur 500 ppm, cetane index of 40 or max aromatic content of 35	Y	
60.4207(b)	Fuel requirements – max sulfur 15 ppm and cetane index of 40 or max aromatic content of 35	Y	
60.4209	What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?		
60.4209(a)	Meter requirement	Y	
60.4211	What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?		
60.4211(a)(1)	Operate and maintain according to manufacturer’s emission-related written instruction	Y	
60.4211(a)(2)	Change only emission-related settings that are permitted by the manufacturer	Y	
60.4211(a)(3)	Meet 40 CFR parts 89, 94, and/or 1068 as applicable	Y	
60.4211(c)	Comply with emission standards specified in §60.4205(b)	Y	
60.4211(f)	Maintenance, testing, and non-emergency operation hours	Y	

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**Table IV - B**  
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**S-7 STANDBY DIESEL ENGINE GENERATOR SET**  
**S-8 EMERGENCY STANDBY DIESEL FIRE PUMP ENGINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.4211(g)(3)	Compliance demonstration if engine is not installed, configured, operated, or maintained according to the manufacturer's emission-related written instructions	Y	
60.4214	What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?	Y	
60.4214(b)	Recordkeeping	Y	
<b>CCR, Title 17, Section 93115</b>	<b>ATCM for Stationary Compression Ignition Engines</b>	N	
93115.5	Fuel Requirements	N	
93115.6	ATCM for Stationary CI Engines – Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards	N	
93115.6(a)	New Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards	N	
93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
93115.10(a)	Reporting	N	
93115.10(b)	Demonstration of Compliance with Emission Limits	N	
93115.10(d)	Monitoring Equipment	N	
93115.10(f)	Reporting Requirements for Emergency Standby Engines	N	
93115.15	Severability	N	
<b>BAAQMD Condition #22850</b>			
Part 1	Reliability-related activities limited to 50 hours per year for each S-7 and S-8 (Stationary Diesel ATCM)	N	
Part 2	Operation Limits for each S-7 and S-8 (Stationary Diesel ATCM)	N	
Part 3	Non-resettable fuel meter required for each S-7 and S-8 (Stationary Diesel ATCM)	N	
Part 4	Recordkeeping requirements for each S-7 and S-8 (Stationary Diesel ATCM)	N	
Part 5	At school and near school provisions (Stationary Diesel ATCM)		

## **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.

## VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

### BAAQMD Permit Condition # 24732

#### Definitions:

Hour:	Any continuous 60-minute period
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
Rolling 3-hour period:	Any consecutive three-clock hour period, not including start-up or shutdown periods
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in BTU/scf
Firing Hours:	Period of time during which fuel is flowing to a unit, measured in minutes
MMBtu:	million British thermal units
Gas Turbine Start-up Mode:	The lesser of the first 30 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 17(b) and 17(d).
Gas Turbine Shutdown Mode:	The lesser of the 15 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 17(b) and 17(d) until termination of fuel flow to the Gas Turbine
Gas Turbine Combustor Tuning Mode:	The period of time, not to exceed 8 hours, in which testing, adjustment, tuning, and calibration operations are performed, as recommended by the gas turbine manufacturer, to insure safe and reliable steady-state operation, and to minimize NO <sub>x</sub> and CO emissions. The SCR and oxidation catalyst are not operating at their design control effectiveness during the tuning operation.
Transient Hour:	A transient hour is any clock hour during which the change in gross electrical output produced by the gas turbine exceeds 25 MW per minute for one minute or longer during any period that is not part of a startup, shutdown, or combustor tuning period.
Specified PAHs:	The polycyclic aromatic hydrocarbons listed below shall be considered to be Specified PAHs for these permit conditions. Any emission limits for Specified PAHs refer to the sum of the emissions for all six of the

## VI. Permit Conditions

	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 points P-1 (exhaust of S-1 Gas Turbine), P-2 (exhaust of S-2 Gas Turbine) P-3 (exhaust of S-3 Gas Turbine), P-4 (exhaust of S-4 Gas Turbine), the standard stack gas oxygen concentration is 15% 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 MLGS construction contractor to insure safe and reliable steady-state operation of the gas turbines, steam turbine, and associated electrical delivery systems during the commissioning period (Separate from Commissioning Activities for Black Start Capability)
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
MLGS:	Marsh Landing Generating Station
Total Particulate Matter:	The sum of all filterable and all condensable particulate matter.
Black Start Emergency Operation:	Operation of Gas Turbine S-3 and/or S-4 and associated equipment as directed by the California Independent System Operator (CAISO) and/or Pacific Gas and Electric Company (PG&E) to restore power to the grid in the event of a system outage in accordance with the CAISO's or PG&E's system restoration plan, including operation of a turbine after termination of the Black Start Instruction until either (i) the turbine is shut down (up to a maximum of 30 minutes following termination of the Black Start Instruction) or (ii) the

## VI. Permit Conditions

Commissioning Activities for Black Start Capability:	turbine achieves an output of 120 Megawatts (up to a maximum of 60 minutes following termination of the Black Start Instruction). All performance testing and adjustment activities associated with the initial installation of the battery energy storage system specifically designed for black start capability at MLGS.
Readiness Testing for Black Start Capability:	All testing activities of Gas Turbines S-3 and/or S-4 associated with the battery energy storage system except for Commissioning Activities for Black Start Capability at MLGS.

Conditions 1 through 10 which applied to the commissioning period have been deleted.

### Conditions for the SGT6-5000F Simple-Cycle Gas Turbines (S-1, S-2, S-3, and S-4)

11. The owner/operator shall fire the Gas Turbines (S-1, S-2, S-3, and S-4) exclusively on PUC-regulated 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 monthly to determine the sulfur content of the gas. PG&E monthly sulfur data may be used provided that such data can be demonstrated to be representative of the gas delivered to the MLGS.  
(Basis: BACT for SO<sub>2</sub> and PM<sub>10</sub>)
12. The owner/operator shall not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 2,202 MMBtu (HHV) per hour.  
(Basis: BACT for NO<sub>x</sub>)
13. The owner/operator shall not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 52,848 MMBtu (HHV) per day.  
(Basis: Cumulative Increase for PM<sub>10</sub>)
14. The owner/operator shall not operate the units such that the combined cumulative heat input rate for the Gas Turbines (S-1, S-2, S-3, and S-4) exceeds 13,994,976 MMBtu (HHV) per year but excluding heat input rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.  
(Basis: Offsets)
15. The owner operator shall not operate S-1, S-2, S-3, and S-4 such that the combined hours for all four units exceeds 7,008 hours per year (excluding operations necessary for maintenance, tuning, testing, readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations).  
(Basis: Offsets, Cumulative Increase)
16. The owner/operator shall ensure that the each Gas Turbine (S-1, S-2, S-3, S-4) is abated by the properly operated and properly maintained Selective Catalytic Reduction (SCR) System A-2, A-4, A-6 or A-8 and Oxidation Catalyst System A-1, A-3, A-5, or A-7 whenever fuel is combusted at those sources and the corresponding SCR catalyst bed (A-2, A-4, A-6 or A-8) has reached minimum operating temperature.  
(Basis: BACT for NO<sub>x</sub>, POC and CO)



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17. The owner/operator shall ensure that the Gas Turbines (S-1, S-2, S-3, S-4) comply with requirements (a) through (i). Requirements (a) through (f) do not apply during gas turbine start-ups, combustor tuning operations, shutdowns, readiness testing for black start capability, commissioning activities for black start capability, or black start emergency operations.

(Basis: BACT and Regulation 2, Rule 5)

- a) Nitrogen oxide mass emissions (calculated as  $\text{NO}_2$ ) at each exhaust point P-1, P-2, P-3, and P-4 (exhaust point for S-1, S-2, S-3 and S-4 Gas Turbine after abatement by A-2, A-4, A-6 and A-8 SCR System) shall not exceed 20.83 pounds per hour or 0.00946 lb/MMBtu (HHV) of natural gas fired. Limits are averaged over one hour except during transient hours where a 3-clock hour average is calculated as the average of the transient hour, the clock hour immediately prior to the transient hour and the clock hour immediately following the transient hour.  
(Basis: BACT for  $\text{NO}_x$ )
- b) The nitrogen oxide emission concentration at each exhaust point P-1, P-2, P-3 and P-4 shall not exceed 2.5 ppmv, on a dry basis, corrected to 15%  $\text{O}_2$ , averaged over any 1-hour period except during periods with a transient hour. Limits are averaged over one hour except during transient hours where a 3-clock hour average is calculated as the average of the transient hour, the clock hour immediately prior to the transient hour and the clock hour immediately following the transient hour.  
(Basis: BACT for  $\text{NO}_x$ )
- c) Carbon monoxide mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 10.0 pounds per hour or 0.00454 lb/MMBtu of natural gas fired, averaged over any 1-hour period.  
(Basis: BACT for CO)
- d) The carbon monoxide emission concentration at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 2.0 ppmv, on a dry basis, corrected to 15%  $\text{O}_2$  averaged over any 1-hour period.  
(Basis: BACT for CO)
- e) Ammonia ( $\text{NH}_3$ ) emission concentrations at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 10 ppmv, on a dry basis, corrected to 15%  $\text{O}_2$ , averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to each SCR System A-2, A-4, A-6, and A-8. The correlation between the gas turbine heat input rates, A-2, A-4, A-6, and A-8 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-1, P-2, P-3 and P-4 shall be determined in accordance with Part 27 or District approved alternative method. The APCO may require the installation on one exhaust point (P-1, P-2, P-3, or P-4, at the owner/operator's discretion) of a CEM designed to monitor ammonia concentrations if the APCO determines that a commercially available CEM has been proven to be accurate and reliable and that an adequate Quality Assurance/Quality Control protocol for the CEM has been established. The District or another agency must establish a District approved Quality Assurance/Quality Control protocol prior to the ammonia CEM being a requirement of this part. The ammonia CEM shall be used to demonstrate compliance with the ammonia emission limit contained in this Part for the gas turbine being monitored. The gas turbine with the ammonia CEM shall still be subject to the emission testing requirements in Part 27.

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- (Basis: Regulation 2, Rule 5)
- f) Precursor organic compound (POC) mass emissions (as CH<sub>4</sub>) at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 2.9 pounds per hour or 0.00132 lb/MMBtu of natural gas fired.  
(Basis: BACT for POC)
  - g) Sulfur dioxide (SO<sub>2</sub>) mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 6.21 pounds per hour or 0.0028 lb/MMBtu of natural gas fired.  
(Basis: BACT for SO<sub>2</sub>)
  - h) Particulate matter with an aerodynamic diameter equal to or less than 10 microns (PM<sub>10</sub>) mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 9.0 pounds per hour.  
(Basis: BACT for PM<sub>10</sub>)
  - i) Total particulate matter mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 9.0 pounds per hour.  
(Basis: Regulation 2, Rule 2, Section 419)
18. The owner/operator shall ensure that the regulated air pollutant mass emission rates from each of the Gas Turbines (S-1, S-2, S-3, and S-4) during a start-up or shutdown does not exceed the limits established below. Startups shall not exceed 30 minutes. Shutdowns shall not exceed 15 minutes. These requirements do not apply during readiness testing for black start capability, commissioning activities for black start capability, or black start emergency operations. (Basis: BACT Limit for Non-Normal Operation)

Pollutant	Maximum Emissions Per Startup	Maximum Emissions During Hour Containing a Startup	Maximum Emissions Per Shutdown
	(lb/startup)	(lb/hour)	(lb/shutdown)
NO <sub>x</sub> (as NO <sub>2</sub> )	36.4	45.1	15.1
CO	216.2	541.3	111.5
POC (as CH <sub>4</sub> )	11.9	28.5	5.4

19. The owner/operator shall not perform combustor tuning on each Gas Turbine (S-1, S-2, S-3, or S-4) more than twice every consecutive 12 month period. Each tuning event shall not exceed 8 hours. Combustor tuning shall only be performed on one gas turbine per day. The owner/operator shall notify the District no later than 7 days prior to combustor tuning activity. The emissions during combustor tuning from each gas turbine shall not exceed the limits established below.  
(Basis: Offsets, Cumulative Increase)

Pollutant	Combustor Tuning lb/hour
NO <sub>x</sub> (as NO <sub>2</sub> )	80
CO	450
POC (as CH <sub>4</sub> )	30

20. The owner/operator shall not allow total combined emissions from the Gas Turbines (S-1, S-2, S-3,

## VI. Permit Conditions

and S-4), including emissions generated during gas turbine start-ups, and shutdowns, but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations, to exceed the following limits during any calendar day (except for days during which combustor tuning events occur, which are subject to Paragraph 21 below):

(Basis: Cumulative Increase)

- a) NO<sub>x</sub> (as NO<sub>2</sub>) ..2,468 pounds per calendar day
- b) CO.....4,858 pounds per calendar day
- c) POC (as CH<sub>4</sub>) .....476 pounds per calendar day
- d) PM<sub>10</sub>.....864 pounds per calendar day
- e) SO<sub>2</sub>.....596 pounds per calendar day

21. The owner/operator shall not allow total combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, shutdowns, and combustor tuning events, but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations, to exceed the following limits during any calendar day on which a tuning event occurs:

(Basis: Cumulative Increase)

- a) NO<sub>x</sub> (as NO<sub>2</sub>) ..2,941 pounds per calendar day
- b) CO.....8,378 pounds per calendar day
- c) POC (as CH<sub>4</sub>) .....693 pounds per calendar day
- d) PM<sub>10</sub>.....864 pounds per calendar day
- e) SO<sub>2</sub>.....596 pounds per calendar day

22. The owner/operator shall not allow cumulative combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, combustor tuning, shutdowns, and malfunctions, but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations, to exceed the following limits during any consecutive twelve-month period:

- a) NO<sub>x</sub> (as NO<sub>2</sub>) ..... 78.57 tons per year (Basis: Offsets)
- b) CO..... 138.57 tons per year (Basis: Cumulative Increase)
- c) POC (as CH<sub>4</sub>) ..... 14.21 tons per year (Basis: Offsets)
- d) PM<sub>10</sub>..... 31.54 tons per year (Basis: Cumulative Increase)
- e) SO<sub>2</sub>..... 4.94 tons per year (Basis: Cumulative Increase)

23. The owner/operator shall not allow the maximum projected annual toxic air contaminant emissions (per Part 26) from the Gas Turbines (S-1, S-2, S-3, S-4) combined to exceed the following limits:

- a) formaldehyde 8,459 pounds per year
- b) benzene 205 pounds per year
- c) Specified polycyclic aromatic hydrocarbons (PAHs) 2.00 pounds per year

unless the following requirement is satisfied:

The owner/operator shall perform a health risk assessment to determine the total facility risk using the emission rates determined by source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. The owner/operator shall submit the risk analysis to the District and the CEC CPM within

## VI. Permit Conditions

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 not result in a significant cancer risk, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above.

(Basis: Regulation 2, Rule 5)

24. The owner/operator shall demonstrate compliance with Parts 12 through 15, 17(a) through 17(e), 18 (NO<sub>x</sub> and CO limits), 19 (NO<sub>x</sub> and CO limits), 20(a), 20(b), 21(a), 21(b), 22(a), 22(b), 41, 42, 43, 44(a), 44(b), 45(a), and 45(b) by using properly operated and maintained continuous monitors (during all hours of operation including gas turbine start-ups, combustor tuning operations, shutdowns, readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations). The owner/operator shall monitor for all of the following parameters:

- (a) Firing Hours and Fuel Flow Rates for each of: S-1, S-2, S-3, and S-4
- (b) Oxygen (O<sub>2</sub>) concentration, Nitrogen Oxides (NO<sub>x</sub>) concentration, and carbon monoxide (CO) concentration at exhaust points P-1, P-2, P-3 and P-4.
- (c) Ammonia injection rate at A-2, A-4, A-6 and A-8 SCR Systems

The owner/operator shall record all of the above parameters at least 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:

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

For each source and exhaust point, the owner/operator shall record the parameters specified in Parts 24(d) and 24(e) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

Note: The required data in (f) thru (k) shall exclude any data during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.

- (f) total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.
- (g) on an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each Gas Turbine and for S-1, S-2, S-3 and S-4 combined.
- (h) the average NO<sub>x</sub> mass emission rate (as NO<sub>2</sub>), CO mass emission rate, and corrected NO<sub>x</sub> and CO emission concentrations for every clock hour.
- (i) 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 for S-1, S-2, S-3 and S-4 combined.
- (j) For each calendar day, the average hourly Heat Input Rates, corrected NO<sub>x</sub> emission concentration, NO<sub>x</sub> mass emission rate (as NO<sub>2</sub>), corrected CO emission concentration, and

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- CO mass emission rate for each Gas Turbine.
- (k) on a monthly basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and cumulative total CO mass emissions, for the previous consecutive twelve month period for sources S-1, S-2, S-3, and S-4 combined.
  - (l) For each calendar day, the average hourly Heat Input Rates, corrected NO<sub>x</sub> emission concentration, NO<sub>x</sub> mass emission rate (as NO<sub>2</sub>), corrected CO emission concentration, and CO mass emission rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations for S-3 and S-4.
  - (m) On a monthly basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and cumulative total CO mass emissions during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations, for the previous consecutive twelve-month period for sources S-3 and S-4 combined.  
(Basis: 1-520.1, 9-9-501, BACT, Offsets, NSPS, Cumulative Increase)
25. To demonstrate compliance with Parts 17(f), 17(g), 17(h), 17(i), 20(c), 20(d), 20(e), 21(c), 21(d), 21(e), 22(c), 22(d), 22(e), 41, 42, 43, 44(c), 44(d), 44(e), 45(c), 45(d), and 45(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. The owner/operator shall use the actual heat input rates measured pursuant to Part 24, actual Gas Turbine start-up times, actual Gas Turbine shutdown times, and CEC and District-approved emission factors developed pursuant to source testing under Part 28 to calculate these emissions. The owner/operator shall present the calculated emissions in the following format: Note: The emissions calculated in (a) and (b) shall exclude any data during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.
- (a) For each calendar day, POC, PM<sub>10</sub>, and SO<sub>2</sub> emissions, summarized for each power train (Gas Turbine) and S-1, S-2, S-3, and S-4 combined
  - (b) On a monthly basis, the cumulative total POC, PM<sub>10</sub>, and SO<sub>2</sub> mass emissions, for each year (12-month rolling average) for S-1, S-2, S-3, and S-4 combined.  
(Basis: Offsets, Cumulative Increase)
  - (c) For each calendar day, POC, PM<sub>10</sub>, and SO<sub>2</sub> emissions during readiness testing and commissioning activities for black start capability and black start emergency operations, summarized for S-3 and S-4.
  - (d) On a monthly basis, the cumulative total POC, PM<sub>10</sub>, and SO<sub>2</sub> mass emissions during readiness testing and commissioning activities for black start capability and black start emergency operations, for each year (12-month rolling average) for S-3 and S-4 combined.
26. To demonstrate compliance with Part 23, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAH's. The owner/operator shall calculate the maximum projected annual emissions using the maximum annual heat input rate of 13,994,976 MMBtu/year for S-1, S-2, S-3, and S-4 combined and the highest emission factor (pounds of pollutant per MMBtu of heat input) determined by the most recent of any source test of the S-1, S-2, S-3, or S-4 Gas Turbines. If the highest emission factor for a given pollutant occurs during minimum-load turbine operation, a reduced annual heat input rate

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may be utilized to calculate the maximum projected annual emissions to reflect the reduced heat input rates during gas turbine start-up and minimum-load operation. The reduced annual heat input rate shall be subject to District review and approval.

(Basis: Regulation 2, Rule 5)

27. Within 90 days of start-up of each of the MLGS SGT6-5000F units, the owner/operator shall conduct a District-approved source test on each corresponding exhaust point P-1, P-2, P-3, or P-4 to determine the corrected ammonia (NH<sub>3</sub>) emission concentration to determine compliance with Part 17(e). The source test shall determine the correlation between the heat input rates of the gas turbine, A-2, A-4, A-6, or A-8 SCR System ammonia injection rate, and the corresponding NH<sub>3</sub> emission concentration at emission point P-1, P-2, P-3, or P-4. The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and full load modes) to establish the range of ammonia injection rates necessary to achieve NO<sub>x</sub> emission reductions while maintaining ammonia slip levels. The owner/operator shall repeat the source testing on an annual basis thereafter. Ongoing compliance with Part 17(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.

(Basis: Regulation 2, Rule 5)

28. Within 90 days of start-up of each of the MLGS SGT6-5000F units and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on each corresponding exhaust point P-1, P-2, P-3 and P-4 while each Gas Turbine is operating at maximum load to determine compliance with Parts 17(a), 17(b), 17(c), 17(d), 17(f), 17(g), 17(h), 17(i) and while each Gas Turbine is operating at minimum load to determine compliance with Parts 17(c), and 17(d) and to verify the accuracy of the continuous emission monitors required in Part 24. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO<sub>2</sub>), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and total particulate matter emissions including condensable particulate matter. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.

(Basis: BACT, Offsets)

29. 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 any measurement of the total particulate matter or 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. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. (Basis: BACT, Regulation 2, Rule 2,

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Section 419)

30. Within 90 days of start-up of the first MLGS SGT6-5000F gas turbine and on a biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on one of the following exhaust points P-1, P-2, P-3 or P-4 while the Gas Turbine is operating at maximum allowable operating rates to demonstrate compliance with Part 23. The owner/operator shall also test the gas turbine while it is operating at minimum load. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to Part 26 for any of the compounds listed below are less than the BAAQMD trigger levels, pursuant to Regulation 2, Rule 5, shown, then the owner/operator may discontinue future testing for that pollutant:
- |                |   |                                       |
|----------------|---|---------------------------------------|
| Benzene        | ≤ | 2.9 pounds/year and 0.062 pounds/hour |
| Formaldehyde   | ≤ | 14 pounds/year and 0.12 pounds/hour   |
| Specified PAHs | ≤ | 0.0033 pounds/year                    |
- (Basis: Regulation 2, Rule 5)
31. The owner/operator shall calculate the sulfuric acid mist (SAM) emission rate using the total heat input for the sources and the highest results of any source testing conducted pursuant to Part 32. If this SAM mass emission limit of Part 33 is exceeded, the owner/operator must utilize air dispersion modeling to determine the impact (in  $\mu\text{g}/\text{m}^3$ ) of the sulfuric acid mist emissions pursuant to Regulation 2, Rule 2, Section 306.  
(Basis: Regulation 2, Rule 2, Section 306)
32. Within 90 days of start-up of each of the first two MLGS SGT6-5000F gas turbines and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on two of the four exhaust points P-1, P-2, P-3 or P-4 while each gas turbine is operating at maximum heat input rates to demonstrate compliance with the SAM emission rates specified in Part 33. The owner/operator shall test for (as a minimum)  $\text{SO}_2$ ,  $\text{SO}_3$ , and  $\text{H}_2\text{SO}_4$ . The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.  
(Basis: Regulation 2, Rule 2, Section 306, and Regulation 2, Rule 2, Section 419)
33. The owner/operator shall not allow sulfuric acid emissions (SAM) from stacks P-1, P-2, P-3, P-4 combined to exceed 7 tons in any consecutive 12 month period.  
(Basis: Regulation 2, Rule 2, Section 306, and Regulation 2, Rule 2, Section 419)
34. The owner/operator shall ensure that the stack height of emission points P-1, P-2, P-3 and P-4 is each at least 165 feet above grade level at the stack base.  
(Basis: Regulation 2, Rule 5)
35. The owner/operator of the MLGS shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as 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.  
(Basis: Regulation 2, Rule 1, Section 403)
36. The owner/operator of the MLGS 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, emission rates, monitor excesses, breakdowns, etc.), source test and analytical

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records, natural gas sulfur content analysis results, 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. (Basis: Regulation 2, Rule 1, Section 403, Regulation 2, Rule 6, Section 501)

37. The owner/operator of the MLGS 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.  
(Basis: Regulation 2, Rule 1, Section 403)
38. The Owner/Operator of MLGS shall provide 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 District Manual of Procedures, Volume IV, Source Test Policy and Procedures, and shall be subject to BAAQMD review and approval, except that the facility shall provide four sampling ports that are at least 6 inches in diameter in the same plane of each gas turbine stack (P-1, P-2, P-3, P-4).  
(Basis: Regulation 1, Section 501)
39. Within 180 days of the issuance of the Authority to Construct for the MLGS, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by Parts 10, 27, 28, 30 and 32. The owner/operator shall conduct all source testing and monitoring in accordance with the District approved procedures.  
(Basis: Regulation 1, Section 501)
40. The owner/operator shall ensure that the MLGS complies with the continuous emission monitoring requirements of 40 CFR Part 75.  
(Basis: Regulation 2, Rule 7)
41. Commissioning Activities for Black Start Capability: The owner/operator shall perform commissioning activities for black start capability at S-3 and S-4 for no more than 64 hours combined. Upon completion of these activities, the owner/operator shall provide written notice to the District Engineering and Enforcement Divisions. (Basis: BACT)
42. Emission Limits for Commissioning Activities for Black Start Capability: The owner/ operator shall not operate Gas Turbines S-3 and S-4 in a manner such that the combined pollutant emissions from these sources exceeds the following limits when performing commissioning activities for black start capability.
  - NOx (as NO2).....3,311 pounds;
  - CO.....103,486 pounds;
  - POC (as CH4).....8,089 pounds;
  - PM10/PM2.5.....123 pounds;
  - SO2.....84 pounds.



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(Basis: BACT)

43. When performing any commissioning activities for black start capability at S-3 and S-4, the owner/operator of the MLGS shall demonstrate compliance with conditions 41 and 42 through the use of properly operated and maintained continuous emission monitors and data 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 owner/operator shall use District-approved methods to calculate heat input rates, nitrogen dioxide mass emission rates, carbon monoxide mass emission rates, and NO<sub>x</sub> and CO emission concentrations, summarized for each clock hour. The owner/operator shall retain records on site for at least 5 years from the date of entry and make such records available to District personnel upon request. (Basis: BACT)

44. Daily Emission Limits for Black Start Operations: The owner/operator shall not allow total combined emissions from readiness testing for black start capability and black start emergency operations at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive 24-clock hour period:

- (a) NO<sub>x</sub> (as NO<sub>2</sub>).....8,048 pounds per day;
- (b) CO.....100,673 pounds per day;
- (c) POC (as CH<sub>4</sub>).....7,422 pounds per day;
- (d) PM<sub>10</sub>/PM<sub>2.5</sub>.....255 pounds per day;
- (e) SO<sub>2</sub>.....174 pounds per day.

(Basis: BACT)

45. Annual Emission Limits for Readiness Testing for Black Start Capability: The owner/operator shall not allow emissions from readiness testing for black start capability at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive twelve-month period:

- (a) NO<sub>x</sub> (as NO<sub>2</sub>).....414 pounds per year;
- (b) CO.....12,936 pounds per year;
- (c) POC (as CH<sub>4</sub>).....1,011 pounds per year;
- (d) PM<sub>10</sub>/PM<sub>2.5</sub>.....15 pounds per year;
- (e) SO<sub>2</sub>.....10 pounds per year.

(Basis: BACT)

46. Annual Emission Limits for Black Start Operations: The owner/operator shall not allow total combined emissions from readiness testing for black start capability and black start emergency operations at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive twelve-month period:

- (a) NO<sub>x</sub> (as NO<sub>2</sub>).....16,283 pounds per year (Basis: BACT; Offsets);
- (b) CO.....212,725 pounds per year (Basis: BACT; Cumulative Increase);
- (c) POC (as CH<sub>4</sub>).....15,750 pounds per year (Basis: BACT; Offsets);
- (d) PM<sub>10</sub>/PM<sub>2.5</sub>.....518 pound per year (Basis: BACT; Cumulative Increase);
- (e) SO<sub>2</sub>.....354 pounds per year (Basis: BACT; Cumulative Increase)

47. In the event that total emissions from commissioning activities, readiness testing for black start capability, and black start emergency operations exceed (a) 16,283 pounds of NO<sub>x</sub> and/or (b) 15,750

## VI. Permit Conditions

pounds of POC during any 12-month period that includes commissioning activities, the owner/operator shall submit additional offset credits for the excess emissions according to the procedures set forth in District Regulation 2-2-302.1 through 302.4. (Basis: Regulation 2-2-302).

### **BAAQMD Permit Condition # 22850**

#### **Sources 7 and 8**

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing.  
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited.  
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.  
[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
4. Records: The owner/operator shall maintain the following monthly records in a District- approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
  - a. Hours of operation for reliability-related activities (maintenance and testing).
  - b. Hours of operation for emission testing to show compliance with emission limits.
  - c. Hours of operation (emergency).
  - d. For each emergency, the nature of the emergency condition.
  - e. Fuel usage for each engine(s).[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]
5. At School and Near-School Operation: If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:  
The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
  - a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
  - b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not

## **VI. Permit Conditions**

include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: Title 17, California Code of Regulations, section 93115, ATCM for Stationary CI Engines]

**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 column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), hourly (H), 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.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

**Table VII - A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732, parts 24 and 28	C P/A	CEM Annual source test
NOx	BAAQMD 9-9-301.2	N		0.15 lbs/MW hr or 5 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732 parts 24 and 28	C P/A	CEM Annual source test
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732, parts 24 and 28	C P/A	CEM Annual source test

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 Subpart KKKK 40 CFR 60.4320(a)	Y		15 ppmv @ 15% O <sub>2</sub> , dry 4-hour rolling average for turbines at or above 75% of peak load	NSPS 40 CFR 60.4340(b)(1)	C	CEM
NOx	NSPS Subpart KKKK 40 CFR 60.4320(a)	Y		96 ppmv @ 15% O <sub>2</sub> , dry 4-hour rolling average for turbines operating below 75% of peak load	NSPS 40 CFR 60.4340(b)(1)	C	CEM
NOx	None	Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #24732, Part 17a	Y		20.83 lb per hour or 0.00946 lb/MMBTU (measured as NO <sub>2</sub> )	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test
NOx	BAAQMD condition #24732, Part 17b	Y		2.5 ppmv @ 15% O <sub>2</sub> , dry, Averaged over one hour except during transient hours when a 3-hr average is applied	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test
NOx	BAAQMD condition #24732, Part 18	Y		36.4 lb per startup, 45.1 lb/hr containing a startup, and 15.1 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	CEM

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 #24732, Part 19	Y		80 lb/hr during combustor tuning (as NO <sub>2</sub> )	BAAQMD condition #24732, Part 24	C	CEM
NOx	BAAQMD condition #24732, Part 20a	Y		2,468 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations) (as NO <sub>2</sub> )	BAAQMD condition #24732, Part 24	C	CEM
NOx	BAAQMD condition #24732, Part 21a	Y		2,941 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (as NO <sub>2</sub> ), excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 #24732, Part 22a	Y		78.57 tons combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period (as NO <sub>2</sub> ), excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM
NOx	BAAQMD condition #24732, Part 42	Y		3,311 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	CEM, records, calculations
NOx	BAAQMD condition #24732, part 44(a)	Y		8,048 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations
NOx	BAAQMD condition #24732, part 45(a)	Y		414 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations
NOx	BAAQMD condition #24732, part 46(a)	Y		16,283 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations
CO	BAAQMD condition #24732, Part 17c	Y		10.0 lb/hr or 0.00454 lb/MMBTU at each exhaust point P-1, P-2, P-3, or P-4	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 #24732, Part 17d	Y		2.0 ppmv @ 15% O <sub>2</sub> , dry, Averaged over any 1-hour	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test
CO	BAAQMD condition #24732, Part 18	Y		216.2 lb per startup, 541.3 lb/hr containing a startup, and 111.5 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	CEM
CO	BAAQMD condition #24732, Part 19	Y		450 lb/hr during combustor tuning	BAAQMD condition #24732, Part 24	C	CEM
CO	BAAQMD condition #24732, Part 20b	Y		4,858 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	CEM



**VII. Applicable limits and Compliance Monitoring Requirements**

**Table VII - A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 #24732, Part 21b	Y		8,378 lb combined from S-1, S-2, S-3, and S-4 per any calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM
CO	BAAQMD condition #24732, Part 22b	Y		138.57 tons combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM
CO <sub>2</sub>		Y		None	40 CFR 75.10	C	CEM (CO <sub>2</sub> ) or CEM (O <sub>2</sub> ) or fuel flow monitor
CO	BAAQMD condition #24732, Part 42	Y		103,486 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	CEM, records, calculations
CO	BAAQMD condition #24732, part 44(b)	Y		100,673 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

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 #24732, part 45(a)	Y		12,936 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations
CO	BAAQMD condition #24732, part 46(a)	Y		212,725 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations
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	
SO <sub>2</sub>	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD condition #24732, Part 11	P/M	Total sulfur analysis
SO <sub>2</sub>	NSPS Subpart KKKK 40 CFR 60.4330(a) (2)	Y		0.060 lb SO <sub>2</sub> /MMBtu	NSPS 40 CFR 60.4365(a)	N	None
SO <sub>2</sub>	None	Y		None	40 CFR 75.11(d)(2), 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations
SO <sub>2</sub>	BAAQMD condition #24732, Part 11	Y		Fire exclusively natural gas with 1 grain sulfur per 100 scf	BAAQMD condition #24732, Part 11	P/M	Total sulfur analysis

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO <sub>2</sub>	BAAQMD condition #24732, Part 17g	Y		6.21 lb/hr	BAAQMD condition #24732, Parts 24, 25, and 28	P/D P/A	Record keeping, District approved calculation, Annual source test
SO <sub>2</sub>	BAAQMD condition #24732, Part 20e	Y		596 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation
SO <sub>2</sub>	BAAQMD condition #24732, Part 21e	Y		596 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/D	Record keeping, District approved calculation

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO <sub>2</sub>	BAAQMD condition #24732, Part 22e	Y		4.94 tons/consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/D	Record keeping, District approved calculation
SO <sub>2</sub>	BAAQMD condition #24732, Part 42	Y		84 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations
SO <sub>2</sub>	BAAQMD condition #24732, part 44(e)	Y		174 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
SO <sub>2</sub>	BAAQMD condition #24732, part 45(e)	Y		10 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
SO <sub>2</sub>	BAAQMD condition #24732, part 46(e)	Y		354 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Filterable Particulate	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
PM <sub>10</sub>	BAAQMD condition #24732, Part 17h	Y		9.0 lb/ hr	BAAQMD condition #24732, Part 28	P/A	Annual source test
PM <sub>10</sub>	BAAQMD condition #24732, Part 20d	Y		864 lb/calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation
PM <sub>10</sub>	BAAQMD condition #24732, Part 21d	Y		864 lb/calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation
PM <sub>10</sub>	BAAQMD condition #24732, Part 22d	Y		31.54 tons/consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/A	Annual source test, District approved calculation

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
PM <sub>10</sub>	BAAQMD condition #24732, Part 42	Y		123 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations
PM <sub>10</sub>	BAAQMD condition #24732, part 44(d)	Y		255 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
PM <sub>10</sub>	BAAQMD condition #24732, part 45(d)	Y		15 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
PM <sub>10</sub>	BAAQMD condition #24732, part 46(d)	Y		518 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
TSP	BAAQMD condition #24732, Part 17i	Y		9.0 lb TSP per hour from each exhaust point P-1, P-2, P-3, or P-4	BAAQMD condition #24732, Parts 25 and 28	P/D	Record Keeping, Annual source test, District approved calculation
POC	BAAQMD condition #24732, Part 17f	Y		2.9 lb/hr	BAAQMD condition #24732, Part 28	P/A	Annual source test

**VII. Applicable limits and Compliance Monitoring Requirements**

**Table VII - A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #24732, Part 18	Y		11.9 lb per startup, 28.5 lb/hr containing a startup, and 5.4 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	Initial Test contidion #24772 Part 10	none	Record Keeping, District approved emission factor
POC	BAAQMD condition #24732, Part 19	Y		30 lb/hr during combustor tuning	none	none	District approved emission factor (permit limit), Record Keeping
POC	BAAQMD condition #24732, Part 20c	Y		476 lb combined from S-1, S-2, S-3, and S-4 per calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 25	P/D	Record Keeping

**VII. Applicable limits and Compliance Monitoring Requirements**

**Table VII - A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #24732, Part 21c	Y		693 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record Keeping
POC	BAAQMD condition #24732, Part 22c	Y		14.21 ton combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period year, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record Keeping
POC	BAAQMD condition #24732, Part 42	Y		8,089 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations
POC	BAAQMD condition #24732, part 44(c)	Y		7,422 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
POC	BAAQMD condition #24732, part 45(c)	Y		1,011 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations



## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #24732, part 46(c)	Y		15,750 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations
NH <sub>3</sub>	BAAQMD condition #24732, Part 17e	N		10 ppmv @ 15% O <sub>2</sub> , dry, except during turbine startup, combustor tuning operation, or shutdown	BAAQMD condition #24732, parts 17e and 27	C P/A	District approved calculation Source test
Heat input limit	BAAQMD condition #24732, Part 12	Y		2,202 MM BTU/hr (HHV)	BAAQMD condition #24732, Part 24	C	Fuel meter
Heat input limit	BAAQMD condition #24732, Part 13	Y		52,848 MM BTU/day (HHV)	BAAQMD condition #24732, Part 24	C	Fuel meter, calculations
Heat input limit	BAAQMD condition #24732, Part 14	Y		13,994,976 MM BTU/yr (HHV) (excluding heat input rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	Fuel meter, calculations

**VII. Applicable limits and Compliance Monitoring Requirements**

**Table VII - A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Hours of Operation	BAAQMD condition #24732, Part 15	Y		7,008 combined hours for S-1, S-2, S-3, and S-4 per year excluding maintenance, tuning, testing, readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 36	P/D	Record Keeping
Hours of Operation	BAAQMD condition #24732, Part 41	Y		64 combined hours for commissioning activities for black start capability at S-3 and S-4	BAAQMD condition #24732, Part 43	P/D	Record Keeping

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII – B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-7 STANDBY DIESEL ENGINE GENERATOR SET**  
**S-8 EMERGENCY STANDBY DIESEL FIRE PUMP ENGINE**

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 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N	
Opacity	SIP Regulation 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf Particulate Weight Limitation		N	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N	
SO <sub>2</sub>	BAAQMD 9-1-301	N		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	
SO <sub>2</sub>	BAAQMD 9-1-304	Y		0.5% sulfur in fuel by weight		N	
Hours of operation	BAAQMD Regulation 9-8-330.1	N		Emergency use for an unlimited number of hours	BAAQMD Regulation 9-8-530	P/E	Records
Hours of operation	BAAQMD Condition #22850, part 1	N		Reliability related activities less than 50 hr/yr	BAAQMD Condition #22850, Parts 4a, 4b, 4c	C P/E	Records

### 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 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 6-1-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-1-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions, or EPA Method 9
BAAQMD 6-1-310	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, or ARB Method 100, Procedures for Continuous Gaseous Emission Stack 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, or ARB Method 100, Procedures for Continuous Gaseous Emission Stack 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, or ARB Method 100, Procedures for Continuous Gaseous Emission Stack 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, or ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
<b>40 CFR Part 60, NSPS</b>		
<b>NSPS Subpart K K K K</b>	<b>Standards of Performance for Stationary Combustion Turbines (7/6/06)</b>	
60.4320(a)	Performance Standard, NO <sub>x</sub>	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines

## VIII. Test Methods

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
60.4330(a)(2)	SO <sub>2</sub> Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
<b>NSPS 40 CFR 60.8</b>	40 CFR 60, Appendix A	EPA Method 7, Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
<b>BAAQMD Condition # 24732 for S-1, S-2, S-3 and S-4 Combustion Gas Turbines</b>		
Parts 17a and 17b	NO <sub>x</sub> Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 17e	NH <sub>3</sub> Limit	Manual of Procedures, Volume IV, ST-1B, Ammonia, Integrated Sampling
Parts 17c and 17d	CO Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 17f	POC Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 17h	PM <sub>10</sub> Limit	ARB Method 5, Determination of Particulate Matter Emissions from Stationary Sources
Part 17i	TSP Limit	EPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources and EPA Method 202, Condensable Particulate Matter
Part 17g	SO <sub>x</sub> Limit	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling or ST-19B, Total Sulfur Oxides, Integrated Sample

**IX. TITLE IV ACID RAIN PERMIT**

**Effective November 3, 2015 through November 2, 2020.**

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**ISSUED TO:**

**Marsh Landing Generating Station  
PO Box 1687  
Antioch, CA 94509**

**PLANT SITE LOCATION:**

**3201-C Wilbur Avenue  
Antioch, CA 94509**

**ISSUED BY:**

Signed by Damian Breen for Jack P. Broadbent  
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

September 9, 2019  
Date

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**Type of Facility: Simple Cycle Gas Turbine Peaker Facility  
Primary SIC: 4911  
Product: Electricity**

**DESIGNATED REPRESENTATIVE**

**Name: Joseph Moura  
Title: Operations and Maintenance Manager  
Phone: (925) 779-6685**

**FACILITY CONTACT PERSON:**

**Name: Scott Seipel  
Title: Environmental Manager  
Phone: (909) 648-5008**

## 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	2015	2016	2017	2018	2019
	<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-1, S-2, S-3, and S-4 Combustion Turbines</b>	<b>NO<sub>x</sub> Limit</b>	<b>These units are not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

#### 3) COMMENTS, NOTES AND JUSTIFICATIONS

Pursuant to 40 CFR Part 72.6 (a)(3)(i), S-1 is considered a new utility unit and is subject to the acid rain permit requirements of 72.9(a).

S-1, S-2, S-3, and S-4 Gas Turbines are not listed in table-2 of 40 CFR Part 73, therefore, the operator did not receive SO<sub>2</sub> allowances under the Acid Rain Program.

S-1, S-2, S-3, and S-4 Gas Turbine do not qualify for a new unit exemption pursuant to 40 CFR 72.7(b) (1) since it serves a generator with a nameplate capacity greater than 25 MW

#### 4) PERMIT APPLICATION

**Attached in Section XIII. Title IV (Acid Rain) Application**

**X. PERMIT SHIELD**

**A. Non-applicable Requirements**

None

**B. Subsumed Requirements:**

None

There are no permit shields of this type for any sources at this facility.



## XI. REVISION HISTORY

<u>Date</u>	<u>Action</u>	<u>Details</u>
November 3, 2015	Initial Permit (Application No. 25894)	Initial permit
January 18, 2018	Administrative Amendment (Application No. 29019)	Change the Responsible Official to Joseph Moura Correct Facility mailing address. Update of District new address
September 9, 2019	Significant Revision (Application No. 29170)	Update the facility contact and info Incorporate changes of permit conditions from the Black Start Capability Project (NSR Application 29169)

## **XII. GLOSSARY**

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**API**

American Petroleum Institute

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**BARCT**

Best Available Retrofit Control Technology

**Basis**

The underlying authority that allows the District to impose requirements.

**C5**

An Organic chemical compound with five carbon atoms

**C6**

An Organic chemical compound with six carbon atoms

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**CEC**

California Energy Commission

**CEQA**

California Environmental Quality Act

**CEM**

A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NO<sub>x</sub> concentration) in an exhaust stream.

**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

## **XII. GLOSSARY**

### **CO2**

Carbon Dioxide

### **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

### **dscf**

Dry Standard Cubic Feet

### **dscm**

Dry Standard Cubic Meter

### **E 6, E 9, E 12**

Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals  $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$ . Scientific notation is used to express large or small numbers without writing out long strings of zeros.

### **EGT**

Exhaust Gas Temperature

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District Regulations.

### **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), and also 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.

### **FR**

Federal Register

### **GDF**

Gasoline Dispensing Facility

### **GLM**

Ground Level Monitor

### **grains**

1/7000 of a pound

### **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 40 CFR Part 63.

## **XII. GLOSSARY**

### **H<sub>2</sub>S**

Hydrogen Sulfide

### **HHV**

Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

### **LHV**

Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60F.

### **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 Act and implemented by District Regulation 2, Rule 6.

### **MOP**

The District's Manual of Procedures

### **MSDS**

Material Safety Data Sheet

### **MW**

Megawatts

### **NA**

Not Applicable

### **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

### **NMOC**

Non-methane Organic Compounds (Same as NMHC)

### **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 Act, and implemented by 40 CFR Part 60 and District Regulation 10.

### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

## **XII. GLOSSARY**

### **O<sub>2</sub>**

The chemical name for naturally-occurring oxygen gas.

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **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**

Total Particulate Matter

### **PM<sub>10</sub>**

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 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.

### **SCR**

A "selective catalytic reduction" unit is an abatement device that reduces NO<sub>x</sub> concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NO<sub>x</sub> compounds to nitrogen gas.

### **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.

### **SO<sub>2</sub>**

Sulfur dioxide

### **SO<sub>2</sub> Bubble**

An SO<sub>2</sub> bubble is an overall cap on the SO<sub>2</sub> emissions from a defined group of sources, or from an entire facility. SO<sub>2</sub> bubbles are sometimes used at refineries because combustion sources are typically fired entirely or in part by "refinery fuel gas" (RFG), a waste gas product from refining operations. Thus, total SO<sub>2</sub> emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H<sub>2</sub>S and other sulfur compounds in the RFG.

### **SO<sub>3</sub>**

Sulfur trioxide

### **THC**

Total Hydrocarbons (NMHC + Methane)

### **therm**

100,000 British Thermal Unit

### **Title V**

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

## XII. GLOSSARY

### TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

### TSP

Total Suspended Particulate

### TVP

True Vapor Pressure

### VOC

Volatile Organic Compounds

#### Units of Measure:

bbl	=	barrel of liquid (42 gallons)
bhp	=	brake-horsepower
btu	=	British Thermal Unit
°C	=	degrees Celsius
°F	=	degrees Fahrenheit
f <sup>3</sup>	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
M	=	thousand
Mg	=	mega-gram, one thousand grams
μg	=	micro-gram, one millionth of a gram
MM	=	million
mm	=	millimeter
MMbtu	=	million btu
mm Hg	=	millimeters of Mercury (pressure)
MW	=	megawatts
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

#### Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to



### XIII. Title IV (Acid Rain) Application

Acid Rain - Page 2

Facility (Source) Name (from STEP 1): Marsh Landing  
Generating Station

#### Permit Requirements

**STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

#### Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).



### XIII. Title IV (Acid Rain) Application

Acid Rain - Page 3

Facility (Source) Name (from STEP 1): Marsh Landing  
Generating Station

#### **Sulfur Dioxide Requirements, Cont'd.**

STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

#### **Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### **Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year

### XIII. Title IV (Acid Rain) Application

Acid Rain - Page 4

Facility (Source) Name (from STEP 1): Marsh Landing  
Generating Station

period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

#### Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

#### Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated

### XIII. Title IV (Acid Rain) Application

Acid Rain - Page 5

Facility (Source) Name (from STEP 1): Marsh Landing Generating Station
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representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

#### Effect on Other Authorities, Cont'd.

STEP 3, Cont'd.

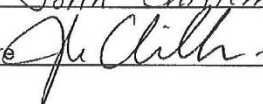
to applicable National Ambient Air Quality Standards or State Implementation Plans;

- (2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

#### Certification

STEP 4  
Read the  
certification  
statement,  
sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	John Chillemi	
Signature		Date
		10/8/10