

Bay Area Air Quality Management District

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

Final

Major Facility Review Permit

Issued To:

Gateway Generating Station, LLC
Facility #B8143

Facility Address:
3225 Wilbur Avenue
Antioch, CA 94509

Mailing Address:
3225 Wilbur Avenue
Antioch, CA 94509

Responsible Official
Alvin Thoma
Director, Fossil Generation
415 973-4466

Facility Contact
David Hammond
Interim Senior Plant Manager
925 522-7805

Type of Facility: Power Plant
Primary SIC: 4911
Product: Generation of Electricity

BAAQMD Engineering Division Contact:
Brian Lusher

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jaime A. Williams
Jaime A. Williams, Director of Engineering

March 28, 2016
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 7/19/06);
- 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 7/19/06);
- 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 adopted by the District Board on 6/15/05);
- BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03), and
- 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 was issued on October 30, 2013, and expires on October 29, 2018. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than April 29, 2018 and no earlier than October 29, 2017. If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after October 29, 2018. If the permit renewal has not been issued by October 29, 2018, 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." This is the "application shield" pursuant to BAAQMD Regulation 2-6-407. (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or

I. Standard Conditions

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

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C. Requirement to Pay Fees

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

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. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

E. Records

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

F. Monitoring Reports

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

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

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

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be September 1st to August 31st. The certification shall be submitted by September 30th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous

I. Standard Conditions

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 above, and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

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

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

H. Emergency Provisions

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

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

J. Miscellaneous Conditions

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

K. Accidental Release

This facility is subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The

I. Standard Conditions

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

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

1. Every year starting January 30, 2000, the permit holder shall hold one sulfur dioxide allowance on March 1 (February 29th during a 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 O₂ and NO_x shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (Regulation 2-7, Acid Rain)
3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO_x which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO₂ emissions in accordance with 40 CFR Part 72 and 75. (Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for S-41 and S-43, Turbines, and S-42 and S-44, Heat Recovery Steam Generators. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

II. EQUIPMENT

Table II A – Permitted Sources

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

S-#	Description	Make or Type	Model	Capacity
41	Gas Turbine (natural gas), 175 MW nominal	General Electric	Frame 7FA.03 (Model PG 7231)	1,970 MM BTU/hr (HHV), 2,227 MMBTU/hr combined with S-42.
42	Heat Recovery Steam Generator (natural gas), 90 MW nominal		Coen Model # 40D-13762-1-000	395 MM BTU/hr (HHV)
43	Gas Turbine (natural gas), 175 MW nominal	General Electric	Frame 7FA.03 (Model PG 7231)	1,970 MM BTU/hr (HHV), 2,227 MMBTU/hr combined with S-44.
44	Heat Recovery Steam Generator (natural gas), 90 MW nominal		Coen Model # 40D-13762-1-000	395 MM BTU/hr (HHV)
47	Diesel Fire Pump Engine	Deere Power Systems	JW6H-UFADF0	311 bhp 2.3 MMBTU/hr (HHV) 549 cubic inch displacement

II. Equipment

Table II B – Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
11	Selective Catalytic Reduction System	S-41, S-42	BAAQMD Condition #16676, part 21b	None	2.5 ppmv NO _x @ 15% O ₂ , dry, 1-hr average (Condition No. 18138, Part 20) 2.0 ppmv NO _x @ 15% O ₂ , dry 1-hr average (Condition No. 18138, CD-1)
12	Oxidation Catalyst	S-41, S-42	BAAQMD Condition #16676, part 21d	None	6 ppmv CO @ 15% O ₂ , dry, 3-hr average
13	Selective Catalytic Reduction System	S-43, S-44	BAAQMD Condition #16676, part 21b	None	2.5 ppmv NO _x @ 15% O ₂ , dry, 1-hr average (Condition No. 18138, Part 20) 2.0 ppmv NO _x @ 15% O ₂ , dry 1-hr average (Condition No. 18138, CD-1)
14	Oxidation Catalyst	S-43, S-44	BAAQMD Condition #16676, part 21d	None	6 ppmv CO @ 15% O ₂ , dry, 3-hr average

III. GENERALLY APPLICABLE REQUIREMENTS

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

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 the significant source would need to be included in the Title V permit.

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

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

The full language of SIP requirements is on EPA Region 9's 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 the rule until US EPA has reviewed and approved the District's revision of the regulation.

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (7/19/06)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (7/19/06)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	Y
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 3	Permits, Power Plants (12/19/79)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/21/04)	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (01/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (6/15/05)	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 2, Rule 9	Permits, Interchangeable Emission Reduction Credits (6/15/05)	N
BAAQMD Regulation 3	Fees	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (3/6/02)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odororous 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 (11/21/01)	Y
BAAQMD Regulation 8, Rule 4	Organic Compounds – General Solvent and Surface Coating Operations (10/16/02)	Y

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
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
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 Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (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 7	Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	Y
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 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Title 17, Section 93115 et seq.	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/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
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (03/12/04)	Y
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required Practices (04/13/05)	Y
Subpart F, 40 CFR 82.161	Recycling and Emissions Reductions – Technician Certification (04/13/05)	Y
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and Recordkeeping Provisions (04/13/05)	Y
40 CFR Part 82, Subpart H	Protection of Stratospheric Ozone; Halon Emissions Reduction (03/05/98)	Y
Title 40 Part 82 Subpart H 82.270(b)	Prohibitions, Halon (03/05/98)	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 parentheses 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 each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is on EPA Region 9's 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.

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (7/9/08)		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NO _x , CO ₂ , or O ₂	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
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	
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	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
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	
BAAQMD Regulation 2, Rule 1	Regulation 2, Rule 1 - Permits, General Requirements (7/19/06)		

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
2-1-501	Monitors	Y	
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-304	Tube Cleaning (HRSG Only)	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-310.3	Heat Transfer Operations (HRSG Only)	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning (HRSG Only)	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 3	Inorganic Gaseous Pollutants, Nitrogen Oxides From Heat Transfer Operations (3/17/82)		
9-3-303	New or Modified Heat Transfer Operation Limits	N	
BAAQMD Regulation 9, Rule 9	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/6/06)		
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-9-301.1.3	Emission Limits- Turbines Rated \geq 10 MW w/SCR	N	
9-9-301.2	Emission Limits, General	N	
9-9-401	Certification, Efficiency	N	
9-9-501	Monitoring and recordkeeping requirements	N	
SIP Regulation 9 Rule 9	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/97)		
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 greater than 10 MW with SCR, NO _x less than 9 ppmv (dry, 15% O ₂)	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
BAAQMD Regulation 10 Subpart GG	NSPS Incorporation by Reference, Stationary Gas Turbines (2/16/2000)		
10-40.	Subpart GG - Standards of Performance For Stationary Gas Turbines	Y	
BAAQMD Manual of Procedures, Volume V	Continuous Emission Monitoring Policy and Procedures (1/20/82)	Y	
40 CFR Part 60 Subpart A	Standards of Performance for New Stationary Sources – General Provisions (1/28/09)	Y	
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards in this part	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
40 CFR Part	Standards of Performance for Electric Utility Steam Generating	Y	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60 Subpart Da	Units for Which Construction Is Commenced after September 18, 1978 (1/28/09)		
60.40Da	Applicability and designation of affected facility		
60.40Da(a)(1)	Applicable to electric steam generating units that are capable of combusting more than 250 MMBth/hour heat input.		
60.40Da(a)(2)	For which construction, modification, or reconstruction is commenced after 9/18/78.		
60.40Da(e)(2)	For heat recovery steam generators use with duct burners subject to this subpart, only emissions resulting from the combustion of fuels in the steam generating unit (i.e. duct burners) are subject to the standards under this subpart.		
60.42Da	Standard for particulate matter (PM)		
60.42Da(a)(1)	Particulate Limit	Y	
60.42Da(b)	Opacity Limit	Y	
60.43Da	Standard for Sulfur Dioxide (SO ₂)		
60.43Da(b)(2)	SO ₂ limit	Y	
60.43Da(g)	Averaging 30-day rolling average (24-hour for Bay Area)	Y	
60.44Da	Standard for nitrogen oxides (NO _x)		
60.44Da(a)(1)	NO _x limit 0.2 lb/MMBtu	Y	
60.44Da(a)(2)	NO _x reduction requirement of 25% for gaseous fuels	Y	
60.44Da(d)(1)	NO _x limit-1.6 lbs/MW-hr	Y	
60.48Da	Compliance provisions	Y	
60.48Da(j)	Compliance provisions for duct burners subject to Section 60.44Da(a)(1)	Y	
60.48Da(k)	Compliance provisions for duct burners subject to Section 60.44Da(d)(1)	Y	
60.48Da(q)	Compliance provisions for sources subject to 60.42Da(b)	Y	
60.49Da	Emission monitoring	Y	
60.49Da(a)	Opacity monitoring ¹	Y	

¹ The EPA has recently promulgated changes to Subpart Da in direct final rule action (Federal Register, January 20, 2011) allowing the permitting authority to exempt owners/operators of affected facilities burning only natural gas from the opacity monitoring requirements contained in 60.49Da(a)(3). The District is exempting the facility from the opacity monitoring requirement contained in 60.49Da(a)(3).

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Table IV – A
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.49Da(c)	NO _x CEMs	Y	
60.49Da(k)	MW output monitoring	Y	
60.49Da(n)	Fuel flow monitoring	Y	
60.49Da(o)	Duct burners not required to install CEM for NO _x , wattmeter for MW, gauges for steam flow and pressure, and continuous flow monitoring system.	Y	
60.49Da(s)	Unit specific monitoring plan for each monitoring system.	Y	
60.50Da	Compliance determination procedures and methods	Y	
60.51Da	Reporting Requirements	Y	
60.51Da(f)	For any periods for which NO _x emissions data are unavailable	Y	
60.51Da(h)	Signed Statement indicating CEM quality assurance requirements have been performed, data used to show compliance obtained in accordance with approved methods and procedures, minimum data requirements met, compliance with standards achieved during reporting period.	Y	
60.51Da(i)	Opacity exceedances	Y	
60.51Da(j)	Semiannual reports	Y	
60.52Da	Recordkeeping Requirements	Y	
60.52Da(b)	Opacity recordkeeping		
40 CFR Part 60 Subpart GG	Standards of Performance for Stationary Gas Turbines (2/24/06)		
60.332	Standard for nitrogen oxides		
60.332(a)(1)	NO _x limit	Y	
60.333	Standard for sulfur dioxide	Y	
60.333(a)	SO ₂ Concentration < 0.015 percent @ 15% O ₂ (Turbine Only)	Y	
60.333(b)	Fuel Sulfur Content cannot exceed 0.8 percent by weight (Turbine Only)	Y	
60.334	Monitoring of operations	Y	
60.334(c)	NO _x CEMs	Y	
60.334(h)(3)	Exemption from sulfur fuel monitoring requirements (Natural Gas)	Y	
60.334(j)(1)(iii)	NO _x Excess Emissions and Monitor Downtime reporting requirements	Y	
60.335	Test Methods and Procedures	Y	

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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 60, Appendix B	Performance Specifications	Y	
Performance Specification 2	Specifications and test procedures for SO ₂ and NO _x continuous emission monitoring systems in stationary sources	Y	
Performance Specification 3	Specifications and test procedures for O ₂ and CO ₂ continuous emission monitoring systems	Y	
40 CFR Part 60, Appendix F	Quality Assurance Procedures		
Procedure 1	Quality assurance requirements for gas continuous emission monitoring systems used for compliance determination	Y	
40 CFR Part 72	Title IV – Acid Rain Program	Y	
	Subpart A – Acid Rain Program General Requirements		
72.6	Applicability	Y	
72.6(a)(3)	New utility unit (at the time of commencement of commercial operation)	Y	
72.9	Standard Requirements	Y	
72.9(a)	Permit Requirements	Y	
72.9(a)(1)(i)	Submittal of a complete acid rain permit application	Y	
72.9(a)(1)(iii)	Submittal of information in a timely manner	Y	
72.9(a)(2)(i)	Operation in compliance with Acid Rain permit	Y	
72.9(a)(2)(ii)	Have an Acid Rain Permit	Y	
72.9(b)	Monitoring Requirements	Y	
72.9(c)	Sulfur Dioxide Requirements	Y	
72.9(c)(1)	Requirement to hold allowances as of allowance transfer deadline	Y	
72.9(c)(2)	Each ton of excess SO ₂ emissions is a separate violation of the CAA	Y	
72.9(c)(3)	Initial deadline to hold allowances	Y	
72.9(c)(3)(iv)	Deadline at time of monitor certification	Y	
72.9(c)(4)	Use of Allowance Tracking System	Y	
72.9(c)(5)	Allowances may not be deducted prior to year for which allowance was allocated	Y	

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Table IV – A
Source-specific Applicable Requirements
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
72.9(c)(6)	Limited authorization	Y	
72.9(e)	Excess emissions requirements	Y	
72.9(f)	Recordkeeping and Reporting Requirements	Y	
72.9(g)	Liability	Y	
72.9(h)	Effect on Other Authorities	Y	
	Subpart C – Acid Rain Permit Applications		
72.30(a)	Requirement to apply	Y	
72.30(c)	Duty to reapply. Requirement to submit complete acid rain application 6 months prior to expiration of current acid rain permit.	Y	
72.31	Information requirements for Acid Rain permit applications	Y	
72.31(a)	Identification of affected source	Y	
72.31(b)	Identification of each affected emissions unit	Y	
72.31(c)	Complete compliance plan	Y	
72.31(d)	Standard requirements under 40 CFR 72.9	Y	
72.31(e)	If the Acid Rain permit application is for Phase II and the unit is a new unit, the date that the unit has commenced or will commence operation and the deadline for monitor certification.	Y	
72.32	Permit application shield and binding effect of permit application	Y	
	Subpart E – Acid Rain Permit Contents		
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	
40 CFR Part 75	Code of Federal Regulations, Continuous Emissions Monitoring	Y	
	Subpart A – General	Y	
75.2	Applicability	Y	
75.2(a)	Applicability to affected units subject to Acid Rain emission limitations	Y	

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Table IV – A
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.2(c)	The provisions of this part apply to sources subject to a State or federal NO _x mass emission reduction program, to the extent these provisions are adopted as requirements under such a program	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 ₂ , NO _x , CO ₂ , 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)	The earlier of 90 unit operating days or 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	Y	
75.10	General Operating Requirements	Y	
75.10(a)	Primary Measurement Requirement	Y	
75.10(a)(1)	SO ₂ Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NO _x Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO ₂ Emissions	Y	
75.10(a)(3)(ii)	CO ₂ Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	Y	
75.10(b)	Primary Equipment Performance Requirements Requires each CEM to meet equipment, installation, and performance specifications in part 75, Appendix A and quality assurance/quality control requirements in part 75 Appendix B.	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	

IV. Source-specific Applicable Requirements

Table IV – A
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.10(f)	Minimum measurement capability requirement	Y	
75.10(g)	Minimum recording and recordkeeping requirements	Y	
75.11	Specific provisions for monitoring SO ₂ emissions	Y	
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO ₂ Emissions Data Protocol for Gas-Fired and Oil-Fired Units to monitor SO ₂ emissions.	Y	
75.12	Specific provisions for monitoring NO _x emission rates	Y	
75.12(a)	NO _x continuous emission monitor and diluent monitoring requirement	Y	
75.12(c)	NO _x mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO ₂ emissions	Y	
75.13(b)	Determination of CO ₂ 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	Y	
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	
75.22	Reference test methods	Y	
75.24	Out-of-control periods and adjustment for system bias	Y	
	Subpart D – Missing Data Substitution Procedures	Y	
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	

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Table IV – A
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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, NO, Hg, and flow rate	Y	
75.33(a)	Following initial certification and after following initial missing data procedures for 2,160 quality assured operating hours for NO _x 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 _x emission rate and NO _x concentration data	Y	
75.34	Units with add-on emission controls	Y	
75.35	Missing data procedures for CO ₂	Y	
75.36	Missing data procedures for heat input rate determinations	Y	
	Subpart F – Recordkeeping Requirements	Y	
75.53	Monitoring plan	Y	
75.53(a)	General provisions	Y	
75.53(b)	Updates to monitoring plan	Y	
75.53(e)	Contents of monitoring plan	Y	
75.53(f)	Contents of monitoring plan for specific situations	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 ₂ emission record provisions	Y	
75.57(d)	NO _x emission record provisions	Y	
75.57(e)	CO ₂ emission record provisions	Y	
75.57(g)	Diluent record provisions	Y	
75.57(h)	Missing data records	Y	
75.58	General recordkeeping provisions for specific situations	Y	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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 ₂ 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 ₂ 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)	Excepted 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 ₂ or NO _x emission controls following the provisions of §75.34(a)(1) or (a)(2), and for units with add-on Hg emission controls, 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(f)	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	Y	
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	

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.66	Petitions to the administrator	Y	
BAAQMD Condition #18138			
Definitions	Definitions	Y	
part 13	Requirement to exclusively combust natural gas (BACT for SO ₂ and PM ₁₀)	Y	
part 14	Hourly heat input limit (PSD for NO _x)	Y	
part 15	Daily heat input limit (PSD for PM ₁₀)	Y	
part 16	Annual heat input limit (Offsets)	Y	
part 17	Duct burners shall not be fired unless turbines are in operation (BACT for NO _x)	Y	
part 18	SCR requirement for S-41 (BACT for NO _x)	Y	
part 19	SCR requirement for S-43 (BACT for NO _x)	Y	
part 20	Emission limits (BACT, PSD, and Toxic Risk Management Policy)	Y	
part 20a	Hourly and heat-input rate NO _x limits (PSD for NO _x)	Y	
part 20b	NO _x concentration limit (BACT for NO _x)	Y	
part 20c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 20d	CO concentration limit (BACT for CO)	Y	
part 20e	Ammonia concentration limit and monitoring (Regulation 2, Rule 5 for NH ₃)	N	
part 20f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 20g	Hourly and heat-input rate SO ₂ limits (BACT for SO ₂)	Y	
part 20h	Hourly and heat-input rate PM ₁₀ limits (BACT for PM ₁₀)	Y	
part 21	Limits during startup, shutdown, steam turbine cold start-up, or combustor tuning (PSD)	Y	
part 22	Turbines may not be in startup mode simultaneously	Y	
part 23	Facility daily emission limits (CEQA, PSD, BACT)	Y	
part 24	Facility annual heat input limit (Offsets)	Y	
part 25	Toxic air contaminant and HAP annual emission limits (Regulation 2, Rule 5)	N	
part 26	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	

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Table IV – A
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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 27	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 28	Calculation of emissions and recordkeeping for toxic air contaminants (Regulation 2, Rule 5)	N	
part 29	Ammonia source test requirements (Regulation 2, Rule 5)	N	
part 30	Source to assure compliance with part 20(a), (b), (c),(d), (f), (g) and (h) (BACT, offsets)	Y	
part 31	District review of source test procedures (BACT)	Y	
part 32	Initial and biennial source tests for toxic air contaminants (Regulation 2, Rule 5)	N	
part 33	Submittal of reports (2-6-502)	Y	
part 34	Retention of records for five years (2-6-502)	Y	
part 35	Notification of violations to District (2-1-403)	Y	
part 36	Stack heights (PSD, Regulation 2, Rule 5)	Y	
part 37	Sampling ports and platforms (1-501)	Y	
part 38	Contact technical services regarding requirements for continuous monitors, sampling ports, platforms, and source tests. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures (1-501)	Y	
part 39	Prior to Authority to Construct issuance, the owner/operator shall demonstrate that adequate ERCs are under their control (Offsets)	Y	
part 40	Prior to start of construction, the owner/operator shall provide adequate ERCs for the project. (Offsets)	Y	
part 41	Submit Title V application prior to commencing operation. (2-6-404.3)	Y	
part 42	Owner/operator shall not operate until a Title IV operating permit has been issued, or 24 months after a Title IV operating permit application has been submitted.	Y	
part 43	Comply with the continuous emission monitoring requirements of 40 CFR Part 75. (Regulation 2, Rule 7)	Y	
part 44	Monthly sampling requirement for sulfur content of the natural gas being combusted at the facility.	Y	
CD-1	NOx and PM emission limits (Basis: Consent Decree)	Y	
CD-1(a)	NOx concentration limit of 2.0 ppmv, dry, @ 15% O2, averaged over any 1-hour period	Y	

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S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
CD-1(b)	PM10 emission limit of 7.5 lb/hour (no duct burner in operation) PM10 emission limit of 9.0 lb/hour (duct burner in operation)	Y	
CD-2	NOx limit contained in CD-1 does not apply during start-up mode and during shutdown mode. (Basis: Consent Decree)	Y	
CD-3	Cumulative emission limits for S-41, 42, 43, 44 for NOx and SO2. (Basis: Consent Decree)	Y	
CD-4	Gas turbines (S-41, S-43) and HRSG duct burners (S-42, S-44) shall be fired exclusively on natural gas with a maximum sulfur content no greater than 1 grain/100 scf. (Basis: Consent Decree)	Y	
AM-1	Ammonia Slip Compliance Assurance Monitoring Condition (Basis: 2-1-403)	N	

IV. Source-specific Applicable Requirements

**Table IV- B
 Source-specific Applicable Requirements
 S-47, FIRE PUMP DIESEL ENGINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)		
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	
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-303	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
BAAQMD Regulation 9, Rule 8	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Engines (7/25/07)		
9-8-110	Exemptions		
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	
9-8-530	Emergency standby engines, monitoring and recordkeeping	N	
40 CFR Part 60 Subpart A	Standards of Performance for New Stationary Sources – General Provisions (1/28/09)	Y	
60.7	Notification and Recordkeeping	Y	

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Table IV- B
Source-specific Applicable Requirements
S-47, FIRE PUMP DIESEL ENGINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards in this part	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
40 CFR Part 60 Subpart III	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines		
60.4200	Am I subject to this subpart?	Y	
60.4200(a)(2)(ii)	Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.	Y	
60.4205(c)	Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.	Y	
60.4206	Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.	Y	
60.4207	Fuel sulfur requirements	Y	
60.4211(a)	Owner/operators that must comply with emission standards specified in this subpart, you must do all of the following, except as permitted under (g) of this section: (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (2) Change only those emission-related settings that are permitted by the manufacturer; and (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.	Y	
60.4211(c)	Requirement to purchase a certified fire pump engine that meets emissions limitations in 60.4205(c). The engine must be installed and configured according to manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.	Y	
60.4211(f)	Limitation of maintenance checks and readiness testing to 100 hour per year for emergency stationary ICE.	Y	

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Table IV- B
Source-specific Applicable Requirements
S-47, FIRE PUMP DIESEL ENGINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
62.4211(g)	Demonstrating compliance if the owner/operator does not configure, operate, and maintain the engine according to the manufacturer's instructions.	Y	
60.4214	Notification, reporting, and recordkeeping requirements.	Y	
60.4214(b)	Emergency engines are not required to submit an initial notification.	Y	
40 CFR Part 63 Subpart A	National Emissions Standards for Hazardous Air Pollutants for Source Categories, Subpart A – General Provisions		
63.1	General Applicability of the General Provisions	Y	
63.2	Definitions	Y	
63.3	Units and Abbreviations	Y	
63.4	Prohibited activities and circumvention	Y	
63.6(a)	Compliance with standards and maintenance requirements - Applicability	Y	
63.6(c)	Compliance dates for existing sources	Y	
63.6(f)(2)	Methods for determining compliance	Y	
63.6(f)(3)	Finding of compliance	Y	
63.6(g)	Use of an alternative nonopacity emission standard	Y	
63.6(i)	Compliance extension procedures and criteria	Y	
63.6(j)	Presidential compliance exemption	Y	
63.10(a)	Recordkeeping and reporting requirements, applicability and general information	Y	
63.10(b)(1)	Record retention	Y	
63.10(f)	Administrator waiver of recordkeeping or reporting requirements	Y	
63.12	State authority and delegations	Y	
63.13	Addresses of air pollution control agencies and EPA Regional Offices	Y	
63.14	Incorporation by reference	Y	
63.15	Availability of information and confidentiality	Y	
40 CFR Part 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)		
63.6585	Applicability		
63.6585(a)	Applicable to Stationary RICE		
63.6585(c)	Applicable to Area Source of HAPs		

IV. Source-specific Applicable Requirements

**Table IV- B
 Source-specific Applicable Requirements
 S-47, FIRE PUMP DIESEL ENGINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
63.6590(a)(2)(iii)	A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.	Y	
63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.		
63.6590(c)(1)	A new or reconstructed stationary RICE located at an area source (HAP);		
Section 93115, title 17, CCR	Airborne Toxic Control Measure for Stationary Compression Ignition Engines		
93115.5(b)	Fuel Requirements	N	
93115.6(b)(3)(A)	PM Emission Standards & Maximum Hours of Operation for Maintenance and Testing	N	
93115.6(b)(3)(B)	Applicable Emissions Standards for HC, NO _x , NMHC+NO _x , and CO	N	
93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
93115.10(a)	Reporting	N	
93115.10(c)	Demonstration of Compliance with Emission Limits	N	
93115.10(e)	Monitoring Equipment	N	
93115.10(g)	Monthly Log: Data Required	N	
93115.10(g).	Data Log Retention	N	
93115.12	Tiered Compliance Schedule	N	
BAAQMD Condition #25057			
part 1	50 hours/year for maintenance and testing. (Stationary Diesel Engine ATCM" section 93115, title 17 CCR)	N	
part 2	Unlimited Emergency Use, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR)	N	

IV. Source-specific Applicable Requirements

**Table IV- B
 Source-specific Applicable Requirements
 S-47, FIRE PUMP DIESEL ENGINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 3	Totalizing Meter, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR)	N	
part 4	Recordkeeping, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR, Regulation 2-6-501)	N	
part 5	Near School Conditions, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR)	N	
part 6	Owner/operator shall use the latest Tier level engine at the time of permit issuance for the diesel fire pump. (BACT)	N	

V. SCHEDULE OF COMPLIANCE

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

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Condition No. 18138 regulates the gas turbines and HRSGs and contains annual emission limits for the gas turbines and HRSGs and the diesel fire pump.

COND# 18138 -----

Gateway Generating Station Permit Conditions

5/7/02 Revised Conditions 6 and 47

9/13/11 Revised Conditions to be consistent with
CEC license amendments (August 2009 and Sept. 2011)
and to incorporate the approved consent decree
requirements (Civil Action No. 09-4503 SI)

Definitions:

1-hour period:

Any continuous 60-minute period beginning on the hour.

Calendar Day:

Any continuous 24-hour period beginning at 12:00 AM or 0000
hours.

Year:

Any consecutive twelve-month period of time.

Heat Input:

All heat inputs refer to the heat input at the higher
heating value (HHV) of the fuel, in Btu/scf.

Rolling 3-hour period:

Any three-hour period that begins on the hour and does not
include start-up or shutdown periods.

Firing Hours:

Period of time during which fuel is flowing to a unit,
measured in fifteen-minute increments.

MM Btu:

million British thermal units.

Gas Turbine Start-up Mode:

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The lesser of the first 256 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 20(b) and 20(d).

Gas Turbine Shutdown Mode:

The lesser of the 30 minute period immediately prior to the termination of fuel flow to the Gas Turbine or the period of time from non-compliance with any requirement listed in Conditions 20(b) and 20(d) until termination of fuel flow to the Gas Turbine.

Specified PAHs:

The polycyclic aromatic hydrocarbons listed below shall be considered to Specified PAHs for these permit conditions. Any emission limits for Specified PAHs refer to the sum of the emissions for all six of the following compounds.

Benzo[a]anthracene
Benzo[b]fluoranthene
Benzo[k]fluoranthene
Benzo[a]pyrene
Dibenzo[a,h]anthracene
Indeno[1,2,3-cd]pyrene

Corrected Concentration:

The concentration of any pollutant (generally NO_x, CO, or NH₃) corrected to a standard stack gas oxygen concentration. For emission point P-11 (combined exhaust of S-41 Gas Turbine and S-42 HRSG duct burners) and emission point P-12 (combined exhaust of S-43 Gas Turbine and S-44 HRSG duct burners) the standard stack gas oxygen concentration is 15% O₂ by volume on a dry basis.

Commissioning Activities:

All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the GGS construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, and associated electrical delivery systems.

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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, and is available for commercial operation.

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.

GGS:

Gateway Generating Station.

Conditions for the Commissioning Period

1. The owner/operator of the GGS shall minimize emissions of carbon monoxide and nitrogen oxides from S-41 and S-43 Gas Turbines and S-42 and S-44 Heat Recovery Steam Generators (HRSGs) to the maximum extent possible during the commissioning period. Conditions 1 through 12 shall only apply during the commissioning period as defined above. Unless otherwise indicated, Conditions 13 through 44 shall apply after the commissioning period has ended.
2. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the S-41 & S-43 Gas Turbine combustors and S-42 & S-44 Heat Recovery Steam Generator duct burners shall be tuned to minimize the emissions of carbon monoxide and nitrogen oxides.
3. At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturers and the construction

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contractor, the A-11 and A-13 SCR Systems and A-12 and A-14 CO Oxidation Catalyst Systems shall be installed, adjusted, and operated to minimize the emissions of carbon monoxide and nitrogen oxides from S-41 & S-43 Gas Turbines and S-42 & S-44 Heat Recovery Steam Generators.

4. Coincident with the as designed operation of A-11 & A-13 SCR Systems, pursuant to conditions 3, 10, 11, and 12, the Gas Turbines (S-41 & S-43) and the HRSGs (S-42 & S-44) shall comply with the NO_x and CO emission limitations specified in conditions 20(a) through 20(d).
5. The owner/operator of the GGS shall submit a plan to the District Permit Services Division and the CEC CPM at least four weeks prior to first firing of S-41 or S-43 Gas Turbines describing the procedures to be followed during the commissioning of the gas turbines and HRSGs. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the Dry-Low-NO_x combustors, the installation and operation of the SCR systems and oxidation catalysts, the installation, calibration, and testing of the CO and NO_x continuous emission monitors, and any activities requiring the firing of the Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44) without abatement by their respective SCR and CO Catalyst Systems.
6. During the commissioning period, the owner/operator of the GGS shall demonstrate compliance with conditions 8 through 11 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters:
 - firing hours for each gas turbine and each HRSG

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- fuel flow rates to each train
- stack gas nitrogen oxide emission concentrations at P-11 and P-12
- stack gas carbon monoxide emission concentrations P-11 and P-12
- stack gas carbon dioxide or oxygen concentrations P-11 and P-12

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44). The owner/operator shall use District-approved methods to calculate heat input rates, NO_x mass emission rates, carbon monoxide mass emission rates, and NO_x and CO emission concentrations, summarized for each clock hour and each calendar day. All records shall be retained on site for at least 5 years from the date of entry and made available to District personnel upon request.

7. The District-approved continuous emission monitors specified in condition 6 shall be installed, calibrated, and operational prior to first firing of the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44). After first firing of the turbines, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the resulting range of CO and NO_x emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval.
8. The total number of firing hours of S-41 Gas Turbine and S-42 Heat Recovery Steam Generator without abatement of nitrogen oxide emissions by A-11 SCR System and/or A-12 Oxidation Catalyst System shall not exceed 500 hours during the commissioning period. Such operation of S-41 Gas Turbine and S-42 HRSG

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without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 500 firing hours without abatement shall expire.

9. The total number of firing hours of S-43 Gas Turbine and S-44 Heat Recovery Steam Generator without abatement of nitrogen oxide emissions by A-13 SCR System and/or A-14 Oxidation Catalyst System shall not exceed 500 hours during the commissioning period. Such operation of S-43 Gas Turbine and S-44 HRSG without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 500 firing hours without abatement shall expire.
10. The total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM10, and sulfur dioxide that are emitted by the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44) during the commissioning period shall accrue towards the consecutive twelve-month emission limitations specified in condition 24.
11. Combined pollutant mass emissions from the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44) shall not exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the Gas Turbines (S-41 & S-43).

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Pollutant	Daily Mass Limit (lb/calendar day)	Maximum Hourly (lb/hour)
NOx(as NO2)	8,400	400
CO	13,000	584
POC(as CH4)	535	
PM10	624	
SO2	297	

12. Prior to the end of the Commissioning Period, the Owner/Operator shall conduct a District and CEC approved source test using external continuous emission monitors to determine compliance with condition 21. The source test shall determine NOx, CO, and POC emissions during start-up and shutdown of the gas turbines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start-up and three shutdown periods. No later than twenty working days before the execution of the source tests, the Owner/Operator shall submit to the District and the CEC Compliance Program Manager (CPM) a detailed source test plan designed to satisfy the requirements of this condition. The District and the CEC CPM will notify the Owner/Operator of any necessary modifications to the plan within 20 working days of receipt of the plan; otherwise, the plan shall be deemed approved. The Owner/Operator shall incorporate the District and CEC CPM comments into the test plan. The Owner/Operator shall notify the District and the CEC CPM within seven (7) working days prior to the planned source testing date. Source test results shall be submitted to the District and the CEC CPM within 30 days of the source testing date.

Conditions for the Gas Turbines (S-41 & S-43) and the Heat Recovery Steam Generators (HRSGs; S-42 & S-44)

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13. The Gas Turbines (S-41 and S-43) and HRSG Duct Burners (S-42 and S-44) shall be fired exclusively on natural gas. (BACT for SO₂ and PM₁₀)
14. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-41 & S-42 and S-43 & S-44) shall not exceed 2,227 MM Btu per hour, averaged over any rolling 3-hour period. (PSD for NO_x)
15. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-41 & S-42 and S-43 & S-44) shall not exceed 49,950 MM Btu per calendar day. (PSD for PM₁₀)
16. The combined cumulative heat input rate for the Gas Turbines (S-41 & S-43) and the HRSGs (S-42 & S-44) shall not exceed 34,900,000 MM Btu per year. (Offsets)
17. The HRSG duct burners (S-42 and S-44) shall not be fired unless its associated Gas Turbine (S-41 and S-43, respectively) is in operation. (BACT for NO_x)
18. Except as provided in Condition No. 8, S-41 Gas Turbine and S-42 HRSG shall be abated by the properly operated and properly maintained A-11 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-11 catalyst bed has reached minimum operating temperature. (BACT for NO_x)
19. Except as provided in Condition No. 9, S-43 Gas Turbine and S-44 HRSG shall be abated by the properly operated and properly maintained A-13 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-13 catalyst bed has reached minimum operating temperature. (BACT

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for NO_x)

20. The Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44) shall comply with requirements (a) through (h) under all operating scenarios, including duct burner firing mode. Requirements (a) through (h) do not apply during a gas turbine start-up or shutdown. (BACT, PSD, and Toxic Risk Management Policy)
- a. Nitrogen oxide mass emissions (calculated in accordance with District approved methods as NO₂) at P-11 (the combined exhaust point for the S-41 Gas Turbine and the S-42 HRSG after abatement by A-11 SCR System) shall not exceed 20 pounds per hour or 0.0090 lb./MM Btu (HHV) of natural gas fired. Nitrogen oxide mass emissions (calculated in accordance with District approved methods as NO₂) at P-12 (the combined exhaust point for the S-43 Gas Turbine and the S-44 HRSG after abatement by A-13 SCR System) shall not exceed 20 pounds per hour or 0.0090 lb./MM Btu (HHV) of natural gas fired. (PSD for NO_x)
 - b. The nitrogen oxide emission concentration at emission points P-11 and P-12 each shall not exceed 2.5 ppmv, on a dry basis, corrected to 15% O₂, averaged over any 1-hour period. (BACT for NO_x)
 - c. Carbon monoxide mass emissions at P-11 and P-12 each shall not exceed 0.013 lb./MM Btu (HHV) of natural gas fired or 29.22 pounds per hour, averaged over any rolling 3-hour period. (PSD for CO)
 - d. The carbon monoxide emission concentration at P-11 and P-12 each shall not exceed 6 ppmv, on a dry basis, corrected to 15% O₂, averaged over any rolling 3-hour period. (BACT for CO)

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- e. Ammonia (NH₃) emission concentrations at P-11 and P-12 each shall not exceed 5 ppmv, on a dry basis, corrected to 15% O₂, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to A-11 and A-13 SCR Systems. The correlation between the gas turbine and HRSG heat input rates, A-11 and A-13 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-11 and P-12 shall be determined in accordance with permit condition #29. (Regulation 2, Rule 5 for NH₃)
 - f. Precursor organic compound (POC) mass emissions (as CH₄) at P-11 and P-12 each shall not exceed 5.6 pounds per hour or 0.0025 lb./MM Btu of natural gas fired. (BACT)
 - g. Sulfur dioxide (SO₂) mass emissions at P-11 and P-12 each shall not exceed 6.18 pounds per hour or 0.0028 lb./MM Btu of natural gas fired. (BACT)
 - h. Particulate matter (PM₁₀) mass emissions at P-11 and P-12 each shall not exceed 11 pounds per hour or 0.00588 lb./MM Btu of natural gas fired when the HRSG duct burners are not in operation. Particulate matter (PM₁₀) mass emissions at P-11 and P-12 each shall not exceed 13 pounds per hour or 0.00584 lb./MM Btu of natural gas fired when the HRSG duct burners are in operation. (BACT)
21. The regulated air pollutant mass emission rates from each of the Gas Turbines (S-41 and S-43) during a start-up or a shutdown shall not exceed the limits established below.

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(PSD)

Pollutant	Cold Start-Up (lb/start-up)	Hot Start-Up (lb/start-up)	Shutdown (lb/shutdown)
Oxides of Nitrogen (as NO ₂)	452	189	59
Carbon Monoxide (CO)	990	291	73
Precursor Organic Compounds (as CH ₄)	109	26	6

22. The Gas Turbines (S-41 and S-43) shall not be in start-up mode simultaneously. (PSD)

23. Total combined emissions from the Gas Turbines and HRSGs (S-41, S-42, S-43, and S-44), including emissions generated during Gas Turbine start-ups and shutdowns shall not exceed the following limits during any calendar day:

- a. 1,994 pounds of NO_x (as NO₂) per day (CEQA)
- b. 3,602 pounds of CO per day (PSD)
- c. 468 pounds of POC (as CH₄) per day (CEQA)
- d. 624 pounds of PM₁₀ per day (PSD)
- e. 297 pounds of SO₂ per day (BACT)

24. Cumulative combined emissions from the Gas Turbines and HRSGs (S-41, S-42, S-43, and S-44) and the Diesel Fire Pump Engine (S-47), including emissions generated during gas turbine start-ups and shutdowns shall not exceed the following limits during any consecutive twelve-month period:

- a. 174.3 tons of NO_x (as NO₂) per year

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(Offsets, PSD)

- b. 259.1 tons of CO per year (Cumulative Increase)
- c. 46.6 tons of POC (as CH₄) per year (Offsets)
- d. 105 tons of PM₁₀ per year (Offsets, PSD)
- e. 48.5 tons of SO₂ per year (Cumulative Increase)

25. Toxic and HAP Emission Limits

25.1 The maximum projected annual toxic air contaminant emissions (per condition 28) from the Gas Turbines and HRSGs combined (S-41, S-42, S-43, and S-44) shall not exceed the following limits:

- 4,102 pounds of formaldehyde per year
- 506 pounds of benzene per year
- 38 pounds of specified polycyclic aromatic hydrocarbons (PAHs) per year

unless the following requirement is satisfied:

The owner/operator shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This risk analysis shall be submitted to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will result in a cancer risk of not more than 1.0 in one million, the District and the CEC CPM may, at

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their discretion, adjust the carcinogenic compound emission limits listed above. (Regulation 2, Rule 5)

25.2 The maximum projected annual Hazardous Air Pollutant (HAP) emissions from the Gas Turbines And HRSGs combined (S-41, S-42, S-43, and S-44) shall not exceed the following limit:

20,000 pounds of hexane per year
(US-CAA, Section 112(g))

Conformance with this limit shall be verified by the source testing in condition 32.

26. The owner/operator shall demonstrate compliance with conditions 14 through 17, 20(a) through 20(d), 21, 23(a), 23(b), 24(a), and 24(b) by using properly operated and maintained continuous monitors (during all hours of operation including equipment Start-up and Shutdown periods) for all of the following parameters:

- a. Firing Hours and Fuel Flow Rates for each of the following sources: S-41 & S-42 combined and S-43 & S-44 combined.
- b. Carbon Dioxide (CO₂) or Oxygen (O₂) concentrations, Nitrogen Oxides (NO_x) concentrations, and Carbon Monoxide (CO) concentrations at each of the following exhaust points: P-11 and P-12.
- c. Ammonia injection rate at A-11 and A-13 SCR Systems
- d. Deleted

The owner/operator shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, the owner/operator shall calculate and record the

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total firing hours, the average hourly fuel flow rates, and average hourly pollutant emission concentrations.

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

- e. Heat Input Rate for each of the following sources: S-41 & S-42 combined and S-43 & S-44 combined.
- f. Corrected NO_x concentrations, NO_x mass emissions (as NO₂), corrected CO concentrations, and CO mass emissions at each of the following exhaust points: P-11 and P-12.

Applicable to emission points P-11 and P-12, the owner/operator shall record the parameters specified in conditions 26(e) and 26(f) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

- g. total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.
- h. on an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each Gas Turbine and associated HRSG combined and all four sources (S-41, S-42, S-43, and S-44) combined.
- i. the average NO_x mass emissions (as NO₂), CO mass emissions, and corrected NO_x and CO emission concentrations for every clock hour and for every rolling 3-hour period.

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- j. on an hourly basis, the cumulative total NO_x mass emissions (as NO₂) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and associated HRSG combined, and all four sources (S-41, S-42, S-43, and S-44) combined.

- k. For each calendar day, the average hourly Heat Input Rates, Corrected NO_x emission concentrations, NO_x mass emissions (as NO₂), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined.

- l. on a daily basis, the cumulative total NO_x mass emissions (as NO₂) and cumulative total CO mass emissions, for the previous consecutive twelve month period for all four sources (S-41, S-42, S-43, and S-44) combined.

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

- 27. To demonstrate compliance with conditions 20(f), 20(g), 20(h), 23(c) through 23(e), and 24(c) through 24(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM₁₀) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO₂) mass emissions from each power train. The owner/operator shall use the actual Heat Input Rates calculated pursuant to condition 26, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, and CEC and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows:

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- a. For each calendar day, POC, PM10, and SO2 emissions shall be summarized for: each power train (Gas Turbine and its respective HRSG combined) and all four sources (S-41, S-42, S-43, and S-44) combined.
- b. on a daily basis, the 365 day rolling average cumulative total POC, PM10, and SO2 mass emissions, for all four sources (S-41, S-42, S-43, and S-44) combined.

(Offsets, PSD, Cumulative Increase)

28. To demonstrate compliance with Condition 25, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of Formaldehyde, Benzene, and Specified PAHs. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 34,900,000 MM Btu/year and the highest emission factor (pounds of pollutant per MM Btu of Heat Input) determined by any source test of the S-41 & S-43 Gas Turbines and/or S-42 & S-44 Heat Recovery Steam Generators. If this calculation method results in an unrealistic mass emission rate (the highest emission factor occurs at a low firing rate) the applicant may use an alternate calculation, subject to District approval. (Regulation 2, Rule 5)
29. Within 60 days of start-up of the GGS, the owner/operator shall conduct a District-approved source test on exhaust point P-11 or P-12 to determine the corrected ammonia (NH3) emission concentration to determine compliance with condition 20(e). The source test shall determine the correlation between the heat input rates of the gas turbine and associated HRSG, A-11 or A-13 SCR System ammonia injection rate, and the corresponding NH3 emission concentration at emission point P-11

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or P-12. The source test shall be conducted over the expected operating range of the turbine and HRSG (including, but not limited to minimum, 70%, 85%, and 100% load) to establish the range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels. Continuing compliance with condition 20(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (Regulation 2, Rule 5)

30. Within 60 days of start-up of the GGS and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-11 and P-12 while each Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum load to determine compliance with Conditions 20(a), (b), (c), (d), (f), (g), and (h), while each Gas Turbine and associated Heat Recovery Steam Generator are operating at minimum load to determine compliance with Conditions 20(c) and (d), and to verify the accuracy of the continuous emission monitors required in condition 26. 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 NO₂), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and particulate matter (PM₁₀) emissions including condensable particulate matter.(BACT, offsets)

31. 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

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emission monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section and the CEC CPM in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s). As indicated above, the Owner/Operator shall measure the contribution of condensable PM (back half) to the total PM10 emissions. However, the Owner/Operator may propose alternative measuring techniques to measure condensable PM such as the use of a dilution tunnel or other appropriate method used to capture semi-volatile organic compounds. Source test results shall be submitted to the District and the CEC CPM within 60 days of conducting the tests. (BACT)

32. Within 60 days of start-up of the GGS and on a biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-11 or P-12 while the Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum allowable operating rates to demonstrate compliance with Condition 25. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to condition 28 for any of the compounds listed below are less than the BAAQMD Toxic Risk Management Policy trigger levels shown, then the owner/operator may discontinue future testing for that pollutant:

Benzene less than or equal 26.8 pounds/year
Formaldehyde less than or equal 132 pounds/year
Specified PAHs less than or equal 0.18 pounds/year
(Regulation 2, Rule 5)

33. The owner/operator of the GGS shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment

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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. (Regulation 2-6-502)

34. The owner/operator of the GGS 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 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. (Regulation 2-6-501)
35. The owner/operator of the GGS shall notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Regulation 2-1-403)
36. The stack height of emission points P-11 and P-12 shall each be at least 195 feet above grade level at the stack base. (PSD, Regulation 2, Rule 5)
37. The Owner/Operator of GGS shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack

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sampling ports shall be subject to BAAQMD review and approval.(Regulation 1-501)

38. Within 180 days of the issuance of the Authority to Construct for the GGS, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous monitors, sampling ports, platforms, and source tests required by conditions 26, 29, 30 and 32. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)
39. Prior to the issuance of the BAAQMD Authority to Construct for the GGS, the Owner/Operator shall demonstrate that valid emission reduction credits in the amount of 200.5 tons/year of Nitrogen Oxides, 53.6 tons/year of Precursor Organic Compounds or equivalent (as defined by District Regulations 2-2-302.1 and 2-2-302.2), and 315 tons of Sulfur Oxides are under their control through enforceable contracts, option to purchase agreements, or equivalent binding legal documents. (Offsets)
40. Prior to the start of construction of the GGS, the Owner/Operator shall provide to the District valid emission reduction credit banking certificates in the amount of 200.5 tons/year of Nitrogen Oxides, 53.6 tons/year of Precursor Organic Compounds or equivalent as defined by District Regulations 2-2-302.1 and 2-2-302.2 and 315 tons of Sulfur Oxides. (Offsets)
41. Pursuant to BAAQMD Regulation 2, Rule 6, section 404.3, the owner/operator of the GGS shall submit an application to the BAAQMD for a significant revision to the Major Facility Review Permit prior to commencing operation. (Regulation 2-6-404.3)

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42. Pursuant to 40 CFR Part 72.30(b)(2)(ii) of the Federal Acid Rain Program, the owner/operator of the GGS shall not operate either of the gas turbines until either:

- a. a Title IV Operating Permit has been issued;
- b. 24 months after a Title IV Operating Permit Application has been submitted, whichever is earlier.

(Regulation 2, Rule 7)

43. The GGS shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. (Regulation 2, Rule 7)

44. The owner/operator shall take monthly samples of the natural gas combusted at the GGS. The samples shall be analyzed for sulfur content using District-approved laboratory methods or the owner/operator shall obtain certified analytical results from the gas supplier. The sulfur content test results shall be retained on site for a minimum of five years from the test date and shall be utilized to satisfy the requirements of 40 CFR Part 60, subpart GG. Sulfur content shall be no more than 1.0 grains/100scf. (cumulative increase)

Additional Conditions from Approved Federal Consent Decree (Civil Action No. 09-4503 SI) Included by PG&E's Request

CD-1 The Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44) shall comply with requirements (a) and (b) under all operating scenarios, including duct burner firing mode, except as specified in Condition CD-2.

- a. The nitrogen oxide emission concentration at emission points P-11 and P-12 each shall not exceed 2.0 ppmv, on a dry basis, corrected

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- to 15% O₂, averaged over any 1-hour period.
- b. Particulate matter (PM₁₀) mass emissions at P-11 and P-12 each shall not exceed 7.50 pounds per hour when the HRSG duct burners are not in operation. Particulate matter (PM₁₀) mass emissions at P-11 and P-12 each shall not exceed 9.0 pounds per hour when the HRSG duct burners are in operation. Particulate matter (PM₁₀) mass emissions at P-11 and P-12 each shall not exceed 0.004 lb/MMBtu of natural gas fired.
(Basis: Consent Decree)

CD-2 NO_x emissions during Natural-Gas Combustion Turbine Start-up Mode and during Natural-Gas Combustion Turbine Shutdown Mode shall not be included in calculating compliance with the one-hour 2.0 ppmv NO_x concentration emission limit set forth in Condition CD-1. Natural-Gas Combustion Turbine Start-up Mode is the lesser of the first 256 minutes of continuous fuel flow to the natural gas-fired combustion turbine after fuel flow is initiated or the period of time from natural gas-fired combustion turbine fuel flow initiation until the natural gas-fired combustion turbine achieves two consecutive continuous emission monitor data points in compliance with the 2.0 ppmv NO_x emission concentration limit. Natural-Gas Combustion Turbine Shutdown Mode is the lesser of the 30 minute period immediately prior to the termination of fuel flow to the natural gas-fired combustion turbine or the period of time from noncompliance with the 2.0 ppmv NO_x emission concentration limit until termination of fuel flow to the natural gas fired combustion turbine.
(Basis: Consent Decree)

CD-3 Cumulative combined emissions from the Gas Turbines and HRSGs (S-41, S-42, S-43, and S-44), including emissions generated during gas turbine start-ups and shutdowns, shall not exceed the following limits during any

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consecutive twelvemonth period:

a. 139.2 tons of NO_x (as NO₂) per year

b. 18.5 tons of SO₂ per year

(Basis: Consent Decree)

CD-4 The Gas Turbines (S-41 and S-43) and HRSG Duct Burners (S-42 and S-44) shall be fired exclusively on natural gas with a maximum sulfur content no greater than 1 grain per 100 standard cubic feet.

(Basis: Consent Decree)

Additional Ammonia Slip Compliance Assurance Monitoring Condition

*AM-1 At least once per calendar year, the owner/operator of GGS shall conduct a District-approved source test on exhaust point P-11 and P-12 to determine the corrected ammonia (NH₃) emission concentration to determine compliance with condition 20(e). The source test shall determine the correlation between the heat input rates of the gas turbine and associated HRSG, A-11 and A-13 SCR System ammonia injection rate, and the corresponding NH₃ emission concentration at emission point P-11 and P-12. The source test shall be conducted over the expected operating range of the turbine and HRSG (including, but not limited to minimum, 70%, 85%, and 100% load) to establish the range of ammonia injection rates necessary to achieve NO_x emission reductions while maintaining ammonia slip levels. Continuing compliance with condition 20(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (Basis: 2-1-403)

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Condition for S-47 Diesel Fire Pump

COND# 25057 -----

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing.
[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection(e)(4)(G)(1)]

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

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- 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: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or, Regulation 2-6-501)]

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

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

- 6. The owner/operator shall use the latest EPA Tier level engine available at the time of permit issuance for the diesel fire pump. (BACT)

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

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

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-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	BAAQMD 9-3-303	N		125 ppm	BAAQMD 1-520.1	C	CEM
NO _x	BAAQMD 9-9-301.1.3	Y		9 ppmv @ 15% O ₂ , dry	BAAQMD 9-9-501	C	CEM
	BAAQMD 9-9-301.2	N		0.15 lb/MW-hr or 5 ppmv	BAAQMD 9-9-501	C	CEM
NO _x	SIP 9-9-301.3	Y		9 ppmv @ 15% O ₂ , dry	BAAQMD 9-9-501	C	CEM
	NSPS 40 CFR 60.44Da (a)(1)	Y		0.2 lb/MMBtu	40 CFR 60.48Da(j)	C	CEM and fuel monitoring
NO _x	NSPS 40 CFR 60.44Da (d)(1)	Y		1.6 lb/MW-hr (rolling 24-hr average)	40 CFR 60.48Da(k),	C	CEM and load monitoring

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	NSPS, 40 CFR 60.332 (a)(1)	Y		75 ppmv, @ 15% O ₂ , dry 4-hr average	40 CFR 60.334(c)	C	CEM
		Y		None	40 CFR 75.10	C	CEM
NO _x	BAAQMD condition #18138, part 20a	Y		20 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 26b	C	CEM
NO _x	BAAQMD condition #18138, part 20a	Y		20 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
	BAAQMD condition #18138, part 20a	Y		0.009 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 26b	C	CEM
	BAAQMD condition #18138, part 20a	Y		0.009 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
	BAAQMD condition #18138, part 20b	Y		2.5 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 26b	C	CEM

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	BAAQMD condition #18138, part 20b	Y		2.5 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
	BAAQMD condition #18138, CD-1	Y		2.0 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, and shutdown	BAAQMD condition #18138, part 26b	C	CEM
NO _x	BAAQMD condition #18138, part 21	Y		189 lb/turbine during start-up	BAAQMD condition #18138, part 26	P/D	Records, calculations
	BAAQMD condition #18138, part 21	Y		20 lb/turbine during shutdown	BAAQMD condition #18138, part 26	P/D	Records, calculations
	BAAQMD condition #18138, part 21	Y		452 lb/turbine during steam turbine cold start-up	BAAQMD condition #18138, part 26	P/D	Records, calculations
NO _x	BAAQMD condition #18138, part 23	Y		1,994 lb/day for turbines and HRSGs combined	BAAQMD condition #18138, part 26	C	CEM
	BAAQMD condition #18138, part 24	Y		174.3 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 26	C	CEM

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	BAAQMD condition #18138, CD-3	Y		139.2 ton/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 26	C	CEM
CO	BAAQMD condition #18138, part 20c	Y		29.22 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 26b	C	CEM
CO	BAAQMD condition #18138, part 20c	Y		29.22 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum and minimum load
	BAAQMD condition #18138, part 20c	Y		0.013 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 26b	C	CEM
	BAAQMD condition #18138, part 20c	Y		0.013 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18138, part 20d	Y		6 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, or steam turbine cold start-up,	BAAQMD condition #18138, part 26b	C	CEM

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Table VII – A
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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #18138, part 20d	Y		6 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18138, part 21	Y		291 lb/turbine during start-up	BAAQMD condition #18138, part 26	P/D	Records, calculations
CO	BAAQMD condition #18138, part 21	Y		73 lb/turbine during shutdown	BAAQMD condition #18138, part 26	P/D	Records, calculations
CO	BAAQMD condition #18138, part 21	Y		990 lb/turbine during steam turbine cold start-up	BAAQMD condition #18138, part 26	P/D	Records, calculations
	BAAQMD condition #18138, part 23b	Y		3,602 lb/day for turbines and HRSGs combined	BAAQMD condition #18138, part 26b	C	CEM
CO	BAAQMD condition #18138, part 24b	Y		259.1 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 26b	C	CEM
CO ₂		Y		None	40 CFR 75.10	C	fuel flow monitor and CO ₂ calculation

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO ₂	BAAQMD 9-1-301	Y		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
SO ₂	NSPS 40 CFR 60.43Da (b)(2)			0.2 lb/MM BTU, 24 hr average except during startup, or shutdown		N	
SO ₂	NSPS 40 CFR 60.333	Y		0.015% (vol) @15% O ₂ (dry) or total sulfur content of fuel less than or equal to 0.8% sulfur by weight (8,000 ppmw)	NSPS 40 CFR 60.334(h)(3) (ii) and BAAQMD Condition 18138, Part 44	P/M	Monthly fuel sulfur analysis
		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measure- ments, calculations
	BAAQMD condition #18138, part 44	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #18138, part 44	P/M	Fuel testing
	BAAQMD condition #18138, CD-4	Y		Fuel sulfur content of 1 gr/100 scf	BAAQMD condition #18138, part 44	P/M	Fuel testing

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #18138, part 20g	Y		6.18 lb/hr, for turbine and HRSG combined	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
SO ₂	BAAQMD condition #18138, part 20g	Y		0.0028 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
SO ₂	BAAQMD condition #18138, part 23e	Y		297 lb/day for turbines and HRSGs combined	BAAQMD condition #18138, part 27	P/D	Records, calculations
	BAAQMD condition #18138, part 24e	Y		48.5 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 27	P/D	Records, calculations
	BAAQMD condition #18138, part CD-3	Y		18.5 ton/yr for turbines and HRSGs combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 27	P/D	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	
Opacity	NSPS 40 CFR 60.42Da(b)	Y		20% Opacity (6 min avg.) with one 6 min avg. at less than 27% Opacity	40 CFR 60.49Da(a)(3) ²	N	

² The EPA has recently promulgated changes to Subpart Da in direct final rule action (Federal Register, January 20, 2011) allowing the permitting authority to exempt owners/operators of affected facilities burning only natural gas from the opacity monitoring requirements contained in 60.49Da(a)(3). The District is exempting the facility from

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O ₂		N	
	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O ₂		N	
PM	NSPS 40 CFR 60.42Da (a)(1)	Y		0.03 lb/MMBtu of PM		N	
PM	NSPS 40 CFR 60.42Da(b)	Y		< 20% opacity, 6 minute average, except one six minute period/hr up to 27% opacity		N	
PM ₁₀	BAAQMD condition #18138, part 20h	Y		11.0 lb/hr, for each turbine and HRSG combined (duct burners not in operation) 13.0 lb/hr, for each turbine and HRSG combined (duct burners in operation)	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
PM ₁₀	BAAQMD condition #18138, part 20h	Y		0.00588 lb/MMBTU, for each turbine and HRSG combined (duct burners not in operation) 0.00584 lb/MMBTU, for each turbine and HRSG combined (duct burners not in operation)	BAAQMD condition #18138, part 30	P/A	Source test at maximum load

the opacity monitoring requirement contained in 60.49Da(a)(3).

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
PM ₁₀	BAAQMD condition #18138, part 23d	Y		624 lb/day for turbines and HRSGs combined	BAAQMD condition #18138, part 27	P/D	Records, calculations
PM ₁₀	BAAQMD condition #18138, part 24d	Y		105 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 27	P/D	Records, calculations
POC	BAAQMD condition #18138, part 20f	Y		5.6 lb/hr (as CH ₄) for each turbine, and HRSG combined except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
POC	BAAQMD condition #18138, part 20f	Y		0.0025 lb/MM BTU (as CH ₄) for each turbine, and HRSG combined except during turbine startup, shutdown, or steam turbine cold start-up	BAAQMD condition #18138, part 30	P/A	Source test at maximum load
	BAAQMD condition #18138, part 21	Y		26 lb/turbine during start-up	BAAQMD condition #18138, part 27	P/D	Records, calculations
POC	BAAQMD condition #18138, part 21	Y		6 lb/turbine during shutdown	BAAQMD condition #18138, part 27	P/D	Records, calculations
	BAAQMD condition #18138, part 21	Y		109 lb/turbine during steam turbine cold start-up	BAAQMD condition #18138, part 27	P/D	Records, calculations

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S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #18138, part 23c	Y		468 lb/day (as CH ₄) for turbines and HRSGs combined	BAAQMD condition #18138, part 27	P/D	Records, calculations
POC	BAAQMD condition #18138, part 24c	Y		46.6 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #18138, part 27	P/D	Records, calculations
NH ₃	BAAQMD condition #18138, Part 20e	N		5 ppmv, @ 15% O ₂ , dry, averaged over 3 hrs for each turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #18138, part 26c, part 29, part AM-1	C	Ammonia injection rate monitor, calculations, and annual source test
Formaldehyde	BAAQMD condition #18138, part 25.1	N		4,102 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 28	P/D	Records, calculations
	BAAQMD condition #18138, part 25.1	N		4,102 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 32	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #18138, part 25.1	N		506 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 28	P/D	Records, calculations
	BAAQMD condition #18138, part 25.1	N		506 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 32	P/every two years on P-1 or P-2	Source test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-41, S-43 GAS TURBINE
S-42, S-44 HEAT RECOVERY STEAM GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Specified PAH's	BAAQMD condition #18138, Part 25.1	N		38 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 28	P/D	Records, calculations
	BAAQMD condition #18138, Part 25.1	N		38 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 32	P/every two years on P-1 or P-2	Source test
Hexane	BAAQMD condition #18138, Part 25.2	N		20,000 lb/yr for turbines and HRSGs combined	BAAQMD condition #18138, part 32	P/every two years on P-1 or P-2	Source test
Heat input limit	BAAQMD condition #18138, part 14	Y		2,227 MM BTU/hr, 3-hr average for each Turbine and HRSG, total	BAAQMD condition #18138, part 26a	C	Fuel meter, firing monitor, calculations
Heat Input Limit	BAAQMD condition #18138, part 15	Y		49,950 MM BTU/calendar day, for each Turbine and HRSG, total	BAAQMD condition #18138, part 26a	C	fuel meter, firing monitor, calculations
	BAAQMD condition #18138, part 16	Y		34,900,000 MM BTU/yr for S-41, S-43, Turbines and S-42, S-44, HRSGs combined	BAAQMD condition #18138, part 26a	C	fuel meter, firing monitor, calculations

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-47, FIRE PUMP DIESEL 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	N		> Ringelmann No. 2 for no more than 3 minutes in any hour		N	
Opacity	SIP Regulation 6-303.1	Y		Ringelmann 2.0 for 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N	
SO ₂	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 min. and ≤ 0.05 ppm for 24 hours	None	N	N/A
SO ₂	BAAQMD 9-1-304	Y		Fuel Sulfur Limit 0.5%	BAAQMD Condition # 19498, Parts 5 and 8	P/E	Vendor Certification
Reliability Related Hours	BAAQMD 9-8-330	N	1/1/12	100 hours until 1/1/12 50 hours after 1/1/12	9-8-502	P/E	Totalizing meter record keeping

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-47, FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Hours for maintenance and testing	Title 17, California Code of Regulations section 93115.6(a)(4)	N		Not operate more than the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” 2002 edition	93115.10(d)	P/E	Totalizing meter record keeping
Reliability-related activities	BAAQMD Condition #25057, part 1	N		50 hours per calendar year	BAAQMD Condition #25057, part 3, 4	P/E	Totalizing meter, record-keeping

VIII. TEST METHODS

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

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-1-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions, or EPA Method 9
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, or EPA Method 5, Determination of Particulate Emissions from Stationary Sources
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 _x , 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

VIII. Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
40 CFR Part 60, NSPS		
Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978	
60.42Da (a)(1)	Particulate Limit	EPA Method 5, Determination of Particulate Emissions from Stationary Sources
60.42Da (b)	Opacity Limit	EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
60.43Da (b)(2)	SO ₂ limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
60.44Da (a)(1)	NO _x limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	
60.44b (a)(4)	NO _x Limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
Subpart GG	Standards of Performance for Stationary Gas Turbines	
60.332 (a)(1)	Performance Standard, NO _x	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO ₂ Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation
BAAQMD Condition #18138		
Part 20g	SO _x Limit	Test Procedure, MOP Vol.4, ST-19A, Sulfur Dioxide, Continuous Sampling

VIII. Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Part 20b	NOx Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20e	NH3 Limit	BAAQMD Test Procedure ST-1B, Ammonia, Integrated Sampling
Part 20d	CO Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20f	POC Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20h	PM10 Limit	EPA Method 201A, Determination of PM10 Emissions, plus EPA Method 202, Determination of Condensable Particulate Emissions from Stationary Sources, or EPA Method 5, Determination of Particulate Matter from Stationary Sources, plus EPA Method 202 (subject to District approval)
Part 25	Formaldehyde Limit	ARB Method 430, Determination of Formaldehyde and Acetaldehyde in Emissions from Stationary Sources
Part 25	Benzene Limit	ARB Method 410A, Determination of Benzene from Stationary Sources (Low Concentration Gas Chromatographic Technique), or EPA Method TO-15 Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS). EPA Method TO-15 is an ambient air method modified for use on a stationary source.
Part 25	Polycyclic Aromatic Hydrocarbons Limit	ARB Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources
Part 25	Hexane	ARB Method 422, Determination of Volatile Organic Compounds in Emissions from Stationary Sources, or EPA Method TO-15 Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS). EPA Method TO-15 is an ambient air method modified for use on a stationary source.

IX. TITLE IV ACID RAIN PERMIT

Effective October 30, 2013 through October 29, 2018

ISSUED TO:

Gateway Generating Station, LLC
3225 Wilbur Avenue
Antioch, CA 94509

PLANT SITE LOCATION:

3225 Wilbur Avenue
Antioch, CA 94509

ISSUED BY:

Signed by Jaime A. Williams
Jaime A. Williams
Director of Engineering

March 28, 2016
Date

Type of Facility: Power Plant
Primary SIC: 4911
Product: Electricity

DESIGNATED REPRESENTATIVE:

Name: Alvin Thoma
Title: Director, Fossil Generation
Phone: (415) 973-4466

ALTERNATE DESIGNATED REPRESENTATIVE:

Name: David Hammond
Title: Interim Senior Plant Manager
Phone: (925) 522-7805

IX. Title IV Acid Rain Permit

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowance allocated under this permit and NO_x 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) SO₂ ALLOWANCE ALLOCATIONS

	Year	2013	2014	2015	2016	2017
	SO₂ allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-41, Turbine	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

	Year	2013	2014	2015	2016	2017
	SO₂ allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-42, Heat Recovery Steam Generator	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

IX. Title IV Acid Rain Permit

	Year	2013	2014	2015	2016	2017
	SO₂ allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-43, Turbine	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

	Year	2013	2014	2015	2016	2017
	SO₂ allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-44, Heat Recovery Steam Generator	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

3) COMMENTS, NOTES AND JUSTIFICATIONS

None

4) PERMIT APPLICATION

Attached

X. PERMIT SHIELD

A. Non-applicable Requirements

None.

B. Subsumed Requirements

None.

XI. REVISION HISTORY

Initial Title V Permit Issuance (Application no. 15777):	October 30, 2013
Administrative Amendment (Application no. 25953)	January 28, 2014
Administrative Amendment (Application no. 27757)	March 28, 2016

XII. GLOSSARY

ACT

Federal Clean Air Act

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CEQA

California Environmental Quality Act

CFR

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

CO

Carbon Monoxide

Cumulative Increase

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

District

The Bay Area Air Quality Management District

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District regulations.

XII. Glossary

Federally Enforceable, FE

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

FP

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

HAP

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

HRSG

Heat Recovery Steam Generator

Major Facility

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

MFR

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

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

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

NMHC

Non-methane Hydrocarbons

XII. Glossary

NO_x

Oxides of nitrogen.

NSPS

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

NSR

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

Offset Requirement

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

Phase II Acid Rain Facility

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

POC

Precursor Organic Compounds

PM

Particulate Matter

PM₁₀

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

PSD

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

XII. Glossary

SIP

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

SO₂

Sulfur dioxide

Title V

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

TSP

Total Suspended Particulate

VOC

Volatile Organic Compounds

Units of Measure:

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

XIII. TITLE IV PERMIT APPLICATION



United States
 Environmental Protection Agency
 Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: New Revised

STEP 1

Identify the source by plant name, State, and ORIS code.

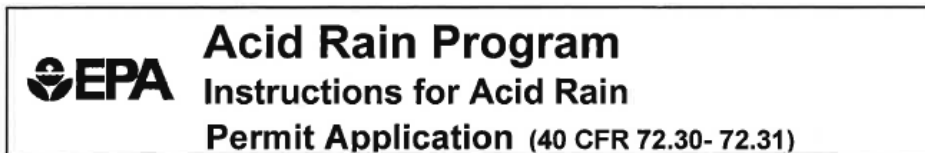
Gateway Generating Station	CA	56476
Plant Name	State	ORIS Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a." For new units, enter the requested information in columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
GT1	Yes	12/1/08	6/1/09
GT2	Yes	12/1/08	6/1/09
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

XIII. Title IV Permit Application



The Acid Rain Program requires the designated representative to submit an Acid Rain permit application for each source with an affected unit. A complete Certificate of Representation must be received by EPA before the permit application is submitted to the title V permitting authority. A complete Acid Rain permit application, once submitted, is binding on the owners and operators of the affected source and is enforceable in the absence of a permit until the title V permitting authority either issues a permit to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 287-1730 (for ORIS codes), or (202) 287-1927 (for facility codes).

STEP 2 For column "a," identify each affected unit at the affected source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements.

For columns "c" and "d," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

Submission Deadlines

For new units, an initial Acid Rain permit application must be submitted to the title V permitting authority 24 months before the date the unit commences operation. Acid Rain permit renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

Submission Instructions

Submit this form to the appropriate title V permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional Acid Rain contact, or call EPA's Acid Rain Hotline at (202) 343-9620.

Paperwork Burden Estimate

The burden on the public for collecting and reporting information under this request is estimated at 17 hours per response. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB#2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. **Do not submit forms to these addresses; see the submission instructions above.**

XIII. Title IV Permit Application

Acid Rain - Page 2

Gateway Generating Station Plant Name (from Step 1)
--

STEP 3

Read the
standard
requirements

Permit 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 unit 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 unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (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).
- (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.

EPA Form 7610-16 (rev. 12-03)

XIII. Title IV Permit Application

Gateway Generating Station Plant Name (from Step 1)
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Acid Rain - Page 3

STEP 3,
Cont'd.

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

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XIII. Title IV Permit Application

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Gateway Generating Station Plant Name (from Step 1)
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Step 3,
Cont'd.

Liability, Cont'd.

- (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. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (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:

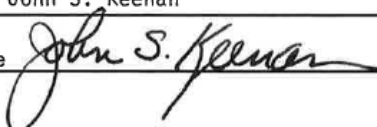
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit 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.

STEP 4

Certification

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 S. Keenan	
Signature		Date 12/20/06

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