

# Bay Area Air Quality Management District

375 Beale Street, Suite 600  
San Francisco, CA 94105  
(415) 771-5000

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**Final**

## MAJOR FACILITY REVIEW PERMIT

**Issued To:**

**Goose Haven Energy Center, LLC**  
**Facility # B4416**

**Facility Address:**

3853 Goose Haven Road  
Suisun City, CA 94585

**Mailing Address:**

2425 Cordelia Road  
Fairfield, CA 94534

**Responsible Official**

Andrew Gundershaug, Plant Manager  
707-399-4393

**Facility Contact**

Allison Bryan, EHS Specialist  
707-399-4395

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**Type of Facility:** Generation of Electricity  
**Primary SIC:** 4911  
**Product:** Electricity

BAAQMD Permit Division Contact:  
Xuna Cai, Senior Air Quality Engineer

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

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

May 30, 2018  
Date

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## I. STANDARD CONDITIONS

### A. Administrative Requirements

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

- BAAQMD Regulation 1 - General Provisions and Definitions  
(as amended by the District Board on 5/4/11);  
SIP Regulation 1 - General Provisions and Definitions  
(as approved by EPA through 6/28/99);  
BAAQMD Regulation 2, Rule 1 - Permits, General Requirements  
(as amended by the District Board on 12/6/17);  
SIP Regulation 2, Rule 1 - Permits, General Requirements  
(as approved by EPA through 8/1/16);  
BAAQMD Regulation 2, Rule 2 - Permits, New Source Review  
(as amended by the District Board on 12/6/17);  
SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration  
(as approved by EPA through 8/1/16);  
BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking  
(as amended by the District Board on 12/6/17);  
SIP Regulation 2, Rule 4 - Permits, Emissions Banking  
(as approved by EPA through 12/4/17);  
BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants  
(as amended by the District Board on 12/07/16);  
BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review  
(as amended by the District Board on 12/6/17); 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 May 30, 2018, and expires on May 29, 2023. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than November 29, 2022 and no earlier than May 29, 2022. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after May 29, 2023.** If the permit renewal has not been issued by May 29, 2023, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (BAAQMD Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (BAAQMD Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

## I. Standard Conditions

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (BAAQMD Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (BAAQMD Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (BAAQMD Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (BAAQMD Regulation 1-441, BAAQMD Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit, which the permittee considers to contain proprietary or trade secret information, shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (BAAQMD Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (BAAQMD Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)
12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless of whether it acts through employees, agents, contractors, or subcontractors (BAAQMD Regulation 2-6-307)

## **I. Standard Conditions**

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

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

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

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

### **E. Records**

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

### **F. Monitoring Reports**

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. Reports shall be for the following periods: May 1st through October 31st and November 1st through April 30th, 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 by e-mail to [compliance@baaqmd.gov](mailto:compliance@baaqmd.gov) or by postal mail to the following address:

Director of Compliance and Enforcement  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105  
Attn: Title V Reports

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

### **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 December 1<sup>st</sup> through November 30. The certification shall be submitted by December 31<sup>st</sup> of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other

## **I. Standard Conditions**

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 by e-mail to [r9.aeo@epa.gov](mailto:r9.aeo@epa.gov) or postal mail to the Environmental Protection Agency at the following address:

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

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

## **H. Emergency Provisions**

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

## **I. Severability**

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

## **J. Miscellaneous Conditions**

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

## **K. Accidental Release**

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

## I. Standard Conditions

the annual compliance certification, as required by BAAQMD Regulation 2, Rule 6. (40 CFR Part 68, BAAQMD Regulation 2, Rule 6)

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

1. The permit holder shall hold one sulfur dioxide allowance on March 1 (February 29<sup>th</sup> during leap year) for each ton of sulfur dioxide emitted during the preceding year from January 1 through December 31. (MOP Volume II, Part 3, §4.9)
2. The equipment installed for the continuous monitoring of CO<sub>2</sub> and NO<sub>x</sub> shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (BAAQMD Regulation 2-7, Acid Rain)
3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO<sub>x</sub> which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (BAAQMD Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO<sub>2</sub> emissions in accordance with 40 CFR Part 72 and 75. (BAAQMD Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for Turbine S-1. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

## II. EQUIPMENT

**Table II A - Permitted Sources**

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

S-#	Description	Make or Type	Model	Capacity
1	Gas Turbine Generator, Natural Gas with water injection, nominal 49.9 MW	General Electric	LM6000PC	500 MMBtu/hour (HHV)
2	Diesel Driven Firewater Pump,	Clarke	JU4H-UF40	94 BHP

**Table II B – Abatement Devices**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
1	Oxidation catalyst	1	BAAQMD Condition #20057 Part 18.3 & 18.4	All conditions except startup and shutdown	CO < 6 ppm POC < 2 ppm
2	Selective Catalytic Reduction System	1	BAAQMD Condition #20057 Part 18.1	All conditions except startup and shutdown	NOx < 2.5 ppm

**Table II C – Significant Sources**

The following source is exempt from the requirement to obtain an authority to construct and permit to operate, but is defined as a significant source pursuant to BAAQMD Regulation 2-6-239

S-#	Description	Make or Type	Model	Capacity
3	Cooling Tower	Marley	NC8312HL2	4,160 GPM



### III. GENERALLY APPLICABLE REQUIREMENTS

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

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

Portable equipment operating in accordance with the ARB portable equipment registration program and temporary equipment such as sandblasting equipment may be operated at the facility as long as the source is not significant under Rule 2-6-239. Otherwise significant source would need to be included in the Title V permit.

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

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

The full language of SIP requirements is on EPA Region 9 website. The address is <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>.

**NOTE:**

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

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (12/6/17)	N
SIP Regulation 2, Rule 1	General Requirements (8/31/16)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 2	Permits, New Source Review (12/6/17)	N
SIP Regulation 2, Rule 2	Permits, New Source Review (8/31/16)	Y
BAAQMD Regulation 2, Rule 3	Permits, Power Plants (12/19/79)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/6/17 )	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (1/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (12/7/16)	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 (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (6/19/13)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/05/07)	N
SIP Regulation 6	Particulate Matter and Visible Emission (9/4/98)	Y
BAAQMD Regulation 7	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 (7/1/09)	N
SIP Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (1/2/04)	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**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
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 Compound – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/26/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds – Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 11, Rule 18	Reduction of Risk from Air Toxic Emissions at Existing Facilities (11/15/17)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
BAAQMD Regulation 14, Rule 1	Mobile Source Emission Reduction Methods – Bay Area Commuter Benefits Program (3/19/14)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
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 64, (CAM)	Compliance Assurance Monitoring	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 (2/21/95)	
Subpart F, 40 CFR 82.156	Leak Repair	Y
Subpart F, 40 CFR 82.161	Certification of Technicians	Y
Subpart F, 40 CFR 82.166	Records of Refrigerant	Y

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full language of SIP requirements is on EPA Region 9 website. The address is <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>. All other text may be found in the regulations themselves.

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/4/11)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures		
1-522.1	approval of plans and specifications	Y	
1-522.2	scheduling requirements	Y	
1-522.3	CEM performance testing	Y	
1-522.4	reporting of inoperative CEMs	Y	
1-522.5	CEM calibration requirements	Y	
1-522.6	CEM accuracy requirements	Y	
1-522.7	emission limit exceedance reporting requirements	N	
1-522.8	monitoring data submittal requirements	Y	
1-522.9	recordkeeping requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Parametric monitor periods of inoperation	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	N	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (6/28/99)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.3	Reports of Violations	Y	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (12/6/17)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6 Rule 1</b>	<b>Particulate Matter General Requirements (12/05/07)</b>		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (09/04/98)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-302	General Emission Limitations	N	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>SIP Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/06/06)</b>		
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	
9-9-301.1.3	Emission Limits- Turbines Rated $\geq$ 10 MW w/SCR	N	
9-9-301.2	Emission Limits - Turbine heat input rated $>$ 250 – 500 MM Btu/hr	N	
9-9-501	Monitoring and recordkeeping requirements	N	
<b>SIP Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/97)</b>		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated $\geq$ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b> <b>General Provisions</b>	Y	
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
<b>40 CFR 60 Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (2/27/14 )</b>		
<b>60.332</b>	<b>Standard for Nitrogen Oxides</b>	Y	
60.332(a)(1)	Standard for Nitrogen Oxides	Y	
60.333	Standard for sulfur dioxide	Y	
60.333(a)	SO <sub>2</sub> Concentration < 0.015 percent @ 15% O <sub>2</sub> (Turbine Only)	Y	
60.333(b)	Standard for Sulfur Dioxide – Fuel Sulfur Content Limit	Y	
60.334	Monitoring of Operations – CEM requirements	Y	
60.334((b)	NO <sub>x</sub> CEMs for water/steam injected turbines	Y	
60.334(h)(1)	Exemption from Monitoring of fuel sulfur content	Y	
60.334(h)(2)	Exemption from Monitoring of fuel nitrogen content	Y	
60.334(j)(1)(iii)	NO <sub>x</sub> Excess Emissions and Monitor Downtime reporting requirements	Y	
60.335	Test Methods and Procedures	Y	
<b>40 CFR 64</b>	<b>Compliance Assurance Monitoring (10/27/97)</b>		
64.2(a)	General Applicability	Y	
64.3	Monitoring design criteria	Y	
64.3(a)(1)	One or more indicators or emissions	Y	
64.3(a)(2)	Appropriate range	Y	
64.3(a)(3)(i)	Indicator based on a single minimum value	Y	
64.3(b)	Performance criteria	Y	
64.3(b)(1)	Requirement for specifications that provide for obtaining data that are representative of the parameters	Y	
64.3(b)(1)	Requirement for specifications that provide for obtaining data that are representative of the emissions (for CO and SO <sub>2</sub> CEMs, use BAAQMD Manual of Procedures Volume V, approval from District Source Test Group)	Y	
64.3(b)(2)	Verification procedures	Y	
64.3(b)(3)	Quality assurance and control practices	Y	



#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
64.3(b)(4)	Specifications for frequency	Y	
64.3(c)	Evaluation factors	Y	
64.3(d)	Special criteria for the use of continuous emission, opacity or predictive monitoring systems	Y	
64.3(d)(2)(vi)	Comparable requirements and specifications	Y	
64.3(d)(3)(i)	Reporting of exceedances	Y	
64.4	Submittal Requirements	Y	
64.4(a)	Submittal information	Y	
64.4(a)(1)	Indicators to be monitored	Y	
64.4(a)(2)	Ranges or designated conditions	Y	
64.4(a)(3)	Performance criteria	Y	
64.4(a)(4)	Indicator ranges and performance criteria	Y	
64.4(b)	Justification for monitoring	Y	
64.4(b)(2)	Use of CEMs	Y	
64.4(c)(1)	Verification during source tests	Y	
64.4(c)(2)	Documentation of no change to control device	Y	
64.5	Deadlines for submittals	Y	
64.5(a)	Deadline for large pollutant-specific emissions units	Y	
64.6	Approval of monitoring	Y	
64.6(c)	Establishment of permit terms	Y	
64.6(c)(1)	Specification of indicators, device, and performance requirements	Y	
64.6(c)(2)	Definition of excursion or exceedance	Y	
64.6(c)(3)	Obligation to monitor and to comply with 40 CFR 64.7 and 64.9	Y	
64.6(c)(4)	Data availability (As appropriate)	Y	
64.7	Operation of approved monitoring	Y	
64.7(a)	Commencement of monitoring	Y	

#### IV. Source-Specific Applicable Requirements

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**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
64.7(b)	Maintenance	Y	
64.7(c)	Continued operation	Y	
64.7(d)	Response to exceedances or excursions	Y	
64.7(e)	Documentation of need for improved monitoring	Y	
64.9	Reporting and recordkeeping requirements	Y	
64.10	Savings provisions	Y	
<b>40 CFR Part 72</b>	<b>Permits Regulation (Title IV – Acid Rain Program)</b>	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 <sub>2</sub> 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	
72.9(c)(6)	Limited authorization	Y	
72.9(d)	Nitrogen Oxide Requirements	Y	
72.9(e)	Excess emissions requirements	Y	
72.9(f)	Recordkeeping and Reporting Requirements	Y	

#### IV. Source-Specific Applicable Requirements

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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
72.9(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	
<b>40 CFR Part 75</b>	<b>Continuous Emissions Monitoring</b>	Y	
	Subpart A – General	Y	
75.2	Applicability	Y	
75.2(a)	Applicability to affected units subject to Acid Rain emission limitations	Y	
75.4	Compliance Dates	Y	
75.4(b)	New affected unit (at the time of the commencement of commercial operation) shall ensure that all monitoring systems required under this part for monitoring of SO <sub>2</sub> , NO <sub>x</sub> , CO <sub>2</sub> , opacity, and volumetric flow are installed and all certification tests are completed on or before the later of the following dates	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-Specific Applicable Requirements**  
**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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 <sub>2</sub> Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NO <sub>x</sub> Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO <sub>2</sub> Emissions	Y	
75.10(a)(3)(ii)	CO <sub>2</sub> Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	Y	
75.10 (a)(4)	Opacity Monitoring, except as provided in §§75.14 and 75.18	Y	
75.10(b)	Primary Equipment Performance Requirements	Y	
75.10(c)	Heat Input Rate Measurement Requirement	Y	
75.10(d)	Primary equipment hourly operating requirements	Y	
75.10(d)(1)	Cycles of operation for each 15 minute period. Hourly average calculated from a minimum of four 15 minute periods.	Y	
75.10(d)(3)	Validity of data and data substitution	Y	
75.10(f)	Minimum measurement capability requirement	Y	
75.10(g)	Minimum recording and recordkeeping requirements	Y	
75.11	Specific provisions for monitoring SO <sub>2</sub> emissions	Y	
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO <sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units to monitor SO <sub>2</sub> emissions.	Y	
75.12	Specific provisions for monitoring NO <sub>x</sub> emission rate	Y	
75.12(a)	NO <sub>x</sub> continuous emission monitor and diluents monitoring requirement	Y	
75.12(c)	NO <sub>x</sub> mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO <sub>2</sub> emissions	Y	
75.13(b)	Determination of CO <sub>2</sub> emissions using Appendix G	Y	
75.14	Specific Provisions for monitoring opacity	Y	

#### IV. Source-Specific Applicable Requirements

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**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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	
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 NOx 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, NOx emission rate and NOx concentration data	Y	
75.34	Units with add-on emission controls	Y	
75.35	Missing data procedures for CO2	Y	
75.36	Missing data procedures for heat input rate determinations	Y	
	Subpart F – Recordkeeping Requirements	Y	

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**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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 <sub>2</sub> emission record provisions	Y	
75.57(d)	NO <sub>x</sub> emission record provisions	Y	
75.57(e)	CO <sub>2</sub> emission record provisions	Y	
75.57(g)	Diluents record provisions	Y	
75.57(h)	Missing data records	Y	
75.58	General recordkeeping provisions for specific situations	Y	
75.58(b)	Specific parametric data record provisions for calculating substitute emissions data for units with add-on emission controls	Y	
75.58(c)	Specific SO <sub>2</sub> emission record provisions for gas-fired or oil-fired units using optional protocol in appendix D to this part. In lieu of recording the information in §75.57(c), the owner or operator shall record the applicable information in this paragraph for each affected gas-fired or oil-fired unit for which the owner or operator is using the optional protocol in appendix D to this part for estimating SO <sub>2</sub> mass emissions	Y	
75.59	Certification, quality assurance, and quality control record provisions	Y	
75.59(a)	Continuous emission or opacity monitoring systems	Y	
75.59(b)	Accepted monitoring systems for gas-fired and oil-fired units. The owner or operator shall record the applicable information in this section for each excepted monitoring system following the requirements of appendix D to this part or appendix E to this part for determining and recording emissions from an affected unit.	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
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**S-1 COMBUSTION GAS TURBINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
75.59(c)	Except as otherwise provided in §75.58(b)(3)(i), units with add-on SO <sub>2</sub> or NO <sub>x</sub> emission controls following the provisions of §75.34(a)(1) or (a)(2), 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	
75.66	Petitions to the administrator	Y	
<b>BAAQMD Condition #20057</b>	<b>Conditions to the Permit to Operate for S-1 Combustion Gas Turbine</b>		
Definitions	Definitions	Y	
Part 1	Deleted		
Part 2	Deleted		
Part 3	Deleted		
Part 4	Deleted		
Part 5	Deleted		
Part 6	Deleted		
Part 7	Deleted		
Part 8	Deleted		
Part 9	Deleted		
Part 10	Deleted		
Part 11	Consistency with analyses (BAAQMD Regulation 2-1-403)	Y	

#### IV. Source-Specific Applicable Requirements

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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Part 12	Conflicts between conditions (BAAQMD Regulation 1-102)	Y	
Part 13	Reimbursement of costs (BAAQMD Regulation 2-1-303)	Y	
Part 14	Access to Records and Facilities (BAAQMD Regulation 1-440, 1-441)	Y	
Part 15	Deleted		
Part 16	Operations (BAAQMD Regulation 2-1-403)	Y	
Part 17	Visible emissions (BAAQMD Regulation 6-301)	Y	
Part 18	Emission Limits		
Part 18.1	Emission Limit for NOX (BACT)	Y	
Part 18.2	Emission Limit for ammonia (BACT)	N	
Part 18.3	Emission Limit for carbon monoxide (BACT)	Y	
Part 18.4	Emission Limit for precursor organic compounds (BACT)	Y	
Part 18.5	Emission Limit for PM10 (BACT, cumulative increase)	Y	
Part 18.6	Emission Limit for SOX (BACT, cumulative increase)	Y	
Part 19	Turbine Startup (cumulative increase)	Y	
Part 20	Turbine Shutdown (cumulative increase)	Y	
Part 21	Mass emission limits (cumulative increase)	Y	
Part 22	Operational Limits (cumulative increase)	Y	
Part 23	Monitoring requirements (Cumulative Increase, BACT, BAAQMD Regulation 2-1-403, BAAQMD Regulation 9-1-302, 40 CFR 75, 40 CFR 60)	Y	
Part 24	Source testing/RATA (40 CFR 60, BAAQMD Manual of Procedures Volume IV)	Y	
Part 25	Quality assurance program (40 CFR Part 75, Appendix B and 40 CFR Part 60, Appendix F)	Y	
Part 26	Deleted		
Part 27	Breakdowns (BAAQMD Regulation 1-208)	Y	
Part 28	Breakdown reports (BAAQMD Regulation 1-208)	Y	
Part 29a	Records of fuel use and heat input (cumulative increase)	Y	
Part 29b	Records of startups, shutdowns, and malfunctions (BACT, cumulative increase)	Y	
Part 29c	Records of emission measurements (BACT, cumulative increase, 40 CFR 60, 40 CFR 75)	Y	
Part 29d	Records of hours of operation (cumulative increase)	Y	



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<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Part 29e	Records of NOX, CO, and ammonia emissions (BACT)	Y	
Part 29f	Records of continuous emission monitoring systems (BAAQMD Regulation 1-522)	Y	
Part 30	Records retention for five years (BAAQMD Regulation 2-6-501)	Y	
Part 31a	Reports of fuel use and heat input (cumulative increase)	Y	
Part 31b	Reports of mass emission rates (BACT, cumulative increase)	Y	
Part 31c	Reports of excess emissions (BACT, cumulative increase)	Y	
Part 31d	Reports of nature and cause of excess emissions (BACT, cumulative increase)	Y	
Part 31e	Reports of continuous emission monitoring systems downtime (BAAQMD Regulation 1-522)	Y	
Part 31f	Negative declarations (BACT, cumulative increase)	Y	
Part 31g	Reports of fuel analyses (cumulative increase, 40 CFR 75)	Y	
Part 32	District Operating permit (BAAQMD Regulation 2, Rule 2, BAAQMD Regulation 2, Rule 6)	Y	
Part 33	Deleted		

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
**Source-specific Applicable Requirements**  
**S-2 – DIESEL FIREWATER PUMP**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 6 Rule 1</b>	<b>Particulate Matter General Requirements (12/05/07)</b>		
6-1-303	Ringelmann No. 2 Limitation	N	
6-1-303.1	Ringelmann Number 2 Limitation for engines	N	
6-1-305	Visible Particulates	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (09/04/98)</b>		
6-303	Ringelmann Number 2 Limitation	Y	
6-303.1	Ringelmann Number 2 Limitation for engines	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants, Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
<b>BAAQMD Regulation 9, Rule 8</b>	<b>Inorganic Gaseous Pollutants – Nitrogen Oxides from Stationary Engines (7/25/07)</b>		
9-8-110.5	Limited Exemption Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, Hours of Operation	N	
9-8-330.1	Unlimited hours for emergency use	N	
9-8-330.3	50 hours for reliability and maintenance	N	
9-8-530	Emergency standby engines, monitoring and recordkeeping	N	
9-8-502	Recordkeeping	N	
9-8-502.1	Monthly records of usage	N	
<b>40 CFR 63 Subpart A</b>	<b>National Emission Standards for Hazardous Air Pollutants for Source Categories (3/16/1994)</b>		
63.1	Applicability	Y	
63.2	Definitions	Y	
63.3	Units and abbreviations	Y	
63.4	Prohibited activities and circumvention	Y	
63.5	Construction and reconstruction	Y	
63.6	Compliance with standards and maintenance requirements	Y	
63.7	Performance testing requirements	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
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**S-2 – DIESEL FIREWATER PUMP**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
63.8	Monitoring requirements	Y	
63.9	Notification requirements	Y	
63.10	Recordkeeping and reporting requirements	Y	
63.12	State authority and delegations	Y	
63.13	Addresses of EPA Regional Offices	Y	
63.14	Incorporation by Reference	Y	
63.15	Availability of Information and confidentiality	Y	
<b>40 CFR 63 Subpart ZZZZ</b>	<b>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (01/30/2013)</b>		
63.6585	Applicability	Y	
63.6585(a)	Applicable to stationary RICE	Y	
63.6585(c)	Applicable to area source of HAPs	Y	
63.6590	Subject to subpart ZZZZ	Y	
63.6590(a)(1)(iii)	Existing stationary RICE at an area source of HAPs	Y	
63.6595	Compliance Schedule to 40 CFR 63, Subpart ZZZZ	Y	
63.6595(a)(1)	Comply with the applicable emission limitation and operating limitations no later than May 3, 2013	Y	
63.6603	Emission Limitations and Operating Limitations for Existing Stationary RICE located at an area source of HAP emissions	Y	
63.6603(a), Table 2d, part 4	Change oil and filter every 500 hours of operation or annually, whichever comes first; Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Y	
63.6605	General Requirements	Y	
63.6605(a)	Comply with the emission limitations and operating limitations at all times	Y	
63.6605(b)	Safety and good air pollution control practices for minimizing emissions	Y	
63.6625	Monitoring, Installation, Operation, and Maintenance Requirements	Y	
63.6625(e)(3)	Operate and maintain engine and after-treatment control device (if any) in a manner consistent with good air pollution control practice for minimizing emissions	Y	
63.6625(f)	Install a non-resettable hour meter if one is not already installed	Y	
63.6625(h)	Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes	Y	

#### IV. Source-Specific Applicable Requirements

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**S-2 – DIESEL FIREWATER PUMP**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
63.6635	Monitor and Collect Data to Demonstrate Continuous Compliance	Y	
63.6640	Demonstrate Continuous Compliance with the Emission Limitations and Operating Limitations	Y	
63.6640(f)(1)	Requirements for an existing emergency stationary RICE located at an area source of HAP emissions.	Y	
63.6645	Notification, Reports, and Records	Y	
63.6645(a)(2)	Submit notification in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply	Y	
63.6655	Recordkeeping	Y	
63.6655(a)	Recordkeeping with the emission and operating limitations	Y	
63.6655(e)(2)	Keep records of the maintenance conducted on an existing emergency RICE	Y	
63.6660	Recordkeeping	Y	
<b>CCR, Title 17, Section 93115</b>	<b>ATCM for Stationary Compression Ignition Engines (5/19/2011)</b>	N	
<b>93115.3(n)</b>	<b>Exempts In-Use Fire Pump Engines from requirements of Section 93115.6(b)(3)</b>	N	
93115.5(b)	Fuel Requirements	N	
93115.6	ATCM for Stationary CI Engines – Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards	N	
93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
93115.10(a)	Reporting	N	
93115.10(d)	Monitoring Equipment	N	
93115.10(f)	Reporting Requirements for Emergency Standby Engines	N	
93115.15	Severability	N	
<b>BAAQMD Condition 22851</b>	<b>Conditions to the Permit to Operate for S-2 Diesel Firewater Pump</b>		
Part 1	Duration for reliability-related testing [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations]	Y	
Part 2	Mitigate emergency conditions [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (B) (3)]	Y	
Part 3	Engine Run-time totalizing meter [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (4) (G) (1)]	Y	
Part 4	Record keeping [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (4) (I), (or,	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
**Source-specific Applicable Requirements**  
**S-2 – DIESEL FIREWATER PUMP**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Regulation 2-6-501]		
Part 5	School boundaries. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (1)] or (e) (2) (B) (2)]	Y	

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-3 – COOLING TOWER**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 6, Rule 1</b>	<b>Particulate Matter - General Requirements (12/05/07)</b>		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particulates	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (09/04/98)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

## **V. SCHEDULE OF COMPLIANCE**

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

## VI. PERMIT CONDITIONS

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

### **BAAQMD Permit Condition # 20057**

**Source S-1: Combustion Gas Turbine with Water Injection, General Electric LM6000 PC Sprint, natural gas fired, 49 MW net simple-cycle, 500 MMBtu/hr**

#### **Definitions:**

Annual Hour:	Within a calendar year. 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.
Firing Hours:	Period of time, during which fuel is flowing to a unit, measured in fifteen-minute increments.
MM Btu:	million British thermal units
Gas Turbine Start-up Mode:	The time beginning with the introduction of continuous fuel flow to the Gas Turbine until the requirements listed in Part 18 are met, but not to exceed 60 minutes.
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 Part 18 until termination of fuel flow to the Gas Turbine..
Corrected Concentration:	The concentration of any pollutant (generally NO <sub>x</sub> , CO or NH <sub>3</sub> ) corrected to a standard stack gas oxygen concentration. For an emission point (exhaust of a Gas Turbine) the standard stack gas oxygen concentration is 15% O <sub>2</sub> by volume on a dry basis
Commissioning Activities:	All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to insure safe and reliable steady state operation of the gas turbines and associated electrical delivery

## VI. Permit Conditions

systems.

Commissioning Period: The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed performance testing and is available for commercial operation, or 180 days after commencement, whichever occurs first.

Precursor Organic Compounds (POCs): Any compound of carbon, excluding methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate

### **Equipment Description**

This Authority To Construct Is Issued And Is Valid For This Equipment Only While It Is In The Configuration Set Forth In The Following Description:

Installation of One Simple-Cycle Gas Turbine Generator Consisting Of:

Simple Cycle Gas Turbine, General Electric LM6000 PC, Maximum Heat Input 500 MMBtu/hr, Nominal Electrical Output 49 MW, Natural Gas-Fired.

Selective Catalytic Reduction NO<sub>x</sub> Control System.

Ammonia Injection System.  
(including the ammonia storage tank and control system)

Oxidation Catalyst System.

Continuous emission monitoring system (CEMS) designed to continuously record the measured gaseous concentrations, and calculate and continuously monitor and record the NO<sub>x</sub> and CO concentrations in ppmvd corrected to 15% oxygen on a dry basis.

### **Permit Conditions for the Commissioning Period**

Parts 1 through 10 shall only apply during the commissioning period as defined above. Unless noted, Parts 11 through 33 shall only apply after the commissioning period has ended.

1. Deleted (Application #16647)



## VI. Permit Conditions

2. Deleted (Application #16647)
3. Deleted (Application #16647)
4. Deleted (Application #16647)
5. Deleted (Application #16647)
6. Deleted (Application #16647)
7. Deleted (Application #16647)
8. Deleted (Application #16647)
9. Deleted (Application #16647)
10. Deleted (Application #16647)

The Equipment For Which This Authority To Construct Is Issued May Be Operated Only When In Compliance With The Following Conditions:

11. Consistency with Analyses: Owner/Operator of S-1 Gas Turbine shall operate S-1 Gas Turbine only in accordance with all information submitted with the application (and supplements thereof) and the analyses under which this permit is issued unless otherwise noted below. (Basis: BAAQMD Regulation 2-1-403)
12. Conflicts Between Paragraphs: In the event that any paragraph herein is determined to be in conflict with any other paragraph contained herein, then, if principles of law do not provide to the contrary, the owner/operator must comply with the paragraph most protective of air quality and public health and safety. (Basis: BAAQMD Regulation 1-102)
13. Reimbursement of Costs: The owner/operator of S-1 Gas Turbine shall reimburse all reasonable expenses, as set forth in the District's rules or regulations, incurred by the District for all activities that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit. (Basis: BAAQMD Regulation 2-1-303)
14. Access to Records and Facilities: As to any condition that requires for its effective enforcement the inspection of records or facilities by representatives of the District, the Air Resources Board (ARB), the U.S. Environmental Protection Agency (U.S. EPA), or the California Energy Commission (CEC), the owner/operator shall make such records available or provide access to such facilities upon notice from representatives of the

## VI. Permit Conditions

District, ARB, U.S. EPA, or CEC. Access shall mean access consistent with California Health and Safety Code Section §41510 and Clean Air Act Section §114A. (Basis: BAAQMD Regulation 1-440, 1-441)

15. Deleted (Application #16647)
16. Operations: The owner/operator of S-1 Gas Turbine shall only operate S-1 Gas Turbine if the gas turbine, emissions controls, CEMS and associated equipment are properly maintained and kept in good operating condition. (Basis: BAAQMD Regulation 2-1-403)
17. Visible Emissions: The owner/operator shall not operate S-1 Gas Turbine if air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as or darker than Ringelmann 1 or equivalent 20% opacity. . (Basis: BAAQMD Regulation 6-301)
18. Emissions Limits: The owner/operator of S-1 Gas Turbine shall only operate S-1 Gas Turbine if all of the following emission limits are met:
  - 18.1 Oxides of nitrogen (NO<sub>x</sub>) emissions from the gas turbine shall not exceed 2.5 ppmvd @ 15% O<sub>2</sub> (3-hour rolling average), except during periods of startup and shutdown as defined in this permit. The NO<sub>x</sub> emission concentration shall be verified by a District-approved continuous emission monitoring system (CEMS) and during any required source test. (Basis: BACT)
  - 18.2 Ammonia emissions from the gas turbine shall not exceed 10 ppmvd @ 15% O<sub>2</sub> (1-hour rolling average), except during periods of startup and shutdown as defined in this permit. The owner/operator shall verify the ammonia concentration by a District approved corrected ammonia slip calculation. The owner/operator shall establish the correction factor during a District approved source test. (Basis: Regulation 2, Rule 5)
  - 18.3 Carbon monoxide (CO) emissions from the gas turbine shall not exceed 6 ppmvd @ 15 % O<sub>2</sub> (3-hour rolling average), except during periods of startup and shutdown as defined in this permit. The CO emission concentration shall be verified by a District-approved CEMS and during any required source test. (Basis: BACT)
  - 18.4 Precursor organic compound (POC) emissions from the gas turbine shall not exceed 2 ppmvd @ 15% O<sub>2</sub>, except during periods of startup and shutdown as defined in this permit. The POC emission concentration shall be verified during any required source test. (Basis: BACT)

## VI. Permit Conditions

18.5 Particulate matter emissions less than ten microns in diameter (PM10) from the gas turbine shall not exceed 3.0 pounds per hour, except during periods of startup and shutdown as defined in this permit. The PM10 mass emission rate shall be verified during any required source test. (Basis: BACT & cumulative increase)

18.6 Oxides of sulfur emissions (SOx) from the gas turbine shall not exceed 1.39 pounds per hour, except during periods of startup and shutdown as defined in this permit. The SOx emission rate shall be verified during any required source test. (Basis: BACT & cumulative increase)

19. Turbine Startup: Startup of the gas turbine shall not exceed a time period of 60 minutes each per occurrence, or another time period based on good engineering practice and approved in advance by the District. The startup clock begins with the turbine's initial firing and continues until the unit meets the emission concentration limits. (Basis: Cumulative increase)

20. Turbine Shutdown: Shutdown of the gas turbine shall not exceed a time period of 30 minutes.

21. Mass Emission Limits: Owner/operator can only operate S-1 Gas Turbine if the total mass emissions from the S-1 Gas Turbine do not exceed the daily, and annual mass emission limits listed in Table 1 below.

TABLE 1 – MASS EMISSION LIMITS (INCLUDING STARTUPS AND SHUTDOWNS)

Pollutant	Daily (lb.)	Annual (tons)
NOx (as NO <sub>2</sub> )	121	16.4
CO	163	29.1
POC	30	4.9
PM10	72	13.1
SOx (as SO <sub>2</sub> )	33	6.0

The daily and annual mass limits are on a calendar basis. Daily limits shall be based on average one-hour readings and annual limits shall be based on 12-month rolling average readings from the process monitors (e.g., fuel use meters), CEMS, and source test results; and the monitoring, recordkeeping and reporting conditions of this permit. (Basis: Cumulative increase)

22. Operational Limits: In order to comply with the emission limits of this rule, the owner/operator of S-1 Gas Turbine shall operate S-1 Gas Turbine only if the following operational limits are met:

## VI. Permit Conditions

- (a) The heat input to the gas turbine shall not exceed:
- Hourly: 500 MMBtu/hr
  - Daily: 12,000 MMBtu/day
  - Annual: 4,380,000 MMBtu/yr
- (b) Only PUC Quality natural gas (General Order 58-a) shall be used to fire the gas turbine. The natural gas shall not contain total sulfur in concentrations exceeding 1 gr./100 scf.
- (c) The owner/operator of the gas turbine shall comply with the daily and annual emission limits listed in Table 1 by keeping running totals based on CEM data. (Basis: Cumulative increase)
23. Monitoring Requirements: The owner/operator of S-1 Gas Turbine shall comply with the following monitoring requirements for the gas turbine:
- (a) The gas turbine exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. (Basis: BAAQMD Regulation 2-1-403)
  - (b) The ammonia injection system shall be equipped with an operational ammonia flowmeter accurate to plus or minus five percent at full scale and calibrated once every twelve months, and injection pressure indicator (Basis: BACT)
  - (c) The gas turbine exhaust shall be equipped with continuously recording emissions monitor(s) for NO<sub>x</sub>, CO, and O<sub>2</sub> or CO<sub>2</sub>. Continuous emissions monitors shall comply with the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring concentrations and mass emissions during normal operating conditions and during startups and shutdowns. (Basis: 40CFR Part 60, Appendices B and F, and 40CFR Part 75)
  - (d) The fuel gas supply system shall be continuously recorded using District-approved fuel flow meters along with quarterly fuel compositional analyses for the fuel's higher heating value (wet basis). (Basis: Cumulative Increase)
  - (e) The fuel gas system shall have sample points and the total sulfur content of the fuel gas shall be analyzed on a quarterly basis. (Basis: BAAQMD Regulation 9-1-302))
24. Source Testing/RATA: Within sixty days after startup of the gas turbines, and at a minimum on an annual basis thereafter, the owner/operator shall perform a relative accuracy test audit (RATA) on the CEMS in accordance with 40 CFR Part 60 Appendix B

## VI. Permit Conditions

Performance Specifications. A source test shall be performed to verify compliance with part 18 at least every 8,000 hours of turbine operation or once every three years, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. The written test results of the source tests shall be provided to the District within 60 days after testing. A complete test protocol shall be submitted to the District no later than 30 days prior to testing, and notification to the District at least ten days prior to the actual date of testing shall be provided so that a District observer may be present. The source test protocol shall comply with the following: measurements of NO<sub>x</sub>, CO, POC, and stack gas oxygen content shall be conducted in accordance with ARB Test Method 100; measurements of PM<sub>10</sub> shall be conducted in accordance with ARB Test Method 5; and measurements of ammonia shall be conducted in accordance with Bay Area Air Quality Management District test method ST-1B. Alternative test methods, and source testing scope, may also be used to address the source testing requirements of the permit if approved in advance by the District. The initial and annual source tests shall include those parameters specified in the approved test protocol, and shall at a minimum include the following:

- a. NO<sub>x</sub> (as NO<sub>2</sub>) – ppmvd at 15% O<sub>2</sub> and lb/MMBtu;
  - b. Ammonia – ppmvd at 15% O<sub>2</sub> (Exhaust);
  - c. CO – ppmvd at 15% O<sub>2</sub> and lb/MMBtu (Exhaust);
  - d. POC – ppmvd at 15% O<sub>2</sub> and lb/MMBtu (Exhaust);
  - e. PM<sub>10</sub> – lb/hr (Exhaust);
  - f. SO<sub>x</sub> – lb/hr (Exhaust);
  - g. Natural gas consumption, fuel High Heating Value (HHV), and total fuel sulfur content;
  - h. Turbine load in megawatts;
  - i. Stack gas flow rate (SDCFM) calculated according to procedures in U.S. EPA Method 19.
  - j. Exhaust gas temperature (°F)
  - k. Ammonia injection rate (lb/hr or moles/hr)  
(Basis: Cumulative Increase)
25. The owner/operator of S-1 Gas Turbine shall not operate S-1 Gas Turbine until after a written quality assurance program is established in accordance with 40 CFR Part 75, Appendix B and 40 CFR Part 60 Appendix F. (Basis: 40 CFR Part 75, Appendix B and 40 CFR Part 60 Appendix F)
26. Deleted (Application #16647)
27. The owner/operator shall notify the District of any breakdown condition consistent with the District's breakdown regulations. (Basis: BAAQMD Regulation 1-208)
28. The District shall be notified by the owner/operator of S-1 Gas Turbine in writing in a

## VI. Permit Conditions

timeframe consistent with the District's breakdown regulations following the correction of any breakdown condition. The breakdown condition shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the actions taken to restore normal operations. (Basis: BAAQMD Regulation 1-208)

29. Record keeping: The owner/operator of S-1 Gas Turbine shall not operate S-1 Gas turbine unless the following records are maintained:
- (a) hourly, daily, quarterly and annual quantity of fuel used and corresponding heat input rates (Basis: Cumulative Increase);
  - (b) the date and time of each occurrence, duration, and type of any startup, shutdown, or malfunction along with the resulting mass emissions during such time period (Basis: BACT, Cumulative Increase);
  - (c) emission measurements from all source testing, RATAs and fuel analyses (Basis: BACT, Cumulative Increase, 40CFR60, 40CFR75);
  - (d) daily, quarterly and annual hours of operation (Basis: Cumulative Increase);
  - (e) hourly records of NO<sub>x</sub> and CO, emission concentrations and hourly ammonia injection rates and ammonia/NO<sub>x</sub> ratio (Basis: BACT).
  - (f) for the continuous emissions monitoring system; performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period of non-operation of any continuous emissions monitor.  
(Basis: BAAQMD Regulation 1-522)
30. All records required to be maintained by this permit shall be retained by the owner/operator for a period of five years and shall be made readily available for District inspection upon request. (Basis: BAAQMD Regulation 2-6-501)
31. Reporting: The owner/operator shall submit to the District a written report for each calendar quarter, within 30 days of the end of the quarter, which shall include:
- (a) Daily and quarterly fuel use and corresponding heat input rates (Basis: Cumulative Increase);
  - (b) Daily and quarterly mass emission rates for all criteria pollutants during normal operations and during other periods (startup/shutdown, breakdowns) (Basis: BACT, Cumulative Increase);
  - (c) Time intervals, date, and magnitude of excess emissions (Basis: BACT, Cumulative Increase);
  - (d) Nature and cause of the excess emission, and corrective actions taken (Basis: BACT, Cumulative Increase);
  - (e) Time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments (Basis: BAAQMD Regulation 1-522);
  - (f) A negative declaration when no excess emissions occurred (Basis: BACT, Cumulative Increase);

## VI. Permit Conditions

- (g) Results of quarterly fuel analyses for HHV and total sulfur content. (Basis: BACT, 40CFR75)
- 32. District Operating Permit: The owner/operator shall apply for and obtain all required operating permits from the District according to the requirements of the District's rules and regulations. (Basis: BAAQMD Regulations 2, Rule 2 & BAAQMD Regulation 2, Rule 6)
- 33. Deleted (Application #16647)

### **BAAQMD Permit Condition # 22851**

#### **Source S-2: Diesel Firewater Pump, Clarke Model JU4H-UF40, 94 HP**

1. Operating for reliability-related activities is limited to no more than 34 hours per year per engine which is the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25. This emergency fire pump is subject to the current National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems." [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations]
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)(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 activities (maintenance and testing).
  - b. Hours of operation for emission testing to show compliance with emission limits.
  - c. Hours of operation (emergency).

## VI. Permit Conditions

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, 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)]



## VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

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

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

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #20057, part 23c	C	CEM
NOx	BAAQMD 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD condition #20057, Part 24a	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
NOx	BAAQMD 9-9-301.2	N		0.43 lbs/MW hr or 9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #20057, part 23c	C	CEM

## VII. Applicable limits and Compliance Monitoring Requirements

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #20057, part 23c	C	CEM
	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD condition #20057, part 24a	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
NOx	NSPS Subpart GG, 40 CFR 60.332 (a)(1)	Y		75 ppmv @ 15% O2, dry	NSPS 40 CFR 60.334(c)	C	CEM
NOx	None	Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #20057, Part 18.1	Y		2.5 ppmv @ 15% O2, dry, 3-hr rolling average except during turbine startup or shutdown	BAAQMD condition #20057, Part 18.1	C	CEM
NOx	BAAQMD condition #20057, Part 18.1	Y		2.5 ppmv @ 15% O2, dry, 3-hr average except during turbine startup or shutdown	BAAQMD condition #20057, Part 24a	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
NOx	BAAQMD condition #20057, Part 21	Y		121 lb/calendar day (as NO2)	BAAQMD condition #20057, Part 23c	C	CEM
NOx	BAAQMD condition #20057, Part 21	Y		16.4 tons per calendar year (as NO2)	BAAQMD condition #20057, Part 23c	C	CEM

## VII. Applicable limits and Compliance Monitoring Requirements

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

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 #20057, Part 18.3	Y		6 ppmv @ 15% O <sub>2</sub> , dry, 3-hr average except during turbine startup or shutdown	BAAQMD condition #20057, parts 18.3 and 23c	C	CEM
CO	BAAQMD condition #20057, Part 18.3	Y		6 ppmv @ 15% O <sub>2</sub> , dry, 3-hr average except during turbine startup or shutdown	BAAQMD condition #20057, Part 24c	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
CO	BAAQMD condition #20057, Part 21	Y		163 lb/calendar day	BAAQMD condition #20057, Part 23c	C	CEM
CO	BAAQMD condition #20057, Part 21	Y		29.1 tons per calendar year	BAAQMD condition #20057, Part 23c	C	CEM
CO <sub>2</sub>		Y		None	40 CFR 75.10	C	CEM (CO <sub>2</sub> ) or CEM (O <sub>2</sub> ) or fuel flow monitor
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO <sub>2</sub>	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis

## VII. Applicable limits and Compliance Monitoring Requirements

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO <sub>2</sub>	NSPS 40 CFR Subpart GG 60.333(a)	Y		0.015% (vol.) @ 15% O <sub>2</sub> (dry)	NSPS 40 CFR 60.334 (h)(3)	.	Fuel measure- ments, calculations
SO <sub>2</sub>	None	Y		None	40 CFR 75.11(d)(2), 40 CFR 75, Appendix D, part 2.3		Fuel measure- ments, calculations
SO <sub>2</sub>	BAAQMD condition #20057, Part 18.6	Y		1.39 lb/ hr excluding startup and shutdown of turbines	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis
SO <sub>2</sub>	BAAQMD condition #20057, Part 18.6	Y		1.39 lb/ hr excluding startup and shutdown of turbines	BAAQMD condition #20057, Part 24f	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
SO <sub>2</sub>	BAAQMD condition #20057, Part 21	Y		33 lb/calendar day	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis
SO <sub>2</sub>	BAAQMD condition #20057, Part 21	Y		6.0 tons/calendar year	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	

## VII. Applicable limits and Compliance Monitoring Requirements

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD condition #20057, Part 17	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour or equivalent 20% opacity		N	
Filterable Particulate	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
PM <sub>10</sub>	BAAQMD condition #20057, Part 18.5	Y		3.0 lb/ hr for S-1	BAAQMD condition #20057, Part 24e	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
PM <sub>10</sub>	BAAQMD condition #20057, Part 21	Y		72 lb/calendar day	BAAQMD condition #20057, Part 24e	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source Test
PM <sub>10</sub>	BAAQMD condition #20057, Part 21	Y		13.1 tons/calendar year	BAAQMD condition #20057, Part 24e	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source Test
POC	BAAQMD condition #20057, Part 18.4	Y		2 ppmv @ 15% O <sub>2</sub> , dry, except during turbine startup or shutdown	BAAQMD condition #20057, Part 24d	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
POC	BAAQMD condition #20057, Part 21	Y		30.0 lb/calendar day	BAAQMD condition #20057, Part 24d	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test

## VII. Applicable limits and Compliance Monitoring Requirements

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

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 #20057, Part 21	Y		4.9 ton/calendar year	BAAQMD condition #20057, Part 24d	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
NH <sub>3</sub>	BAAQMD condition #20057, Part 18.2	N		10 ppmv @ 15% O <sub>2</sub> , dry, except during turbine startup or shutdown	BAAQMD condition #20057, parts 18.2 and 23b	C	Ammonia flowmeter and a District-approved corrected ammonia slip calculation.
NH <sub>3</sub>	BAAQMD condition #20057, Part 18.2	N		10 ppmv @ 15% O <sub>2</sub> , dry, except during turbine startup or shutdown	BAAQMD condition #20057, Part 24b	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
Heat input limit	BAAQMD condition #20057, Part 22	Y		500 MM BTU/ hr (HHV)	BAAQMD condition #20057, Part 23d	C	Fuel meter
Heat input limit	BAAQMD condition #20057, Part 22	Y		500 MM BTU/ hr (HHV)	BAAQMD condition #20057, Part 23d	P/Q	Fuel composition analysis
Heat input limit	BAAQMD condition #20057, Part 22	Y		500 MM BTU/ hr (HHV)	BAAQMD condition #20057, Part 24g	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test

## VII. Applicable limits and Compliance Monitoring Requirements

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat input limit	BAAQMD condition #20057, Part 22	Y		12,000 MM BTU/day (HHV)	BAAQMD condition #20057, Part 23d	C	fuel meter, calculations
Heat input limit	BAAQMD condition #20057, Part 22	Y		12,000 MM BTU/day (HHV)	BAAQMD condition #20057, Part 31g	P/Q	Fuel composition analysis
Heat input limit	BAAQMD condition #20057, Part 22	Y		4,380,000 MM BTU/yr	BAAQMD condition #20057, Part 23d	C	fuel meter, calculations
Heat input limit	BAAQMD condition #20057, Part 22	Y		4,380,000 MM BTU/yr	BAAQMD condition #20057, Part 31g	P/Q	Fuel composition analysis
MW	N/A			None	BAAQMD condition #20057, Part 24h	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
Exhaust Gas Temp.	N/A			None	BAAQMD condition #20057, Part 24j	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test
Stack gas flow	N/A			None	BAAQMD condition #20057, Part 24i	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test

## VII. Applicable limits and Compliance Monitoring Requirements

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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NH3 injection rate	N/A			None	BAAQMD condition #20057, Part 24k, 18.2	P/ Every 8,000 hrs or every 3 yrs, whichever comes first	Source test and a District-approved corrected ammonia slip calculation.
Start-up Period	BAAQMD condition #20057, part 19			60 minutes per start-up	BAAQMD condition #20057, part 31(b)	P/E	Records
Shutdown Period	BAAQMD condition #20057, part 20			30 minutes per shutdown	BAAQMD condition #20057, part 31(b)	P/E	Records
Fuel Sulfur Content	40 CFR 60.333(b)	Y		0.8 percent by weight (8000 ppmw) sulfur	40 CRFR 60.334(h)(1)	P	Fuel Sulfur Content Testing



## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 - DIESEL FIREWATER PUMP**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD 9-1-301	N		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		P/E	Fuel certification by vendor
	BAAQMD 9-1-304	Y		Sulfur content of fuel <0.5% by weight		P/E	Fuel certification by vendor
Opacity	SIP Regulation 6-303	Y		< Ringelmann No. 2 for more than 3 min/hr		N	
Opacity	BAAQMD Regulation 6-1-303	N		< Ringelmann No. 2 for more than 3 min/hr		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
Hours of operation	BAAQMD 9-8-330.1 BAAQMD Condition #22851 Part 2	Y		Emergency use for an unlimited number of hours	BAAQMD 9-8-530 BAAQMD Condition #22851 Part 3	C P/E	Hour meter, recordkeeping
Hours of operation	BAAQMD 9-8-330.3 BAAQMD Condition #22851 Part 1	Y		Reliability-related activities not to exceed 34 hours in any consecutive 12-month period	BAAQMD 9-8-530 BAAQMD Condition #22851 Part 3	C P/E	Hour meter, recordkeeping

## VII. Applicable limits and Compliance Monitoring Requirements

**Table VII - C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-3 - COOLING TOWER**

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 Regulation 6-1-301	N		< Ringelmann No. 1 for more than 3 min/hr	N	N	
Particulate Weight	BAAQMD Regulation 6-1-310	N		0.15 grains per dscf	N	N	
Opacity	SIP Regulation 6-301	Y		< Ringelmann No. 1 for more than 3 min/hr	<u>N</u>	<u>N</u>	
Particulate Weight	SIP Regulation 6-310	Y		0.15 grains per dscf	<u>Y</u>	<u>N</u>	
Particulate Weight	BAAQMD Regulation 6-1-311	Y		40 lb/hr	<u>N</u>	<u>N</u>	
Particulate Weight	SIP Regulation 6-311	Y		40 lb/hr	<u>N</u>	<u>N</u>	

## VIII. TEST METHODS

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

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
BAAQMD 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 6-311	General Operations	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-9-301.2	Emission Limits- Turbines Rated $\geq 250$ -500 MMBtu/hr	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-301.3	Emission Limits- Turbines Rated $\geq 10$ MW w/SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
<b>NSPS 40 CFR 60 Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (2/24/06)</b>	
60.332 (a)(1)	Performance Standard, NOx	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO <sub>2</sub> Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation

## VIII. Test Methods

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
NSPS 40 CFR 60.8	40 CFR 60, Appendix A	EPA Method 7, Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
<b>BAAQMD Condition # 20057 for S-1 Combustion Gas Turbine</b>		
Part 18.1	NOx Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 18.2	NH3 Limit	Manual of Procedures, Volume IV, ST-1B, Ammonia, Integrated Sampling
Part 18.3	CO Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 18.4	POC Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 18.5	PM10 Limit	ARB Method 5, Determination of Particulate Matter Emissions from Stationary Sources
Part 18.6	SOx Limit	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling or ST-19B, Total Sulfur Oxides, Integrated Sample

**IX. TITLE IV ACID RAIN PERMIT**

**Effective May 30, 2018 through May 29, 2023**

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**ISSUED TO:**

**Goose Haven Energy Center, LLC  
2425 Cordelia Road  
Fairfield, CA 94534**

**PLANT SITE LOCATION:**

**3853 Goose Haven Road  
Suisun City, CA 94585**

**ISSUED BY:**

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

May 30, 2018  
Date

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

**DESIGNATED REPRESENTATIVE**

**Name: Andrew Gundershaug**  
**Title: Plant Manager**  
**Address: 2425 Cordelia Road, Fairfield, CA 94534**  
**Phone: (707) 399-4393**

**FACILITY CONTACT PERSON:**

**Name: Allison Bryan**  
**Title: Operation Manager**  
**Phone: (707) 399-4395**

## **IX. Title IV Acid Rain Permit**

### **ACID RAIN PERMIT CONTENTS**

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

#### **1) STATEMENT OF BASIS**

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

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

S-1 at the facility is not entitled to any SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73 for the term of this permit.

#### **3) COMMENTS, NOTES AND JUSTIFICATIONS**

None

#### **4) PERMIT REQUIREMENTS**

The owners and operators of the facility must comply with the standard requirements and special provisions set forth in the facility's Title IV permit application, which is set forth in Section XIII. The main provisions of the regulations for natural gas fired acid rain sources, such as the ones at this facility, are the requirement to obtain one SO<sub>2</sub> allowance for each ton of SO<sub>2</sub> that is emitted, stringent monitoring requirements for NO<sub>x</sub>, CO<sub>2</sub>, and SO<sub>2</sub>, and stringent recordkeeping and reporting requirements. Additional acid-rain-related permit requirements are stated in Standard Condition L in Section I of this permit.

**X. PERMIT SHIELD**

**A. Non-applicable Requirements**

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] do not apply to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited, as long as the reasons listed below remain valid for the source or group of sources covered by this shield.

**Table X A - 1**  
**Permit Shield for Non-Applicable Requirements**  
**S-1 – COMBUSTION GAS TURBINE**

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)

BAAQMD Regulation 4 requires facilities emitting more than 100 tons/yr of any pollutant to submit an air pollution episode plan. Because the facility’s potential to emit is limited by permit conditions to less than 100 tons/yr for all pollutants, Regulation 4 is not applicable to the facility.

**B. Subsumed Requirements:**

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

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

## **XI. REVISION HISTORY**

<b><u>Date</u></b>	<b><u>Action</u></b>	<b><u>Details</u></b>
March 6, 2003	Initial Permit	Initial permit (Application 5013)
April 23, 2007	Significant revision	Change permit condition to allow for source test every 8,000 hours of turbine operation or every 3 years. Change permit condition to allow for ammonia slip calculation and correction factor determined by source test. Application 11004 (NSR Application 11005, 4/5/05).
October 24, 2011	Renewal of Title V Permit	(Application 16647)
May 30, 2018	Renewal of Title V Permit	(Application 27946)



## **XII. GLOSSARY**

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**API**

American Petroleum Institute

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**BARCT**

Best Available Retrofit Control Technology

**Basis**

The underlying authority that allows the District to impose requirements.

**C5**

An Organic chemical compound with five carbon atoms

**C6**

An Organic chemical compound with six carbon atoms

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**CEC**

California Energy Commission

**CEQA**

California Environmental Quality Act

**CEM**

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

**CFR**

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

**CO**

Carbon Monoxide

## **XII. GLOSSARY**

### **CO2**

Carbon Dioxide

### **Cumulative Increase**

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

### **District**

The Bay Area Air Quality Management District

### **dscf**

Dry Standard Cubic Feet

### **dscm**

Dry Standard Cubic Meter

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

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

### **EGT**

Exhaust Gas Temperature

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District Regulations.

### **Federally Enforceable, FE**

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

### **FP**

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

### **FR**

Federal Register

### **GDF**

Gasoline Dispensing Facility

### **GLM**

Ground Level Monitor

### **grains**

1/7000 of a pound

### **HAP**

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

## **XII. GLOSSARY**

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

Hydrogen Sulfide

### **HHV**

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

### **LHV**

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

### **Major Facility**

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

### **MFR**

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

### **MOP**

The District's Manual of Procedures

### **MSDS**

Material Safety Data Sheet

### **MW**

Megawatts

### **NA**

Not Applicable

### **NAAQS**

National Ambient Air Quality Standards

### **NESHAPs**

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

### **NMHC**

Non-methane Hydrocarbons

### **NMOC**

Non-methane Organic Compounds (Same as NMHC)

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

Oxides of nitrogen.

### **NSPS**

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

### **NSR**

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

## **XII. GLOSSARY**

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

The chemical name for naturally-occurring oxygen gas.

### **Offset Requirement**

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

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

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

### **POC**

Precursor Organic Compounds

### **PM**

Total Particulate Matter

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

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

### **PSD**

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

### **SCR**

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

### **SIP**

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

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

Sulfur dioxide

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

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

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

Sulfur trioxide

### **THC**

Total Hydrocarbons (NMHC + Methane)

### **therm**

100,000 British Thermal Unit

### **Title V**

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

## XII. GLOSSARY

### TOC

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

### TSP

Total Suspended Particulate

### TVP

True Vapor Pressure

### VOC

Volatile Organic Compounds

#### Units of Measure:

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

#### Symbols:

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

### XIII. TITLE IV ACID RAIN APPLICATION

Goose Haven Energy Center, LLC Facility (Source) Name (from STEP 1)
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Page 5

any other provision of the Act, including the provisions of title I of the Act relating

**STEP 3, Cont'd.**


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

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

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

**Certification**

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	Andrew Gundershaug		
Signature		Date	2/6/18