

Bay Area Air Quality Management District

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

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
Fernando Parra, Plant Manager
707-399-4393

Facility Contact
Bob Ibrahim, Plant Engineer
707-399-4395

Type of Facility: Generation of Electricity
Primary SIC: 4911

BAAQMD Permit Division Contact:
Madhav Patil, Air Quality Engineer

Product: Electricity

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent _____
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

October 24, 2011
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 3/4/09);
- SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 6/15/05);
- SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/21/04);
- SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on 1/6/10); and
- BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03).
- SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95).

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

1. This Major Facility Review Permit was issued on October 24, 2011, and expires on October 23, 2016. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than April 23, 2016 and no earlier than October 23, 2015. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after October 23, 2016.** If the permit renewal has not been issued by October 23, 2016, 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 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 to the following address:

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

(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 1st through November 30. The certification shall be submitted by December 31st 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 permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

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

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

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in 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

I. Standard Conditions

§68.10. The permit holder shall also certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by 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. Every year starting January 30, 2003, the permit holder shall hold one sulfur dioxide allowance on March 1 (February 29th 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 CO₂ and NO_x 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_x which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (BAAQMD Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO₂ 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.

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**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
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 (3/4/09)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 2	Permits, New Source Review (6/15/05)	N
SIP Regulation 2, Rule 2	Permits, New Source Review (1/26/99)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/21/04)	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (01/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (1/6/10)	N
BAAQMD Regulation 2, Rule 6	Permits, Major Facility Review (4/16/03)	N
SIP Regulation 2, Rule 6	Permits, Major Facility Review (6/23/95)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (7/9/08)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/05/07)	N
SIP Regulation 6	Particulate Matter and Visible Emission (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/21/01)	Y
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds- Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 8, Rule 47	Organic Compound – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	<u>N</u>
<u>SIP Regulation 8, Rule 47</u>	<u>Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/26/95)</u>	<u>Y</u>
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds – Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 64, (CAM)	Compliance Assurance Monitoring	N

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/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 parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full 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-Facility
 Source-specific Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 98	Mandatory Greenhouse Gas Reporting		
Subpart A	General Provisions		
98.1	Purpose and scope	Y	
98.2	Who must report?	Y	
98.2(a)(1)(i)	Electricity Generation	Y	
98.2(i)	Duration of reporting	Y	
98.3	What are the general monitoring, reporting, recordkeeping and verification requirements of this part?	Y	
98.3(a)	General	Y	
98.3(b)	Schedule	Y	
98.3(c)	Content of the annual report	Y	
98.3(d)	Special provisions for reporting year 2010	Y	
98.3(e)	Emission calculations	Y	
98.3(f)	Verification	Y	
98.3(g)	Recordkeeping	Y	
98.3(h)	Annual GHG report revisions	Y	

IV. Source-Specific Applicable Requirements

**Table IV-Facility
 Source-specific Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
98.3(i)	Calibration accuracy requirements	Y	
98.4	Authorization and responsibilities of the designated representative	Y	
98.5	How is the report submitted?	Y	
98.8	What are the compliance and enforcement provisions of this part?	Y	
Subpart D	Electricity Generation	Y	
98.4	Definition of source category	Y	
98.41	Reporting threshold	Y	
98.42	GHGs to report	Y	
98.43	Calculating GHG emissions	Y	
98.44	Monitoring and QA/QC requirements	Y	
98.45	Procedures for estimating missing data	Y	
98.46	Data reporting requirements	Y	
98.47	Records that must be retained	Y	
98.48	Definitions	Y	
CA Code of Regulations, Title 17, Subchapter 10, Article 2	Mandatory Greenhouse Gas Emissions Reporting		
§ 95101(b)(4)	Applicability (electricity generating facilities)	N	
§ 95101(b)(7)	Applicability (cogeneration facilities)	N	
Subarticle 1	General Requirements for the Mandatory Reporting of Greenhouse Gas Emissions		
§ 95102	Definitions	N	
§ 95103(a)	General Greenhouse Gas Reporting Requirements	N	
§ 95103(a)(1)	Report Content	N	
§ 95103(a)(2)	Stationary Sources	N	
§ 95103(b)	Reporting Schedule – Existing Facilities	N	
§ 95103(c)	Verification – Existing Facilities	N	
§ 95104	Greenhouse Gas Emissions Data Report	N	
§ 95104(a)	Emissions Data Report	N	
§ 95104(b)	Maintaining the GHG Inventory Program	N	
§ 95104(c)	Data Completeness	N	
§ 95104(d)	Revisions	N	
§ 95105	Document Retention and Record Keeping Requirements	N	
§ 95106	Confidentiality	N	

IV. Source-Specific Applicable Requirements

**Table IV-Facility
 Source-specific Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
§ 95107	Enforcement	N	
§ 95108	Severability	N	
§ 95111(a)	Data Requirements and Calculation Methods for Electricity Generating Facilities	N	
§ 95111(c)	Calculation of CO2 Emissions from Stationary Combustion	N	
§ 95111(d)	Calculation of N2O and CH4 from Stationary Combustion	N	
§ 95111(f)	Determining Fugitive SF6 Emissions	N	
§ 95111(g)	Determining Fugitive HFC Emissions	N	
§ 95111(h)	Calculation of Fugitive CH4 Emissions	N	
§ 95112	Data Requirements and Calculation Methods for Cogeneration Facilities	N	
§ 95112(a)	Greenhouse Gas Emissions Data Report	N	
§ 95112(b)	Calculation of CO2, N2O, and CH4 Emissions	N	
Subarticle 3	Calculation Methods Applicable To Multiple Types of Facilities		
§ 95125	Additional Calculation Methods	N	
Subarticle 4	Requirements for Verification of Greenhouse Gas Emissions Data Reports and Requirements Applicable to Emissions Data Verifiers		
§ 95130	Requirements for Verification of Emissions Data Reports	N	

IV. Source-Specific Applicable Requirements

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
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)		
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	
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	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.3	Reports of Violations	Y	
BAAQMD Regulation 2, Rule 1	Regulation 2, Rule 1 - Permits, General Requirements (11/19/08)		
2-1-501	Monitors	Y	
BAAQMD Regulation 6 Rule 1	Particulate Matter General Requirements (12/05/07)		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	

IV. Source-Specific Applicable Requirements

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
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	Particulate Matter and Visible Emissions (09/04/98)		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 9	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/06/06)		
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 ≥ 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	
SIP Regulation 9, Rule 9	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/97)		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
BAAQMD Manual of Procedures, Volume V	Continuous Emission Monitoring Policy and Procedures (1/20/82)	Y	

IV. Source-Specific Applicable Requirements

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
40 CFR 60 Subpart A	Standards of Performance for New Stationary Sources (12/23/71) General Provisions	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	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart GG	Standards of Performance for Stationary Gas Turbines (2/24/06)		
60.332(a)(1)	Standard for Nitrogen Oxides	Y	
60.333	Standard for sulfur dioxide	Y	
60.333(a)	SO ₂ Concentration < 0.015 percent @ 15% O ₂ (Turbine Only)	Y	
60.333(b)	Standard for Sulfur Dioxide – Fuel Sulfur Content Limit	Y	
60.334	Monitoring of Operations	Y	
60.334((b)	NO _x 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 _x Excess Emissions and Monitor Downtime reporting requirements	Y	
60.335	Test Methods and Procedures	Y	
40 CFR 64	Compliance Assurance Monitoring (10/27/97)		
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	

IV. Source-Specific Applicable Requirements

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
64.3(b)(1)	Requirement for specifications that provide for obtaining data that are representative of the emissions (for CO and SO ₂ 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	
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	

IV. Source-Specific Applicable Requirements

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
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	
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	
40 CFR Part 72	Permits Regulation (Title IV – Acid Rain Program)	Y	
	Subpart A – Acid Rain Program General Requirements		
72.6	Applicability	Y	
72.6(a)(3)	New utility unit (at the time of commencement of commercial operation)	Y	
72.9	Standard Requirements	Y	
72.9(a)	Permit Requirements	Y	
72.9(a)(1)(i)	Submittal of a complete acid rain permit application	Y	
72.9(a)(1)(iii)	Submittal of information in a timely manner	Y	
72.9(a)(2)(i)	Operation in compliance with Acid Rain permit	Y	
72.9(a)(2)(ii)	Have an Acid Rain Permit	Y	
72.9(b)	Monitoring Requirements	Y	
72.9(c)	Sulfur Dioxide Requirements	Y	
72.9(c)(1)	Requirement to hold allowances as of allowance transfer deadline	Y	
72.9(c)(2)	Each ton of excess SO ₂ emissions is a separate violation of the CAA	Y	
72.9(c)(3)	Initial deadline to hold allowances	Y	
72.9(c)(3)(iv)	Deadline at time of monitor certification	Y	
72.9(c)(4)	Use of Allowance Tracking System	Y	

IV. Source-Specific Applicable Requirements

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
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	
72.9(g)	Liability	Y	
72.9(h)	Effect on Other Authorities	Y	
	Subpart C – Acid Rain Permit Applications		
72.30(a)	Requirement to apply	Y	
72.30(c)	Duty to reapply. Requirement to submit complete acid rain application 6 months prior to expiration of current acid rain permit.	Y	
72.31	Information requirements for Acid Rain permit applications	Y	
72.31(a)	Identification of affected source	Y	
72.31(b)	Identification of each affected emissions unit	Y	
72.31(c)	Complete compliance plan	Y	
72.31(d)	Standard requirements under 40 CFR 72.9	Y	
72.31(e)	If the Acid Rain permit application is for Phase II and the unit is a new unit, the date that the unit has commenced or will commence operation and the deadline for monitor certification.	Y	
72.32	Permit application shield and binding effect of permit application	Y	
	Subpart E – Acid Rain Permit Contents		
72.50	General	Y	
72.50(a)	Acid Rain Permits	Y	
72.50(a)(1)	Permits must contain all elements of complete Acid Rain Application under 40 CFR 72.31	Y	
72.50(b)	Permits include terms in 40 CFR 72.2	Y	
72.51	Permit Shield	Y	
40 CFR Part 75	Continuous Emissions Monitoring	Y	
	Subpart A – General	Y	
75.2	Applicability	Y	
75.2(a)	Applicability to affected units subject to Acid Rain emission limitations	Y	

IV. Source-Specific Applicable Requirements

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
75.4	Compliance Dates	Y	
75.4(b)	New affected unit (at the time of the commencement of commercial operation) shall ensure that all monitoring systems required under this part for monitoring of SO ₂ , NO _x , CO ₂ , opacity, and volumetric flow are installed and all certification tests are completed on or before the later of the following dates	Y	
75.4(b)(2)	The earlier of 90 unit operating days or 180 calendar days after the date the unit commences commercial operation, notice of which date shall be provided under subpart G of this part.	Y	
75.5	Prohibitions	Y	
	Subpart B – Monitoring Provisions	Y	
75.10	General Operating Requirements	Y	
75.10(a)	Primary Measurement Requirement	Y	
75.10(a)(1)	SO ₂ Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NO _x Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO ₂ Emissions	Y	
75.10(a)(3)(ii)	CO ₂ Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	Y	
75.10 (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 ₂ emissions	Y	
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO ₂ Emissions Data Protocol for Gas-Fired and Oil-Fired Units to monitor SO ₂ emissions.	Y	
75.12	Specific provisions for monitoring NO _x emission rate	Y	

IV. Source-Specific Applicable Requirements

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
75.12(a)	NOx continuous emission monitor and diluents monitoring requirement	Y	
75.12(c)	NOx mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO2 emissions	Y	
75.13(b)	Determination of CO2 emissions using Appendix G	Y	
75.14	Specific Provisions for monitoring opacity	Y	
75.14(c)	Gas-Fired Units Exempt from Opacity Monitoring	Y	
	Subpart C – Operation and Maintenance Requirements	Y	
75.20	Initial certification and recertification procedures	Y	
75.20(a)	Initial certification and approval process	Y	
75.20(b)	Recertification approval process	Y	
75.20(c)	Initial certification and recertification procedures	Y	
75.20(g)	Initial certification and recertification procedures for excepted monitoring systems under appendices D and E	Y	
75.21	Quality assurance and quality control requirements	Y	
75.21(a)	Continuous emission monitoring systems	Y	
75.21(c)	Calibration gases	Y	
75.21(d)	Notification for periodic Relative Accuracy Test Audits	Y	
75.21(e)	Consequences of audits	Y	
75.22	Reference test methods	Y	
75.24	Out-of-control periods and adjustment for system bias	Y	
	Subpart D – Missing Data Substitution Procedures	Y	
75.30	General Provisions	Y	
75.30(a)	Owner/operator shall provide substitute data for each affected unit using a continuous emission monitor according to this subpart whenever the unit is combusting fuel.	Y	
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	

IV. Source-Specific Applicable Requirements

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
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	
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)	SO2 emission record provisions	Y	
75.57(d)	NOx emission record provisions	Y	
75.57(e)	CO2 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	

IV. Source-Specific Applicable Requirements

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
75.58(c)	Specific SO ₂ emission record provisions for gas-fired or oil-fired units using optional protocol in appendix D to this part. In lieu of recording the information in §75.57(c), the owner or operator shall record the applicable information in this paragraph for each affected gas-fired or oil-fired unit for which the owner or operator is using the optional protocol in appendix D to this part for estimating SO ₂ mass emissions	Y	
75.59	Certification, quality assurance, and quality control record provisions	Y	
75.59(a)	Continuous emission or opacity monitoring systems	Y	
75.59(b)	Accepted monitoring systems for gas-fired and oil-fired units. The owner or operator shall record the applicable information in this section for each excepted monitoring system following the requirements of appendix D to this part or appendix E to this part for determining and recording emissions from an affected unit.	Y	
75.59(c)	Except as otherwise provided in §75.58(b)(3)(i), units with add-on SO ₂ or NO _x emission controls following the provisions of §75.34(a)(1) or (a)(2), and for units with add-on Hg emission controls, the owner or operator shall keep the following records on-site in the quality assurance/quality control plan required by section 1 of appendix B to this part:	Y	
75.59(f)	DAHS Verification. For each DAHS (missing data and formula) verification that is required for initial certification, recertification, or for certain diagnostic testing of a monitoring system, record the date and hour that the DAHS verification is successfully completed. (This requirement only applies to units that report monitoring plan data in accordance with §75.53(g) and (h).)	Y	
	Subpart G – Reporting Requirements	Y	
75.60	General Provisions	Y	
75.61	Notifications	Y	
75.62	Monitoring plan submittals	Y	
75.63	Initial certification or recertification application	Y	
75.64	Quarterly reports	Y	
75.66	Petitions to the administrator	Y	
BAAQMD Condition #20057	Conditions to the Permit to Operate for S-1 Combustion Gas Turbine		

IV. Source-Specific Applicable Requirements

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
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	
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	

IV. Source-Specific Applicable Requirements

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
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	
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
BAAQMD Regulation 6 Rule 1	Particulate Matter General Requirements (12/05/07)		
6-1-302	Ringelmann No. 2 Limitation	N	
6-1-305	Visible Particulates	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	Particulate Matter and Visible Emissions (09/04/98)		
6-302	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants, Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
BAAQMD Regulation 9, Rule 8	Inorganic Gaseous Pollutants (7/25/07)		
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	
9-8-330.2	100 hours for reliability and maintenance	N	
9-8-330.3	50 hours for reliability and maintenance	N	1/1/12
9-8-530	Emergency standby engines, monitoring and recordkeeping	N	
9-8-502	Recordkeeping	N	
9-8-502.1	Monthly records of usage	N	
CCR, Title 17, Section 93115	ATCM for Stationary Compression Ignition Engines	N	
93115.5	Fuel Requirements	N	
93115.6	ATCM for Stationary CI Engines – Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards	N	
93115.6(b)	In-Use Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards	N	
93115.6(b)(3)	Emission and operation standards	N	
93115.6(b)(3)(A)	Diesel PM Standard and Hours of Operation Limitations	N	

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
93115.6(b)(3)(A)(1)	General Requirements	N	
93115.6(b)(3)(A)(1)(a)	50 hours/yr for maintenance & testing	N	
93115.6(b)(3)(B)	Applicable Emissions Standards for HC, NO _x , NMHC+NO _x , and CO	N	
93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
93115.10(a)	Reporting	N	
93115.10(c)	Demonstration of Compliance with Emission Limits	N	
93115.10(e)(1)	Monitoring Equipment	N	
93115.10(g)	Reporting Requirements for Emergency Standby Engines	N	
93115.11	ATCM for Stationary CI Engines – Compliance Schedule for Owners or Operators of Three or Fewer Engines (>50 bhp) Located within a District	N	
93115.11(a)	Compliance by 1/1/06 for engines complying by reducing hours of operation	N	
93115.12	Tiered Compliance Schedule	N	
93115.15	Severability	N	
BAAQMD Condition 22850	Conditions to the Permit to Operate for S-2 Diesel Firewater Pump		
Part 1	Duration for reliability-related testing [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (3) or (e) (2) (B) (3)]	Y	
Part 2	Mitigate emergency conditions [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (3) or (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 (Cumulative Increase)	Y	
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	

IV. Source-Specific Applicable Requirements

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
BAAQMD Regulation 6, Rule 1	Particulate Matter - General Requirements (12/05/07)		
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	
SIP Regulation 6	Particulate Matter and Visible Emissions (09/04/98)		
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:

Clock Hour:	Any continuous 60-minute period beginning on the hour.
Calendar Day:	Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
Year:	Any consecutive twelve-month period of time
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in Btu/scf.
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 _x , CO or NH ₃) 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 ₂ 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 systems.

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Commissioning Period: The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed performance testing and is available for commercial operation, 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 NOx 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 NOx 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)
2. Deleted (Application #16647)

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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 District, ARB, U.S. EPA, or CEC. Access shall mean access consistent with California

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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_x) emissions from the gas turbine shall not exceed 2.5 ppmvd @ 15% O₂ (3-hour rolling average), except during periods of startup and shutdown as defined in this permit. The NO_x 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% O₂ (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 % O₂ (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% O₂, 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)

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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 ₂)	121	16.4
CO	163	29.1
POC	30	4.9
PM10	72	13.1
SOx (as SO ₂)	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

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operational limits are met:

- (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 not operate S-1 Gas Turbine unless the following monitoring systems are installed, maintained and available for service:

(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_x, CO, and O₂ or CO₂. 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))

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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 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_x, CO, POC, and stack gas oxygen content shall be conducted in accordance with ARB Test Method 100; measurements of PM₁₀ 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_x (as NO₂) – ppmvd at 15% O₂ and lb/MMBtu;
 - b. Ammonia – ppmvd at 15% O₂ (Exhaust);
 - c. CO – ppmvd at 15% O₂ and lb/MMBtu (Exhaust);
 - d. POC – ppmvd at 15% O₂ and lb/MMBtu (Exhaust);
 - e. PM₁₀ – lb/hr (Exhaust);
 - f. SO_x – 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)

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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 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_x and CO, emission concentrations and hourly ammonia injection rates and ammonia/NO_x 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

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- 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);
 - (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 # 22850

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

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]
2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]
3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]
4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
 - a. Hours of operation for reliability-related activities (maintenance and testing).
 - b. Hours of operation for emission testing to show compliance with emission limits.

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c. Hours of operation (emergency).

d. For each emergency, the nature of the emergency condition.

e. Fuel usage for each engine(s).

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

5. At School and Near-School Operation: If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply: The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

a. Whenever there is a school sponsored activity (if the engine is located on school grounds)

b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session. "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, 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/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first

VII. Applicable limits and Compliance Monitoring Requirements

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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 9-9-301.2	N		0.43 lbs/MW hr or 9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #20057 part 23c	C	CEM
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/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
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/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first

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	BAAQMD condition #20057, Part 21	Y		121 lb/calendar day (as NO ₂)	BAAQMD condition #20057, Part 23c	C	CEM
NOx	BAAQMD condition #20057, Part 21	Y		16.4 tons per calendar year (as NO ₂)	BAAQMD condition #20057, Part 23c	C	CEM
CO	BAAQMD condition #20057, Part 18.3	Y		6 ppmv @ 15% O ₂ , 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 ₂ , dry, 3-hr average except during turbine startup or shutdown	BAAQMD condition #20057, Part 24c	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
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 ₂		Y		None	40 CFR 75.10	C	CEM (CO ₂) or CEM (O ₂) or fuel flow monitor

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 ₂	BAAQMD 9-1-301	Y		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO ₂	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis
SO ₂	NSPS 40 CFR Subpart GG 60.333(a)	Y		0.015% (vol.) @ 15% O ₂ (dry)	NSPS 40 CFR 60.334 (h)(3)	.	Fuel measurements, calculations
SO ₂	None	Y		None	40 CFR 75.11(d)(2), 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations
SO ₂	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 ₂	BAAQMD condition #20057, Part 18.6	Y		1.39 lb/ hr excluding startup and shutdown of turbines	BAAQMD condition #20057, Part 24f	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
SO ₂	BAAQMD condition #20057, Part 21	Y		33 lb/calendar day	BAAQMD condition #20057, Part 23e	P/Q	Total sulfur analysis

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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 ₂	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	
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 ₁₀	BAAQMD condition #20057, Part 18.5	Y		3.0 lb/ hr for S-1	BAAQMD condition #20057, Part 24e	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
PM ₁₀	BAAQMD condition #20057, Part 21	Y		72 lb/calendar day	BAAQMD condition #20057, Part 24e	P/A	Source Test every 8,000 hrs or every 3 yrs, whichever comes first

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
PM ₁₀	BAAQMD condition #20057, Part 21	Y		13.1 tons/calendar year	BAAQMD condition #20057, Part 24e	P/A	Source Test every 8,000 hrs or every 3 yrs, whichever comes first
POC	BAAQMD condition #20057, Part 18.4	Y		2 ppmv @ 15% O ₂ , dry, except during turbine startup or shutdown	BAAQMD condition #20057, Part 24d	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
POC	BAAQMD condition #20057, Part 21	Y		30.0 lb/calendar day	BAAQMD condition #20057, Part 24d	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
POC	BAAQMD condition #20057, Part 21	Y		4.9 ton/calendar year	BAAQMD condition #20057, Part 24d	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
NH ₃	BAAQMD condition #20057, Part 18.2	N		10 ppmv @ 15% O ₂ , dry, except during turbine startup or shutdown	BAAQMD condition #20057, parts 18.2 and 23b	C	Calculation based on source test and NH ₃ to NO _x ratio at inlet to SCR

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
NH ₃	BAAQMD condition #20057, Part 18.2	N		10 ppmv @ 15% O ₂ , dry, except during turbine startup or shutdown	BAAQMD condition #20057, Part 24b	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
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/M	Fuel composition analysis
Heat input limit	BAAQMD condition #20057, Part 22	Y		500 MM BTU/ hr (HHV)	BAAQMD condition #20057, Part 24g	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
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

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		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/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
Exhaust Gas Temp.	N/A			None	BAAQMD condition #20057, Part 24j	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first
Stack gas flow	N/A			None	BAAQMD condition #20057, Part 24i	P/A	Source test every 8,000 hrs or every 3 yrs, whichever comes first

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/A	Source test District approved correct ammonia slip calculation and correction factor determined by source test with source. test every 8,000 hrs or every 3 yrs, whichever comes first
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 ¹ 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 6-302	Y		< Ringelmann No. 2 for more than 3 min/hr		N	
Opacity	BAAQMD Regulation 6-1-302	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 #22850 Part 1	Y		Emergency use for an unlimited number of hours	BAAQMD 9-8-530 BAAQMD Condition #22850 Part 3	C P/E	Hour meter, recordkeeping
Hours of operation	BAAQMD 9-8-330.2 BAAQMD Condition #22850 Part 1	Y		Reliability-related activities not to exceed 50 hours in any consecutive 12-month period	BAAQMD 9-8-530 BAAQMD Condition #22850 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**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
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 ≥ 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 ≥ 10 MW w/SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
NSPS Subpart GG	Standards of Performance for Stationary Gas Turbines (2/24/06)	
60.332 (a)(1)	Performance Standard, NO _x	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO ₂ Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation

VIII. Test Methods

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
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
BAAQMD Condition # 20057 for S-1 Combustion Gas Turbine		
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 October 24, 2011 through October 23, 2016

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 Jeff McKay for Jack P. Broadbent
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

October 24, 2011
Date

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

DESIGNATED REPRESENTATIVE

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

FACILITY CONTACT PERSON:

Name: Bob Ibrahim
Title: Plant Engineer
Phone: (707) 399-4395

IX. Title IV Acid Rain Permit

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowance allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements of conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1) STATEMENT OF BASIS

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

2) SO₂ ALLOWANCE ALLOCATIONS

	Year	2011	2012	2013	2014	2015
	SO₂ allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
S-1, Combustion Turbine	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

3) COMMENTS, NOTES AND JUSTIFICATIONS

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

S-1 Gas Turbine is not listed in table-2 of 40 CFR Part 73, therefore, the operator did not receive SO₂ allowances under the Acid Rain Program.

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

IX. Title IV Acid Rain Permit

4) PERMIT APPLICATION

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

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

<u>Date</u>	<u>Action</u>	<u>Details</u>
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)

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_x 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.

H₂S

Hydrogen Sulfide

XII GLOSSARY

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_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the 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.)

O₂

The chemical name for naturally-occurring oxygen gas.

XII GLOSSARY

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, NOx, PM10, and SO2.

Phase II Acid Rain Facility

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

POC

Precursor Organic Compounds

PM

Total Particulate Matter

PM10

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

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of 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 NOx 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 NOx 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.

SO2

Sulfur dioxide

SO2 Bubble

An SO2 bubble is an overall cap on the SO2 emissions from a defined group of sources, or from an entire facility. SO2 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 SO2 emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H2S and other sulfur compounds in the RFG.

SO3

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.

TOC

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

XII GLOSSARY

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 ³	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	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



United States
 Environmental Protection Agency
 Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

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

This submission is: New Revised

STEP 1

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

GOOSE HAVEN ENERGY CENTER	CA	55627
Plant Name	State	ORIS Code

STEP 2

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

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
UNIT 1	Yes	NA	NA
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

GOOSE HAVEN ENERGY CENTER
Plant Name (from Step 1)

STEP 3
Read the
standard
requirements

Permit Requirements

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

Monitoring Requirements

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

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

GOOSE HAVEN ENERGY CENTER
Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3,
Cont'd.

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

Excess Emissions Requirements

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

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

GOOSE HAVEN ENERGY CENTER
Plant Name (from Step 1)

Acid Rain - Page 4

Step 3,
Cont'd.

Liability, Cont'd.

- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

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


- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the
certification
statement,
sign, and
date

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

Name	Fernando Parra
Signature	
Date	8/29/07

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