Bay Area Air Quality Management District

939 Ellis Street 375 Beale Street, Suite 600 San Francisco, CA 9410994105 (415) 771-6000 (415) 749-5000

Final Proposed

MAJOR FACILITY REVIEW PERMIT

Issued To:

Gilroy Energy Center, LLC for the Riverview Energy Center Facility #B4512

Facility Address:

795 Minaker Road Antioch CA 94509

Mailing Address:

2425 Cordelia Road Fairfield CA 94534

Responsible OfficialFacility ContactFernando ParraAndrew Gundershaug,Bob IbrahimAllison Bryan,Plant ManagerPlant Engineer Operations Manager EHS Specialist(707) 399-4393(707) 399-4395

Type of Facility: Primary SIC: Generation of Electricity 4911

BAAQMD Permit Division Contact: Dharam SinghKrishnan Balakrishnan

Product: Electricity

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TABLE OF CONTENTS

| I. | STANDARD CONDITIONS |
|-------|--|
| II. | EQUIPMENT |
| III. | GENERALLY APPLICABLE REQUIREMENTS |
| IV. | SOURCE-SPECIFIC APPLICABLE REQUIREMENTS |
| V. | SCHEDULE OF COMPLIANCE |
| VI. | PERMIT CONDITIONS |
| VII. | APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS |
| VIII. | TEST METHODS |
| IX. | TITLE IV ACID RAIN PERMIT |
| X. | PERMIT SHIELD |
| XI. | GLOSSARY |
| XIII. | TITLE IV ACID RAIN APPLICATION |
| XIV. | REVISION HISTORY |

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 05/04/11); SIP Regulation 1 - General Provisions and Definitions (as approved by EPA through 06/28/99); BAAQMD Regulation 2, Rule 1 - Permits, General Requirements (as amended by the District Board on $12/19/12 \frac{6/15/058/1/01}{6/15/058/1/01}$, effective 8/31/16); SIP Regulation 2, Rule 1 - Permits, General Requirements (as approved by EPA through 1/26/99); BAAOMD Regulation 2, Rule 2 - Permits, New Source Review (as amended by the District Board on 12/19/12, effective 8/31/16 6/15/0512/21/04); 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 $\frac{12/21/0412/19/12}{12}$); SIP Regulation 2, Rule 4 - Permits, Emissions Banking (as approved by EPA through 01/26/99); BAAQMD Regulation 2, Rule 5 - New Source Review of Toxic Air Contaminants (as amended by the District Board on 12/07/16); BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review (as amended by the District Board on 04/16/03); and SIP Regulation 2, Rule 6 – Permits, Major Facility Review (as approved by EPA through 6/23/95)

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

- This Major Facility Review Permit was issued on July 22, 2011 and expires on July 21, 2016. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than January 21, 2016, and no earlier than July 21, 2015. If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after July 21, 2016. If the permit renewal has not been issued by July 21, 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, 407, & 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)
- 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 reissuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (<u>BAAQMD</u> 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)
- 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. (<u>BAAQMD</u> Regulation 1-441, <u>BAAQMD</u> Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
- 8. Any records that must be maintained pursuant to this permit, that the permittee considers proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (BAAQMD Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
- 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)

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. (<u>BAAQMD</u> Regulation 1-440, <u>BAAQMD</u> Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

E. Records

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

F. Monitoring Reports

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

Director of Compliance and Enforcement Bay Area Air Quality Management District 939 Ellis Street 375 Beale Street, Suite 600 San Francisco, CA 9410994105 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 <u>November December</u> 1st to-through October 31st November 30th. The certification shall be submitted by <u>November 30th</u> December 31st of each year.[t1] The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to

determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification shall be sent by e-mail to r9.aeo@epa.gov or postal mail 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 |
| Director |
| Enforcement Division, TRI & Air Section (ENF-2-1) |
| USEPA Region 9 |
| 75 Hawthorne Street |
| San Francisco, California 94105 |

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

H. Emergency Provisions

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

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (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. Any exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (BAAQMD Regulation 2-1-301)

K. Accidental Release

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

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

- 1. Every year starting January 30, 2008, t<u>T</u>he permit holder shall hold one sulfur dioxide allowance on January 30 March 1 of each year (February 29th during a leap year) for each ton of sulfur dioxide emitted during the preceding year from January 1 through December 31. (MOP Volume II, Part 3, §4.9)
- 2. The equipment installed for the continuous monitoring of CO2 and NOx 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 NOx 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, S1. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

II. EQUIPMENT

Table II A – Permitted Sources

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

| S-# | Description | Make or Type | Model | Capacity |
|-----|--------------------------------|------------------|----------|----------------------|
| 1 | Combustion Gas Turbine, 49.9 | General Electric | LM6000PC | |
| | MW nominal, Natural Gas with | | Sprint | 500 MMBtu/hour (HHV) |
| | water injection or dry low NOx | | | |
| | combustors | | | |

| Table | II B - | - Abatement Devices |
|-------|--------|---------------------|
|-------|--------|---------------------|

| | | Source(s) | Applicable | Operating | Limit or |
|-------------|---------------------|------------|---------------|---------------------|-------------|
| A- # | Description | Controlled | Requirement | Parameters | Efficiency |
| 1 | Oxidation Catalyst | 1 | BAAQMD | All operating modes | CO: 6 ppmv |
| | | | Condition | except startup and | POC: 2 ppmv |
| | | | #20010 parts | shutdown | |
| | | | 18(c) & 18(d) | | |
| 2 | Selective Catalytic | 1 | BAAQMD | All operating modes | NOx: |
| | Reduction System | | Condition | except startup and | 2.5 ppmvd |
| | | | #20010 part | shutdown | |
| | | | 18(a) | | |

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 |
|-----|---------------|--------------|-----------|-----------|
| 2 | Cooling Tower | Marley | NC8312HL2 | 4,160 GPM |

III. GENERALLY APPLICABLE REQUIREMENTS

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

[12] 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 BAAQMD Rule 2-6-239. Otherwise, significant sources would need to be included in the Title V permit.

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

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

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

NOTE:

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

III. Generally Applicable Requirements

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) |
|------------------------------|---|-----------------------------------|
| BAAQMD Regulation 1 | General Provisions and Definitions (05/04/11) | N |
| SIP Regulation 1 | General Provisions and Definitions (06/28/99) | Y |
| BAAQMD Regulation 2, Rule 1 | General Requirements (12/19/12, effective 8/31/16) | <u>NY</u> |
| SIP Regulation 2, Rule 1 | General Requirements (1/26/99) | ¥ |
| BAAQMD Regulation 2-1-429 | Federal Emissions Statement (12/21/04) | N |
| SIP Regulation 2-1-429 | Federal Emissions Statement (04/03/95) | Y |
| BAAQMD Regulation 2, Rule 2 | Permits, New Source Review (6/15/0512/19/12) | N |
| SIP Regulation 2, Rule 2 | Permits, New Source Review (1/26/9908/01/16) | ¥ |
| BAAQMD Regulation 2, Rule 4 | Permits, Emissions Banking (12/21/0412/19/12) | N |
| SIP Regulation 2, Rule 4 | Permits, Emissions Banking (01/26/99) | ¥ |
| BAAQMD Regulation 2, Rule 5 | New Source Review of Toxic Air Contaminants (1/6/1012/07/16) | N |
| BAAQMD Regulation 2, Rule 6 | Permits, Major Facility Review (<u>0</u> 4/16/03) | N |
| SIP Regulation 2, Rule 6 | Permits, Major Facility Review (06/23/95) | ¥ |
| BAAQMD Regulation 4 | Air Pollution Episode Plan (03/20/91) | Ν |
| SIP Regulation 4 | Air Pollution Episode Plan (<u>0</u> 8/ <u>0</u> 6/90) | Y |
| BAAQMD Regulation 5 | Open Burning (3/6/0206/19/13) | Ν |
| SIP Regulation 5 | Open Burning (<u>0</u> 9/ <u>0</u> 4/98) | Y |
| BAAQMD Regulation 6, Rule 1 | Particulate Matter, General Requirements (12/ <u>0</u> 5/07) | Ν |
| SIP Regulation 6 | Particulate Matter and Visible Emission (<u>0</u> 9/ <u>0</u> 4/98) | Y |
| BAAQMD Regulation 7 | Odorous Substances (03/17/82) | Ν |
| BAAQMD Regulation 8, Rule 1 | Organic Compounds - General Provisions (06/15/94) | Y |
| BAAQMD Regulation 8, Rule 2 | Organic Compounds – Miscellaneous Operations (<u>0</u> 7/02/05) | Ν |
| SIP Regulation 8, Rule 2 | Organic Compounds – Miscellaneous Operations (03/22/95) | Y |
| BAAQMD Regulation 8, Rule 3 | Organic Compounds - Architectural Coatings (<u>0</u> 7/ <u>0</u> 1/09) | Ν |
| SIP Regulation 8, Rule 3 | Organic Compounds - Architectural Coatings (01/02/04) | Y |
| BAAQMD Regulation 8, Rule 4 | Organic compounds - General Solvent and Surface Coating Operations (10/16/02) | Ν |
| BAAQMD Regulation 8, Rule 15 | Organic Compounds- Emulsified and Liquid Asphalts $(0.6/0.1/94)$ | Y |
| BAAQMD Regulation 8, Rule 40 | Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (<u>0</u> 6/15/05) | N |

Table IIIGenerally Applicable Requirements

Renewal Date: July 22, 2011 TBD

III. Generally Applicable Requirements

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) |
|--|--|-----------------------------------|
| SIP Regulation 8, Rule 40 | Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (<u>12/15/9904/19/01</u>) | Y |
| BAAQMD Regulation 8, Rule 47 | Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (<u>0</u> 6/15/05) | Ν |
| SIP Regulation 8, Rule 47 | Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (4/26/95) | Y |
| BAAQMD Regulation 8, Rule 49 | Organic Compounds - Aerosol Paint Products (12/20/95) | Ν |
| SIP Regulation 8, Rule 49 | Organic Compounds - Aerosol Paint Products (<u>0</u> 3/22/95) | Y |
| BAAQMD Regulation 8, Rule 51 | Organic Compounds - Adhesive and Sealant Products (<u>12/20/9507/17/02</u>) | Ν |
| SIP Regulation 8, Rule 51 | Organic Compounds – Adhesive and Sealant Products $(\underline{0}^2/26/02)$ | Y |
| BAAQMD Regulation 9, Rule 1 | Inorganic Gaseous Pollutants - Sulfur Dioxide (<u>0</u> 3/15/95) | Ν |
| SIP Regulation 9, Rule 1 | Inorganic Gaseous Pollutants - Sulfur Dioxide (<u>0</u> 6/ <u>0</u> 8/99) | Y |
| BAAQMD Regulation 11, Rule 2 | Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing $(10/07/98)$ | Ν |
| BAAQMD Regulation 12, Rule 4 | Miscellaneous Standards of Performance - Sandblasting (07/11/90) | N |
| SIP Regulation 12, Rule 4 | Miscellaneous Standards of Performance - Sandblasting (<u>0</u> 9/ <u>0</u> 2/81) | Y |
| BAAQMD Regulation 14, Rule 1 | Mobile Source Emissions Reduction MeasuresBay Area Commuter Benefits Program (03/19/14) | <u>N</u> |
| California Health and Safety Code Section 41750 et seq. | Portable Equipment | Ν |
| California Health and Safety Code Section 44300 et seq. | Air Toxics "Hot Spots" Information and Assessment Act of 1987 | Ν |
| California Health and Safety Code Title 17, Section 93115 | Airborne Toxic Control Measure for Stationary Compression Ignition Engines | <u>N</u> |
| 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 | <u>N</u> |

Table IIIGenerally Applicable Requirements

III. Generally Applicable Requirements

| | | Federally |
|---------------------------|--|-------------|
| Applicable | Regulation Title or | Enforceable |
| Requirement | Description of Requirement | (Y/N) |
| 40 CFR Part 61, Subpart M | National Emission Standards for Hazardous Air | <u>Y</u> |
| | Pollutants – National Emission Standard for Asbestos | |
| | <u>(6/19/95</u> 7/20/04) | |
| EPA Regulation 40 CFR 82 | Protection of Stratospheric Ozone (2/21/95 12/1/2016) | <u>Y</u> |
| Subpart F, 40 CFR 82.161 | Recycling and Emissions Reductions – Technician | Y |
| | Certification | |
| Subpart F, 40 CFR 82.166 | Recycling and Emissions Reductions – Reporting and | Y |
| | Recordkeeping Requirements | |
| Subpart F, 40 CFR 82.156 | Recycling and Emissions Reductions –Required Practices | Y |

Table IIIGenerally Applicable Requirements

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

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

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

| | | Federally | Future |
|---------------------|---|-------------|-----------|
| Applicable | Regulation Title or | Enforceable | Effective |
| Requirement | Description of Requirement | (Y/N) | Date |
| BAAQMD | General Provisions and Definitions (7/9/08) (5/4/11) | | |
| Regulation 1 | | | |
| 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 | Ν | |
| 1-522.8 | monitoring data submittal requirements | Y | |
| 1-522.9 | recordkeeping requirements | Y | |
| 1-523 | Parametric Monitoring and Recordkeeping Procedures | | |
| 1-523.1 | Parametric monitor periods of inoperation | Y | |

| | | Federally | Future |
|---------------------|---|----------------|-----------|
| Applicable | Regulation Title or | Enforceable | Effective |
| Requirement | Description of Requirement | (Y/N) | Date |
| 1-523.2 | Limits on periods of inoperation | Y | |
| 1-523.3 | Reports of Violations | Ν | |
| 1-523.4 | Records | Y | |
| 1-523.5 | Maintenance and calibration | N | |
| 1-602 | Area and Continuous Emission Monitoring Requirements | Ν | |
| SIP | General Provisions and Definitions (6/28/99) | | |
| Regulation 1 | | | |
| 1-522 | Continuous Emission Monitoring and Recordkeeping Procedures | | |
| 1-522.7 | Monitor excesses | Y ¹ | |
| 1-523 | Parametric Monitoring and Recordkeeping Procedures | | |
| 1-523.3 | Reports of Violations | Y ¹ | |
| BAAQMD | | | |
| Regulation 2, | Regulation 2, Rule 1 - Permits, General Requirements (11/19/08) | | |
| Rule 1 | (12/19/12, effective 8/31/16) | | |
| 2-1-501 | Monitors | Y | |
| BAAQMD | Particulate Matter, General Requirements_(12/5/07) | | |
| Regulation 6, | | | |
| Rule 1 | | | |
| 6-1-301 | Ringelmann Number 1 Limitation | N | |
| 6-1-305 | Visible Particles | N | |
| 6-1-310 | Particulate Weight Limitation | Ν | |
| 6-1-401 | Appearance of Emissions | Ν | |
| SIP | Particulate Matter and Visible Emissions (9/4/98) | | |
| Regulation 6 | | | |
| 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, | Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95) | | |
| Rule 1 | | | |
| 9-1-301 | Limitations on Ground Level Concentrations | Y | |
| 9-1-302 | General Emission Limitations | Y | |

| Applicable | Regulation Title or | Federally Enforceable | Future Effective |
|----------------|--|--------------------------|---------------------|
| Requirement | Description of Requirement | (Y/N) | Date |
| <u>SIP</u> | Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99) | | |
| Regulation 9, | | | |
| <u>Rule 1</u> | | | |
| <u>9-1-301</u> | Limitations on Ground Level Concentrations | <u>Y</u> | |
| <u>9-1-302</u> | General Emission Limitations | <u>Y</u> | |
| BAAQMD | Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas | | |
| Regulation 9, | Turbines (12/6/06) | | |
| Rule 9 | | N | |
| 9-9-113 | Exemption – Inspection/Maintenance | N | |
| 9-9-114 | Exemption – Start-Up/Shutdown | N | |
| 9-9-301 | Emission Limits, General | | |
| 9-9-301.1.3 | Emission Limits- Turbines Rated ≥ 10 MW w/SCR | N | |
| 9-9-301.2 | Emission Limits – Turbines Rated 5-50 MW | N | |
| 9-9-501 | Monitoring and recordkeeping requirements | N | |
| SIP | Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas | | |
| Regulation 9, | Turbines (12/15/97) | | |
| Rule 9 | | | |
| 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 | Continuous Emission Monitoring Policy and Procedures (1/20/82) | Y | |
| Manual of | | | |
| Procedures, | | | |
| Volume V | | | |
| 40 CFR 60 | Standards of Performance for New Stationary Sources (12/23/71) | Y | |
| Subpart A | General Provisions | Y | |
| 60.4(a) | Reports to EPA | Y | |
| 60.4(b) | Reports to EPA and District | Y | |
| 60.7(a) | Written notification | Y | |
| 60.7(b) | Records | Y | |
| 60.8 | Performance Tests | Y | |
| 60.9 | Availability of Information | Y | |

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|--------------------------------|---|-----------------------------------|-----------------------------|
| 60.11(a) | Compliance with standards and maintenance requirements | Y | Date |
| 60.11(d) | Minimizing emissions | Y | |
| 60.12 | Circumvention | Y | |
| 60.12 | Monitoring Requirements | Y | |
| 60.19 | General notification and reporting requirements | Y | |
| 40 CFR 60 | Standards of Performance for Stationary Gas Turbines (2/24/06 | 1 | |
| <u>40 CFR 60</u> Subpart GG | Standards of refformance for Standardy Gas furtheres $(\frac{2}{2})^{24/00}$ $\frac{2}{27/14}$ | | |
| 60.332 | Standard for nitrogen oxides | <u>Y</u> | |
| 60.332(a)(1) | NOx limit | Y | |
| 60.332(f) | Exemption when ice fog hazard | Y | |
| 60.332(i) | Exemption on a case-by-case basis during mandatory water restrictions | Y | |
| 60.333 | Standard for SO2 Sulfur Dioxide | Y | |
| <u>60.333(a)</u> | SO ₂ Concentration < 0.015 percent @ 15% O ₂ (Turbine Only) | <u>Y</u> | |
| <u>60.333(b)</u> | Standard for Sulfur Dioxide – Fuel Sulfur Content Limit | <u>Y</u> | |
| 60.334 | Monitoring of operations | Y | |
| 60.334(b) | CEM requirements | Y | |
| 60.334(h)(2) | Exemption from nitrogen fuel monitoring requirements | Y | |
| 60.334(h)(3) | Exemption from sulfur fuel monitoring requirements (Natural gas) | Y | |
| 60.334(j)(1) (iii) | Reports of excess NOx emissions | Y | |
| 60.334(j)(3) | Reporting of ice fog | Y | |
| 60.334(j)(5) | Deadline for excess emission reports | | |
| 60.335 | Test Methods and Procedures | Y | |
| 60.335(a) | Performance test as per 40 CFR 60.8 requirements | Y | |
| 60.335(b) | Performance test for NOx | Y | |
| 60.335(b)(1) | ISO Correction | Y | |
| 60.335(b)(2) | Testing at various loads | Y | |
| 60.335(b)(10) | Minimum sample requirements | Y | |
| 60.335(b)(11) | Option of fuel analysis | Y | |
| 60.335(c)(1) | Optional method to adjust NOx emission level | Y | |
| 40 CFR | Permits Regulation (Title IV – Acid Rain Program) | Y | |
| Part 72 | Subpart A – Acid Rain Program General Requirements | | |

Table IV - ASource-specific Applicable RequirementsS1 - COMBUSTION GAS TURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---------------------------|--|-----------------------------------|-----------------------------|
| 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 SO2 emissions is a separate violation of the CAA | Y | |
| 72.9(c)(3) | Initial deadline to hold allowances | Y | |
| 72.9(c)(3)(iv) | Deadline at time of monitor certification | Y | |
| 72.9(c)(4) | Use of Allowance Tracking System | Y | |
| 72.9(c)(5) | Allowances may not be deducted prior to year for which allowance was allocated | Y | |
| 72.9(c)(6) | Limited authorization | Y | |
| 72.9(d) | Nitrogen Oxide Requirements | Y | |
| 72.9(e) | Excess emissions requirements | Y | |
| 72.9(f) | Recordkeeping and Reporting Requirements | Y | |
| 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 | Y | |
| | 6 months prior to expiration of current acid rain permit. | | |
| 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 | |

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---------------------------|--|-----------------------------------|-----------------------------|
| 72.31(e) | If the Acid Rain permit application is for Phase II and the unit is a new | Y | |
| | unit, the date that the unit has commenced or will commence operation | | |
| | and the deadline for monitor certification. | | |
| 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 | Continuous Emissions Monitoring | Y | |
| Part 75 | | | |
| | Subpart A – General (1/18/12) | Y | |
| 75.2 | Applicability | Y | |
| 75.2(a) | Applicability to affected units subject to Acid Rain emission limitations | Y | |
| 75.4 | Compliance Dates | Y | |
| 75.4(b) | New affected unit (at the time of the commencement of commercial operation) shall ensure that all monitoring systems required under this part for monitoring of SO 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 (1/24/08) | Y | |
| 75.10 | General Operating Requirements | Y | |
| 75.10(a) | Primary Measurement Requirement | Y | |
| 75.10(a)(1) | SO2 Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part | Y | |
| 75.10(a)(2) | NOx Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part | Y | |
| 75.10(a)(3) | CO2 Emissions | Y | |

| Applicable | Regulation Title or | Federally Enforceable | Future Effective |
|----------------|---|--------------------------|---------------------|
| Requirement | Description of Requirement | (Y/N) | Date |
| 75.10(a)(3)(ii | CO2 Emissions estimated using Carbon Content of fuel and procedures | Y | |
|) | in Appendix G. | | |
| 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 | Y | |
| | calculated from a minimum of four 15 minute periods. | | |
| 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 SO2 emissions | Y | |
| 75.11(d) | Gas-fired and oil-fired units | Y | |
| 75.11(d)(2) | Allows the use of Appendix D Optional SO2 Emissions Data Protocol | Y | |
| | for Gas-Fired and Oil-Fired Units to monitor SO2 emissions. | | |
| 75.12 | Specific provisions for monitoring NOx emission rate | Y | |
| 75.12(a) | NOx continuous emission monitor and diluent monitioring 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 emissons 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 | Y | |
| | monitoring systems under appendices D and E | | |
| 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 | |

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---------------------------|--|-----------------------------------|-----------------------------|
| 75.21(e) | Consequences of audits | Y | |
| 75.22 | Reference test methods | Y | |
| 75.24 | Out-of-control periods and adjustment for system bias | Y | |
| | Subpart D – Missing Data Substitution Procedures | Y | |
| 75.30 | General Provisions | Y | |
| 75.30(a) | Owner/operator shall provide substitute data for each affected unit using a continuous emission monitor according to this subpart whenever the unit is combusting fuel. | Y | |
| 75.31 | Initial missing data procedures | Y | |
| 75.32 | Determination of monitor data availability for standard missing data procedures | Y | |
| 75.33 | Standard missing data procedures for SO, NO, Hg, and flow rate | Y | |
| 75.33(a) | Following initial certification and after following initial missing data procedures for 2,160 quality assured operating hours for NOx continuous emissions monitors system the owner/operator shall follow the data substitution procedures in paragraph (b) and (c) of this section. | Y | |
| 75.33(c) | Volumetric flow rate, NOx emission rate and NOx concentration data | Y | |
| 75.34 | Units with add-on emission controls | Y | |
| 75.35 | Missing data procedures for CO2 | Y | |
| 75.36 | Missing data procedures for heat input rate determinations | Y | |
| | Subpart F – Recordkeeping Requirements | Y | |
| 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 | |

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---------------------------|--|-----------------------------------|-----------------------------|
| 75.57(d) | NOx emission record provisions | Y | |
| 75.57(e) | CO2 emission record provisions | Y | |
| 75.57(g) | Diluent record provisions | Y | |
| 75.57(h) | Missing data records | Y | |
| 75.58 | General recordseeping provisions for specific situations | Y | |
| 75.58(b) | Specific parametric data record provisions for calculating substitute | Y | |
| /3.38(0) | emissions data for units with add-on emission controls | 1 | |
| 75.58(c) | Specific SO2 emission record provisions for gas-fired or oil-fired units | Y | |
| 75.58(0) | using optional protocol in appendix D to this part. In lieu of recording | 1 | |
| | 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 SO2 mass emissions | | |
| 75.59 | Certification, quality assurance, and quality control record provisions | Y | |
| 75.59(a) | Continuous emission or opacity monitoring systems | Y | |
| | Excepted monitoring systems for gas-fired and oil-fired units. The | Y | |
| 75.59(b) | owner or operator shall record the applicable information in this section | 1 | |
| | 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. | | |
| 75.50() | Except as otherwise provided in §75.58(b)(3)(i), units with add-on SO ₂ | Y | |
| 75.59(c) | or NOx emission controls following the provisions of $$75.34(a)(1)$ or | 1 | |
| | (a)(2), and for units with add-on Hg emission controls, the owner 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: | | |
| 75.59(f) | DAHS Verification. For each DAHS (missing data and formula) | Y | |
| 75.59(1) | verification that is required for initial certification, recertification, or for | 1 | |
| | 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).) | | |
| | Subpart G – Reporting Requirements $(10/24/97)$ | Y | |
| 75.60 | General Provisions | Y | |
| 75.61 | Notifications | Y | |
| | | | |
| 75.62 | Monitoring plan submittals | Y | |

| Applicable | Regulation Title or | Federally Enforceable | Future Effective |
|---------------------|---|--------------------------|---------------------|
| Requirement | Description of Requirement | (Y/N) | Date |
| 75.63 | Initial certification or recertification application | Y | |
| 75.64 | Quarterly reports | Y | |
| 75.66 | Petitions to the administrator | Y | |
| BAAQMD | | | |
| Condition #20010 | | | |
| Definitions | Definitions | Y | |
| part 11 | Consistency with analyses (2-1-403) | Y | |
| part 12 | Conflicts between conditions (1-102) | Y | |
| part 13 | Reimbursement of costs (2-1-303) | Y | |
| part 14 | Access to Records and Facilities (1-440, 1-441) | Y | |
| part 16 | Operations (2-1-307) | Y | |
| part 15 | Deleted | | |
| part 17 | Visible emissions (6-1-301; SIP 6-301) | Y | |
| Part 18 | Emission Limits | | |
| Part 18(a) | Emission Limit for NOX (BACT) | Y | |
| Part 18(b) | Emission Limit for ammonia (BACT) | Ν | |
| Part 18(c) | Emission Limit for carbon monoxide (BACT) | Y | |
| Part 18(d) | Emission Limit for precursor organic compounds (BACT) | Y | |
| Part 18(e) | Emission Limit for PM10 (BACT, cumulative increase) | Y | |
| Part 18(f) | 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 <mark>[KB3]</mark> | |
| part 22 | Operational Limits (cumulative increase) | Y | |
| part 23 | Monitoring requirements (Cumulative Increase, BACT, 40 CFR 75, 40 CFR 60) | Y | |
| part 24 | Source testing/RATA (40 CFR 60, BAAQMD Manual of Procedures Volume IV) | Y | |
| part 25 | Quality assurance program (40 CFR Part 75, Appendix B and 40 CFR Part 60, Appendix F) | Y | |
| <u>part 26</u> | Deleted | | |
| part 27 | Breakdowns (1-208) | Y | |

Table IV - ASource-specific Applicable RequirementsS1 - COMBUSTION GAS TURBINE

| Applicable | Regulation Title or | Federally Enforceable | Future Effective |
|----------------|--|--------------------------|---------------------|
| Requirement | Description of Requirement | (Y/N) | Date |
| part 28 | Breakdown reports (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 (1-522) | Y | |
| part 30 | Records retention for five years (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 (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 (2-2, 2-6) | Y | |
| <u>part 33</u> | Deleted | | |

¹This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved the District's revision of the regulation.

Table IV - BSource-specific Applicable RequirementsS2 - COOLING TOWER

| Applicable | Regulation Title or | Federally Enforceable | Future Effective |
|---------------------|--|--------------------------|---------------------|
| Requirement | Description of Requirement | (Y/N) | Date |
| BAAQMD | Particulate Matter, General Requirements (12/5/07) | | |
| Regulation 6, | | | |
| Rule 1 | | | |
| 6-1-301 | Ringelmann No. 1 Limitation | Ν | |
| 6-1-305 | Visible Particulates | Ν | |
| 6-1-310 | Particulate Weight Limitation | Ν | |
| 6-1-401 | Appearance of Emissions | Ν | |
| SIP | Particulate Matter and Visible Emissions (9/4/98) | | |
| Regulation 6 | | | |
| 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.

Condition #20010

For S - 1 Combustion Gas Turbine:

Definitions:

| Annual: | Within a calendar year. |
|----------------------------|--|
| Clock Hour: | Any consecutive 60-minute period beginning on the hour. Unless |
| | otherwise defined, any reference to "hour" is considered a clock |
| | hour. |
| Day: | Any continuous 24-hour period beginning at 12:00 AM or 0000 |
| | hours. |
| Year: | Any consecutive twelve-month period |
| 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 time from non-compliance with any requirement listed in Part |
| | 18 until termination of fuel flow to the Gas Turbine, but not to |
| | exceed 30 minutes. |
| 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, heat recovery steam generators, |
| | steam turbine, and associated electrical delivery systems. |

| Commissioning Period: | The Period shall commence when a gas turbine is first fired. The period shall terminate when the plant has completed performance testing and is available for commercial operation. The |
|-----------------------|---|
| | commissioning period shall not exceed 180 days under any circumstances. |
| Precursor Organic | |
| Compounds (POCs): | Any compound of carbon, excluding methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate |

Conditions for the Commissioning Period

- 1. Deleted under applications 10568 and 10569
- 2. Deleted under applications 10568 and 10569
- 3. Deleted under applications 10568 and 10569
- 4. Deleted under applications 10568 and 10569
- 5. Deleted under applications 10568 and 10569
- 6. Deleted under applications 10568 and 10569
- 7. Deleted under applications 10568 and 10569
- 8. Deleted under applications 10568 and 10569
- 9. Deleted under applications 10568 and 10569
- 10. Deleted under applications 10568 and 10569.

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

- <u>Consistency with Analyses</u>: The owner/operator shall operate all equipment 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 2-1-403)
- 12. <u>Conflicts Between Conditions</u>: In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide

to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. (Basis: BAAQMD 1-102)

- 13. <u>Reimbursement of Costs</u>: 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 shall be reimbursed by the owner/operator as required by the District's rules or regulations. (Basis: BAAQMD 2-1-303)
- 14. <u>Access to Records and Facilities</u>: 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 Health and Safety Code Section 41510 and Clean Air Act Section 114A. (Basis: BAAQMD 1-440, 1-441)
- 15. Deleted.
- 16. <u>Operations</u>: The owner/operator shall properly maintain the gas turbine, emission controls, CEMs and associated equipment in good operating condition at all times when the equipment is in operation. (Basis: BAAQMD 2-1-307)
- 17. <u>Visible Emissions</u>: The owner/operator shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour that is as dark or darker than Ringelmann 1 or equivalent 20% opacity. (Basis: BAAQMD 6-1-301, SIP Regulation 6-301)
- 18. <u>Emissions Limits</u>: The owner/operator shall only operate S-1 Gas Turbine if all of the following emission limits are met:
 - (a) Oxides of nitrogen (as NO2) emissions from S-1 Gas Turbine into the atmosphere 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 owner/operator shall verify the NOx concentrations from the stack of S-1 by a District-approved continuous emission monitoring system (CEMS) and during any required source test. (basis: BACT)
 - (b) Ammonia emissions from S-1 Gas Turbine into the atmosphere shall not exceed 10.0 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 ammonia slip calculation. The owner/operator

shall establish the correction factor during a District approved source test. (basis: TRMP)

- (c) Carbon monoxide (CO) emissions from S-1 Gas Turbine into the atmosphere shall not exceed 6.0 ppmvd @ 15 % O2 (3-hour rolling average), except during periods of startup and shutdown as defined in this permit. The owner/operator shall verify the CO concentration of S-1 by a District-approved CEMS and during any required source test. (basis: BACT)
- (d) Precursor organic compound (POC) emissions from S-1 Gas Turbine into the atmosphere shall not exceed 2:0[14]-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 POC concentration from the stack of S-1 during any required source test. (basis: BACT)
- (e) Emissions of particulate matter of less than 10 microns in diameter (PM10) from S-1 Gas Turbine into the atmosphere shall not exceed 3.0 pounds per hour, except during periods of startup and shutdown as defined in this permit. The owner/operator shall verify PM10 mass emission rate from the stack of S-1 during any required source test. (basis: BACT, cumulative increase)
- (f) Oxides of sulfur (as SO2) emissions from S-1 Gas Turbine into the atmosphere shall not exceed 1.38 pounds per hour, except during periods of startup and shutdown as defined in this permit. The owner/operator shall verify the SOx emission rate during any required source test. (basis: BACT, cumulative increase)
- 19. <u>Turbine Startup</u>: The owner/operator of S-1 shall not exceed a time period of 60 minutes per start-up, 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. <u>Turbine Shutdown</u>: The owner/operator of S-1 shall not exceed a time period of 30 minutes each per shutdown, or another time period based on good engineering practice and approved in advance by the District. Shutdown begins with initiation of the turbine shutdown sequence and ends with the cessation of turbine firing. (Basis: Cumulative increase)
- 21. <u>Mass Emission Limits</u>: The owner/operator of S-1 shall not exceed the mass emission limits listed in Table 1 below.

| | Daily | Annual |
|---------------------------|----------|----------------------------|
| Pollutant | (lb/day) | (ton/year) |
| NOx (as NO ₂) | 121 | 11.3 -14.7 |
| СО | 163 | 16.5- 21.5 |
| POC | 31 | 3.2- 4.1 |
| PM10 | 72 | 7.5 -9.8 |
| SOx (as SO ₂) | 32 | <mark>3.5-4.5</mark> [КВ5] |

Table 1 – Mass Emission Limits (Including Startups and Shutdowns)

The daily and annual mass limits are on a calendar basis. [KB6] Daily limits shall be based on average one-hour readings and annual limits shall be based on 12-month rolling average one-hour 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. <u>Operational Limits</u>: In order to assure compliance with the emission limits of this permit, the owner/operator shall comply with the following operational limits:
 - (a) The heat input to the gas turbine not to exceed:

| Hourly: | 500 MMBtu/hr (HHV) |
|---------|----------------------------|
| Daily: | 12,000 MMBtu/day (HHV) |
| Annual: | 3,250,000 MMBtu/year (HHV) |

(b) The owner/operator shall use only PUC Quality natural gas to fire the gas turbine (General Order 58-a). The owner/operator shall not use natural gas with sulfur concentrations in excess of 1 gr/100 scf.

(Basis: Cumulative Increase)

- 23. <u>Monitoring Requirements</u>: The owner/operator shall comply with the following monitoring requirements for the gas turbine:
 - (a) install and maintain exhaust stack platform with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. (Basis: NSPS, BACT)
 - (b) install and maintain an ammonia injection system with an operational ammonia flowmeter accurate to plus or minus five percent at full scale and to be calibrated once every twelve months, and injection pressure indicator. (Basis: BACT)
 - (c) install and maintain a continuously recording emissions monitor(s) for NOx, CO and O₂, or CO2. Continuous emissions monitors must comply with the requirements of 40 CFR

Part 60, Appendices B and F, and 40 CFR Part 75, and be capable of monitoring concentrations and mass emissions during normal operating conditions and during startups and shutdowns. The owner/operator shall record the NOx, CO, and O2 or CO2 concentrations at least once every 15 consecutive minutes. (Basis: NSPS, 40 CFR 75)

- (d) continuously record the fuel flow rate using District-approved fuel flow meters along with quarterly fuel compositional analyses for the measuring the fuel's higher heating value (wet basis). (Basis: Cumulative Increase)
- (e) analyze the total sulfur content of the fuel gas on a quarterly basis. (Basis: BACT, Cumulative Increase, BAAQMD 9-1-302)
- 24. Source Testing/RATA: Within sixty days after first fire of the gas turbines, and at a minimum on an annual basis thereafter, a relative accuracy test audit (RATA) shall be conducted on the CEMS in accordance with 40 CFR Part 60 Appendix B Performance Specifications. The owner/operator shall conduct a source test at least once every 8,000 operating hours or three years, whichever comes first. The owner/operator shall provide written test results of the source tests to the District within 60 days after testing. The owner/operator shall submit a complete test protocol 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. The owner/operator shall comply with the source test protocol for the following: measurements of NOx, CO, POC, and stack gas oxygen content in accordance with ARB Test Method 100; measurements of PM10 in accordance with ARB Test Method 5; and measurements of ammonia 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 owner/operator shall include initial and periodic source tests parameters specified in the approved test protocol, and at a minimum include the following:
 - (a) NOx (as NO₂) ppmvd at 15% O_2 and lb/MMBtu;
 - (b) Ammonia ppmvd at 15% O_2 (Exhaust);
 - (c) CO ppmvd at 15% O₂ and lb/MMBtu (Exhaust);
 - (d) POC ppmvd at 15% O₂ and lb/MMBtu (Exhaust);
 - (e) $PM_{10} lb/hr$ (Exhaust);
 - (f) SOx 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: BAAQMD Manual of Procedures, Volume IV, BACT, Cumulative Increase)

- 25. The owner/operator shall establish a written quality assurance program in accordance with 40 CFR Part 75, Appendix B and 40 CFR Part 60 Appendix F. (Basis: 40 CFR 75)
- 26. Deleted
- 27. The owner/operator shall notify the District in writing of any breakdown condition consistent with the District's breakdown regulations. (Basis: BAAQMD 1-432)
- 28. The owner/operator shall include a breakdown condition description of the equipment malfunction or failure, the date and cause of the initial failure, the estimate of the emissions excess of those allowed, and the actions taken to restore normal operations. (Basis: BAAQMD 1-431)
- 29. <u>Recordkeeping</u>: The owner/operator shall maintain the following records:
 - (a) hourly, daily, quarterly and yearly quantity of fuel used and corresponding heat input rates;
 - (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;
 - (c) emission measurements from all source testing, RATAs and fuel analyses;
 - (d) daily, quarterly and yearly hours of operation;
 - (e) hourly records of NOx and CO, emission concentrations and hourly ammonia injection rates and ammonia/NOx ratio.
 - (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: Cumulative Increase, BACT)

- 30. The owner/operator shall maintain all records for at least five years and shall make them available for District inspection upon request. (Basis: BAAQMD 2-6-501)
- 31. <u>Reporting</u>: The owner/operator shall submit to the District a written report for each calendar quarter, within 30 days of the end of the quarter. The required written report shall include:
 - (a) Daily and quarterly fuel use and corresponding heat input rates;
 - (b) Daily, and quarterly mass emission rates for all criteria pollutants during normal operations and during other periods (startup/shutdown, breakdowns);
 - (c) Time intervals, date, and magnitude of excess emissions;
 - (d) Nature and cause of the excess emission, and corrective actions taken;
 - (e) Time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments;

31

- (f) A declaration stating periods during which no excess emissions occurred;
- (g) Results of quarterly fuel analyses for HHV and total sulfur content.

(Basis: BACT, Cumulative Increase)

- 32. <u>District Operating Permit</u>: The owner/operator shall apply for and obtain all the necessary permits to operate in accordance with the requirements of the District's rules and regulations. (Basis: BAAQMD Regulation 2, Rule 2, Regulation 2, Rule 6)
- 33. Deleted

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.

| Type of | Citation of | FE | Future Effective | | Monitoring Requirement | Monitoring Frequency | Monitoring |
|---------|-------------|-----|---------------------|----------------------|---------------------------|-------------------------|------------|
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| NOx | BAAQMD | N | | 9 ppmv @ 15% O2, dry | BAAQMD | С | CEM |
| | 9-9-301.1.3 | | | | 9-9-501 and | | |
| | | | | | BAAQMD | | |
| | | | | | condition | | |
| | | | | | #20010, part | | |
| | | | | | 23c | | |
| NOx | SIP | Y | | 9 ppmv @ 15% O2, dry | SIP | С | CEM |
| | 9-9-301.3 | | | | 9-9-501 and | | |
| | | | | | BAAQMD | | |
| | | | | | condition | | |
| | | | | | #20010, part | | |
| | | | | | 23c | | |

Table VII - A Applicable Limits and Compliance Monitoring Requirements S1 – COMBUSTION GAS TURBINE

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - A Applicable Limits and Compliance Monitoring Requirements S1 – COMBUSTION GAS TURBINE

| | | | Future | | Monitoring | Monitoring | |
|------------|--------------------------|-----|-----------|--|-----------------------|----------------|-------------|
| Type of | Citation of | FE | Effective | | Requirement | Frequency | Monitoring |
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| NOx | BAAQMD | N | | 9 ppmv @ 15% O2, dry | BAAQMD | <u>P/</u> Once | Source |
| | <mark>9-9-301.1.3</mark> | | | | condition | every 8,000 | test[t7] |
| | | | | | #20010, | operating | |
| | | | | | part 24a | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| <u>NOx</u> | SIP | Y | | 9 ppmv @ 15% O2, dry | SIP | <u>P/</u> Once | Source test |
| | Regulation | | | | Regulation | every 8,000 | |
| | 9-9-301.3 | | | | condition | operating | |
| | | | | | #20010, | hours or | |
| | | | | | part 24a | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| NOx | NSPS, 40 | Y | | <mark>99-<u>75</u> ppmv @ 15% O2,</mark> | NSPS 40 | С | CEM |
| | CFR 60.332 | | | dry[t8] | CFR | | |
| | (a)(1) | | | | 60.334(b) | | |
| | | | | | BAAQMD | | |
| | | | | | condition | | |
| | | | | | #20010, part | | |
| | | | | | 23(c) | | |
| | | | | | Monitoring | | |
| | | | | | requirement | | |
| | | | | | subsumed by | | |
| | | | | | monitoring | | |
| | | | | | for BACT | | |
| | | | | | limit. See | | |
| | | | | | Permit | | |
| | | | | | Shield.[t9] | | |
| | | | | | [KB10] | | |
| NOx | None | Y | | None | 40 CFR 75.10 | С | CEM |

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - A Applicable Limits and Compliance Monitoring Requirements S1 – 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 | Y | Date | 2.5 ppmv @ 15% O2, dry, | BAAQMD | С | CEM |
| NOX | condition | 1 | | 3-hr average except during | condition | C | CLIVI |
| | #20010, | | | turbine startup or shutdown | #20010, part | | |
| | part 18(a) | | | taronic startup or shatdown | 18(a), 23c | | |
| NOx | BAAQMD | Y | | 2.5 ppmv @ 15% O2, dry, | BAAQMD | P/-Once | Source test |
| | condition | | | 3-hr average except during | condition | every 8,000 | |
| | #20010, | | | turbine startup or shutdown | #20010, | operating | |
| | part 18(a) | | | • | part, 24a | hours or | |
| | • · · · | | | | - | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| NOx | BAAQMD | Y | | 121 lb/ day | BAAQMD | С | CEM |
| | condition | | | (as NO2) | condition | | |
| | #20010, | | | | #20010, | | |
| | part 21 | | | | part 23c | | |
| NOx | BAAQMD | Y | | 14.7 tons per year | BAAQMD | С | CEM |
| | condition | | | (as NO2) | condition | | |
| | #20010, | | | | #20010, | | |
| | part 21 | | | | part 23c | | |
| CO | BAAQMD | Y | | 6 ppmv @ 15% O2, dry, | BAAQMD | С | CEM |
| | condition | | | 3-hr average except during | condition | | |
| | #20010, | | | turbine startup or shutdown | #20010, | | |
| | part 18(c) | | | | parts 18(c) | | |
| | | | | | and 23c | | |
| <u>CO</u> | BAAQMD | Y | | 6 ppmv @ 15% O2, dry, | BAAQMD | <u>P/</u> Once | Source test |
| | condition | | | 3-hr average except during | condition | every 8,000 | |
| | #20010, | | | turbine startup or shutdown | #20010, | operating | |
| | part 18(c) | | | | part 24c | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII - A Applicable Limits and Compliance Monitoring Requirements S1 – COMBUSTION GAS TURBINE

| Type of | Citation of | FE | Future Effective | . | Monitoring Requirement | Monitoring Frequency | Monitoring |
|------------|--------------------|----------|---------------------|---------------------------------------|---------------------------|-------------------------|---------------------|
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| <u>CO</u> | BAAQMD | Y | | 163 lb/ day | BAAQMD | С | CEM |
| | condition | | | | condition | | |
| | #20010, | | | | #20010, | | |
| СО | part 21 | Y | | 21.5 tons non yoon | part 23c | С | СЕМ |
| | BAAQMD condition | ĭ | | 21.5 tons per year | BAAQMD condition | C | CEM |
| | #20010, | | | | #20010, | | |
| | #20010, part 21 | | | | #20010, part 23c | | |
| CO2 | part 21 | Y | | None | 40 CFR 75.10 | С | CEM (CO2) |
| 02 | | T | | None | 40 CFR 75.10 | C | or CEM |
| | | | | | | | (O2) or fuel |
| | | | | | | | flow |
| | | | | | | | monitor |
| SO2 | BAAQMD | Y | | GLC ¹ of 0.5 ppm for 3 min | | N | |
| | 9-1-301 | | | or 0.25 ppm for 60 min or | | | |
| | | | | 0.05 ppm for 24 hours | | | |
| <u>SO2</u> | SIP | <u>Y</u> | | GLC ¹ of 0.5 ppm for 3 min | | N | |
| | <u>9-1-301</u> | | | or 0.25 ppm for 60 min or | | | |
| | | | | 0.05 ppm for 24 hours | | | |
| <u>SO2</u> | BAAQMD | Y | | 300 ppm (dry) | BAAQMD | P/Q | Fuel Gas |
| | 9-1-302 | | | | condition | | Total sulfur |
| | | | | | #20010, | | content |
| | | | | | part 23e | | analysis |
| <u>SO2</u> | <u>SIP</u> | <u>Y</u> | | <u>300 ppm (dry)</u> | BAAQMD | <u>P/Q</u> | Fuel Gas |
| | <u>9-1-302</u> | | | | condition | | <u>Total sulfur</u> |
| | | | | | <u>#20010,</u> | | <u>content</u> |
| | | | | | part 23e | | <u>analysis</u> |

Applicable Limits and Compliance Monitoring Requirements S1 – COMBUSTION GAS TURBINE Future Monitoring Monitoring ne of Citation of FE Effective Requirement Frequency Monitoring

Table VII - A

| Type of | Citation of | FE | Effective | | Requirement | Frequency | Monitoring |
|------------|-------------|-----|-----------|---------------------------|---------------|----------------|--------------|
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| SO2 | NSPS | Y | | 0.015% (vol.) | NSPS 40 | P/Q | Fuel Gas |
| | 40 CFR | | | @15% O ₂ (dry) | CFR | | Total sulfur |
| | 60.333(a) | | | | 60.334(h)(3), | | content |
| | | | | | 40 CFR | | analysis, |
| | | | | | 75.11, 40 | | Fuel |
| | | | | | CFR 75, | | measure- |
| | | | | | Appendix D, | | ments, |
| | | | | | part 2.3, | | calculations |
| | | | | | and | | [BK11] |
| | | | | | BAAQMD | | [KB12] |
| | | | | | Condition | | |
| | | | | | 20010, Part | | |
| | | | | | 23e | | |
| SO2 | None | Y | | None | 40 CFR | | Fuel |
| | | | | | 75.11, 40 | | measure- |
| | | | | | CFR 75, | | ments, |
| | | | | | Appendix D, | | calculations |
| | | | | | part 2.3 | | |
| <u>SO2</u> | BAAQMD | Y | | 1.38 lb/hr | BAAQMD | P/Q | Fuel gas |
| | condition | | | | condition | | Total sulfur |
| | #20010, | | | | #20010, | | content |
| | part 18(f) | | | | part 23e | | analysis |
| SO2 | BAAQMD | Y | | 1.38 lb/hr | BAAQMD | <u>P/</u> Once | Source test |
| | condition | | | | condition | every 8,000 | |
| | #20010, | | | | #20010, | operating | |
| | part 18(f) | | | | part 24f | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |

| Type of Limit | Citation of Limit | FE Y/N | Future Effective Date | Limit | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type |
|------------------|---|-----------|-----------------------------|--|--|---|--------------------|
| <u>SO2</u> | BAAQMD condition #20010, part 21 | Y | | 32 lb/ day | BAAQMD condition #20010, part 24f | - <u>P/</u> Once every 8,000 operating hours or three years, whichever | Source test |
| <u>SO2</u> | BAAQMD condition #20010, part 21 | Y | | 4.5 tons/year | BAAQMD condition #20010, part 24f | comes first - <u>P/</u> Once every 8,000 operating hours or three years, whichever comes first | Source test |
| Opacity | BAAQMD 6-1-301 | N | | ≥ Ringelmann No. 1 for no more than 3 minutes in any hour | | Ν | |
| Opacity | SIP Regulation 6-301 | Y | | > Ringelmann No. 1 for no more than 3 minutes in any hour | | N | |
| Opacity | BAAQMD condition #20010, part 18 | Y | | ≥ Ringelmann No. 1 for no more than 3 minutes in any hour or equivalent 20% opacity | | N | |
| FP | BAAQMD 6-1-310 | Ν | | 0.15 grain/dscf | | Ν | |
| FP | SIP Regulation 6-310 | Y | | 0.15 grain/dscf | | Ν | |

| Type of Limit | Citation of Limit | FE Y/N | Future Effective Date | Limit | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type |
|------------------|--|-----------|-----------------------------|--|--|--|--------------------|
| PM10 | BAAQMD condition #20010, part 18(e) | Y | | 3 lb/ hr | BAAQMD condition #20010, part 24e | <u>P/</u> Once every 8,000 operating hours or three years, | Source test |
| DM 10 | RAAOMD. | V | | 72 lk/day | PAAOMD | whichever comes first | Source Test |
| <u>PM10</u> | BAAQMD condition #20010, part 21 | Y | | 72 lb/day | BAAQMD condition #20010, parts 23d, 24e | P/Once every 8,000 operating hours or three years, whichever comes first | Source Test |
| PM10 | BAAQMD condition #20010, part 21 | Y | | 9.8 tons/year | BAAQMD condition #20010, part 24e | P/Once every 8,000 operating hours or three years, whichever comes first | Source Test |
| POC | BAAQMD condition #20010, part 18(d) | Y | | 2 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown | BAAQMD condition #20010, part 24d | - <u>P/</u> Once every 8,000 operating hours or three years, whichever comes first | Source test |

| | | | Future | | Monitoring | Monitoring | |
|---------|-------------|-----|-----------|-----------------------------|-------------|------------------|-------------|
| Type of | Citation of | FE | Effective | | Requirement | Frequency | Monitoring |
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| POC | BAAQMD | Y | | 2 ppmv @ 15% O2, dry, | BAAQMD | <u>P/</u> Once | Source test |
| | condition | | | 1-hr average except during | condition | every 8,000 | |
| | #20010, | | | turbine startup or shutdown | #20010, | operating | |
| | part 18(d) | | | | part 24d | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| POC | BAAQMD | Y | | 31 lb/calendar day | BAAQMD | - <u>P/</u> Once | Source test |
| | condition | | | | condition | every 8,000 | |
| | #20010, | | | | #20010, | operating | |
| | part 21 | | | | part 24d | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| POC | BAAQMD | Y | | 4.1 ton/year | BAAQMD | <u>P/</u> Once | Source test |
| | condition | | | | condition | every 8,000 | |
| | #20010, | | | | #20010, | operating | |
| | part 21 | | | | part 24d | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |

| | | | Future | | Monitoring | Monitoring | |
|------------|-------------|-----|-----------|---------------------------|----------------|----------------|--------------------|
| Type of | Citation of | FE | Effective | | Requirement | Frequency | Monitoring |
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| NH3 | BAAQMD | Ν | | 10 ppmv @ 15% O2, dry, | BAAQMD | С | District |
| | condition | | | averaged over 1 hr except | condition | | approved |
| | #20010, | | | during turbine startup or | #20010, | | correct |
| | Part 18(b) | | | shutdown | parts 18.2 and | | <u>ammonia</u> |
| | | | | | 23b | | slip |
| | | | | | | | <u>calculation</u> |
| | | | | | | | and |
| | | | | | | | correction |
| | | | | | | | factor |
| | | | | | | | determined |
| | | | | | | | by source |
| | | | | | | | testMeasure- |
| | | | | | | | ment ratio |
| | | | | | | | NH3 to |
| | | | | | | | NOX inlet |
| | | | | | | | rate at |
| | | | | | | | SCR [t13] |
| <u>NH3</u> | BAAQMD | Ν | | 10 ppmv @ 15% O2, dry, | BAAQMD | <u>P/</u> Once | Source test |
| | condition | | | averaged over 1 hr except | condition | every 8,000 | |
| | #20010, | | | during turbine startup or | #20010, | operating | |
| | Part 18(b) | | | shutdown | part 24b | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| Heat input | BAAQMD | Y | | 500 MM BTU/hr (HHV) | BAAQMD | С | Fuel meter, |
| limit | condition | | | | condition | | firing |
| | #20010, | | | | #20010, | | monitor |
| | part 22 | | | | part 23d | | |
| Heat input | BAAQMD | Y | | 500 MM BTU/hr (HHV) | BAAQMD | P/Q | Fuel |
| limit | condition | | | | condition | | composition |
| | #20010, | | | | #20010, | | analysis |
| | part 22 | | | | part 23d | | |

| Type of | Citation of | FE | Future Effective | | Monitoring Requirement | Monitoring Frequency | Monitoring |
|---------------|----------------------|-----|---------------------|---------------------|---------------------------|-------------------------|--------------------|
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| Heat input | BAAQMD | Y | | 500 MM BTU/hr (HHV) | BAAQMD | <u>P/</u> Once | Source test |
| <u>limit</u> | condition | | | | condition | every 8,000 | |
| | #20010, | | | | #20010, | operating | |
| | part 22 | | | | part 24g | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| Heat input | BAAQMD | Y | | 12,000 MM BTU/day | BAAQMD | С | fuel meter, |
| <u>limit</u> | condition | | | (HHV) | condition | | firing |
| | #20010, | | | | #20010, | | monitor, |
| | part 22 | | | | part 23d | | calculations |
| Heat input | BAAQMD | Y | | 12,000 MM BTU/day | BAAQMD | P/Q | Fuel |
| <u>limit</u> | condition | | | (HHV) | condition | | composition |
| | #20010, | | | | #20010, | | analysis |
| | part 22 | | | | part 23d | | 6.1 |
| Heat input | BAAQMD | Y | | 3,250,000 MM BTU/yr | BAAQMD | С | fuel meter, |
| limit | condition #20010, | | | (HHV) | condition #20010, | | firing monitor, |
| | #20010, part 22 | | | | #20010, part 23d | | calculations |
| Heat input | BAAQMD | Y | | 3,250,000 MM BTU/yr | BAAQMD | P/Q | Fuel |
| limit | condition | 1 | | (HHV) | condition | r/Q | composition |
| <u>111111</u> | #20010, | | | (1111) | #20010, | | analysis |
| | part 22 | | | | part | | unurysis |
| | pur 22 | | | | 24d31g[t14] | | |
| MW | | | | None | BAAQMD | P/Once | Source test |
| | | | | | condition | every 8,000 | |
| | | | | | #20010, | operating | |
| | | | | | part 24h | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |

Table VII - A Applicable Limits and Compliance Monitoring Requirements S1 – COMBUSTION GAS TURBINE

| Type of | Citation of | FE | Future Effective | | Monitoring Requirement | Monitoring Frequency | Monitoring |
|---------------|------------------|----------|---------------------|-----------------------------|---------------------------|-------------------------|----------------|
| Limit | Limit | Y/N | Date | Limit | Citation | (P/C/N) | Туре |
| Exhaust | | | | None | BAAQMD | P/Once | Source test |
| Gas | | | | | condition | every 8,000 | |
| tempe- | | | | | #20010, | operating | |
| rature | | | | | part 24j | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| Stack gas | | | | None | BAAQMD | <u>P/</u> Once | Source test |
| flow rate | | | | | condition | every 8,000 | |
| | | | | | #20010, | operating | |
| | | | | | part 24i | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| NH3 | | | | None | BAAQMD | <u>P/</u> Once | Source test |
| injection | | | | | condition | every 8,000 | |
| rate | | | | | #20010, | operating | |
| | | | | | part 24k | hours or | |
| | | | | | | three years, | |
| | | | | | | whichever | |
| | | | | | | comes first | |
| Start-up | BAAQMD | | | 60 minutes per start-up | BAAQMD | P/E | Records |
| Period | condition | | | | condition | | |
| | #20010, | | | | #20010, | | |
| | part 19 | | | | part 29(b) | | |
| Shutdown | BAAQMD | | | 30 minutes per shutdown | BAAQMD | P/E | Records |
| Period | condition | | | | condition | | |
| | #20010, | | | | #20010, | | |
| | part 20 | | | | part 29(b) | | |
| <u>Fuel</u> | <u>40 CFR</u> | <u>Y</u> | | 0.8 percent by weight (8000 | <u>40 CFR</u> | <u>P</u> | Fuel Sulfur |
| <u>Sulfur</u> | <u>60.333(b)</u> | | | <u>ppmw) sulfur</u> | <u>60.334(h)(1)</u> | | <u>Content</u> |
| Content | | | | | | | Testing[t15] |

1 Ground level concentration

| 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 1 for no more than 3 min/hr | | N | |
| Opacity | SIP Regulation 6-301 | Y | | > Ringelmann 1 for no more than 3 min/hr | | N | |
| Particulate Weight | BAAQMD Regulation 6-1-310 | N | | 0.15 grains per dscf | | N | |
| Particulate Weight | SIP Regulation 6-310 | Y | | 0.15 grains per dscf | | N | |
| Particulate Weight | BAAQMD Regulation <u>6-1-311</u> | Y | | <u>40 lb/hr</u> | <u>N</u> | <u>N</u> | |
| Particulate Weight | <u>SIP</u> <u>Regulation</u> <u>6-311</u> | Y | | <u>40 lb/hr</u> | <u>N</u> | <u>N[t16]</u> | |

Table VII - B Applicable Limits and Compliance Monitoring Requirements S2 - COOLING TOWER

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally *found* in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits *included* in Section VII, Applicable Limits & Compliance Monitoring Requirements, of this permit. The identified test methods or other methods approved by the District shall be used to demonstrate compliance with the requirements of this permit.

| Applicable | | |
|------------------|-----------------------------------|--|
| Requirement | Description of Requirement | Acceptable Test Methods |
| BAAQMD | Ringelmann No. 1 Limitation | Manual of Procedures, Volume I, Evaluation of Visible |
| 6-1-301 | | Emissions; or US EPA Method 9 |
| BAAQMD | Particulate Weight Limitation | Manual of Procedures, Volume IV, ST-15, Particulates |
| 6-310 | | Sampling <u>or</u> |
| | | USEPA Method 5, Determination of Particulate Matter |
| | | Emissions from Stationary Sources |
| BAAQMD | General Emission Limitation | Manual of Procedures, Volume IV, ST-19A, Sulfur |
| 9-1-302 | | Dioxide, Continuous Sampling, or |
| | | ST-19B, Total Sulfur Oxides Integrated Sample |
| BAAQMD | General Operations | Manual of Procedures, Volume IV, ST-15, Particulates |
| <u>6-311</u> | | Sampling or |
| | | USEPA Method 5, Determination of Particulate Matter |
| | | Emissions from Stationary Sources |
| BAAQMD | Emission Limits- Turbines Rated | Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, |
| <u>9-9-301.2</u> | <u>≥ 250 -500 MMBtu/hr</u> | Continuous Sampling and |
| | | ST-14, Oxygen, Continuous Sampling[t18] |
| BAAQMD | Emission Limits – Turbines | Manual of Procedures, Volume IV, ST-13A, Oxides of |
| 9-9-301.3 | Rated > 10 MW s/SCR | Nitrogen, Continuous Sampling and |
| | | ST-14, Oxygen, Continuous Sampling |
| NSPS | Standards of Performance | |
| Subpart GG | for Stationary Gas Turbines | |
| | (2/24/06) | |
| 60.332 (a)(1) | Performance Standard, NOx | EPA Method 20, Determination of Nitrogen Oxides, Sulfur |
| | | Dioxide, and Diluent Emissions from Stationary Gas Turbines |
| 60,222 (a) | SO2 Volumetric Emission | EPA Method 20, Determination of Nitrogen Oxides, Sulfur |
| 60.333 (a) | | Dioxide, and Diluent Emissions from Stationary Gas |
| | Limit | Turbines |

Table VIII Test Methods

VIII. Test Methods

| Applicable | | |
|-------------|-----------------------------------|---|
| Requirement | Description of Requirement | Acceptable Test Methods |
| 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 |
| NSPS 40 | 40 CFR 60, Appendix A | EPA Method 7, Determination of Nitrogen Oxide |
| CFR 60.8 | | Emissions from Stationary Sources |
| | | EPA Method 20, Determination of Nitrogen Oxides, Sulfur |
| | | Dioxide, and Diluent Emissions from Stationary Gas |
| | | Turbines |
| BAAQMD | | |
| Cond# | | |
| 20010 | | |
| Part 18(a) | NOx Limit | Test Procedure ARB 100, Procedures for Continuous |
| | | Gaseous Emission Stack Sampling |
| Part 18(b) | NH3 Limit | BAAQMD Test Procedure ST-1B, Ammonia, Integrated |
| | | Sampling |
| Part 18(c) | CO Limit | Test Procedure ARB 100, Procedures for Continuous |
| | | Gaseous Emission Stack Sampling |
| Part 18(d) | POC Limit | Test Procedure ARB 100, Procedures for Continuous |
| | | Gaseous Emission Stack SamplingMethod TO-12 |
| Part 18(e) | PM10 Limit | Test Procedure ARB 5, Determination of Particulate Matter |
| | | Emissions from Stationary Sources and EPA Method 202, |
| | | Condensable Particulate Matter |
| Part 18(f) | SOx Limit | Test Procedure, MOP Vol.4, ST-19A, Sulfur Dioxide, |
| | | Continuous Sampling, or ST-19B, Total Sulfur Oxides |
| | | Integrated Sample |

Table VIII Test Methods

IX. TITLE IV ACID RAIN PERMIT

Effective July 22, 2011 through July 21, 2016

ISSUED TO:

Gilroy Energy Center, LLC for the Riverview Energy Center 2425 Cordelia Road Fairfield, CA 94534

PLANT SITE LOCATION: 795 Minaker Road Antioch, CA 94509

ISSUED BY:

| Signed by Jeff McKay for Jack P. Broadbent | July 22, 2011 |
|--|---------------|
| Jack P. Broadbent, Air Pollution Control Officer | Date |

Type of Facility:Simple-Cycle Generation FacilityPrimary SIC:4911Product:Electricity

DESIGNATED REPRESENTATIVE

Name:Fernando Parra Andrew GundershaugTitle:Plant ManagerPhone:(707)-399-4393

ALTERNATE DESIGNATED REPRESENTATIVE: Name: <u>Bob IbrahimAllison Bryan</u>

Title: <u>Plant Engineer EHS Specialist</u>

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 NOx 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 | None | None | None | None | None | |
| | under Table 2 of 40 | | | | | | |
| | CFR Part 73 | | | | | | |
| S-1, Turbine | NOx Limit | This unit | is not subje | et to the NO | k requireme n | its from | |
| | | 40 CFR Part 76 as this unit is not capable of firing on | | | | | |
| | | coal. | | | | | |

None of the sources at the facility (S-1 and S-2) is entitled to any SO_2 allowances under Table 2 of 40 CFR Part 73 for the term of this permit.

3) COMMENTS, NOTES AND JUSTIFICATIONS

None

4) PERMIT APPLICATION REQUIREMENTS

Attached as XII. Title IV Acid Rain Application The owners and operators of the

Renewal Date: July 22, 2011 TBD

IX. Title IV Acid Rain Permit

facility must comply with the standard requirements and special provisions set forth in the facility's Title IV permit application, which is set forth in Section XIII. The main provisions of the regulations for natural gas fired acid rain sources, such as the ones at this facility, are the requirement to obtain one SO₂ allowance for each ton of SO₂ that is emitted, stringent monitoring requirements for NOx, CO₂, and SO₂, and stringent recordkeeping and reporting requirements. Additional acid-rain-related permit requirements are stated in Standard Condition L in Section I of this permit.

X. PERMIT SHIELD

A. Non-applicable Requirements

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

Table X A - 1Permit Shield for Non-applicable RequirementsS-1 - COMBUSTION GAS TURBINE

| Citation | Title or Description | |
|------------------|--------------------------------------|--|
| | (Reason not applicable) | |
| BAAQMD | Air Pollution Episode Plan (3/20/91) | |
| Regulation 4 | | |
| 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:

None

XI. 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 enables 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. NOx 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.

СО

Carbon Monoxide

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 $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

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

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

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)

NOx

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.)

02

The chemical name for naturally occurring oxygen gas.

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NOx, PM10, and SO2.

Oxidation Catalyst

A material used in combustion systems to reduce emissions of carbon monoxide and organics by promoting oxidation reactions.

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.

RATA

Stands for Relative Accuracy Test Audit. A test conducted to certify the accuracy of the Continuous Emission Monitor (CEM).

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)

TRMP

Toxic Risk Management Plan

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 |
| С | = | 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 |
| Μ | = | 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 |
| \leq | = | less than or equal to |
| \geq | = | greater than or equal to |

XII. TITLE IV ACID RAIN APPLICATION



United States Environmental Protection Agency Acid Rain Program

Gilroy Energy Center, LLC for the Riverview

Energy Center Facility (Source) Name OMB No. 2060-0258 Approval expires 11/30/2012

55963

Plant Code

Acid Rain Permit Application

CA

State

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: 🛛 New 🗍 Revised 🕅 for ARP permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

| а | b |
|----------|---|
| Unit ID# | Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1) |
| 1 | Yes |
| | Yes |
| ······ | Yes |
| | Yes |

Gilroy Energy Center, LLC for the Riverview Energy Center Facility (Source) Name (from STEP 1) Page 2

Permit Requirements

STEP 3

Read the standard requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

 (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
 (3) An affected unit shall be subject to the requirements under paragraph (1)

of the sulfur dioxide requirements as follows: (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Gilroy Energy Center, LLC for the Riverview Energy Center

Page 3

Facility (Source) Name (from STEP 1)

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd. (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

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

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

Gilroy Energy Center, LLC for the Riverview Energy Center

Page 4

Facility (Source) Name (from STEP 1)

of a new certificate of representation changing the designated representative;

STEP 3, Cont'd.

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

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

 (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
 (2) The designated representative of an affected source and each affected

(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

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

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with

Gilroy Energy Center, LLC for the Riverview Energy Center

Page 5

Facility (Source) Name (from STEP 1)

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

STEP 3, Cont'd.

Effect on Other Authorities, Cont'd.

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

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

obligation to comply with any other provisions of the Act; (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

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

Certification

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

| Name Allison Bryan | |
|--------------------|---------------|
| Signature | Date 01/20/16 |

XIII. REVISION HISTORY

Title V Permit Issuance:

Significant Revision: (Application # 10569)

- Increase the daily facility mass emission limits for NOx and CO to reflect the potential operating scenario of 4 gas turbine start-ups per day. (Condition #20100, part 21)
- Revise the ammonia slip monitoring language to agree with standard language in other Calpine power plant permits. (Condition #20100, part 18b)
- Change the required source test frequency for the gas turbine from annual to once every 8000 hours of gas turbine operation or once every 3 years, whichever comes first. (Condition #20100, part 24)
- Delete obsolete permit conditions that apply to the commissioning period only. (Condition #20100, parts 1 through 10)
- The definition of hour will be revised to clock hour since the facility monitors emissions on a clock hour basis. (definitions section)
- The facility name will be changed to "Gilroy Energy Center, LLC for the Riverview Energy Center".
- The responsible official and facility contact have been changed to Brent Colbert and the mailing address has been changed.
- The designated representative and alternate designated representative for the Acid Rain permit have been changed to Michael J. Sommer and C. David Zeiger, respectively, in accordance with the revised Certificate of Representation that Calpine submitted to EPA on December 30, 2004.
- Condition #20010, part 24 has been revised to allow 60 days for the submittal of source test results instead of the current 30-day allowance. This change is necessary because source test firms typically cannot deliver a final report within 30 days of the testing date.
- Table VII-A has been corrected to show daily NOx and CO emission limits of 121 lb/day and 163 lb/day, respectively. This agrees with condition #20010, part 21.
- Condition #20100, part 26 has been deleted. This condition specified an EPAapproved custom schedule for fuel sulfur content monitoring to satisfy Subpart GG. Due to revisions to Subpart GG, this custom schedule is obsolete and has been replaced with natural gas fuel certification that is satisfied with quarterly fuel testing.

Renewal (Application # 17184)

Changed the responsible official; Corrected the dates of adoption or most recent amendment of regulations; Updated the permit condition #20010 for S-1; Updated permit shield section. 6

Renewal (Application # 27726)

TBD

July 22, 2011

August 10, 2006

July 18, 2003