Bay Area Air Quality Management District

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

Proposed

MAJOR FACILITY REVIEW PERMIT

Issued To:

Metcalf Energy Center, LLC
Facility #B2183

Facility Address
1 Blanchard Road
San Jose, CA 95013

Mailing Address
PO Box 1764
Gilroy, CA 95021

Responsible Official	**Facility Contact**
Robert McCaffrey, General Manager	Robert McCaffrey, General Manager
408-847-5328	408-847-5328

Type of Facility:	Generation of Electricity	BAAQMD Engineering Division
Primary SIC:	4911	Contact:
Product:	Electricity	Weyman Lee

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

_____ _____

Jack P. Broadbent, Executive Officer/Air Pollution Control Officer Date

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I. STANDARD CONDITIONS

A. Administrative Requirements

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

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on 7/9/08);
SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 6/28/99);
BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on 03/04/09);
SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);
BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 6/15/05);
SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 1/26/99);
BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/21/04);
SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99);
BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on 01/06/10);
BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03); and
SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95)

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

1. This Major Facility Review Permit was issued on [ ] and expires on [when issued, enter 5th anniversary of issue date]. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than [when issued, enter date 6 months prior to permit expiration date] and no earlier than [when issued, enter date 12 months prior to expiration date]. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after** [when issued, enter 5th anniversary of issue date]**.** If the permit renewal has not been issued by [ ], 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. (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. (Regulation 2-6-307; MOP

I. Standard Conditions, contd.

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

I. Standard Conditions, contd.

C. Requirement to Pay Fees

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

D. Inspection and Entry

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

E. Records

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

F. Monitoring Reports

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

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

(Regulation 2-6-502, Regulation 3; 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 _____ 1st to _____ 30th or 31st. The certification shall be submitted by _____ 30th or 31st of each year. The certification must list each applicable requirement, the compliance status, whether

I. Standard Conditions, contd.

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 to the Environmental Protection Agency at the following address:

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

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

H. Emergency Provisions

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

I. Severability

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

J. Miscellaneous Conditions

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

K. Accidental Release

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

I. Standard Conditions, contd.

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

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

1. The permit holder shall hold one sulfur dioxide allowance on January 30 for each ton of sulfur dioxide emitted during the preceding year from January 1 through December 31. (MOP Volume II, Part 3, §4.9)
2. The equipment installed for the continuous monitoring of CO_2 and NO_x shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (Regulation 2-7, Acid Rain)
3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO_x which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO_2 emissions in accordance with 40 CFR Part 72 and 75. (Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for S-1 & S-3 Gas Turbines and S-2 & S-4 Heat Recovery Steam Generators. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

II. EQUIPMENT

Table II A - Permitted Sources

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

S-#	Description	Make or Type	Model	Capacity
1	Gas Turbine #1	Westinghouse	501FD2	200 MW, nominal 1990.5 MM BTU/hr (natural gas)
2	Heat Recovery Steam Generator #1			200 MM BTU/hr (natural gas)
3	Gas Turbine #2	Westinghouse	501FD2	200 MW, nominal 1990.5 MM BTU/hr (natural gas)
4	Heat Recovery Steam Generator #2			200 MM BTU/hr (natural gas)
5	Cooling Tower	Custom-made, Wet	N/A	10-Cell 9,000,000 gal/hr
6	Standby Generator Set, Natural Gas Fired	Caterpillar	G3516BLE	1818 bhp 14.162 MM BTU/hr (natural gas)
7	Fire Pump Diesel Engine	John Deere	6081	360 bhp 2.26 MM BTU/hr (diesel)

Table II B – Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
1	Selective Catalytic Reduction System	S-1, S-2	BAAQMD Condition #18310, part 20(b)	None	2.5 ppmv NOx @ 15% O_2, dry, 1-hr average

II. Equipment, contd.

Table II B – Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
2	Selective Catalytic Reduction System	S-3, S-4	BAAQMD Condition #18310, part 20(b)	None	2.5 ppmv NOx @ 15% O_2, dry, 1-hr average
3	Oxidation Catalyst	S-1, S-2	BAAQMD Condition #18310, parts 20(c) and 20(d)	None	4 ppmv CO @ 15% O_2, dry, 3-hr average
4	Oxidation Catalyst	S-3, S-4	BAAQMD Condition #18310, parts 20(c) and 20(d)	None	4 ppmv CO @ 15% O_2, dry, 3-hr average

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP rules and regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements 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.

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

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

The full language of the SIP requirements can be viewed on the EPA Region IX website. The address is:

http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions

NOTE:

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

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (7/19/06)	N
SIP Regulation 1	General Provisions and Definitions 6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (03/04/09)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y

III. Generally Applicable Requirements, contd.

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 2, Rule 2	Permits, New Source Review (6/15/05)	N
SIP Regulation 2, Rule 2	Permits, New Source Review (1/26/99)	Y
BAAQMD Regulation 2, Rule 3	Permits, Power Plants (12/19/79)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/21/04)	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (01/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (01/06/10)	N
BAAQMD Regulation 2, Rule 6	Permits, Major Facility Review (4/16/03)	N
SIP Regulation 2, Rule 6	Permits, Major Facility Review (6/23/95)	Y
BAAQMD Regulation 2, Rule 9	Permits, Interchangeable Emission Reduction Credits (6/15/05)	N
BAAQMD Regulation 3	Fees	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (1/26/99)	Y
BAAQMD Regulation 5	Open Burning (3/6/02)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/05/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds - Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/21/01)	Y
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y

III. Generally Applicable Requirements, contd.

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Section 93115 et seq.	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (03/12/04)	Y
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required Practices (04/13/05)	Y

III. Generally Applicable Requirements, contd.

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
Subpart F, 40 CFR 82.161	Recycling and Emissions Reductions – Technician Certification (04/13/05)	Y
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and Recordkeeping Provisions (04/13/05)	Y
40 CFR Part 82, Subpart H	Protection of Stratospheric Ozone; Halon Emissions Reduction (03/05/98)	Y
Title 40 Part 82 Subpart H 82.270(b)	Prohibitions, Halon (03/05/98)	Y
BAAQMD Condition 18310, Part 60	Implementation of BAAQMD Regulation 4, Air Pollution Episode Plan	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements may be viewed on the EPA Region IX website. The address is:

http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions.

All other text may be found in the regulations themselves.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (7/9/08)**		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.8	continuous emission monitoring pursuant to regulation 2-1-403	Y	
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	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-522.6	CEM accuracy requirements	Y	
1-522.7	emission limit exceedance reporting requirements	N	
1-522.8	monitoring data submittal requirements	Y	
1-522.9	recordkeeping requirements	Y	
1-522.10	APCO requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures		
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	Y	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	N	
1-602	Area and Continuous Emission Monitor Requirements	Y	
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Emission Limit Exceedance Reporting Requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	Y	
1-523.4	Records	Y	
1-602	Area and Continuous Emission Monitor Requirements	Y	
BAAQMD Regulation 2, Rule 1	**Regulation 2, Rule 1 - Permits, General Requirements (7/19/06)**		
2-1-501	Monitors	Y	
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/5/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-310.3	Heat Transfer Operations	N	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 9	**Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/6/06)**		
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	
9-9-301.1.3	Emission Limits, Turbines greater than 10 MW with SCR, NOx less than 9 ppmv (dry, 15% O2) Emission Limits- Turbines Rated ≥ 10 MW w/SCR	N	
9-9-301.2	Emission Limits, Turbines greater than 500 MM BTU/hr	N	
9-9-401	Certification, Efficiency	N	
9-9-501	Monitoring and recordkeeping requirements	N	
9-9-601	Determination of Emissions	N	
9-9-602	Determination of Stack Gas Oxygen	Y	
9-9-604	Determination of HHV and LHV	N	
SIP Regulation 9, Rule 9	**Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/1997)**		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-9-301.3	Emission Limits, Turbines greater than 10 MW with SCR, NOx less than 9 ppmv (dry, 15% O2)	Y	
9-9-401	Certification, Efficiency	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
9-9-601	Determination of Emissions	Y	
9-9-604	Determination of HHV and LHV	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**		
BAAQMD Regulation 10 Subpart GG	**NSPS Incorporation by Reference, Stationary Gas Turbines (2/16/2000)**		
10-40.	Subpart GG - Standards of Performance For Stationary Gas Turbines	Y	
40 CFR 60 Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (1/28/09)**	Y	
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(d)	Compliance with standards and maintenance requirements – Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.18	General Control Device Requirements	Y	
60.19	General notification and reporting requirements	Y	
40 CFR 60 Subpart GG	**Standards of Performance for Stationary Gas Turbines (2/24/06)**		
60.332(a)(1)	NOx limit	Y	
60.333	Standard for sulfur dioxide	Y	
60.33(a)	SO2 concentration < 0.015 percent @ 15% O2	Y	
60.333(b)	Fuel Sulfur Content cannot exceed 0.8 percent by weight	Y	
60.334	Monitoring of Operations	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.334(c)	NOx CEMs	Y	
60.334(h)(3)	Exemption from sulfur fuel monitoring requirements (Natural Gas)	Y	
60.334(j)(1)(iii)	NOx Excess Emissions and Monitor Downtime reporting requirements	Y	
60.335	Test Methods and Procedures	Y	
40 CFR Part 64	**Compliance Assurance Monitoring**		
64.1	Definitions	Y	
64.2	Applicability	Y	
64.3	Monitoring design criteria	Y	
64.3(b)(4)(ii)	Data collection at least 4 times per hour	Y	
64.5	Deadlines for submittal	Y	
64.6	Approval of monitoring	Y	
64.7	Operation of approved monitoring	Y	
64.8	Quality improvement plan (QIP) requirements	Y	
64.9	Reporting and recordkeeping requirements	Y	
64.10	Savings provisions	Y	
40 CFR Part 72	**Title IV – Acid Rain Program**	Y	
40 CFR Part 75	**Code of Federal Regulations, Continuous Emissions Monitoring**	Y	
BAAQMD Condition #18310			
Definitions	Definitions	Y	
part 13	Requirement for combustion of natural gas (BACT for SO_2 and PM_{10})	Y	
part 14	Hourly heat input limit (PSD for NO_x)	Y	
part 15	Daily heat input limit (PSD for PM_{10})	Y	
part 16	Annual heat input limit (Offsets)	Y	
Part 17	HRSG shall not be fired unless associated turbine is firing (BACT for NOx)	Y	
part 18	SCR System requirement – S-1 & S-2 only (BACT for NO_x and CO)	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 19	SCR System requirement – S-3 & S-4 only (BACT for NO_x and CO)	Y	
part 20	Emission limits (BACT, PSD, and Regulation 2, Rule 5)	Y	
part 20a	Hourly and heat-input rate NOx limits (PSD for NOx)	Y	
part 20b	NOx concentration limit (BACT for NO_x)	Y	
part 20c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 20d	CO concentration limit (BACT for CO)	Y	
part 20e	Ammonia concentration limit and monitoring (Regulation 2, Rule 5 for NH3)	N	
part 20f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 20g	Hourly and heat-input rate SO2 limits (BACT for SO2)	Y	
part 20h	Hourly and heat-input rate PM10 limits (BACT for PM10)	Y	
part 21	Limits during turbine startup, combustor tuning, and shutdown (PSD)	Y	
part 22	Turbines may not be in startup mode simultaneously (PSD)	Y	
part 24	Daily Combined Emission Limits for Gas Turbines and HRSGs (Ccumulative Increase, PSD, BACT)	Y	
part 25	Annual Combined Emission Limits for Gas Turbines and HRSGs (Offsets, cumulative increase, PSD)	Y	
part 26	Annual emission limits for toxic air contaminants for Gas Turbines and HRSGs (Regulation 2, Rule 5)	N	
part 27	Monitoring Requirements (1-520.8, 9-9-501, BACT, Offsets, 40 CFR 60.13, PSD, Cumulative Increase)	Y	
part 28	Calculation of POC, PM10, and SO2 emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 29	Calculation of emissions and recordkeeping for toxic air contaminants (Regulation 2, Rule 5)	N	
part 30	Start-up ammonia slip source test (Regulation 2, Rule 5)	N	
part 31	Annual source test to determine compliance with parts 20a, b, c, d and f (BACT, offsets)	Y	
part 32	District review of source test procedures (BACT)	Y	
part 33	Initial and biennial source tests for toxic air contaminants (Regulation 2, Rule 5)	N	
part 34	Submittal of reports (2-6-502)	Y	
part 35	Retention of records for five years (2-6-502)	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – A
Source-specific Applicable Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 36	Notification of violations to District (2-1-403)	Y	
part 37	Stack heights (PSD, Regulation 2, Rule 5)	Y	
part 38	Sampling ports and platforms (1-501)	Y	
part 44	Compliance with 40 CFR Part 75	Y	
part 45	Fuel sulfur content sampling and anaylsis (BACT for SO2 and PM10)	Y	
part 48	Annual limit on cold start-up and combustor tuning (cumulative increase, offsets)	Y	
part 49	Recordkeeping of total cold start-up and combustor tuning hours (cumulative increase, offsets)	Y	

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (7/9/08)**		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.8	Continuous emission monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures		
1-522.1	approval of plans and specifications	Y	
1-522.2	scheduling requirements	Y	
1-522.3	CEM performance testing	Y	
1-522.4	reporting of inoperative CEMs	Y	
1-522.5	CEM calibration requirements	Y	
1-522.6	CEM accuracy requirements	Y	
1-522.7	emission limit exceedance reporting requirements	N	

IV. Source-Specific Applicable Requirements, contd.

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-522.8	monitoring data submittal requirements	Y	
1-522.9	recordkeeping requirements	Y	
1-522.10	APCO requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures		
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	N	
1-602	Area and Continuous Emission Monitor Requirements	Y	
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	Y	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	Y	
1-602	Area and Continuous Emission Monitor Requirements	Y	
BAAQMD Regulation 2, Rule 1	**Regulation 2, Rule 1 - Permits, General Requirements (3/4/09)**		
2-1-501	Monitors	Y	
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/05/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-304	Tube Cleaning	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	

IV. Source-Specific Applicable Requirements, contd.

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-1-310.3	Heat Transfer Operations	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 3	**Inorganic Gaseous Pollutants – Nitrogen Oxides from Heat Transfer Operations (3/17/82)**		
9-3-303	Nitrogen oxide emission limitation	N	
SIP Regulation 9, Rule 3	**Inorganic Gaseous Pollutants – Nitrogen Oxides from Heat Transfer Operations (7/6/82)**		
9-3-303	Nitrogen oxide emission limitation	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**	N	
40 CFR 60 Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (1/28/09)**		
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(d)	Compliance with standards and maintenance requirements – Minimizing emissons	Y	
60.12	Circumvention	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.13	Monitoring Requirements	Y	
60.18	General Control Device Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart Db	**Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (1/28/09)**		
60.44b(a)(4)	NO_x Emission Limit	Y	
60.44b(h)	NO_x limit applicable at all times	Y	
60.44b(i)	Compliance: 24-hr averaging period (per BAAQMD Regulation 10, part 4)	Y	
60.46b(a)	NO_x limits apply at all times	Y	
60.46b(c)	Compliance with NO_x emission limit	Y	
60.46b(e)	Performance test for NO_x	Y	
60.46b(f)	Procedures for determining compliance with NO_x emission limit	Y	
60.48b(b)	CEMs for NOx Standard, except as provided in (g), (h), and (i) of this section	Y	
60.48b(h)	CEMs not required for duct burner subject to 60.44b(a)(4)	Y	
60.49b(a)	Notification of Initial Startup	Y	
60.49b(b)	Submittal of Performance Test Reports and CEM performance evaluation	Y	
60.49b(d)	Fuel records	Y	
60.49b(g)	Records for each day of operation	Y	
60.49b(h)(2)	Excess emission reports	Y	
60.49b(o)	Records retention for two years	Y	
40 CFR 60 Subpart GG	**Standards of Performance for Stationary Gas Turbines (2/24/06)**		
60.332(a)(1)	NOx limit	Y	
60.333	Standard for sulfur dioxide	Y	
60.33(a)	SO2 concentration < 0.015 percent @ 15% O2	Y	
60.333(b)	Fuel Sulfur Content cannot exceed 0.8 percent by weight	Y	
40 CFR Part 72	**Title IV – Acid Rain Program**	Y	
40 CFR Part 75	**Code of Federal Regulations, Continuous Emissions Monitoring**	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition #18310			
Definitions	Definitions	Y	
part 13	Requirement for combustion of natural gas (BACT for SO_2 and PM_{10})	Y	
part 14	Hourly heat input limit (PSD for NO_x)	Y	
part 15	Daily heat input limit (PSD for PM_{10})	Y	
part 16	Annual heat input limit (Offsets)	Y	
Part 17	HRSG shall not be fired unless associated turbine is firing (BACT for NOx)	Y	
part 18	SCR System requirement – S-1 & S-2 only (BACT for NO_x and CO)	Y	
part 19	SCR System requirement – S-3 & S-4 only (BACT for NO_x and CO)	Y	
part 20	Emission limits (BACT, PSD, and Regulation 2, Rule 5)	Y	
part 20a	Hourly and heat-input rate NOx limits (PSD for NOx)	Y	
part 20b	NOx concentration limit (BACT for NO_x)	Y	
part 20c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 20d	CO concentration limit (BACT for CO)	Y	
part 20e	Ammonia concentration limit and monitoring (Regulation 2, Rule 5 for NH3)	N	
part 20f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 20g	Hourly and heat-input rate SO2 limits (BACT for SO2)	Y	
part 20h	Hourly and heat-input rate PM10 limits (BACT for PM10)	Y	
part 21	Limits during turbine startup, combustor tuning, and shutdown (PSD)	Y	
part 22	Turbines may not be in startup mode simultaneously (PSD)	Y	
part 24	Daily Combined Emission Limits for Gas Turbines and HRSGs (Cumulative Increase, PSD, BACT)	Y	
part 25	Annual Combined Emission Limits for Gas Turbines and HRSGs (Offsets, cumulative increase, PSD)	Y	
part 26	Annual emission limits for toxic air contaminants for Gas Turbines and HRSGs (Regulation 2, Rule 5)	N	
part 27	Monitoring Requirements (1-520.8, 9-9-501, BACT, Offsets, 40 CFR 60.13, PSD, Cumulative	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV – B
Source-specific Applicable Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	Increase)		
part 28	Calculation of POC, PM10, and SO2 emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 29	Calculation of emissions and recordkeeping for toxic air contaminants (Regulation 2, Rule 5)	N	
part 30	Start-up ammonia slip source test (Regulation 2, Rule 5)	N	
part 31	Annual source test to determine compliance with parts 20a, b, c, d and f (BACT, offsets)	Y	
part 32	District review of source test procedures (BACT)	Y	
part 33	Initial and biennial source tests for toxic air contaminants (Regulation 2, Rule 5)	N	
part 34	Submittal of reports (2-6-502)	Y	
part 35	Retention of records for five years (2-6-502)	Y	
part 36	Notification of violations to District (2-1-403)	Y	
part 37	Stack heights (PSD, Regulation 2, Rule 5)	Y	
part 38	Sampling ports and platforms (1-501)	Y	
part 44	Compliance with 40 CFR Part 75	Y	
part 45	Fuel sulfur content sampling and analysis (BACT for SO2 and PM10)	Y	

Table IV-C
S-5, COOLING TOWER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/05/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	

IV. Source-Specific Applicable Requirements, contd.

Table IV-C
S-5, COOLING TOWER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-1-310	Particulate Weight Limitation	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
BAAQMD Condition #18310			
part 46	Maximum Drift Rate and total dissolved solids (Basis: PSD, BACT, cumulative increase)	Y	
part 47	Visual Inspection (Basis: PSD, BACT, cumulative increase)	Y	

Table IV-D
S-6, STATIONARY STANDBY GENERATOR SET

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/05/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV-D
S-6, STATIONARY STANDBY GENERATOR SET

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Condition #22231			
part 1	Heat Input rate limit (basis: cumulative increase)	Y	
part 2	Limit on reliability-related activities (basis: Regulation 9-8-330, cumulative increase)	Y	
part 3	NOx, CO, and POC Emission Limitations (basis: BACT, cumulative increase)	Y	
part 6	Recordkeeping (basis: 9-8-530, recordkeeping)	Y	

Table IV-E
S-7, FIRE PUMP DIESEL ENGINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter, General Requirements (12/05/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	

IV. Source-Specific Applicable Requirements, contd.

Table IV-E
S-7, FIRE PUMP DIESEL ENGINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
BAAQMD Regulation 9, Rule 8	**Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines**		
9-8-304.2	NOx and CO Emission Standards	N	1/1/12
9-8-501	Initial Demonstration of Compliance	N	3/31/12
BAAQMD Condition #21917			
Part 1	Limit on reliability-related operation (basis: Title 17, CCR Section 93115.6(b)(3)(A)(1)(a))	N	
Part 2	Allowable Operation (basis: Title 17, CCR Section 93115.6(b)(3)(A)(1)(a)	N	
Part 3	Use of totalizing operating hour meter (basis: Title 17, CCR Section 93115.10(e)(1))	N	
Part 4	Records (basis: Title 17, CCR Section 93115.10(g), Regulation 2-6-501)	N	
Part 5	Near School Operation (Title 17, CCR Section 93115.6(a)(1))	N	

V. SCHEDULE OF COMPLIANCE

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

VI. PERMIT CONDITIONS

This section lists all of the permit conditions that apply to the Metacalf Energy Center. The permit conditions are taken from previously issued District Authorities to Construct (A/C) that became part of the final Permits to Operate (P/O). [NW1]

The regulatory basis for each permit condition is provided in parentheses following the condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301. There are two types of BACT determinations that can be made under the District's New Source Review regulation (Regulation 2, Rule 2). BACT 1 is called "technologically feasible/cost-effective" and is considered to be technology-forcing while still meeting District cost-effectiveness criteria. BACT 2 is referred to as "achieved in practice" and constitutes an emission standard or control technology that has been achieved or utilized by the same category of source.
- Cumulative Increase: This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- NSPS [NW2] This citation has been changed to 40 CFR 60.13, the monitoring requirements from the general requirements of the NSPS
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy. Because this policy has been supplanted by District Regulation 2, Rule 5, the basis "TRMP" has been replaced by "Regulation 2, Rule 5".

Condition #18310

For S-1 & S-3 Gas Turbines, S-2 & S-4 HRSGs, and S-5 Cooling Tower

Definitions:

Clock Hour: Any continuous 60-minute period beginning on the hour.

Calendar Day: Any continuous 24-hour period beginning at 12:00 Midnight or 0000 hours.

VI. Permit Conditions, contd.

Year: Any consecutive twelve-month period of time.

Heat Input: All heat input values refer to the higher heating value (HHV) of the fuel, in british thermal units per standard cubic feet (BTU/scf).

Rolling 3-hour period: Any three-hour period that begins on the hour and does not include start-up or shutdown periods.

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

MM BTU: M~~m~~illion british thermal units.

Gas Turbine Start-up Mode: The lesser of the first 180 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of conditions 20(b) and 20(d)..

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

Gas Turbine Cold Start-Up Period: The lesser of the first 360 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of part 20(b), following a shutdown of at least 72 hours.~~.~~

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

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

Corrected Concentration: The concentration of any pollutant (generally NOx, CO, or NH3) corrected to a standard stack gas oxygen concentration. For emission point P-1 (combined exhaust of S-1 Gas Turbine and S-2 HRSG duct burners) and emission point P-2 (combined

VI. Permit Conditions, contd.

exhaust of S-3 Gas Turbine and S-4 HRSG duct burners) the standard stack gas oxygen concentration is 15% O2 by volume on a dry basis.

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

Commissioning Period: The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has successfully completed performance testing, is available for commercial operation, and has initiated sales to the power exchange. The commissioning period shall not exceed 180 days under any circumstances.

Combustor Tuning Activities: Any testing, adjustment, tuning, or calibration activities recommended by the gas turbine manufacturer to insure safe and reliable steady-state operation of the gas turbines following replacement of the combustor components, during seasonal tuning events, or at other times when recommended by the turbine manufacturer or as necessary to maintain low emissions performance. This includes but is not limited to, adjusting the amount of fuel distributed between the combustion turbine's staged fuel systems to simultaneously minimize NO_x and CO production while minimizing combustor dynamics and ensuring combustor stability.

Combustor Tuning Period: The period, not to exceed 360 minutes, when combustor tuning activities are taking place.

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

CEC CPM: California Energy Commission Compliance Program Manager.

MEC: Metcalf Energy Center.

Conditions for the Commissioning Period:

[*Conditions # 1-12. applying to the commissioning period were d Deleted from the underlying authority to construct prior to the issuance of the Permit to Operate* [NW3]]

~~2. Deleted~~

VI. Permit Conditions, contd.

~~3. Deleted~~

~~4. Deleted~~

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~~8. Deleted~~

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~~10. Deleted~~

~~11. Deleted~~

~~12. Deleted~~

Conditions for the Gas Turbines (S-1 & S-3) and the Heat Recovery Steam Generators (HRSGs; S-2 & S-4):

13. The Gas Turbines (S-1 and S-3) and HRSG Duct Burners (S-2 and S-4) shall be fired exclusively on natural gas. (BACT for SO2 and PM10)

14. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2 and S-3 & S-4) shall not exceed 2,124 MM BTU (HHV) per hour, averaged over any rolling 3-hour period. (PSD for NOx)

15. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2 and S-3 & S-4) shall not exceed 49,908 MM BTU (HHV) per calendar day. (PSD for PM10)

16. The combined cumulative heat input rate for the Gas Turbines (S-1 & S-3) and the HRSGs (S-2 & S-4) shall not exceed 35,274,060 MM BTU (HHV) per year. (Offsets)

17. The HRSG duct burners (S-2 and S-4) shall not be fired unless its associated Gas Turbine (S-1 and S-3, respectively) is in operation. (BACT for NOx)

18. S-1 Gas Turbine and S-2 HRSG shall be abated by the properly operated and properly maintained A-1 Selective Catalytic Reduction (SCR) System whenever fuel is combusted

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at those sources and the A-1 catalyst bed has reached minimum operating temperature. (BACT for NOx)

19. S-3 Gas Turbine and S-4 HRSG shall be abated by the properly operated and properly maintained A-2 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-2 catalyst bed has reached minimum operating temperature. (BACT for NOx)

20. The Gas Turbines (S-1 & S-3) and HRSGs (S-2 & S-4) shall comply with requirements (a) through (h) under all operating scenarios, including duct burner firing mode and steam injection power augmentation mode. Requirements (a) through (h) do not apply during a gas turbine start-up, a gas turbine shutdown, a gas turbine cold start-up, or a combustor tuning period. (BACT, PSD, and ~~Toxic Risk Management Policy~~Regulation 2, Rule 5)

    a. Nitrogen oxide mass emissions (calculated as NO2) at P-1 (the combined exhaust point for the S-1 Gas Turbine and the S-2 HRSG after abatement by A-1 SCR System) shall not exceed 19.2 pounds per hour or 0.00904 lb/MM BTU (HHV) of natural gas fired. Nitrogen oxide mass emissions (calculated as NO2) at P-2 (the combined exhaust point for the S-3 Gas Turbine and the S-4 HRSG after abatement by A-3 SCR System) shall not exceed 19.2 pounds per hour or 0.00904 lb/MM BTU (HHV) of natural gas fired. (PSD for NOx)

    b. The nitrogen oxide emission concentration at emission points P-1 and P-2 each shall not exceed 2.5 ppmv, on a dry basis, corrected to 15% O2, averaged over any 1-hour period. (BACT for NOx)

    c. Carbon monoxide mass emissions at P-1 and P-2 each shall not exceed 18.7 pounds per hour, averaged over any rolling 3-hour period. (PSD for CO)

    d. The carbon monoxide emission concentration at P-1 and P-2 each shall not exceed 4.0 ppmv, on a dry basis, corrected to 15% O2, and the carbon monoxide mass emission rate at P-1 and P-2 each shall not exceed 0.0088 lb/MM BTU of natural gas fired, averaged over any rolling 3-hour period. (BACT for CO)

    e. Ammonia (NH3) emission concentrations at P-1 and P-2 each shall not exceed 5 ppmv, on a dry basis, corrected to 15% O2, averaged over any rolling 3-hour period. This ammonia mission concentration shall be verified by a District-approved ammonia slip calculation method. The factors to be used in the calculation method shall be determined in accordance with permit Condition 30. (Regulation 2, Rule 5 for NH3)

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f. Precursor organic compound (POC) mass emissions (as CH4) at P-1 and P-2 each shall not exceed 2.7 pounds per hour or 0.00126 lb/MM BTU of natural gas fired. (BACT)

g. Sulfur dioxide (SO2) mass emissions at P-1 and P-2 each shall not exceed 1.28 pounds per hour or 0.0006 lb/MM BTU of natural gas fired. (BACT)

h. Particulate matter (PM10) mass emissions at P-1 and P-2 each shall not exceed 9 pounds per hour or 0.00452 lb PM10/MM BTU of natural gas fired when HRSG duct burners are not in operation. Particulate matter (PM10) mass emissions at P-1 and P-2 each shall not exceed 12 pounds per hour or 0.00565 lb PM10/MM BTU of natural gas fired when HRSG duct burners are in operation. (BACT)

21. The regulated air pollutant mass emission rates from each of the Gas Turbines (S-1 and S-3) during a start-up, combustor tuning period, or a shutdown shall not exceed the limits established below. (PSD)

	Startup (lb/start-up)	Cold Start/Combustor Tuning (lb/event)	Shutdown (lb/shutdown)
Oxides of Nitrogen (as NO2)	240	480	80
Carbon Monoxide (CO)	2,514	5,028	902
Precursor Organic Compounds (POC) (as CH4)	48	96	16

22. Not more than one of the Gas Turbines (S-1 and S-3) shall be in start-up mode or undergoing combustor tuning at any one time. (PSD)

23. The heat recovery steam generators (S-2 & S-4) and associated ducting shall be designed and constructed such that an oxidation catalyst can be readily installed and properly operated if deemed necessary by the APCO to insure compliance with the CO emission rate limitations of conditions 20c and 20(d). (BACT)

24. Total combined emissions from the Gas Turbines and HRSGs (S-1, S-2, S-3, and S-4), including emissions generated during Gas Turbine start-ups, gas turbine shutdowns, and Gas Turbine combustor tuning activities shall not exceed the following limits during any calendar day:

a. 1,362.6 pounds of NOx (as NO2) per day (~~CEQA~~Cumulative increase)
b. 7,891.1 pounds of CO per day (PSD)
c. 230.2 pounds of POC (as CH4) per day (~~CEQA~~Cumulative increase)

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d. 510 pounds of PM10 per day (PSD)
e. 57.9 pounds of SO2 per day (BACT)

25. Cumulative combined emissions from the Gas Turbines and HRSGs (S-1, S-2, S-3, and S-4), including emissions generated during Gg~~g~~as Tt~~t~~urbine start-ups, gas turbine shutdowns, and Gas Turbine combustor tuning activites shall not exceed the following limits during any consecutive twelve-month period:

    a. 123.4 tons of NOx (as NO2) per year (Offsets)
    b. 588 tons of CO per year (Cumulative Increase, PSD)
    c. 28 tons of POC (as CH4) per year (Offsets)
    d. 83.34 tons of PM10 per year (Offsets)
    e. 10.6 tons of SO2 per year (Cumulative Increase)

26. The maximum projected annual toxic air contaminant emissions (per condition 29) from the Gas Turbines and HRSGs combined (S-1, S-2, S-3, and S-4) shall not exceed the following limits:

    Ff~~f~~ormaldehyde 3,796 pounds per year
    Bb~~b~~enzene 480 pounds of per year
    Specified ~~polycyclic aromatic hydrocarbons (~~PAHs ~~)~~ 22.8 pounds of per year

    unless the following requirement is satisfied:

    The owner/operator shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This risk analysis shall be submitted to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will result in a cancer risk of not more than 1.0 in one million, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (Regulation 2, Rule 5)

27. The owner/operator shall demonstrate compliance with conditions 14 through 17, 20(a) through 20(d), 21, 22, 24(a), 24(b), 25(a), and 25(b) by using properly operated and maintained continuous monitors (during all hours of operation including equipment Start-up and Shutdown and combustor tuning periods) for all of the following parameters:

    a. Firing Hours and Fuel Flow Rates for each of the following sources: S-1 & S-2 combined and S-3 & S-4 combined

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b. Oxygen (O2) Concentrations, Nitrogen Oxides (NOx) Concentrations, and Carbon Monoxide (CO) Concentrations at each of the following exhaust points: P-1 and P-2
c. Ammonia injection rate at A-1 and A-2 SCR Systems
d. Steam injection rate at S-1 & S-3 Gas Turbine Combustors

The owner/operator shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, the owner/operator shall calculate and record the total firing hours, the average hourly fuel flow rates, and pollutant emission concentrations. The owner/operator shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

e. Heat Input Rate for each of the following sources: S-1 & S-2 combined and S-3 & S-4 combined.
f. Corrected NOx concentrations, NOx mass emissions (as NO2), corrected CO concentrations, and CO mass emissions at each of the following exhaust points: P-1 and P-2.

For each source, source grouping, or exhaust point, the owner/operator shall record the parameters specified in conditions 27(e) and 27(f) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

g. Ttotal Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.
h. Oon an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each GasTurbine and associated HRSG combined and all four sources (S-1, S-2, S-3, and S-4) combined.
i. Tthe average NOx mass emissions (as NO2), CO mass emissions, and corrected NOx and CO emission concentrations for every clock hour and for every rolling 3-hour period.
j. Oon an hourly basis, the cumulative total NOx mass emissions (as NO2) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and associated HRSG combined, and all four sources (S-1, S-2, S-3, and S-4) combined.
k. For each calendar day, the average hourly Heat Input Rates, Corrected NOx emission concentrations, NOx mass emissions (as NO2), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined.
l. Oon a daily basis, the cumulative total NOx mass emissions (as NO2) and cumulative total CO mass emissions, for the previous consecutive twelve month period for all four sources (S-1, S-2, S-3, and S-4) combined.

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(Regulations 1-520.~~1~~8, 9-9-501, BACT, Offsets, ~~NSPS~~ 40 CFR 60.13, PSD, Cumulative Increase)

28. To demonstrate compliance with conditions 20(f), 20(g), 20(h), 21, 24c through 24(e), and 25c through 25(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM10) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO2) mass emissions from each power train. The owner/operator shall use the actual Heat Input Rates calculated pursuant to condition 27, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, actual gas turbine combustor tuning times, and CEC and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows:
    a. For each calendar day, POC, PM10, and SO2 emissions shall be summarized for: each power train (Gas Turbine and its respective HRSG combined) and all four sources (S-1, S-2, S-3, and S-4) combined.
    b. O~~o~~n a daily basis, the cumulative total POC, PM10, and SO2 mass emissions, for each year for all four sources (S-1, S-2, S-3, and S-4) combined.

    (Offsets, PSD, Cumulative Increase)

29. To demonstrate compliance with Condition 26, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAH. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 35,274,060 MM BTU/year and the highest emission factor (pounds of pollutant per MM BTU of Heat Input) determined by any source test of the S-1 & S-3 Gas Turbines and/or S-2 & S-4 Heat Recovery Steam Generators. If the highest emission factor for a given pollutant occurs during minimum-load turbine operation, a reduced annual heat input rate may be utilized to calculate the maximum projected annual emissions to reflect the reduced heat input during gas turbine start-up and minimum-load operation. The reduced annual heat input rate shall be subject to the review and approval of the District. (Regulation 2, Rule 5)

30. Within 90 days of start-up of the MEC, the owner/operator shall conduct a District-approved source test on exhaust point P-1 or P-2 to establish the factors to be used to determine compliance with condition 20(e). The source test shall be conducted over the expected operating range of the turbine and HRSG (including, but not limited to, minimum and full load, and steam injection power augmentation mode) to establish the correction factors that will be used to calculate ammonia slip levels. This source testing shall be repeated on an annual basis thereafter. Continuing compliance with condition 20(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the District-approved calculation method.

(Regulation 2, Rule 5)

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31. Within 60 days of start-up of the MEC and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-1 and P-2 while each Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum load (including steam injection power augmentation mode) to determine compliance with Conditions 20(a), (b), (c), (d), (f), (g), and (h), while each Gas Turbine and associated Heat Recovery Steam Generator are operating at minimum load to determine compliance with Conditions 20c and (d), and to verify the accuracy of the continuous emission monitors required in condition 29. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO2), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and particulate matter (PM10) emissions including condensable particulate matter. (BACT, Offsets)

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

33. Within 90 days of start-up of the MEC and on a biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-1 or P-2 while the Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum allowable operating rates to demonstrate compliance with Condition 26. The gas turbine shall also be tested at minimum load. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to condition 29 for any of the compounds listed below are less than the BAAQMD Regulation 2, Rule 5 trigger levels shown, then the owner/operator may discontinue future testing for that pollutant:

Benzene	26.8 pounds/year
Formaldehyde	132 pounds/year
Specified PAH's	0.18 pounds/year

(Regulation 2, Rule 5)

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34. The owner/operator of the MEC shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. Data from any source test required by this permit shall be submitted to the District within 60 days of the testing date, unless otherwise indicated. (Regulation 2-6-502)

35. The owner/operator of the MEC shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emission rates, monitor excesses, breakdowns, etc.), source test and analytical records, natural gas sulfur content analysis results, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District and the CEC CPM staff upon request. (Regulation 2-6-501)

36. The owner/operator of the MEC shall notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Regulation 2-1-403)

37. The stack height of emission points P-1 and P-2 shall each be at least 145 feet above grade level at the stack base. (PSD, Regulation 2, Rule 5)

38. The Owner/Operator of MEC shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall be subject to BAAQMD review and approval. (Regulation 1-501)

39. Within 180 days of the issuance of the Authority to Construct for the MEC, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by conditions 27, 30, 31, 33, and 47. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)[NW4]

40. [*Deleted from underlying permit (District Authority to Construct).*]

41. [*Deleted from underlying permit (District Authority to Construct).*]~~Deleted~~

42. [*Deleted from underlying permit (District Authority to Construct).*]~~Deleted~~

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43. [*Deleted from underlying permit (District Authority to Construct).*]~~Deleted~~

44. The owner/operator shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. (Regulation 2, Rule 7)

45. The owner/operator shall take monthly samples of the natural gas combusted at the MEC. The samples shall be analyzed for sulfur content using District-approved laboratory methods. The sulfur content test results shall be retained on site for a minimum of five years from the test date. PG&E sulfur data may be used to track the sulfur content in the natural gas delivered to MEC provided that such data can be demonstrated to be representative of the natural gas supplied to MEC. (BACT for SO2 and PM10)

46. The owner/operator shall properly install the cooling towers and shall maintain them to minimize drift losses. The cooling towers shall be equipped with high-efficiency mist eliminators with a maximum guaranteed drift rate of 0.0005%. The maximum total dissolved solids (TDS) measured at the base of the cooling towers or at the point of return to the wastewater facility shall not be higher than 5,438 ppmw (mg/l). The owner/operator shall sample the water at least once per day. (PSD, C~~c~~umulative I~~i~~ncrease)

47. The owner/operator shall perform a visual inspection of the cooling tower drift eliminators at least once per calendar year, and repair or replace any drift eliminator components which are broken or missing. Prior to the initial operation of the Metcalf Energy Center, the owner/operator shall have the cooling tower vendor's field representative inspect the cooling tower drift eliminators and certify that the installation was performed in a satisfactory manner. Within 90 days of the initial operation of the cooling tower, the owner/operator shall perform an initial performance source test to determine the PM10 emission rate from the cooling tower to verify compliance with the vendor-guaranteed drift rate specified in condition 46. The CPM may, in years 5 and 15 of cooling tower operation, require the owner/operator to perform source tests to verify continued compliance with the vendor-guaranteed drift rate specified in condition 46. (PSD, C~~c~~umulative I~~i~~ncrease)

48. The total number of hours during which the Gas Turbines (S-1 and S-3) may be operated in cold start-up mode or may undergo combustor tuning shall not exceed 30 hours per year for each gas turbine. (C~~c~~umulative I~~i~~ncrease)

49. To demonstrate compliance with condition 48, the owner/operator shall record the start time, end time, and duration of each gas turbine cold start-up and each combustor tuning period. On an annual basis, the owner/operator shall record the total number of hours during which each gas turbine (S-1 and S-3) operated in cold start-up mode or combustor tuning mode for each calendar year. (C~~c~~umulative I~~i~~ncrease)

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Condition #21917
For S-7 Fire Pump Diesel Engine

~~1. Hours of Operation: The owner/operator shall operate the emergency standby engine(s) only to mitigate emergency conditions or for reliability-related activities. Operating while mitigating emergency conditions is unlimited. Operating for reliability-related activities is limited to 30 hours per any calendar year. [Basis: Regulation ATCM]~~

~~"Emergency Conditions" is defined as any of the following:~~
~~a. Loss of regular natural gas supply~~
~~b. Failure of regular electric power supply~~
~~c. Flood mitigation~~
~~d. Sewage overflow mitigation~~
~~e. Fire~~
~~f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor~~
~~[Basis: Regulation 9-8-231]~~

~~"Reliability-related activities" is defined as any of the following:~~
~~a. Operation of an emergency standby engine to test its ability to perform for an emergency use, or~~
~~b. Operation of an emergency standby engine during maintenance of a primary motor.~~
~~[Basis: Regulation 9-8-232]~~

~~2. The owner/operator shall equip the emergency standby engine(s) with either:~~
~~a. a non-resettable totalizing meter that measures the hours of operation for the engine; or~~
~~[Basis: Regulation ATCM]~~

~~3. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 2 years and shall make the log available for District inspection upon request:~~
~~a. Hours of operation (total)~~
~~b. Hours of operation (emergency)~~
~~c. For each emergency, the nature of the emergency condition~~
~~d. Fuel usage for engine(s) if a non-resettable fuel usage meter is utilized~~
~~[Basis: Regulations ATCM and 1-441]~~

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1. The owner/operator shall not exceed 30 hours per year per engine for reliability-related testing. [Stationary Diesel Engine ATCM, Title 17, CA Code of Regulations, Section 93115.6(b)(3)(A)(1)(a)]

2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited. ["Stationary Diesel Engine ATCM" Title 17, CA Code of Regulations, Section 93115.6(b)(3)(A)(1)(a)]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. ["Stationary Diesel Engine ATCM", Title 17, CA Code of Regulations, Section 93115.10(e)(1)]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 60 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
   a. Hours of operation for reliability-related activities (maintenance and testing).
   b. Hours of operation for emission testing to show compliance with emission limits.
   c. Hours of operation (emergency).
   d. For each emergency, the nature of the emergency condition.
   e. Fuel usage for each engine(s).

   ["Stationary Diesel Engine ATCM" Title 17, CA Code of Regulations, Section 93115.10(g), Regulation 2-6-501]

5. At School and Near-School Operation:
   If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

   The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
   a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
   b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

   "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12,

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inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property. ("Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2))

Condition #22231
For S-6 Standby Generator, Natural Gas Fired

1. The owner/operator of S-6 shall fire the engine exclusively with PUC quality gas at a firing rate not to exceed 14.1 MM BTU/hr. (C~~basis: C~~umulative Increase)

2. The owner/operator shall operate S-6 only under the following circumstances:
   a.~~)~~ ~~-~~For emergency use for an unlimited number of hours.
   b.~~)~~ ~~-~~For reliability-related activities so long as total hours of operation for this purpose do not exceed 100 hours in a calendar year. (~~basis:~~ Regulation~~.~~ 9-8-330, Cumulative Increase)

   Emergency use is defined by the following circumstances:
   a.~~)~~ ~~-~~In the event of loss of regular natural gas supply;
   b. ~~)~~In the event of failure of regular electric power supply;
   c. ~~)~~Flood mitigation;
   d. ~~)~~Sewage overflow mitigation;
   e. ~~)~~Fire;
   f. ~~)~~Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.
   (~~basis:~~ Regulation~~.~~ 9-8-231)

   Reliability-related activities are defined as either:
   a.~~)~~ ~~-~~Operation of an emergency standby engine to test its ability to perform for an emergency use; or
   b. ~~)~~Operation of an emergency standby engine during maintenance of a primary motor.
   ~~-~~(~~basis:~~ Regulation~~.~~ 9-8-232)

3. The owner/operator of S-6 shall not exceed the following emissions limits:
   NOx 1.0 g/bhp-hr
   CO 2.75 g/bhp-hr
   POC 1.0 g/bhp-hr
   (~~basis:~~ Cumulative Increase~~,~~ ~~and~~ BACT 2)

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4. The owner/operator of S-6 shall retain all source test records on-site for two years, from the date of entry, and make them available for inspection by District staff upon request. (~~basis:~~ BACT, Cumulative Increase, Regulation~~.~~ 9-8-530~~: Record keeping~~)

5. The owner/operator shall equip S-6 with:
   a. ~~.~~A~~a~~ non-resettable totalizing meter that measures hours of operation for the engine (~~basis:~~ Regulation~~.~~ 9-8-530~~: Record keeping~~, Cumulative Increase)

6. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions. A monthly log of usage shall indicate the following:

   a. Hours of operation (total)
   b. Hours of operation (emergency)
   c. For each emergency, the nature of the emergency condition.

   The owner/operator shall record all records in a District-approved log. The owner/operator shall retain the records on-site for two years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations.
   (~~basis:~~ Cumulative Increase, ~~Regulation~~ Regulations 1-441, ~~Reg.~~ 9-8-530~~, Record keeping~~)

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section ~~has been included to summarize~~lists all of 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~~ and each of their associated compliance monitoring ~~provisions~~requirements, if any. The monitoring frequency column indicates whether periodic (P), ~~or~~ continuous (C), or no (N) monitoring is required. For periodic monitoring, the frequency of the monitoring ~~has also been~~is 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~~is 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.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	SIP 9-9-501	C	CEM
NOx	BAAQMD 9-9-301.2	N		0.15 lb/MM BTU or 5 ppmv	BAAQMD 9-9-501	C	CEM
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y		75 ppmv, @ 15% O2, dry, 4-hour rolling average	NSPS 40 CFR 60.334(c)	C	CEM
NOx		Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		19.2 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		19.2 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD condition #18310, part 20a	Y		0.00904 lb/MM BTU, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		0.00904 lb/MM BTU, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
NOx	BAAQMD condition #18310, part 20b	Y		2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
NOx	BAAQMD condition #18310, part 20b	Y		2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM
NOx	BAAQMD condition #18310, part 21	Y		240 lb/gas turbine start-up	BAAQMD condition #18310, Part 27b	C	CEM
NOx	BAAQMD condition #18310, part 21	Y		480 lb/hr during gas turbine cold start-up or combustor tuning period	BAAQMD condition #18310, Part 27b	C	CEM
NOx	BAAQMD condition #18310, part 21	Y		80 lb/gas turbine shutdown	BAAQMD condition #18310, part 27b	C	CEM

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD condition #18310, part 24a	Y		1362.6 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27b	C	CEM
NOx	BAAQMD condition #18310, part 25a	Y		123.4 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20c	Y		18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18310, part 20c	Y		18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20d	Y		0.0088 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18310, part 20d	Y		0.0088 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20d	Y		4 ppmv @ 15% O2, dry, for each turbine/HRSG powertrain, 3-hr average**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #18310, part 20d	Y		4 ppmv @ 15% O2, dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20d	Y		4 ppmv @ 15% O2, dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	40 CFR 64.3(b)(4)(ii)	At least 4 times per hour (CAM Plan)	CEM
CO	BAAQMD condition #18310, part 21	Y		2,514 lb/gas turbine start-up	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 21	Y		5028 lb/hr during gas turbine cold start-up or combustor tuning period	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 21	Y		43.8 lb/ gas turbine shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 24b	Y		7,891.1 lb/day for S-1, S-3 Gas turbines and S-2. S-4 HRSGs, combined	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 25b	Y		588 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 27b	C	CEM

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO2		Y		None	40 CFR 75.10	C	fuel flow monitor and CO2 calculation
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO2	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
SO2	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @15% O_2 (dry)	NSPS 40 CFR 60.334(h)	N	
SO2	NSPS 40 CFR 60.333(b)	Y		Total sulfur content of fuel not to exceed 0.8 percent by weight (8000 ppmw)	NSPS 40 CFR 60.334(h)(3)(ii) and BAAQMD Condition #18310, part 45	P/M	Fuel sulfur content testing
SO2		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measure-ments, calculations
SO2	BAAQMD condition #18310, part 20g	Y		1.28 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
SO2	BAAQMD condition #18310, part 20g	Y		1.28 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD condition #18310, part 20g	Y		0.0006 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
SO2	BAAQMD condition #18310, part 20g	Y		0.0006 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations
SO2	BAAQMD condition #18310, part 24e	Y		57.9 lb/day for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations
SO2	BAAQMD condition #18310, part 25e	Y		10.6 ton/yr for each turbine/HRSG powertrain (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations
Opacity	BAAQMD 6-1-301	N		$\geq$ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		$\geq$ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O2		N	
FP	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O2		N	
PM10	BAAQMD condition #18310, part 20h	Y		9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

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 #18310, part 20h	Y		0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
PM10	BAAQMD condition #18310, part 24d	Y		510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations
PM10	BAAQMD condition #18310, part 25d	Y		83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 20f	Y		2.7 lb/hr (as CH4) for each turbine/HRSG powertrain except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
POC	BAAQMD condition #18310, part 20f	Y		0.00126 lb/MM BTU (as CH4) for each turbine/HRSG powertrain except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
POC	BAAQMD condition #18310, part 21	Y		48 lb/gas turbine start-up	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 21	Y		16 lb/gas turbine shutdown	BAAQMD condition #18310, part 28	P/D	Records, calculations

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #18310, part 21	Y		96 lb/hr during gas turbine cold start-up or combustor tuning period	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 24c	Y		230.2 lb/day (as CH4) for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 25c	Y		28 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations
NH3	BAAQMD condition #18310, Part 20e	N		5 ppmv, @ 15% O2, dry, averaged over 3 hrs for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27c	C	Ammonia injection rate monitor
Formal-dehyde	BAAQMD condition #18310, part 26a	N		3796 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations
Formal-dehyde	BAAQMD condition #18310, part 26a	N		3796 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #18310, part 26b	N		480 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, GAS TURBINE #1
S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Benzene	BAAQMD condition #18310, part 26b	N		480 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test
Specified PAH Compounds	BAAQMD condition #18310, Part 26c	N		22.8 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations
Specified PAH Compounds	BAAQMD condition #18310, Part 26c	N		22.8 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test
Heat input limit	BAAQMD condition #18310, part 14	Y		2,124 MM BTU/hr (HHV), 3-hr average for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #18310, part 15	Y		49,908 MM BTU/calendar day (HHV), for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #18310, part 16	Y		35,274,060 MM BTU/yr (HHV) for S-1 & S-3 Turbines and S-2 & S-4 HRSGs combined	BAAQMD condition #18310, part 27a	C	fuel meter, firing monitor, calculations
Cold Start-up, Combustor Tuning Firing Limit	BAAQMD condition #18310, part 48	Y		30 firing hours per year for S-1 and S-3 Gas Turbines, combined for purposes of cold start-up or combustor tuning	BAAQMD condition #18310, part 49	P/E	Record-keeping

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	SIP 9-9-501	C	CEM
NOx	BAAQMD 9-9-301.2	N		0.15 lb/MM BTU or 5 ppmv	BAAQMD 9-9-501	C	CEM
NOx	NSPS 40 CFR 60.44b (a)(4)(i)	Y		0.2 lb/MM BTU except during startup, shutdown, or malfunction	BAAQMD condition #18310, part 27b	C	CEM
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y		75 ppmv, @ 15% O2, dry, 4-hour rolling average	NSPS 40 CFR 60.334(c)	C	CEM
NOx		Y		None	40 CFR 75.10	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		19.2 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		19.2 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
NOx	BAAQMD condition #18310, part 20a	Y		0.00904 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
NOx	BAAQMD condition #18310, part 20a	Y		0.00904 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD condition #18310, part 20b	Y		2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
NOx	BAAQMD condition #18310, part 20b	Y		2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
NOx	BAAQMD condition #18310, part 24a	Y		1362.6 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27b	C	CEM
NOx	BAAQMD condition #18310, part 25a	Y		123.4 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20c	Y		18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18310, part 20c	Y		18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20d	Y		0.0088 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #18310, part 20d	Y		0.0088 lb/MM BTU, for each turbine/HRSG powertrain**,** except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 20d	Y		4 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 3-hr average except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #18310, part 20d	Y		4 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 3-hr average except during turbine startup and shutdown	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 24b	Y		7,891.1 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27b	C	CEM
CO	BAAQMD condition #18310, part 25b	Y		588 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 27b	C	CEM
CO2		Y		None	40 CFR 75.10	C	fuel flow monitor and CO2 calculation
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO2	BAAQMD 9-1-302	Y		300 ppm (dry)		N	

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	NSPS 40 CFR 60.333(a)	Y		0.015% (vol) @15% O_2 (dry)	NSPS 40 CFR 60.334(h)	N	
SO2	NSPS 40 CFR 60.333(b)	Y		Total sulfur content of fuel not to exceed 0.8% by weight (8000 ppmw)	NSPS 40 CFR 60.334(h)(3)(ii) and BAAQMD Condition #18310, part 45	P/M	Fuel sulfur content testing
SO2		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measure-ments, calculations
SO2	BAAQMD condition #18310, part 20g	Y		1.28 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
SO2	BAAQMD condition #18310, part 20g	Y		1.28 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations
SO2	BAAQMD condition #18310, part 20g	Y		0.0006 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
SO2	BAAQMD condition #18310, part 20g	Y		0.0006 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD condition #18310, part 24e	Y		57.9 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations
SO2	BAAQMD condition #18310, part 25e	Y		10.6 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations
Opacity	BAAQMD 6-1-301	N		$\geq$ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		$\geq$ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O2		N	
FP	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O2		N	
PM	NSPS 40 CFR 60.42a(b)	Y		< 20% opacity, 6 minute average, except one six minute period/hr up to 27% opacity		N	
PM10	BAAQMD condition #18310, part 20h	Y		9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
PM10	BAAQMD condition #18310, part 20h	Y		0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

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 #18310, part 24d	Y		510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 24	P/D	Records, calculations
PM10	BAAQMD condition #18310, part 25d	Y		83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 20f	Y		2.7 lb/hr (as CH4) for turbine, and HRSG combined except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
POC	BAAQMD condition #18310, part 20f	Y		0.00126 lb/MM BTU (as CH4) for turbine, and HRSG combined except during turbine startup and shutdown	BAAQMD condition #18310, part 31	P/A	Source test at maximum load
POC	BAAQMD condition #18310, part 24c	Y		230.2 lb/day (as CH4) for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations
POC	BAAQMD condition #18310, part 25c	Y		28 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NH3	BAAQMD condition #18310, Part 20e	N		5 ppmv, @ 15% O2, dry, averaged over 3 hrs for each turbine/HRSG powertrain except during turbine startup and shutdown	BAAQMD condition #18310, part 27c	C	Ammonia Injection rate monitor
Formal-dehyde	BAAQMD condition #18310, part 26a	N		3796 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations
Formal-dehyde	BAAQMD condition #18310, part 26a	N		3796 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test
Benzene	BAAQMD condition #18310, part 26b	N		480 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations
Benzene	BAAQMD condition #18310, part 26b	N		480 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test
Specified PAH compounds	BAAQMD condition #18310, Part 26c	N		22.8 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations
Specified PAH compounds	BAAQMD condition #18310, Part 26c	N		22.8 lb/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source test

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-2, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat input limit	BAAQMD condition #18310, part 14	Y		2,124 MM BTU/hr (HHV), 3-hr average for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #18310, part 15	Y		49,908 MM BTU/calendar day (HHV), for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #18310, part 16	Y		35,274,060 MM BTU/yr (HHV) for S-1 & S-3 Turbines and S-2 & S-4 HRSGs, combined	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations
Prohibited firing	BAAQMD condition #18310, part 17	Y		Each HRSG duct burner may not be fired unless its associated gas turbine is being fired	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations

Table VII - C
Applicable Limits and Compliance Monitoring Requirements
S-5 COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301	N		$\geq$ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - C
Applicable Limits and Compliance Monitoring Requirements
S-5 COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	SIP 6-301	Y		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
Drift Rate	BAAQMD Condition #18310, part 46	Y		0.0005%	BAAQMD Condition #18310, part 46	P	Initial Source Test
Total Dissolved Solids	BAAQMD Condition #18310, part 46	Y		5438 ppmw (mg/l)	BAAQMD Condition #18310, part 46	P/D	Sampling and testing of cooling tower water

Table VII - D
Applicable Limits and Compliance Monitoring Requirements
S-6 STATIONARY STANDBY GENERATOR SET

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301	N		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - D
Applicable Limits and Compliance Monitoring Requirements
S-6 STATIONARY STANDBY GENERATOR SET

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O2		N	
FP	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O2		N	
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO2	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
Heat Input Limit	BAAQMD Condition #22231, part 1	Y		14.1 MM BTU/hr	N	P/E	Source Test
Reliability-related activities	BAAQMD Condition #22231, part 2	Y		100 hours per calendar year	BAAQMD Condition #22231, part 6	P/E	Record-keeping
NOx, CO, and POC	BAAQMD Condition #22231, part 3	Y		1.0 g NOx/bhp-hr, 2.75 g CO/bhp-hr, 1.0 g POC/bhp-hr	N	P/E	Source Test

Table VII - E
Applicable Limits and Compliance Monitoring Requirements
S-7 FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type

VII. Applicable Limits & Compliance Monitoring Requirements, contd.

Table VII - E
Applicable Limits and Compliance Monitoring Requirements
S-7 FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301	N		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O2		N	
FP	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O2		N	
SO2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
Fuel Sulfur Content	BAAQMD 9-1-304	Y		Sulfur Content ≤ 0.5% by weight		N	
Reliability-related activities	BAAQMD Condition #21917, part 1	Y		30 hours per calendar year	BAAQMD Condition #21917, part 2, 3	P/E	Totalizing meter, record-keeping

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 (e.g., 6-1-601). These sections, in turn, refer to the District, state or federal test method that must be used. 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.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-1-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-1-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-1-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling or EPA Reference Method 5 (40 CFR 60, Appendix A), Determination of Particulate Emissions from Stationary Sources
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling
BAAQMD 9-3-303	New or Modified Heat Transfer Operation Limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling
BAAQMD 9-7-301.1	Performance Standard, NOx, Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
NSPS 40 CFR 60		
Subpart GG	Standards of Performance for Stationary Gas Turbines	
60.332 (a)(1)	Performance Standard, NOx	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines

VIII. Test Methods, contd.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
60.333 (a)	SO2 Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation
BAAQMD Condition #18310		
Part 20g	SOx Limit	Test Procedure, MOP Vol.4, ST-19A, Sulfur Dioxide, Continuous Sampling
Part 20b	NOx Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20e	NH3 Limit	BAAQMD Test Procedure ST-1B, Ammonia, Integrated Sampling
Part 20d	CO Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20f	POC Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 20h	PM10 Limit	Test Procedure ARB 5, Determination of Particulate Matter Emissions from Stationary Sources

IX. TITLE IV ACID RAIN PERMIT

Effective ? 2010 through ? 2015

ISSUED TO:
Metcalf Energy Center, LLC
P. O. Box 1764
Gilroy, CA 95021

PLANT SITE LOCATION:
1 Blanchard Road
San Jose, CA 95013

ISSUED BY:

_____

Jack P. Broadbent Date
Executive Officer/Air Pollution Control Officer

Type of Facility: Power Plant
Primary SIC: 4913
Product: Electricity

DESIGNATED REPRESENTATIVE:
Name: Robert McCaffrey
Title: General Manager
Phone: (408) 847-5328

ALTERNATE DESIGNATED REPRESENTATIVE:
Name: Charles Hoock
Title: Compliance Manager
Phone: (408) 456-2690

IX. Title IV Acid Rain Permit, contd.

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) SO_2 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 acid rain 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 he application. The application is attached as Appendix A.

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	2008	2009	2010	2011	2012
	SO_2 allowances under Table 2 of 40 CFR Part 73	**None**	**None**	**None**	**None**	**None**
S-1, Gas Turbine	**NOx Limit**	**This unit is not subject to the NOx emission reduction requirements of 40 CFR Part 76 because this unit cannot be fired on coal.**				

IX. Title IV Acid Rain Permit, contd.

	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Table 2 of 40 CFR Part 73	**None**	**None**	**None**	**None**	**None**
S-2, Heat Recovery Steam Generator	**NOx Limit**	**This unit is not subject to the NOx emission reduction requirements of 40 CFR Part 76 because this unit cannot be fired on coal.**				

	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Table 2 of 40 CFR Part 73	**None**	**None**	**None**	**None**	**None**
S-3, Gas Turbine	**NOx Limit**	**This unit is not subject to the NOx emission reduction requirements from 40 CFR Part 76 because this unit cannot be fired on coal.**				

	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Table 2 of 40 CFR Part 73	**None**	**None**	**None**	**None**	**None**
S-4, Heat Recovery Steam Generator	**NOx Limit**	**This unit is not subject to the NOx emission reduction requirements of 40 CFR Part 76 because this unit cannot be fired on coal.**				

3) COMMENTS, NOTES AND JUSTIFICATIONS

Pursuant to 40 CFR 72.9(c)(i), the MEC is required to hold SO2 allowances for each emission unit in an amount not less than the total annual SO2 emissions from the unit for the previous calendar year. Because the MEC is not listed in Table 2 – "Phase II Allowance Allocation" of 40 CFR Part 73, the Administrator is not required to allocate any SO2 allowances to the MEC.

4) PERMIT APPLICATION

IX. Title IV Acid Rain Permit, contd.

Attached as Appendix A

X. PERMIT SHIELD

A. Non-applicable Requirements

None

B. Subsumed Requirements

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

None

XI. GLOSSARY

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer

API
American Petroleum Institute

ARB
California Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

Basis
The underlying regulatory authority that allows the District to impose requirements

C5
An Organic chemical compound with five carbon atoms

C6
An Organic chemical compound with six carbon atoms

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standard

CAPCOA
California Air Pollution Control Officers Association

CEC
California Energy Commission

CEQA
California Environmental Quality Act

CEM

XI. Glossary, contd.

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.

CO
Carbon Monoxide

CO_2
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) x (10^6) = (4.53) x (10 x 10 x 10 x 10 x 10 x 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.

XI. Glossary, contd.

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

FR
Federal Register

GLM
Ground Level Monitor

grain
1/7000 of a pound

Graphitic
Made of graphite.

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 and District Regulation 2, Rule 5.

H_2S
Hydrogen Sulfide

H_2SO_4
Sulfuric Acid

Hg
Mercury

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.

HRSG
Heat Recovery Steam Generator

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 regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

MFR

XI. Glossary, contd.

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

NESHAP
National Emission Standards for Hazardous Air Pollutants. See 40 CFR Part 63.

NMHC
Non-methane Hydrocarbon

NMOC
Non-methane Organic Compound (Synonymous with 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 both 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.)

O_2
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.

XI. Glossary, contd.

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Total Particulate Matter

PM_{10}
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.

PUC
Public Utilities Commission

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.

SO_2
Sulfur dioxide

SO_3
Sulfur trioxide

TBACT
Best Available Control Technology for Toxics

THC
Total Hydrocarbons (NMHC + Methane)

therm
100,000 British Thermal Unit

XI. Glossary, contd.

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)

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VOC
Volatile Organic Compound

Units of Measure:

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

XI. Glossary, contd.

MMbtu	=	million btu
mm Hg	=	millimeters of Mercury (pressure)
MW	=	megawatts
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

Symbols:

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

APPENDIX A

ACID RAIN PERMIT APPLICATION

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Expires 1-31-96

Phase II Permit Application

Page 1

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

This submission is: ■ New ☐ Revised

STEP 1
Identify the source by plant name, State, and ORIS code from NADB

Plant Name	State	ORIS
Metcalf Energy Center	CA	55393

STEP 2
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

a	b	c	d	e
Boiler ID#	Compliance Plan: Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Compliance Plan: Repowering Plan	New Units: Commence Operation Date	New Units: Monitor Certification Deadline
Unit No. 1	Yes	No	September 15, 2002	December 14, 2002
Unit No. 2	Yes	No	September 15, 2002	December 14, 2002

EPA Form 7610-16 (rev. 12-94; previous versions obsolete)

Plant Name Metcalf Energy Center

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

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

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR parts 74, 75, and 76.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR parts 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) 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 the written exemption under 40 CFR 72.7 and 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 unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

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

Plant Name Metcalf Energy Center

Recordkeeping and Reporting Requirements (cont.)

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

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

Liability.

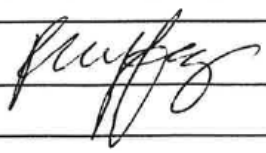
(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject 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. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

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	Robert McCaffrey, Designated Representative	
Signature		Date 9/13/2000

STEP 5 (optional)
Enter the source AIRS and FINDS identification numbers, if known

AIRS
FINDS

EPA Form 7610-16 (rev. 12-94; previous versions obsolete)