Bay Area Air Quality Management District

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

Final

MAJOR FACILITY REVIEW PERMIT

For:

Martinez Cogen Limited Partnership
Facility #A1820

Facility Address:
550 Solano Way
Martinez, CA 94553

Mailing Address:
550 Solano Way
Martinez, CA 94553

Responsible Official	**Facility Contact**
Michael Kromer, Plant Manager	Brian Walker
(925) 313-0800 ext. 201	(925) 313-0800 ext. 205

Type of Facility: Cogeneration Facility, 99.9 MW
Primary SIC: 4911
Product: Cogeneration of electricity and steam

BAAQMD Permit Division Contact:
Robert T. Hull

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent_____ June 8, 2010 _____
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 on7/9/08);
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 on3/4/09);
SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);
BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on6/15/05);
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);
BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on 1/6/10)
SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99);
BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03);
SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95)
BAAQMD Regulation 2, Rule 9 –Interchangeable Emission Reduction Credits
(as amended by the District Board on 6/15/05)

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

1. This Major Facility Review Permit was issued on June 8, 2010 and expires on June 8, 2015. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than December 8, 2014 and no earlier than June 8, 2014. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after** June 8, 2015**.** If the permit renewal has not been issued by June 8, 2015, 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 Volume II, Part 3, §4.11)

I. Standard Conditions

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District 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 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. (Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)
12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)

C. Requirement to Pay Fees

I. Standard Conditions

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 which 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 entry. (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 reporting periods for this permit shall be June 1st to November 30th and December 1st to May 31st. Each report is 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 December 1st to November 30th. The certification shall be submitted by December 31 of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other 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

I. Standard Conditions

the certification should 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 unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

I. Severability

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

J. Miscellaneous Conditions

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

II. EQUIPMENT LIST

Table II-A

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 J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
1	Sludge Drying Operation	Carver Greenfield	Custom	0.71 dry tons/hr
2	Product Silo	Custom	Custom	1200 cubic feet
5	Sludge Feed Storage Tank	Custom	Custom	2000 gal
10	Gas Turbine (natural gas, refinery gas)	John Brown PG6551B	Frame 6	500 MM Btu/hr
11	Gas Turbine (natural gas, refinery gas)	John Brown PG6551B	Frame 6	500 MM Btu/hr
12	Diesel IC Engine for Gas Turbine Start	Detroit Diesel	7123-7300, V-71 Turbo	750 BHP
13	Diesel IC Engine for Gas Turbine Start	Detroit Diesel	7123-7300, V-71 Turbo	750 BHP
14	Diesel IC Engine for Emergency Power Generation	Caterpillar	3406 Turbo	375 BHP

Table II-B – Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
1	Carbon Adsorber	1	BAAQMD 7-301	None	N/A
2	Baghouse Filter	2	BAAQMD 6-310	None	0.15 gr/dscf

Table II C – Significant Sources

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

S-#	Description	Make or Type	Model	Capacity
N/A	Cooling Tower	Unknown	N/A	23,000 GPM

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit. 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 SIP requirements is on EPA Region 9's website. The address is: http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions.

NOTE:
There are differences between current BAAQMD rules and versions of the rules in the SIP. All sources must comply with both versions of a rule until the U.S. EPA has reviewed and approved (or disapproved) 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 (7/9/08)	N
SIP Regulation 1	General Provisions and Definitions (8/27/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (3/4/09)	N
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (1/6/10)	N

III. Generally Applicable Emission Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	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)	N
BAAQMD Regulation 8, Rule 4	Organic Compounds – General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 16	Organic Compounds - Solvent Cleaning Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 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

III. Generally Applicable Emission Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

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

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

Table IV-A
Source-Specific Applicable Requirements
S-1 Sludge Drying Operation & S-2 Product Silo

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter and Visible Emissions (12/5/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-311	Process 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	
6-311	Process Weight Limitation	Y	

IV. Source-Specific Applicable Requirements

Table IV-A
Source-Specific Applicable Requirements
S-1 Sludge Drying Operation & S-2 Product Silo

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-401	Appearance of Emissions	Y	
BAAQMD Condition #390			
Part 1	Objectionable odors (basis: BAAQMD Regulation 7)	N	

Table IV-B
Source-Specific Applicable Requirements
S-5: Sludge Feed Storage Tank

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition #390			
Part 1	Objectionable odors (basis: BAAQMD Regulation 7)	N	

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

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)**		
1-208	Breakdown (malfunction)	Y	
1-431	Breakdown Report	Y	
1-432	Written Breakdown Report	Y	

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-433	Determination of Breakdown	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.8	Monitors as required by Regulation 10, 12 and Section 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	N	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	Performance Testing	Y	
1-522.4	Periods of Inoperation Greater Than 24 Hours	Y	
1-522.5	Calibration	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	N	
1-522.8	Monthly Reports	Y	
1-522.9	Records	Y	
1-522.10	Monitors Required by Sections 1-521 or 2-1-403	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
SIP Regulation 1	**General Provisions and Definitions (8/27/99)**		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y[1]	
1-522.7	emission limit exceedance reporting requirements	Y[1]	
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 and Visible Emissions (12/5/07)**		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants- Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants- Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Ground Level Concentrations	N	
9-2-501	Area Monitoring Requirements	N	
BAAQMD Regulation 9, Rule 9	**Inorganic Gaseous Pollutants- Nitrogen Oxides from Stationary Gas Turbines (12/6/06)**	Y	
9-9-113	Exemption- Inspection and Maintenance	N	
9-9-114	Exemption- Start-up and Shutdown	N	
9-9-115	Limited Exemption, Minor Inspection and Maintenance Work	N	
9-9-120	Interchangeable Emission Reduction Credits	N	
9-9-301.1.2	Emission Limits, Turbines over 10.0 MW w/o SCR	N	
9-9-301.2	Emission Limits, Turbines > 250 – 500 MM Btu/hr	N	1/1/2010
9-9-301.3	If Turbine Burns Mixture of Fuels, Emission Limits Shall Be the Highest of the Limits Applicable to Any of the Fuel Mixtures	N	
9-9-301.4	Violation of Either of the Alternative Standards in Section 301.2 Shall Create a Rebuttable Presumption	N	
9-9-401	Efficiency Certification	N	
9-9-402.2	Comply with 9-9-301.2 by 1/1/2010, unless the turbine has not had a scheduled major maintenance outage by January 1, 2010	N	30 days after next scheduled major maintenance outage, or 1/1/2012

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-9-406	Other Useful Heat Recovery	N	
9-9-501	Monitoring and Recordkeeping requirements	N	
9-9-605	Compliance with Output Based NOx Emission Standards	N	
SIP Regulation 9, Rule 9	**Inorganic Gaseous Pollutants- Nitrogen Oxides from Stationary Gas Turbines (9/21/94)**	Y	
9-9-113	Exemption- Inspection and Maintenance	Y	
9-9-114	Exemption- Start-up and Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.2	Emission Limits, Turbines over 10.0 MW w/o SCR	Y	
9-9-401	Efficiency Certification	Y	
9-9-501	Monitoring and Recordkeeping requirements	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**	Y	
40 CFR 60	**Standards of Performance for New Stationary Sources (12/23/71)**	Y	
Subpart A	General Provisions	Y	
60.7	Notification and record keeping		
60.7(a)(4)	Written notification of physical or operational changes	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirements	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.19	General notification and reporting requirements	Y	
Subpart GG	Standards of Performance for Stationary Gas Turbines		
60.332	Standard for nitrogen oxides	Y	
60.332 (a)(1)	NOx Performance Standard	Y	
60.333	Standard for sulfur oxides	Y	

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.333 (b)	Fuel sulfur limit	Y	
60.334	Monitoring of operations	Y	
60.334 (c)	Excess emissions	Y	
60.334 (h)	Fuel sulfur content	Y	
60.334 (h)(3)	Fuel sulfur content monitoring not required for "natural gas" firing	Y	
60.335	Test methods and procedures	Y	
BAAQMD Condition #13422			
part 1	Fuel usage rate and fuel type limitations (basis: Cumulative Increase)	Y	
part 2	Emissions limits: PM, Hydrocarbons, NOx, SO_2, CO, fuel limits (basis: Cumulative Increase)	Y	
part 2	Emissions limits: NOx (basis: Regulation 9, Rule 9/Banking Certificate)	Y	
part 3	NOx concentration limit (basis: Regulation 9, Rule 9)	Y	
part 4	H_2S concentration limit in fuel (basis: Cumulative Increase)	Y	
part 5	Monitoring and Recordkeeping requirements (basis: BACT, Cumulative Increase)	Y	
part 6	Deleted		
parts 7-through 10	Monitoring and Recordkeeping requirements (basis: Banking Certificate)	Y	
part 11	Annual source test for CO (Basis: Regulation 2-6-409.2)	Y	
part 12	Inspections for hydrogen sulfide leaks (Basis: Regulation 9, Rule 2)	N	
part 13	Reporting of exceedances (Basis: Regulation 9-9-301.4)	N	
BAAQMD Condition #21109 PSD Permit			
III.	Facilities Operation	Y	
V.	Right of Entry	Y	
VI.	Transfer of Ownership	Y	
VII.	Severability	Y	
VIII.	Other Applicable Regulations	Y	

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-10, S-11: Gas Turbines

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
IX.C.	NO_X Emission Limits	Y	
IX.D.	Performance Tests	Y	
IX.E.1.b	Stack Volumetric Flow Rates	Y	
IX.E.3.e	Excess Emissions	Y	
IX.F.	Fuel Usage	Y	

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

Table IV – D
Source-Specific Applicable Requirements
S-12, S-13 DIESEL IC ENGINES FOR GAS TURBINE START

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter and Visible Emissions (12/5/07)**		
6-1-303	Ringelmann No. 2 Limitation	Y	
6-1-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	Y	
6-1-305	Visible Particles	Y	
6-1-310	Particulate Weight Limitation	Y	
6-1-401	Appearance of Emissions	Y	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann Number 1 Limitation	Y	
6-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

IV. Source-Specific Applicable Requirements

Table IV – D
Source-Specific Applicable Requirements
S-12, S-13 DIESEL IC ENGINES FOR GAS TURBINE START

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	
9-1-304	Liquid and Solid Fuels	Y	
BAAQMD Regulation 9, Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (7/25/07)**		
9-8-110.3	Until January 1, 2012, Exemption, liquid fueled engines	N	
9-8-111.1	Until January 1, 2012, limited exemption for low usage, less than 200 hours	N	
9-8-304	NOx, CO Emission limits, CI engines	N	1/1/2012
9-8-401	Compliance schedule, compliance with 9-8-304	N	1/1/2011
9-8-501	Initial demonstration of compliance with 9-8-304	N	5/31/2012
9-8-502.1	Recordkeeping. If exempt under Section 110 or 111, keep records of the number of hours engine is fired on a monthly basis and retain for 2 years	N	
9-8-503	Quarterly demonstration of compliance	N	8/31/2012
9-8-530	Low-use Engines, Monitoring and Recordkeeping	N	
SIP Regulation 9, Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (12-15-97)**		
9-8-110.2	Exemption, liquid fueled engines	Y	
9-8-111.1	Limited exemption for low usage, less than 200 hours	Y	
9-8-502	Recordkeeping, low usage exemption	Y	
CCR Title 17, Section 93115	**Airborne Toxic Control Measure for Stationary Compression Ignition Engines (10/18/07)**		
93115.3 (j)	Exemption from emissions standards, low-use prime engines outside of school boundaries	N	
93115.5(a)	Fuel requirements, prime CI engines	N	
93115.10	Recordkeeping, Reporting, and Monitoring Requirements	N	
93115.10(a)	Reporting requirement for in-use engines	N	
93115.10(d)	Notification of loss of exemption	N	
BAAQMD Condition #18843			
part 1	Exemption from emissions standards; Hours of operation (basis: CCR 93115.3 (j), Cumulative Increase)	Y	

IV. Source-Specific Applicable Requirements

Table IV – D
Source-Specific Applicable Requirements
S-12, S-13 DIESEL IC ENGINES FOR GAS TURBINE START

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 2	CARB diesel fuel requirement (basis: CCR 93115.5(a))	Y	
part 3	Recordkeeping (basis: Cumulative Increase,, CCR 93115.3(j), CCR 93115.10(a))	Y	

Table IV – E
Source-Specific Applicable Requirements
S-14 DIESEL IC ENGINE FOR EMERGENCY POWER GENERATION

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter and Visible Emissions (12/5/07)**		
6-1-303	Ringelmann No. 2 Limitation	N	
6-1-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-303	Ringelmann No. 2 Limitation	Y	
6-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Liquid and Solid Fuels	Y	
BAAQMD Regulation 9, Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (7/25/07)**		

IV. Source-Specific Applicable Requirements

Table IV – E
Source-Specific Applicable Requirements
S-14 DIESEL IC ENGINE FOR EMERGENCY POWER GENERATION

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-8-110.5	Exemption, Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, hours of operation	N	
9-8-502.1	Recordkeeping, demonstration of emergency standby status	N	
9-8-530	Emergency Standby Engines, Monitoring and Recordkeeping; non-resettable totalizing meter	N	
CCR Title 17, Section 93115	**Airborne Toxic Control Measure for Stationary Compression Ignition Engines (10/18/07)**		
93115.5(b)	Fuel requirements, in-use emergency standby diesel CI engines	N	
93115.6(b)(3)(A)(1)(a)	Limited to 20 hours of operating per year for maintenance and testing purposes	N	
93115.10	Recordkeeping, Reporting, and Monitoring Requirements	N	
93115.10(e)(1)	Non-resettable totalizing hour meter	N	
93115.10(g)	Reporting requirements for emergency standby engines	N	
BAAQMD Condition #18844			
part 1	CARB diesel fuel requirement (basis: CCR 93115.5(b))	Y	
part 2	Hours of operation for reliability-related activities (basis: CCR 93115.6(b)(A)(1)(a))	Y	
part 3	Emergency conditions defined (basis 9-8-231)	Y	
part 4	Reliability-related activities defined (basis 9-8-232)	Y	
part 5	Non-resettable totalizing meter (basis CCR 93115.10(e)(1))	Y	
part 6	Recordkeeping (basis: Cumulative Increase, Regulation 9-8-530, 1-441, CCR 93115.10(g))	Y	

Table IV - F
Source-specific Applicable Requirements
COOLING TOWER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter and Visible Emissions (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	

IV. Source-Specific Applicable Requirements

Table IV - F
Source-specific Applicable Requirements
COOLING TOWER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-1-305	Visible Particulates	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (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	

V. SCHEDULE OF COMPLIANCE

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

VI. PERMIT CONDITIONS

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

A. Source Specific Permit Conditions

Condition #390

For: S-1, Sludge Drying Operation
S-2, Product Silo
S-5, Sludge Feed Storage Tank

*1. In the event the APCO determines that a source/s in the operation creates objectionable odors, such source/s shall have added controls to abate these odors. (Basis: Regulation 7)

Condition #13422

For S-10, S-11: Gas Turbines

1. The total fuel usage rate at each of the gas turbines S-10 and S-11 shall not exceed 500 million BTU/hr. The turbines shall be fired on natural gas or refinery gas exclusively. (Basis: Cumulative Increase)

2. The combined emissions from the two turbines shall not exceed the following:

PM10	240 lbs/day and 43.8 TPY (Basis: Cumulative Increase)
NMHC	210 lbs/day and 35 TPY (Basis: Cumulative Increase)
Sulfur Dioxides	550 lbs/day and 36 TPY (Basis: Cumulative Increase)
Carbon Monoxide	1,248 lbs/day and 228 TPY (Basis: Cumulative Increase)
Nitrogen Oxides	1,512 lbs/day and 198.5 TPY (Basis:Offsets, Cumulative Increase)

If the emissions of sulfur dioxide emissions in a calendar year reach 36 tons, these turbines shall be fired exclusively on natural gas for the remainder of the year. (Basis: Cumulative Increase)

3. The oxides of nitrogen (NOx) concentration in the gas turbine exhaust shall not exceed 17.1 ppmv (15 ppm adjusted based on efficiency per Regulation 9-9-401) at 15% oxygen (dry basis) averaged over any consecutive 3-hour period whether firing refinery and/or natural gas. This limit shall not apply during the start-up, which is not to exceed three hours, or during the shutdown procedure, which is not to exceed one hour. (Basis: Regulation 9, Rule 9)

VI. Permit Conditions

4. The concentration of hydrogen sulfide (H2S) in the fuel gas to both turbines shall not exceed 62 ppm annual average. This average shall not include periods when both turbines are not operating. The annual average shall be determined by summing daily averages and dividing by the number of days that at least one turbine was operating. (Basis: Cumulative Increase)

5. The operator shall install, calibrate and operate District-approved monitors for NOx, oxygen, H2S (in the fuel), fuel gas usage, and electricity production. The monitoring system shall be designed to calculate and record NOx mass emissions from S-10 and S-11 on an hourly, daily, monthly, and rolling 12 month basis, as well as demonstrating 3-hour average compliance with the Regulation 9, Rule 9 adjusted NOx limit of 17.1 ppmv @ 15% O2 dry. Emissions reports shall be submitted to the District on a monthly basis. (Basis: Cumulative Increase,Offsets)

6. Deleted.

7. In order to demonstrate NOx mass reductions for banked emissions credits during periods of monitor downtime, the owner/operator of the gas turbines S-10 and S-11 shall substitute average hourly NOx mass emissions for the missing period with the higher of the following: (Basis:Offsets)
   1) Previous month average NOx mass emission rate.
   2) Average of the NOx mass emission rates for the hour before and the hour after the missing period.

   In the event that such data is not available, the highest allowable NOx mass emission rate (i.e. 31.5 lb/hour per turbine) shall be substituted for the missing period.

8. Data shall be substituted on an average hourly basis each time NOx mass emissions can not be measured because a monitor is out of service. Substituted emissions data shall be added to the monthly reports and shall include: (Basis: Offsets)
   a. monthly total hours of substituted data resulting from monitor downtime
   b. substituted NOx mass emissions and method of substitution for each downtime period during the month
   c. monthly total of substituted NOx mass emissions
   d. rolling 12 month total of substituted NOx mass emissions

9. In the event that NOx mass emissions from S-10 and S-11 exceed 198.5 tons in any calendar year, the facility owner/operator shall apply for a modification of their permit to operate and shall reimburse the District with emission reduction credits for the amount of the exceedance. All emission credit reimbursements shall be permanent until such time that the facility owner/operator reapplies for and is granted credits by the District. (Basis: Offsets)

VI. Permit Conditions

10. Copies of all continuous emission monitor and data substitution records shall be kept on site and be made available for inspection by District personnel upon request for a period of 5 years from the date that a record is made. This provision shall apply to all new records and all records that have been made within the two years previous to issuance of the Major Facility Review permit.
(Basis: Regulation 2-6-501)

11. The facility owner/operator shall ensure that an annual performance test is conducted on each turbine in accordance with the District test procedures to demonstrate compliance with the CO limit. The owner/operator may submit an alternative monitoring plan to the District for approval. If the alternative monitoring plan is approved, the plan shall supersede the annual source test requirement. Approvals shall be processed using the permit modification procedure contained in Regulation 2, Rule 6. (Basis: Regulation 2-6-409.2)

*12. The owner or operator shall conduct weekly hydrogen sulfide leak equipment inspection either visually, or by audible or olfactory detection methods. Hydrogen sulfide leaks as indicated by visual, audible, or olfactory methods, shall be repaired as soon as practicable, but no later than 7 days after the leak is detected. The owner or operator shall monitor and record the following information:
   a. For each inspection during which a leak is detected, a record of the date, operator name, and identification of the equipment where the leak occurred.
   b. For each inspection during which no leak is detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

   (Basis: Regulation 9, Rule 2)

13. Effective January 1, 2010, for the purposes of demonstrating compliance with Regulation 9 Rule 9 Section 301.4 and for Title V compliance certification, the permit holder is considered to be in compliance with Section 301.2, if either the NOx corrected concentration or the output based NOx emission calculations in Section 9 9 605 are below the limits in 301.2. The permit holder shall identify an exceedance only if both the NOx corrected concentration and the output based NOx calculated emission rate exceed the standards in 9 9 301.2. An exceedance of both standards will be reported to the BAAQMD using the compliance procedures specified in the Title V permit. (Basis: Regulation 9-9-301.4)

VI. Permit Conditions

Condition #18843
For S-12, S-13: Diesel IC Engines for Gas Turbine Start

1. The Diesel Engines S-12 and S-13 have been granted exemption by the BAAQMD from the emission reduction requirements of CCR Section 93115.7(b). The engines shall each be limited to 190 hours per year of operation. (basis: Cumulative Increase, CCR 93115.3(j))

2. Only CARB Diesel fuel or approved alternative shall be combusted at S-12 and S-13. The maximum sulfur content of the fuel shall be demonstrated by vendor certification. (basis:: CCR 93115.5(a))

3. In order to demonstrate compliance with the above requirements, the operator of S-12 and S-13 shall keep the following records in a District approved log. These records shall be updated on at least a monthly basis, kept on-site, and be available for District inspection for at least 5 years from the date on which a record was made. (basis: Cumulative Increase, CCR Section 93115.3(j), CCR 93115.10(a))

   a. operating hours for S-12 and S-13
   b. vendor certified fuel sulfur content

Condition #18844
For S-14: Diesel IC Engine for Emergency Power Generation

1. Only CARB Diesel fuel or approved alternative shall be combusted at S-14. The maximum sulfur content of the fuel shall be demonstrated by vendor certification. (basis: CCR 93115.5(b))

2. S-14 shall only be operated to mitigate emergency conditions or for reliability-related activities. Operation for reliability-related activities shall not exceed 20 hours in any calendar year. Operation while mitigating emergency conditions is unlimited. (basis: CCR 93115.6(b)(3)(A)(1)(a))

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

VI. Permit Conditions

4. "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.
   b. Operation of an emergency standby engine during maintenance of a primary motor.
   c. Operation of an emergency standby engine after notification by the utility that involuntary curtailment is imminent but before the actual curtailment. (basis: Regulation 9-8-232)

5. The emergency standby engine S-14 shall be equipped with a non-resettable totalizing meter that measures and records the hours of operation for the engine. This meter shall have a minimum display capability of 9,999 hours. (basis: CCR 93115.10(e)(1))

6. The following monthly records shall be maintained for the emergency standby engine S-14 in a District approved log. Records shall be kept for at least 5 years and shall be made available for District inspection upon request:
   a. Total hours of operation.
   b. Hours of operation under emergency conditions and a description of the nature of each emergency condition.
   c. Fuel usage. (basis: Regulations 9-8-530, 1-441, CCR 93115.10(g))

B. Facility-wide Conditions

Condition #21109
PSD conditions

Following are the PSD conditions imposed by EPA and modified by the District in Application #25830.

I. Deleted Application #25820.

II. Deleted Application #25820.

III. Facilities Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Permit to Operate shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. (PSD)

IV. Deleted Application #25820.

VI. Permit Conditions

V. Right to Entry

The EPA Regional Administrator, the head of the California Air Resources Board, the APCO of the District, and/or their authorized representatives, upon the presentation of credentials, shall be permitted:

A. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Permit to Operate; and

B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit to Operate; and

C. to inspect any equipment, operation, or method required in this Permit to Operate; and

D. to sample emissions from the source. (PSD)

VI. Transfer of Ownership

In the event of any changes in control or ownership of facilities to be constructed or modified, this Permit to Operate shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Permit to Operate and its conditions by letter, a copy of which shall be forwarded to the Regional Administrator and the Sate and local Air Pollution Control Agency. (PSD)

VII. Severability

The provisions of this Permit to Operate are severable, and, if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. (PSD)

VIII. Other Applicable Regulations

The owner and operator of the project shall construct and operate the stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable Federal, State and local air quality regulations other than those monitoring requirements that have been subsumed by the permit shield. (PSD)

IX. Special Conditions

VI. Permit Conditions

A. deleted Application #25830.

B. deleted Application #25830.

C. Emission Limits for NOx.

MCLP shall not discharge or cause the discharge into the atmosphere from the exhaust stack of any turbine, the following pollutants in excess of the following limits:

Pollutant	Mass Emission Limit	Concentration Emission Limit
NOx (as NO2)	81.0 #/hr/turbine	45.0 ppm @ 15% O2

The above emission limits shall be measured on a 3-hr average, for the purpose of source tests (but not during a 3-hr period following commencement of startup or a 1-hr period preceding completion of shutdown). Averaging times for continuous emission monitors shall be as specified in E, below. (PSD)

D. Performance Tests

1. MCLP shall conduct or cause to be conducted performance for nitrogen oxides (NOx) at such times as may be specified by the District or by EPA.

   MCLP shall furnish the Bay Area Air Quality Management District–a written report of each such test. All performance tests shall be conducted at the maximum operating capacity of the unit being tested. (PSD)

2. Performance tests for the emissions of NOx shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60 Appendix A, and 40 CFR 60.8. The following test methods shall be used:

   a. Performance tests for the emission of NOx shall be conducted using EPA Method 20. (PSD)

3. At least 30 days prior to actual testing, MCLP shall submit to the District's Source Test Section (1) a quality assurance project plan detailing methods and procedures to be used and (2) a written quality assurance test plan. Such a plan shall conform to EPA guidelines for developing project plans. A test plan or QA plan that does not have

VI. Permit Conditions

District approval may be grounds to invalidate any test and require a retest. (PSD)

E. Continuous Monitoring

1. NOX Continuous Monitoring:
   a. Condition IX.E.1a subsumed by Application #25820.
   b. Stack gas volumetric flow rates shall be calculated using the F-factor method in EPA Method 19. (PSD)

2. Deleted Application #25820.

3. Report of excess emissions:.
   a. Condition IX.E.3a subsumed by Application #25820.
   b. Condition IX.E.3b subsumed by Application #25820.
   c. Condition IX.E.3c subsumed by Application #25820.
   d. Condition IX.E.3d subsumed by Application #25820.
   e. Excess emissions shall be defined as: any consecutive 3-hour period (but not during a 3-hr period following commencement of startup or a 1-hr period preceding completion of shutdown) during which the mass emissions of NOX or the NOX concentration, as measured by the continuous monitoring system, exceeds the maximum emission limits set in IX.C above.

   Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. (PSD)

4. deleted Application #25830.

5. deleted Application #25830.

6. Condition IX.E.6 subsumed by Application #25820.

F. Fuel Use

MCLP shall not consume more than 500.0 MMBTU/hr per turbine on a one hour average. MCLP shall measure and record the heating value of the fuel consumed in the turbine on at least a monthly basis. Refinery gas or natural (pipeline) gas shall be the only fuels consumed. (PSD)

X. Agency Notifications

VI. Permit Conditions

All correspondence as required by this Permit to Operate shall be forwarded to:

A. Deleted Application #25820.

B. Deleted Application #25820.

C. Air Pollution Control Officer
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

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

Table VII-A
Applicable Limits and Compliance Monitoring Requirements
S-1 Sludge Drying Operation & S-2 Product Silo

Limit or Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301 SIP 6-301	N		Ringelmann No. 1		N	
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 grain/dscf		N	
FP	BAAQMD 6-1-311 SIP 6-311	Y		3.4 lb/hr (throughput = 0.71 tons/hr)		N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-10, S-11: Gas Turbines

Limit or Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.1.2, 9-9-401 SIP 9-9-301.2	Y		17.1 ppmv dry @15% O_2, 3-hr average excluding startup and shutdown periods (includes efficiency adjustment)	BAAQMD 9-9-501	C	CEM
	BAAQMD 9-9-301.2,	N	1/1/2010	0.43 lbs/MWhr or 9 ppmv	BAAQMD 9-9-501, 9-9-605 and BAAQMD Condition 13422, part 13	C	CEM
	BAAQMD Condition 13422, part 2	Y		1,512 lbs/day and 198.5 tons/yr	BAAQMD Condition 13422, parts 5 and 7 through 10	C	CEM
	BAAQMD Condition 13422, part 3	Y		17.1 ppmv dry @15% O_2, 3-hr average excluding startup period not to exceed 3 hrs and shutdown periods not to exceed 1 hr (includes efficiency adjustment)	BAAQMD Condition 13422, part 5	C	CEM
NOx	NSPS Subpart GG, 60.332 (a)(1)	Y		85.2 ppmv, @ 15% O2, dry, 3 hour average excluding startup and shutdown periods	Monitoring requirement subsumed by Regulation 9, Rule 9 monitoring. See Permit Shield.	N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-10, S-11: Gas Turbines

Limit or Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	PSD Permit Condition IX, C	Y		81.0 lbs/hr/turbine, 3 hour average except for 3 hours following commencement of turbine startup and 1-hour preceding completion of turbine shutdown	Monitoring requirement subsumed by Regulation 9, Rule 9 monitoring. See Permit Shield.	N	
NOx	PSD Permit Condition IX,C	Y		45.0 ppm @15% O_2, 3 hour average except for 3 hours following commencement of turbine startup and 1-hour preceding completion of turbine shutdown	Monitoring requirement subsumed by Regulation 9, Rule 9 monitoring. See Permit Shield.	N	
SO_2	BAAQMD Condition 13422, part 2	Y		550 lbs/day and 36 tons/yr	BAAQMD Condition 13422, part 5	C	CMS
	BAAQMD 9-1-301	N		GLC of 0.5 ppm for 3 min., or 0.25 ppm for 60 min., or 0.05 ppm for 24 hours		N	
SO2	SIP 9-1-301	Y		Federal std: GLC[1] of 140 ppb, 24-hr average, once/yr and 30 ppb, annual average State std: GLC[1] of 40 ppb, 24-hr average, and 250 ppb, 1 hr average		N	
SO2	BAAQMD 9-1-302	Y		300 ppm (dry)		N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-10, S-11: Gas Turbines

Limit or Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	NSPS Subpart GG, 60.333(b)	Y		Sulfur content of fuel < 0.8% by weight	Subsumed by BAAQMD Cond #13422, parts 4 and 5	N	
	BAAQMD Condition 13422, part 4	Y		≤ 62 ppm H2S in refinery gas, annual average, (not emission limit)	BAAQMD Condition 13422, part 4 and part 5	C	CMS
CO	BAAQMD Condition 13422, part 2	Y		1,248 lbs/day and 228 tons/yr		P/A	annual source test
NMHC	BAAQMD Condition 13422, part 2	Y		210 lbs/day and 35 tons/yr		N	
PM10	BAAQMD Condition 13422, part 2	Y		240 lbs/day and 43.8 tons/yr		N	
Opacity	BAAQMD 6-1-301 SIP 6-301	N		Ringelmann No. 1		N	
FP	BAAQMD 6-1-310 SIP 6-310	Y		0.15 grain/dscf @ 6% O_2		N	
H_2S	BAAQMD 9-2-301	N		GLC of 0.06 ppm 3 min. average, or 0.03 ppm 60 min. average	BAAQMD Condition 13422, part 12	P/W	weekly inspection
Fuel Usage	BAAQMD Condition 13422, part 1	Y		500 MMBtu/hr per turbine	BAAQMD Condition 13422, part 5	C	records

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-10, S-11: Gas Turbines

Limit or Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Fuel Usage	PSD Permit Condition VII, F.	Y		500 MMBtu/hr per turbine	PSD Permit Condition VII, F.	C	records

[1] Ground Level Concentration

Table VII-C
Applicable Limits and Compliance Monitoring Requirements
S-12, S-13 DIESEL IC ENGINES FOR GAS TURBINE START

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD Regulation 6-1-303 SIP 6-303	Y		Ringelmann 2.0 for 3 minutes in any hour		N	
FP	BAAQMD Regulation 6-1-310 SIP 6-310	Y		0.15 grain/dscf		N	
SO2	BAAQMD Regulation 9-1-301	N		ground level concentrations: 0.5 ppm for 3 consecutive minutes, 0.25 ppm averaged over 60 consecutive minutes, 0.05 ppm averaged over 24 hours	Condition #18843, part 2	P/E	Vendor fuel certification
SO2	BAAQMD Regulation 9-1-304	Y		0.5% sulfur limit for liquid fuel	Condition #18843, part 2	P/E	Vendor fuel certification

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-C
Applicable Limits and Compliance Monitoring Requirements
S-12, S-13 DIESEL IC ENGINES FOR GAS TURBINE START

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	CCR 93115.5(a), Condition #18843, part 2	N		Sulfur content of fuel: CARB Diesel (or equivalent)	Condition #18843, part 2	P/E	Vendor fuel certification
Hours of operation	CCR 93115.3(j), Condition #18843, part 1	Y		Low-use prime engine exemption. BAAQMD limit: 190 hours per year, each engine	Condition #18843, part 3	P/E	Recordkeeping

Table VII-D
Applicable Limits and Compliance Monitoring Requirements
S-14 DIESEL IC ENGINE FOR EMERGENCY POWER GENERATION

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD Regulation 6-1-303 SIP 6-303	Y		Ringelmann 2.0 for 3 minutes in any hour		N	
FP	BAAQMD Regulation 6-1-310 SIP 6-310	Y		0.15 grain/dscf		N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-D
Applicable Limits and Compliance Monitoring Requirements
S-14 DIESEL IC ENGINE FOR EMERGENCY POWER GENERATION

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 Regulation 9-1-301 BAAQMD	N		ground level concentrations: 0.5 ppm for 3 consecutive minutes, 0.25 ppm averaged over 60 consecutive minutes, 0.05 ppm averaged over 24 hours	Condition #18844, part 1	P/E	Vendor fuel certification
SO2	BAAQMD Regulation 9-1-304	Y		0.5% sulfur limit for liquid fuel	Condition #18844, part 1	P/E	Vendor fuel certification
SO2	Condition #18844, part 1	N		CARB Diesel (or equivalent)	Condition #18844, part 1	P/E	Vendor fuel certification
Hours of operation	Condition #18844, part 2	Y		reliability-related activities not to exceed 20 hours in any consecutive 12-month period	Condition #18844, part 6	P/E	Recordkeeping

Table VII - E
Applicable Limits and Compliance Monitoring Requirements
COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD Regulation 6-1-301 SIP 6-301	Y		< Ringelmann 1 for more than 3 min/hr		N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII - E
Applicable Limits and Compliance Monitoring Requirements
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
FP	BAAQMD Regulation 6-1-310 SIP 6-310	Y		0.15 grains per dscf		N	

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section IV - Source-Specific Applicable Requirements.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15 or Particulates Sampling or EPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 6-311	General Operations	Manual of Procedures, Volume IV, ST-15 or Particulates Sampling or EPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling
BAAQMD 9-1-304	Fuel Sulfur Content	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oil
BAAQMD 9-9-301.2	Emission Limits- Turbines Rated ≥ 10 MW w/o SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling or ST-14, Oxygen, Continuous Sampling
PSD permit, part IX.C.	NO_X Emission Limits	EPA Method 7,-Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20-Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
NSPS 40 CFR 60.332(a)(1)	NO_X Emission Limits	EPA Method 7,-Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20-Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
NSPS 40 CFR 60.333(b)	Fuel Sulfur Content	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 Permit Condition #13422		
Part 2	NOx Emission Limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling or ST-14, Oxygen, Continuous Sampling
Part 2	SO_2 Emission Limits	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling
Part 2	CO Emission Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
Part 2	NMHC Emission Limit	Manual of Procedures, Volume IV, ST-7, Non-Methane Organic Carbon Sampling
Part 2	PM10 Emission Limit	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
Part 3	NOx Emission Limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling or ST-14, Oxygen, Continuous Sampling
Part 4	H_2S Fuel Limit	Manual of Procedures, Volume IV, ST-28, Hydrogen Sulfide, Integrated Sampling

IX. PERMIT SHIELD

A. NON-APPLICABLE REQUIREMENTS

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

Table IX-A
Facility Wide

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 8, Rule 18	Equipment Leaks (Facility is not a petroleum refinery, chemical plant, bulk plant, or bulk terminal)
BAAQMD Regulation 8, Rule 22	Valves and Flanges at Chemical Plants (Facility is not a chemical plant)
SIP Regulation 8, Rule 25	Pump and Compressor Seals at Petroleum Refineries, Chemical Plants, Bulk Plants and Bulk Terminals (Facility is not a petroleum refinery, chemical plant, bulk plant, or bulk terminal)
BAAQMD Regulation 8, Rule 28	Pressure Relief Valves at Petroleum Refineries and Chemical Plants (Facility is not a petroleum refinery or chemical plant)
SIP Regulation 8, Rule 28	Pressure Relief Valves at Petroleum Refineries and Chemical Plants (Facility is not a petroleum refinery or chemical plant)

IX. Permit Shield

B. SUBSUMED REQUIREMENTS

Pursuant to District Regulations 2-6-233 and 2-6-409.12, as of the date this permit is issued, the federally enforceable "subsumed" regulations and/or standards cited in the following table are not applicable to the source or group of sources identified at the top of the table. The District has determined that compliance with the "streamlined" requirements listed below and elsewhere in this permit will assure compliance with the substantive requirements of the "subsumed" regulations and/or standards. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the "subsumed" regulatory and/or statutory provisions cited.

Table IX-B
S-10, S-11: Gas Turbines

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
NSPS Subpart A			
60.13	Monitoring Requirements	BAAQMD Cond #13422, Part 5	Monitoring Requirements
NSPS Subpart GG	**Standards of Performance for Stationary Gas Turbines**		
60.334(h)(1)	Fuel Sulfur Limit Monitoring	BAAQMD Cond #13422, Part 4, Part 5	Fuel H2S Concentration Limit/Monitoring
60.334(h)(2)	Fuel Nitrogen Monitoring	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
60.334(c)	Periods of excess NOx emissions	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
PSD Condition IX.E.1.a	NOx monitoring systems	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements

IX. Permit Shield

Table IX-B
S-10, S-11: Gas Turbines

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
PSD Condition IX.E.3.a	Magnitude of Excess Emissions	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
PSD Condition IX.E.3.b	Periods of Excess Emissions	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
PSD Condition IX.E.3.c	CEM Downtime	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
PSD Condition IX.E.3.d	Reports	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
PSD Condition IX.E.6	Records	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements
BAAQMD Regulation 2-6-409.2	Periodic Monitoring for NOx limit in NSPS Subpart GG, 60.332(a)(1)	BAAQMD Regulation 9-9-501	Monitoring and Recordkeeping Requirements

X. MAJOR FACILITY REVIEW PERMIT HISTORY

Title V Initial Issuance (Application #25820):	**December 18, 1998**
Title V Renewal (Application #7713)	**July 15, 2004**
Title V Renewal (Application #19496)	**June 8, 2010**

XI. GLOSSARY

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer

API
American Petroleum Institute

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

C5
An Organic chemical compound with five carbon atoms

C6
An Organic chemical compound with six carbon atoms

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CEC
California Energy Commission

CEQA
California Environmental Quality Act

CEM

VIII. Glossary (continued)

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

CO2
Carbon Dioxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date. 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.

EGT
Exhaust Gas Temperature

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District Regulations.

VIII. Glossary (continued)

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

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

FR
Federal Register

GDF
Gasoline Dispensing Facility

GLC
Ground level concentration.

GLM
Ground Level Monitor

grains
1/7000 of a pound

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

H2S
Hydrogen Sulfide

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

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

VIII. Glossary (continued)

Major Facility
A facility with potential emissions of regulated air pollutants greater than 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
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MW
Megawatts

NA
Not Applicable

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC
Non-methane Hydrocarbons

NMOC
Non-methane Organic Compounds (Same as NMHC)

NO_X
Oxides of nitrogen.

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

VIII. Glossary (continued)

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

O2
The chemical name for naturally-occurring oxygen gas.

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO_X, PM10, and SO_2.

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

PM10
Particulate matter with aerodynamic equivalent diameter of less than 10 microns

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

SCR
A "selective catalytic reduction" unit is an abatement device that reduces NOx concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NOx compounds to nitrogen gas.

VIII. Glossary (continued)

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

SO2
Sulfur dioxide

SO2 Bubble
An SO2 bubble is an overall cap on the SO2 emissions from a defined group of sources, or from an entire facility. SO2 bubbles are sometimes used at refineries because combustion sources are typically fired entirely or in part by "refinery fuel gas" (RFG), a waste gas product from refining operations. Thus, total SO2 emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H2S and other sulfur compounds in the RFG.

SO3
Sulfur trioxide

THC
Total Hydrocarbons (NMHC + Methane)

therm
100,000 British Thermal Unit

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

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

TRMP
Toxic Risk Management Plan

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VIII. Glossary (continued)

VOC
Volatile Organic Compounds

Units of Measure:

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

Symbols:

$<$	=	less than
$>$	=	greater than
$\leq$	=	less than or equal to
$\geq$	=	greater than or equal to