Bay Area Air Quality Management District

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

Final

MAJOR FACILITY REVIEW PERMIT

Issued To:

Crockett Cogeneration, A California Limited Partnership
Facility #A8664

Facility Address:
550 Loring Avenue
Crockett, CA 94525

Mailing Address:
550 Loring Avenue
Crockett, CA 94525

Responsible Official	**Facility Contact**
Donald J. Curran, General Manager	Peter So, Plant Engineer
510-787-4100	510-787-4105

Type of Facility:	Cogeneration	BAAQMD Permit Division Contact:
Primary SIC:	4913	Dennis Jang
Product:	Electricity and Steam	

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Ellen Garvey _____ March 7, 2001 _____
Ellen Garvey, Executive Officer/Air Pollution Control Officer Date

TABLE OF CONTENTS

I. STANDARD CONDITIONS

A. Administrative Requirements

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on 11/15/00);
SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 8/27/99);
BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on 11/15/00);
SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 2/25/99);
BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 5/17/00);
SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 2/25/99);
BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 5/17/00);
SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 2/25/99); and
BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 10/20/99).

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

1. This Major Facility Review Permit was issued on March 7, 2001 and expires on February 28, 2006. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than September 1, 2005 and no earlier than February 28, 2005. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after** February 28, 2006**.** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)

2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)

4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (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

I. Standard Conditions (continued)

reissuance, or termination, or 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, nor 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)

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 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

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.

I. Standard Conditions (continued)

The first reporting period for this permit shall be March 7, 2001 to August 31, 2001. The report shall be submitted by September 30, 2001. Subsequent reports shall be for the following periods: September 1st through February 28th or 29th and March 1st through August 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

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 March 1st to February 28th or 29th. The certification shall be submitted by March 31st of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other 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 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

I. Standard Conditions (continued)

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 caused by conditions beyond the permit holder's reasonable control 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. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. (MOP Volume II, Part 3, §4.8)
3. Notwithstanding the foregoing, 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)

II. EQUIPMENT LIST

A. Permitted Source List

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.

Table II-A

S-#	Description	Make or Type	Model	Capacity
S-201	Gas Turbine (natural gas)	General Electric Company with GE dry low NOx combustors	PG7241 (FA+Enhanced) with DLN 2.6 combustors	1,780 MM BTU/hr (HHV) 159 MW (nominal rating)
S-202	Heat Recovery Steam Generator Duct Burner (natural gas)	Forney Corporation with low NOx burner	Unknown	349 MM BTU/hr (HHV)
S-203	Auxiliary Steam Boiler A (natural gas)	Foster Wheeler Energy Corporation with low NOx burner	AG-5275	376 MM BTU/hr (HHV) 249,000 lbs/hour steam
S-204	Auxiliary Steam Boiler B (natural gas)	Foster Wheeler Energy Corporation with low NOx burner	AG-5275	376 MM BTU/hr (HHV) 249,000 lbs/hour steam
S-205	Auxiliary Steam Boiler C (natural gas)	Foster Wheeler Energy Corporation with low NOx burner	AG-5275	376 MM BTU/hr (HHV) 249,000 lbs/hour steam

II. Equipment List (continued)

B. Abatement Device List

Table II-B

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-201	Oxidation Catalyst	S-201, S-202	BACT, $TRMP_1$	Minimum Operating Temperature of 550 °F	CO $\leq$ 46.6 lbs/hr, 3 hr avg; $\leq$ 10 ppmv at 15% O_2, dry, 3 hr avg
A-202	Selective Catalytic Reduction System	S-201, S-202	BACT	None	NOx $\leq$ 39.2 lbs/hr, 3 hr avg; $\leq$ 5.0 ppmv at 15% O_2, dry 3 hr avg; $NH_3 \leq$ 20 ppmv at 15% O_2, dry, 3 hr avg
A-203	Oxidation Catalyst	S-203	BACT, $TRMP_1$	Minimum Operating Temperature of 430 °F	CO emissions shall not exceed 3.0 lbs/hr avgd over 3 hours nor 11.0 ppmv at 3% O_2 dry basis avgd over 3 hours

II. Equipment List (continued)

B. Abatement Device List (continued)

Table II-B

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-204	Selective Catalytic Reduction System	S-203	BACT	None	NOx ≤ 3.7 lbs/hr, 3 hr avg; ≤ 8.2 ppmv at 3% O_2, dry, 3 hr; NH_3 ≤ 20 ppmv at 3% O_2, dry, 3 hr avg
A-205	Oxidation Catalyst	S-204	BACT, $TRMP_1$	Minimum Operating Temperature of 430 °F	CO ≤ 3.0 lbs/hr, 3 hr avg; ≤ 11.0 ppmv at 3% O_2, dry, 3 hr avg
A-206	Selective Catalytic Reduction System	S-204	BACT	None	NOx ≤ 3.7 lbs/hr, 3 hr avg; ≤ 8.2 ppmv at 3% O_2, dry, 3 hr; NH_3 ≤ 20 ppmv at 3% O_2, dry, 3 hr avg
A-207	Oxidation Catalyst	S-205	BACT, $TRMP_1$	Minimum Operating Temperature of 430 °F	CO ≤ 3.0 lbs/hr, 3 hr avg; ≤ 11.0 ppmv at 3% O_2, dry, 3 hr avg

II. Equipment List (continued)

B. Abatement Device List (continued)

Table II-B

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-208	Selective Catalytic Reduction System	S-205	BACT	None	NOx $\leq$ 3.7 lbs/hr, 3 hr avg; $\leq$ 8.2 ppmv at 3% O_2, dry, 3 hr; $NH_3 \leq$ 20 ppmv at 3% O_2, dry, 3 hr avg

[1]Toxics Risk Management Plan

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.

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

1. BAAQMD regulation(s):
   The date(s) of adoption or most recent amendment of the regulation by the District Board
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 included in Appendix A of this permit if the SIP requirement is different from the current BAAQMD requirement.

NOTE:
There are differences between the current BAAQMD rule and the version of the rule in the SIP. For specific information, contact the District's Rule Development Section of the Enforcement Division. All sources must comply with <u>both</u> versions of the rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table III

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (11/15/00)	N
SIP Regulation 1	General Provisions and Definitions (8/27/99)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (11/2/94)	N
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	N
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y

III. Generally Applicable Requirements (continued)

Table III

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	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 (12/20/95)	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	Y
Subpart F, 40 CFR 82.156	Leak Repair	Y
Subpart F, 40 CFR 82.161	Certification of Technicians	Y
Subpart F, 40 CFR 82.166	Records of Refrigerant	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

1. BAAQMD regulation(s):
   The date(s) of adoption or most recent amendment of the regulation by the District Board
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 is included in Appendix A of this permit if the SIP requirements are different from the current BAAQMD requirements. All other text may be found in the regulations themselves.

Table IV-A
S-201 - GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (11/3/93)**		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
6-301	Ringelmann Number 1 Limitation	N	
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	N	
9-1-302	General Emission Limitations	Y	

IV. Applicable Requirements (continued)

Table IV-A
S-201 - GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 9, Rule 9	**Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)**		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**	Y	
40 CFR 60	**Standards of Performance for New Stationary Sources (12/23/71)**	Y	
Subpart A	**General Provisions**	Y	
60.7(a)	Written notification	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart GG	**Standards of Performance for Stationary Gas Turbines (1/27/82)**		
60.332(a)(1)	NOx limit	Y	
60.333	Performance Standards, SO2	Y	
60.334(b)(2)	Sulfur and nitrogen content of fuel	Y	
60.335	Test Methods and Procedures	Y	
BAAQMD Condition #14970			
part 1	Exclusive use of PUC-quality natural gas (BACT for SO_2 and PM_{10})	Y	
part 2	Hourly heat input limit for turbine (cumulative increase)	Y	
part 4	Hourly heat input limit for turbine and HRSG (PSD for NO_x)	Y	
part 5	Daily heat input limit for turbine and HRSG (PSD for PM_{10})	Y	

IV. Applicable Requirements (continued)

Table IV-A
S-201 - GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 6	Annual heat input limit for turbine and HRSG (offsets)	Y	
part 8	Oxidizing Catalyst and Selective Catalytic Reduction (BACT, TRMP)	Y	
part 9a	Hourly NOx limit (PSD)	Y	
part 9b	NOx concentration limit (BACT)	Y	
part 9c	Hourly CO limit (PSD)	Y	
part 9d	CO concentration limit (BACT)	Y	
part 9e	Temperature limit for Oxidizing Catalyst (TRMP for formaldehyde, benzene, and PAH's)	Y	
part 9f	Ammonia limit (TRMP)	Y	
part 18	Combined daily heat input rate for sources S-201 through S-205 (PSD, CEC offsets)	Y	
part 19	Combined annual heat input rate for sources S-201 through S-205 (Offsets)	Y	
part 20	Combined daily emissions limits for sources S-201 through S-205 (CEC offsets, cumulative increase, PSD)	Y	
part 21	Combined annual emissions limits for sources S-201 through S-205 (Offsets, PSD, cumulative increase)	Y	
part 22	Combined annual emission limits for toxic air contaminants (TRMP)	N	
part 23	Continuous monitoring (Reg. 1-520.1, 9-9-501, BACT, offsets, NSPS, PSD, cumulative increase)	Y	
part 24	Emission calculations (offsets, PSD, cumulative increase)	Y	
part 25	Ammonia emission calculations (TRMP)	N	
part 26	Toxic air contaminant emission calculations (TRMP)	N	
part 27	Source tests - water content, stack gas, O_2, POC, PM_{10} (offsets, PSD)	Y	
part 27	Source tests - NH_3 (TRMP)	N	
part 29	Source tests-toxic air contaminants (TRMP)	N	
part 30	Reports (Reg. 2-6-502)	Y	
part 31	Records (Reg. 2-6-501)	Y	
part 32	Violation reporting (Reg. 1-522.7)	Y	

IV. Applicable Requirements (continued)

Table IV-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (11/3/93)**		
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NOx, CO_2 or O_2	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
BAAQMD Regulation 2, Rule 1	**Regulation 2, Rule 1 - Permits, General Requirements (6/7/95)**		
2-1-501	Monitors	Y	
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
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	
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 3	**Inorganic Gaseous Pollutants, Nitrogen Oxides From Heat Transfer Operations (3/17/82)**		
9-3-303	New or Modified Heat Transfer Operation Limits	N	

IV. Applicable Requirements (continued)

Table IV-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**		
40 CFR 60	**Standards of Performance for New Stationary Sources (12/23/71)**	Y	
Subpart A	**General Provisions**	Y	
60.4(b)	Reports to EPA and District	Y	
60.7	Notification and record keeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirement	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart Da	**Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978 (6/14/79)**	Y	
60.42a(a)(1)	Particulate Limit	Y	
60.42a(b)	Opacity Limit	Y	
60.43a(b)(2)	SO2 limit	Y	
60.43a(g)	Averaging (24-hour for Bay Area)	Y	
60.44a(a)(1)	NOX limit	Y	
60.46a(a)	Compliance, particulate limitation	Y	
60.46a(b)	Compliance, NOX limitation	Y	
60.46a(c)	Applicability of Limits	Y	
60.47a(f)	Availability of information	Y	
60.48a	Compliance determination procedures and methods	Y	
60.49a(a)	Performance test reports	Y	
60.49a(b)	NOX emission reports	Y	
60.49a(c)	Reports regarding lack of minimum data	Y	
60.49a(d)	Exceedances during emergency conditions	Y	
60.49a(f)	Reports regarding data availability	Y	

IV. Applicable Requirements (continued)

Table IV-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.49a(g)	Signed statements	Y	
60.49a(h)	Opacity exceedance definition	Y	
60.49a(i)	Reports to Administrator (Also required to District)	Y	
BAAQMD Condition #14970			
part 1	Exclusive use of PUC-quality natural gas (BACT for SO_2 and PM_{10})	Y	
part 3	Hourly heat input limit for HRSG (cumulative increase)	Y	
part 4	Hourly heat input limit for turbine and HRSG (PSD for NO_x)	Y	
part 5	Daily heat input limit for turbine and HRSG (PSD for PM_{10})	Y	
part 6	Annual heat input limit for turbine and HRSG (offsets)	Y	
part 7	Turbine must operate during HRSG operation (BACT for NOx, CO, and POC)	Y	
part 8	Oxidizing Catalyst and Selective Catalytic Reduction (BACT, TRMP)	Y	
part 9a	Hourly NOx limit (PSD)	Y	
part 9b	NOx concentration limit (BACT)	Y	
part 9c	Hourly CO limit (PSD)	Y	
part 9d	CO concentration limit (BACT)	Y	
part 9e	Temperature limit for Oxidizing Catalyst (TRMP for formaldehyde, benzene, and PAH's)	Y	
part 9f	Ammonia limit (TRMP)	Y	
part 18	Combined daily heat input rate for sources S-201 through S-205 (PSD, CEC offsets)	Y	
part 19	Combined annual heat input rate for sources S-201 through S-205 (Offsets)	Y	
part 20	Combined daily emissions limits for sources S-201 through S-205 (CEC offsets, cumulative increase, PSD)	Y	

IV. Applicable Requirements (continued)

Table IV-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 21	Combined annual emissions limits for sources S-201 through S-205 (Offsets, PSD, cumulative increase)	Y	
part 22	Combined annual emission limits for toxic air contaminants (TRMP)	N	
part 23	Continuous monitoring (Reg. 1-520.1, 9-9-501, BACT, offsets, NSPS, PSD, cumulative increase)	Y	
part 24	Emission calculations (offsets, PSD, cumulative increase)	Y	
part 25	Ammonia emission calculations or source test (TRMP)	N	
part 26	Toxic air contaminant emission calculations (TRMP)	N	
part 27	Source tests - water content, stack gas, O_2, POC, PM_{10} (offsets, PSD)	Y	
part 27	Source tests - NH_3 (TRMP)	N	
part 29	Source tests - toxic air contaminants (TRMP)	N	
part 30	Reports (Reg. 2-6-502)	Y	
part 31	Records (Reg. 2-6-501)	Y	
part 32	Violation reporting (Reg. 1-522.7)	Y	

IV. Applicable Requirements (continued)

Table IV-C
S-203, S-204, & S-205 – AUXILIARY STEAM BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (11/3/93)**		
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NOx, CO_2 or O_2	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
BAAQMD Regulation 2, Rule 1	**Regulation 2, Rule 1 - Permits, General Requirements (6/7/95)**		
2-1-501	Monitors	Y	
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
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	
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 3	**Inorganic Gaseous Pollutants, Nitrogen Oxides From Heat Transfer Operations (3/17/82)**		
9-3-303	New or Modified Heat Transfer Operation Limits	N	
BAAQMD Regulation 9, Rule 7	**Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)**		

IV. Applicable Requirements (continued)

Table IV-C
S-203, S-204, & S-205 – AUXILIARY STEAM BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-7-301	Emission Limits-Gaseous Fuel	Y	
9-7-301.1	Emission Limits-NOx	Y	
9-7-301.2	Emission Limits-CO	Y	
9-7-503	Records	Y	
9-7-503.4	Source test records	Y	
BAAQMD Manual of Procedures, Volume V	**Continuous Emission Monitoring Policy and Procedures (1/20/82)**		
40 CFR 60	**Standards of Performance for New Stationary Sources (12/23/71)**	**Y**	
Subpart A	**General Provisions**	**Y**	
60.4(b)	Reports to EPA and District	Y	
60.7	Notification and record keeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirement	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart D	**Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced after August 17, 1971 (7/25/77)**	Y	
60.42(a)(1)	Particulate limit	Y	
60.42(a)(2)	Opacity Limit	Y	
60.46(b)	Test Methods and Procedures	Y	
Subpart Db	**Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (12/16/87)**	**Y**	
60.44b (a)(1)(i)	NOX limit	Y	
60.44b(h)	NOx limit applicable at all times	Y	
60.44b(j)	Compliance: 24-hr day basis	Y	
60.46b(a)	NOx limit applicable at all times	Y	
60.46b(c)	Compliance with NOX limit	Y	

IV. Applicable Requirements (continued)

Table IV-C
S-203, S-204, & S-205 – AUXILIARY STEAM BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.46b(e)	Performance test for NOX	Y	
60.46b(e)(1)	Performance test for NOX (24-hr basis)	Y	
60.48b(f)	Standby Monitoring	Y	
60.49b(a)	Notification of Initial Startup	Y	
60.49b(b)	Report Performance Tests and CEM performance	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	
BAAQMD Condition #14970			
Part 10	Exclusive use of natural gas (BACT for SO_2 and PM_{10})	Y	
part 11	Hourly heat input limit for each boiler (cumulative increase)	Y	
part 12	Total daily heat input limit for S-203 to S-205, Boilers (PSD for PM_{10})	Y	
part 13	Total annual heat input limit for S-203 to S-205, Boilers (offsets)	Y	
part 14	Oxidizing Catalyst and Selective Catalytic Reduction for S-203 (BACT, TRMP)	Y	
part 15	Oxidizing Catalyst and Selective Catalytic Reduction for S-204 (BACT, TRMP)	Y	
part 16	Oxidizing Catalyst and Selective Catalytic Reduction for S-205 (BACT, TRMP)	Y	
part 17a	Hourly NOx limits (PSD)	Y	
part 17b	NOx concentration limits (BACT)	Y	
part 17c	Hourly CO limit (PSD)	Y	
part 17d	CO concentration limit (BACT)	Y	
part 17e	Temperature limit for Oxidizing Catalyst (TRMP for formaldehyde, benzene, and PAH's)	Y	
part 17f	Ammonia limit (TRMP)	Y	
part 18	Combined daily heat input rate for sources S-201 to S-205 (PSD, CEC offsets)	Y	

IV. Applicable Requirements (continued)

Table IV-C
S-203, S-204, & S-205 – AUXILIARY STEAM BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 19	Combined annual heat input rate for sources S-201 to S-205 (offsets)	Y	
part 20	Combined daily emissions limits for sources S-201 to S-205 (CEC offsets, cumulative increase, PSD)	Y	
part 21	Combined annual emissions limits for sources S-201 to S-205 (offsets, PSD, cumulative increase)	Y	
part 22	Combined annual emission limits for toxic air contaminants (TRMP)	N	
part 23	Continuous monitoring (Reg. 1-520.1, 9-9-501, BACT, offsets, NSPS, PSD, cumulative increase)	Y	
part 24	Emission calculations (offsets, PSD, cumulative increase)	Y	
part 25	Ammonia emission calculations or source test (TRMP)	N	
part 26	Toxic air contaminant emission calculations (TRMP)	N	
part 28	Source tests - water content, stack gas, O_2, POC, PM_{10} (offsets for POC, PSD for PM_{10})	Y	
part 28	Source tests - NH_3 (TRMP)	N	
part 30	Reports (Reg. 2-6-502)	Y	
part 31	Records (Reg. 2-6-501)	Y	
part 32	Violation reporting (Reg. 1-522.7)	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 #14970

Permit Conditions for Plant #8664:
Crockett Cogeneration, A California Limited Partnership;
including: S-201, S-202, S-203, S-204, and S-205

The following definitions shall apply to all permit conditions listed below.

Definitions:

Clock Hour: Any continuous 60-minute period beginning on the hour.
Calendar Day: Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
Calendar Year: A period of time from January 1 at 12:00 AM through and including December 31 at 11:59 PM.
Heat Input: All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel.
Rolling 3-hour period: Any three-hour period that begins on the hour and does not include startup or shutdown periods.
Firing Hours: Period of time during which fuel is flowing to a unit, measured in fifteen-minute increments.
Gas Turbine Startup: The first 120 minutes of continuous fuel flow to the Gas Turbine after fuel flow is first initiated; or the amount of time from Gas Turbine fuel flow initiation until the requirements listed in Conditions #9.a. through #9.e. are met, whichever is less.
Gas Turbine Shutdown: The last 60 minutes before fuel flow to the Gas Turbine is terminated; or the amount of time from noncompliance with any requirement listed in Conditions #9.a. through #9.e. until fuel flow termination, whichever is less.
Auxiliary Boiler Startup: The first 120 minutes of continuous fuel flow to an Auxiliary Boiler after fuel flow is first initiated; or the amount of time from Boiler fuel flow initiation until the requirements listed in Conditions #17.a. through #17.e. are met, whichever is less.

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

Auxiliary Boiler Shutdown: The last 60 minutes before fuel flow to an Auxiliary Boiler is terminated; or the amount of time from noncompliance with any requirement listed in Conditions #17.a. through #17.e. until fuel flow termination, whichever is less.

Specified PAH's: The polycyclic aromatic hydrocarbons listed below shall be considered to be Specified PAH's for these permit conditions. Any emission limits for Specified PAH's 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 specific stack gas oxygen concentration. For P-201 from the Gas Turbine and the HRSG the specific stack gas oxygen concentration is 15% O_2 by volume on a dry basis. For P-202, P-203, and P-204 from the Auxiliary Boilers, the specific stack gas oxygen concentration is 3% O_2 by volume on a dry basis.

TRMP: Toxics Risk Management Plan

Conditions for the Gas Turbine (S-201) and the Heat Recovery Steam Generator (S-202)

1. The S-201 Gas Turbine and S-202 Heat Recovery Steam Generator (HRSG) shall be fired on PUC quality natural gas exclusively. (BACT for SO2 and PM10)

2. The heat input rate to the Gas Turbine shall not exceed 1,780 million BTU per hour, averaged over any rolling 3-hour period. (Cumulative Increase)

3. The heat input rate to the HRSG shall not exceed 349 million BTU per hour, averaged over any rolling 3-hour period. (Cumulative Increase)

4. The combined heat input rate to the Gas Turbine and HRSG shall not exceed 2,129 million BTU per hour, averaged over any rolling 3-hour period. (PSD for NOx)

5. The combined heat input rate to the Gas Turbine and HRSG shall not exceed 51,096 million BTU per calendar day. (PSD for PM10)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

6. The combined heat input rate to the Gas Turbine and HRSG shall not exceed 15,613,000 million BTU per calendar year. (Offsets)

7. The HRSG shall not be operated unless the Gas Turbine is operating. (BACT for NOx, CO, POC)

8. The Gas Turbine and HRSG shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-201) and Selective Catalytic Reduction System (A-202), in series. (BACT and TRMP)

9. The owner/operator of the S-201 Gas Turbine and S-202 HRSG shall meet all of the requirements listed in a. through f. below, except during a Gas Turbine Startup or a Gas Turbine Shutdown. (BACT, TRMP, and PSD)

a. Nitrogen oxide emissions at P-201 (the combined exhaust point for the S-201 Gas Turbine and the S-202 HRSG after control by the A-201 and A-202 Catalysts) shall not exceed 39.2 pounds per hour, calculated as NO2 and averaged over any rolling 3- hour period. (PSD for NOx)

b. The nitrogen oxide concentration at P-201 shall not exceed 5.0 ppmv, corrected to 15% oxygen on a dry basis, and averaged over any rolling 3-hour period. (BACT for NOx)

c. Carbon monoxide emissions at P-201 shall not exceed 46.6 pounds per hour, averaged over any rolling 3-hour period. (PSD for CO)

d. The carbon monoxide concentration at P-201 shall not exceed 10 ppmv, corrected to 15% oxygen on a dry basis and averaged over any rolling 3-hour period. (BACT for CO)

e. The temperature of the A-201 Oxidizing Catalyst shall be maintained at a minimum of 550 degrees Fahrenheit. (TRMP for formaldehyde, benzene, and PAH's)

f. Ammonia (NH3) emissions at P-201 shall not exceed 20 ppmv, corrected to 15% oxygen on a dry basis and averaged over any rolling 3-hour period. (TRMP for NH3)

Conditions for the Auxiliary Boilers (S-203, S-204, and S- 205)

10. The Auxiliary Boilers (S-203, S-204, and S-205) shall be fired on natural gas exclusively. (BACT for SO2 and PM10)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

11. The heat input rate to each Auxiliary Boiler (S-203, S-204, or S-205) shall not exceed 376 million BTU per hour, averaged over any rolling 3-hour period. (Cumulative Increase)

12. The combined heat input rate to the Auxiliary Boilers (S-203, S-204, and S-205) shall not exceed 18,048 million BTU per calendar day. (PSD for PM10)

13. The combined heat input rate to the Auxiliary Boilers (S-203, S-204, and S-205) shall not exceed 6,575,000 million BTU per calendar year. (Offsets)

14. The S-203 Auxiliary Boiler shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-203) and Selective Catalytic Reduction System (A-204), in series. (BACT and TRMP)

15. The S-204 Auxiliary Boiler shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-205) and Selective Catalytic Reduction System (A-206), in series. (BACT and TRMP)

16. The S-205 Auxiliary Boiler shall be abated by the properly operated and properly maintained Oxidizing Catalyst (A-207) and Selective Catalytic Reduction System (A-208), in series. (BACT and TRMP)

17. The owner/operator of the Auxiliary Boilers (S-203, S-204, and S-205) shall meet all of the requirements listed in a. through f. below, except during an Auxiliary Boiler Startup or an Auxiliary Boiler Shutdown. (BACT, TRMP, and PSD)

a. Nitrogen oxide emissions at P-202, P-203, or P-204 (the exhaust point for each Auxiliary Boiler after control by the Oxidizing Catalyst and SCR Catalyst) shall not exceed 3.7 pounds per hour, calculated as NO2 and averaged over any rolling 3- hour period. (PSD for NOx)

b. The nitrogen oxide concentration at P-202, P-203, or P-204 shall not exceed 8.2 ppmv, corrected to 3% oxygen on a dry basis, and averaged over any rolling 3-hour period. (BACT for NOx)

c. Carbon monoxide emissions at P-202, P-203, or P-204 shall not exceed 3.0 pounds per hour, averaged over any rolling 3-hour period. (PSD for CO)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

d. The carbon monoxide concentration at P-202, P-203, or P-204 shall not exceed 11.0 ppmv, corrected to 3% oxygen on a dry basis and averaged over any rolling 3-hour period. (BACT for CO)

e. The temperature of the Oxidizing Catalysts (A-203, A-205, and A-207) shall be maintained at a minimum of 430 degrees Fahrenheit. (TRMP for formaldehyde, benzene, and PAH's)

f. Ammonia (NH3) emissions at P-202, P-203, or P-204 shall not exceed 20 ppmv, corrected to 3% oxygen on a dry basis and averaged over any rolling 3-hour period. (TRMP for NH3)

Conditions for All Sources Combined
(S-201, S-202, S-203, S- 204, and S-205)

18. The combined heat input rate to the Gas Turbine (S-201), HRSG (S-202), and Auxiliary Boilers (S-203, S-204, and S-205) shall not exceed 57,544 million BTU per calendar day. (PSD, CEC Offsets)

19. The combined heat input rate to the Gas Turbine (S-201), HRSG (S-202), and Auxiliary Boilers (S-203, S-204, and S-205) shall not exceed 19,023,000 million BTU per calendar year. (Offsets)

20. Emissions from the Gas Turbine, HRSG, and three Auxiliary Boilers combined (S-201, S-202, S-203, S-204, and S-205), including emissions generated during Gas Turbine Startups, Gas Turbine Shutdowns, Auxiliary Boiler Startups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any calendar day:

a. 969.7 pounds of NOx (as NO2) per day (CEC Offsets)
b. 745.0 pounds of CO per day (Cumulative Increase)
c. 352.6 pounds of POC (as CH4) per day (CEC Offsets)
d. 329.1 pounds of PM10 per day (PSD)
e. 48.5 pounds of SO2 per day (Cumulative Increase)

21. Emissions from the Gas Turbine, HRSG, and three Auxiliary Boilers combined (S-201, S-202, S-203, S-204, and S-205), including emissions generated during Gas Turbine Startups, Gas Turbine Shutdowns, Auxiliary Boiler Startups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any calendar year:

a. 160.85 tons of NOx (as NO2) per year (Offsets, PSD)
b. 73.27 tons of CO per year (Cumulative Increase)
c. 48.45 tons of POC (as CH4) per year (Offsets)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

d. 58.19 tons of PM10 per year (PSD)
e. 8.01 tons of SO2 per year (Cumulative Increase)

*22. Maximum annual emissions from the Gas Turbine, HRSG, and three Auxiliary Boilers combined (S-201, S-202, S-203, S-204, and S-205) shall not exceed the following limits:

a. 4318.6 pounds of formaldehyde per year
b. 116.1 pounds of benzene per year
c. 78.7 pounds of Specified PAH's per year

during any calendar year, unless the owner/operator meets the requirements of (d), (e), and (f) below:

d. The owner/operator shall perform a risk analysis using the emission rates determined by source test and the most current District approved procedures and unit risk factors in affect at the time of the analysis. The cancer risk calculated by this first analysis shall not exceed either 4 in one million or the maximum allowable risk (considering the use of TBACT) under the Risk Management Policy in effect at the time of the analysis, whichever is greater.

e. The owner/operator shall perform a second risk analysis using the emission rates determined by source test and the procedures and unit risk factors in effect when the Determination of Compliance was issued. The cancer risk calculated from this second risk analysis shall not exceed 4 in one million.

f. Both of these risk analyses shall be submitted to the District within 60 days of the source test date. The owner/operator may request in this submittal that the District 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 satisfy the conditions stated in parts d. and e. above, the District may then (at the discretion of the APCO) adjust the carcinogenic compound emission limits listed above.

(TRMP)

23. The owner/operator shall demonstrate compliance with Conditions #2-#8, #9.a.-#9.e., #11-#16, #17.a.-#17.e., #18, #19, #20.a., #20.b., #21.a., and #21.b. by using properly operated and properly maintained continuous monitors (during all hours of operation including equipment Startup and Shutdown periods) for all of the following parameters:

a. Firing Hours and Fuel Flow Rates at each of the following sources: S-201, S-202, S-203, S-204, and S-205.
b. Oxygen (O2) Concentrations, Nitrogen Oxides (NOx) Concentrations, and Carbon

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

Monoxide (CO) Concentrations at each of the following stacks: P-201, P-202, P-203, and P-204.

c. Inlet Temperatures at each of the following abatement devices: A-201, A-203, A-205, and A-207.

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 and the average hourly Fuel Flow Rates, Concentrations, and Temperatures.

The owner/operator shall use the parameters measured above and District approved calculation methods to calculate the following parameters:

d. Heat Input Rate at each of the following sources:
S-201, S-202, S-203, S-204, and S-205.

e. Corrected NOx Concentrations, NOx Emissions measured as NO2, Corrected CO Concentrations, and CO Emissions at each of the following stacks: P-201, P-202, P-203, and P-204.

For each source or stack, the owner/operator shall record the above parameters (23.d. and 23.e.) every 15 minutes (excluding normal calibration periods). For each source, the owner/operator shall calculate and record the total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period. For each calendar day, the owner/operator shall calculate and record, on an hourly basis, the cumulative total Heat Input Rate since 12:00 AM for: each source; the Gas Turbine and the HRSG Combined; the three Auxiliary Boilers Combined; and all five sources (S-201, S-202, S-203, S-204, and S-205) combined. The owner/operator shall calculate and record the average NOx Emissions, CO Emissions, and Corrected NOx and CO Concentrations for every clock hour and for every rolling 3-hour period. For each calendar day, the owner/operator shall calculate and record, on an hourly basis, the cumulative total NOx Emissions and cumulative total CO Emissions, since 12:00 AM, for: each source; the Gas Turbine and the HRSG Combined; the three Auxiliary Boilers Combined; and all five sources (S-201, S-202, S-203, S-204, and S-205) combined. For each calendar day, the owner/operator shall calculate and record the average hourly: Heat Input Rates, Corrected NOx Concentrations, NOx Emissions, Corrected CO Concentrations, and CO Emissions; for each source. For each calendar year, the owner/operator shall calculate and record, on a daily basis, the cumulative total NOx Emissions and cumulative total CO Emissions, since January 1 at 12:00 AM, for all five sources (S-201, S-202, S-203, S-204, and S-205) combined.

(1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

24. In order to demonstrate compliance with Conditions #20.c.-#20.e. and #21.c.-#21.e., the

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

owner/operator shall calculate (on a daily basis): the Precursor Organic Compound (POC) Emissions, Fine Particulate Matter (PM10) Emissions, and Sulfur Dioxide (SO2) Emissions; from each source. The owner/operator shall use the actual Heat Input Rates calculated for Condition #23, actual Gas Turbine Startup Times, actual Gas Turbine Shutdown Times, and District approved emission factors to calculate these emissions. For each calendar day, POC, PM10, and SO2 Emissions shall be summarized for: the Gas Turbine and HRSG combined; the three Auxiliary Boilers Combined; and the five sources (S-201, S-202, S-203, S-204, and S-205) combined. For each calendar year, the owner/operator shall calculate and record (on a daily basis) the cumulative total POC, PM10, and SO2 Emissions, since January 1 at 12:00 AM, for all five sources (S-201, S-202, S-203, S-204, and S-205) combined.

(Offsets, PSD, Cumulative Increase)

*25. In order to demonstrate compliance with Conditions #9.f. and 17.f., the owner/operator shall determine the Corrected Ammonia (NH3) Concentration and NH3 Emissions in a stack (P-201, P-203, P-204, or P-205) using either District approved emission calculation methods or District approved source test methods. Ammonia Concentration and Emissions shall be calculated and recorded for any hours that the owner/operator suspects that ammonia concentration may have exceeded the limits in 9.f. or 17.f. In addition, District staff may, at any time, request the owner/operator calculate Ammonia Concentration and Emissions to verify compliance with Conditions #9.f. and #17.f. (TRMP)

*26. In order to demonstrate compliance with Condition #22, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAH's. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 19,023,000 MM BTU/year and the highest emission factor (pounds of pollutant per MM BTU of Heat Input) determined by any source test at the Gas Turbine, HRSG, or Auxiliary Boilers. (TRMP)

27. In order to demonstrate compliance with Conditions #9, #20, and #23, the owner/operator shall conduct, on an annual basis, a District approved source test on stack P-201 while the S-201 Gas Turbine and S-202 Heat Recovery Generator are operating at maximum allowable operating rates. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and emissions, particulate matter (PM10) emissions, and ammonia concentration. The owner/operator shall also meet all applicable testing requirements specified in Volume V of the District's Manual of Procedures for continuous emissions monitors. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall notify the District's Source Test Section

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

in writing of the source test protocols and projected test dates at least 7 days before the test is to begin. Source test results shall be submitted to the District within 30 days of conducting the tests. (Offsets for POC, PSD for PM10, TRMP for NH3)

28. In order to demonstrate compliance with Conditions #17, #20, and #23, the owner/operator shall conduct, on an annual basis, a District approved source test on either stack P-202, P-203, or P-204 while the associated Auxiliary Boiler (S-203, S-204, or S-205) is operating at maximum allowable operating rates. The owner/operator shall ensure that each Auxiliary Boiler is tested at least once every five years. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and emissions, particulate matter (PM10) emissions, and ammonia concentration. The owner/operator shall also meet all applicable testing requirements specified in Volume V of the District's Manual of Procedures for continuous emissions monitors. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section prior to conducting any tests. The owner/operator shall notify the District's Source Test Section in writing of the source test protocols and projected test dates at least 7 days before the test is to begin. Source test results shall be submitted to the District within 30 days of conducting the tests. (Offsets for POC, PSD for PM10, TRMP for NH3)

*29. In order to demonstrate compliance with Conditions #22 and #25, the owner/operator shall conduct, on a biennial basis, an approved source test on stack P-201 while the S-201 Gas Turbine and S-202 Heat Recovery Steam Generator are operating at maximum allowable operating rates. Unless the requirements of 29.b. have been met, the owner/operator shall determine the formaldehyde, benzene, and Specified PAH emission rates (in pounds/MM BTU). If any of the above pollutants are not detected (below the analytical detection limit), the emission concentration for that pollutant shall be deemed to be one half (50%) of the detection limit concentration. (TRMP)

a. The owner/operator shall calculate the maximum projected annual emission rate for each pollutant by multiplying the pollutant emission rate (pounds/MM BTU) determined from the source test by 19,023,000 MM BTU/year.

b. If three consecutive biennial source tests demonstrate that the emission rates for benzene and total Specified PAH's are less than the maximum projected annual emission rates shown below, then the owner/operator may discontinue future testing for that pollutant:

Benzene	< or = 80.0 pounds/year
Specified PAH's	< or = 7.0 pounds/year

30. The owner/operator shall submit all reports (such as: monthly CEM reports, monitor breakdown

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

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. (2-6-502)

31. The owner/operator 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, emissions, temperatures, monitor excesses, breakdowns, etc.), source test and analytical records, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District staff upon request.
(2-6-501)

32. The owner/operator shall notify the District of any violations of these Permit Conditions. Notification shall be submitted within a timely manner and in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. If the notification and reporting requirements for a particular permit condition violation are not explicitly described in a District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division no more than 96 hours from the first occurrence of the violation. (1-522.7)

VII. APPLICABLE EMISSION 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
S-201 - GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM
	NSPS, 40 CFR 60.332 (a)(1)	Y		42 ppmv, @ 15% O2, dry	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
	BAAQMD condition #14970, part 9a	Y		39.2 lb/hr , for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, part 9b	Y		5 ppmv, @ 15% O2, dry, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM

	BAAQMD condition #14970, part 20a	Y		969.7 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S-201 – GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOX	BAAQMD condition #14970, part 21a	Y		160.85 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
CO	BAAQMD condition #14970, part 9c	Y		46.6 lb/hr, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, Part 9d	Y		10 ppmv, @ 15% O2, dry, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, Part 20b	Y		745.0 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, part 21b	Y		73.27 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
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	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S-201 – GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission 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)	Monitoring requirement subsumed by requirement for PUC quality natural gas. See Permit Shield.	N	
	BAAQMD condition #14970, part 20e	Y		48.5 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, part 21e	Y		8.01 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations
TSP	BAAQMD 6-301	N		Ringelmann No. 1		N	
	BAAQMD 6-310	Y		0.15 grain/dscf @ 6% O2		N	
PM10	BAAQMD condition #14970, Part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 27	P/A	Source test

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S-201 – GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, part 21d	Y		58.19 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations
POC	BAAQMD condition #14970, part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 27	P/A	Source test
	BAAQMD condition #14970, Part 21c	Y		48.45 ton/yr (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations
NH3	BAAQMD condition #14970, Part 9f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined	BAAQMD condition #14970, part 25	P/E	Calculations or source test
	BAAQMD condition #14970, Part 9f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined	BAAQMD condition #14970, part 27	P/A	Source test
Formal-dehyde	BAAQMD condition #14970, part 22a	N		4318.6 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations
	BAAQMD condition #14970, Part 22a	N		4318.6 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 29	P/every 2 years	Source Test

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S-201 – GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Benzene	BAAQMD condition #14970, part 22b	N		116.1 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations
Benzene	BAAQMD condition #14970, Part 22b	N		116.1 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 29	P/every 2 years	Source Test
Specified PAH's	BAAQMD condition #14970, Part 22c	N		78.7 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations
	BAAQMD condition #14970, Part 22c	N		78.7 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 29	P/every 2 years	Source Test
Heat input limit	BAAQMD condition #14970, part 2	Y		1,780 mmbtu/hr, 3-hr average	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 4	Y		2,129 mmbtu/hr for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 5	Y		51,029 mmbtu/day for turbine and HRSG combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 6	Y		15,613,000 mmbtu/yr for turbine and HRSG combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S-201 – GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, part 18	Y		57,544 mmbtu/day, for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
Heat input limit	BAAQMD condition #14970, Part 19	Y		19,023,000 mmbtu/yr, for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
Oxidizing catalyst temp	BAAQMD condition #14970, part 9e	Y		550 degrees Fahrenheit	BAAQMD condition #14970, part 23	C	temperature monitor

[1] Ground Level Concentration

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOX	BAAQM D9-3-303	N		125 ppm	BAAQMD 1-520.1	C	CEM
	NSPS 40 CFR 60.44a (a)(1)	Y		0.2 lb/mmbtu except during startup, shutdown, or malfunction	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, part 9a	Y		39.2 lb/hr for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
NOX	BAAQMD condition #14970, Part 9b	Y		5.0 ppmv @ 15% 02, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, Part 20a	Y		969.7 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, Part 21a	Y		160.85 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
CO	BAAQMD condition #14970, Part 9c			46.6 lb/hr, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, Part 9d			10 ppmv, @ 15% O2, dry, for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, Part 20b	Y		745.0 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
	BAAQMD condition #14970, part 21b	Y		73.27 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	CEM
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	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/mmbtu, 24 hr average except during startup, shutdown		N	
	BAAQMD condition #14970, part 20e	Y		48.5 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, part 21e	Y		8.01 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations
TSP	BAAQMD 6-301	N		Ringelmann No. 1		N	

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N	
	BAAQMD 6-310	Y		0.15 grain/dscf @ 6% O2		N	
	NSPS 40 CFR 60.42a(a)(1)	Y		0.03 lb TSP/mmbtu except during startup, shutdown, or malfunction		N	
	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 #14970, part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, Part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 27	P/A	Source test
	BAAQMD condition #14970, Part 21d	Y		58.19 ton/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD condition #14970, Part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/D	Calculations
	BAAQMD condition #14970, Part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 27	P/A	Source test
	BAAQMD condition #14970, Part 21c	Y		48.45 ton/yr (as CH4) for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 24	P/A	Calculations
NH3	BAAQMD condition #14970, part 9f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined	BAAQMD condition #14970, part 25	P/E	Calculations or source test
	BAAQMD condition #14970, part 9f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs for turbine and HRSG combined	BAAQMD condition #14970, part 27	P/A	Source test
Formal-dehyde	BAAQMD condition #14970, Part 22a	N		4318.6 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, part 22a	N		4318.6 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 29	P/every 2 years	Source Test
Benzene	BAAQMD condition #14970, Part 22b	N		116.1 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations
	BAAQMD condition #14970, part 22b	N		116.1 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970 part 29	P/every 2 years	Source Test
Specified PAH's	BAAQMD condition #14970, part 22c	N		78.7 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 26	P/A	calculations
	BAAQMD condition #14970, Part 22c	N		78.7 lb/yr for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 29	P/every 2 years	Source Test
Heat input limit	BAAQMD condition #14970, part 3	Y		349 mmbtu/hr, 3-hr average	BAAQMD condition #14970, part 23	C	fuel meter, calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S-202 – HEAT RECOVERY STEAM GENERATOR

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #14970, part 4	Y		2,129 mmbtu/hr for turbine and HRSG combined, 3-hr average	BAAQMD condition #14970, part 23	C	fuel meter, calculations
Heat input limit	BAAQMD condition #14970, part 5	Y		51,029 mmbtu/day for turbine and HRSG combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 6	Y		15,613,000 mmbtu/yr for turbine and HRSG combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 18	Y		57,544 mmbtu/day, for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
	BAAQMD condition #14970, part 19	Y		19,023,000 mmbtu/yr, for turbine, HRSG, and boilers combined	BAAQMD condition #14970, part 23	C	fuel meter, calculations
Oxidizing catalyst temp	BAAQMD condition #14970, part 9e	Y		550 degrees Fahrenheit	BAAQMD condition #14970, part 23	C	temperature monitor

[1] Ground Level Concentration

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOX	BAAQMD 9-3-303	N		125 ppm	BAAQMD 1-520.1	C	CEM
	BAAQMD 9-7-301.1	Y		30 ppmv @3%O2, dry	BAAQMD 1-520.1	C	CEM
	BAAQMD cond# 14970, part 17a	Y		3.7 lb/hr, 3-hr average for each boiler	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 17b	Y		8.2 ppmv @ 3% O2, dry, 3-hr average	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 20a	Y		969.7 lb/day for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 21a	Y		160.85 ton/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	CEM
	NSPS 40 CFR 60.44b (a)(1)(i)	Y		0.1 lb/mmbtu	Monitoring requirement subsumed by monitoring for BACT limit. See Permit Shield.	N	
CO	BAAQMD 9-7-301.2	Y		400 ppmv @ 3% O2, dry	BAAQMD cond# 14970, part 23	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD cond# 14970, part 17c	Y		3.0 lb/hr, 3-hr average for each boiler	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 17d	Y		11.0 ppmv @ 3% O2, dry, 3-hr average	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 20b	Y		745.0 lb/day for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	CEM
	BAAQMD cond# 14970, part 21b	Y		73.27 ton/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	CEM
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	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
SO2	BAAQMD cond# 14970, part 20e	Y		48.5 lb/day for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/D	Calculations
SO2	BAAQMD cond# 14970, part 21e	Y		8.01 ton/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/A	Calculations
TSP	BAAQMD 6-301	N		Ringelmann No. 1		N	

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	BAAQMD 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N	
	BAAQMD 6-310	Y		0.15 grain/dscf @ 6% O2		N	
	NSPS 40 CFR 60.42(a)(1)	Y		< 0.10 lb/mmbtu		N	
	NSPS 40 CFR 60.42(a)(2)	Y		< 20% opacity except for one 6-min period/hr @ < 27% opacity		N	
PM10	BAAQMD cond# 14970, part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/D	Calculations
	BAAQMD cond# 14970, part 20d	Y		329.1 lb/day for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 28	P/1-2 times per 5 years	Source Test
PM10	BAAQMD cond# 14970, part 21d	Y		58.19 ton/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/A	Calculations
POC	BAAQMD cond# 14970, part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/D	Calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	BAAQMD cond# 14970, part 20c	Y		352.6 lb/day (as CH4) for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 28	P/1-2 times per 5 years	Source Test
	BAAQMD cond# 14970, part 21c	Y		48.45 ton/yr (as CH4) for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 24	P/A	Calculations
NH3	BAAQMD cond# 14970, part 17f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs	BAAQMD cond# 14970, part 25	P/E	Calculations or source test
	BAAQMD cond# 14970, part 17f	N		20 ppmv, @ 15% O2, dry, averaged over 3 hrs	BAAQMD cond# 14970, part 28	P/1-2 times per 5 years	Source Test
Formal-dehyde	BAAQMD cond# 14970, part 22a	N		4318.6 lb/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 26	P/A	calculations
Benzene	BAAQMD cond# 14970, part 22b	N		116.1 lb/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 26	P/A	calculations
Specified PAH's	BAAQMD cond# 14970, part 22c	N		78.7 lb/yr for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 26	P/A	calculations
Heat input limit	BAAQMD cond# 14970, part 11	Y		376 mmbtu/hr, 3-hr average for each boiler	BAAQMD cond# 14970, part 23	C	fuel meter, calculations

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat input limit	BAAQMD cond# 14970, part 12	Y		18,048 mmbtu/day, for all 3 boilers combined	BAAQMD cond# 14970, part 23	C	fuel meter, calculations
	BAAQMD cond# 14970, part 13	Y		6,575,000 mmbtu/yr, for all 3 boilers combined	BAAQMD cond# 14970, part 23	C	fuel meter, calculations
	BAAQMD cond# 14970, part 18	Y		57,544 mmbtu/day, for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	fuel meter, calculations
Heat input limit	BAAQMD cond# 14970, part 19	Y		19,023,000 mmbtu/yr, for turbine, HRSG, and boilers combined	BAAQMD cond# 14970, part 23	C	fuel meter, calculations
Oxidizing catalyst temp	BAAQMD cond# 14970, part 17e	Y		430 degrees Fahrenheit	BAAQMD cond# 14970, part 23	C	temperature monitor

[1] Ground Level Concentration

VIII. TEST METHODS

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

Table VIII

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 6-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-3-303	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

VIII. Test Methods (continued)

Table VIII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods
NSPS		
Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced after August 17, 1971	
60.42(a)(1)	Particulate limit	EPA Method 5, Determination of Particulate Emissions from Stationary Sources
60.42(a)(2)	Opacity Limit	EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced after September 18, 1978	
60.42a (a)(1)	Particulate Limit	EPA Method 5, Determination of Particulate Emissions from Stationary Sources
60.42a (b)	Opacity Limit	EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
60.43a (b)(2)	SO2 limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
60.44a (a)(1)	NOX limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	
60.44b (a)(4)(i)	NOX limit	None
Subpart GG	Standards of Performance for Stationary Gas Turbines	

VIII. Test Methods (continued)

Table VIII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods
60.332 (a)(1)	Performance Standard, NOx	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	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 Cond# 14970		
part 2	Hourly heat input limit for turbine	None
part 3	Hourly heat input limit for HRSG	None
part 4	Hourly heat input limit for turbine and HRSG	None
part 5	Daily heat input limit for turbine and HRSG	None
part 6	Annual heat input limit for turbine and HRSG	None
part 9a	Hourly NOX limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 9b	NOX concentration limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 9c	Hourly CO limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 9d	CO concentration limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods (continued)

Table VIII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods
part 9f	Ammonia limit	Manual of Procedures, Volume IV, ST-1B, Ammonia, Integrated Sampling
part 11	Hourly heat input limit for each boiler	None
part 12	Total daily heat input limit for S-203 to S-205, Boilers	None
part 13	Total annual heat input limit for S-203 to S-205, Boilers	None
part 17a	Hourly NOx limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 17b	NOx concentration limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 17c	Hourly CO limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 17d	CO concentration limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 17f	Ammonia limit	Manual of Procedures, Volume IV, ST-1B, Ammonia, Integrated Sampling
part 22	Combined annual emission limits for toxic air contaminants (formaldehyde, benzene, and specified PAHs)	CARB Method 430

IX. PERMIT SHIELD

A. NON-APPLICABLE REQUIREMENTS

None.

IX. Permit Shield (continued)

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-A
S-201, Gas Turbine

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
40 CFR 60.334(b)(2)	Fuel Sulfur and Nitrogen Content monitoring (natural gas)	BAAQMD Condition 14970, part 1	Requirement for use of PUC-quality natural gas
40 CFR 60.334(c)(1)	Periods of excess emissions, NOx	BAAQMD Condition 14970, part 23b	Requirement for continuous emission monitor for NOx

IX. Permit Shield (continued)

Table IX-B
S202, HEAT RECOVERY STEAM GENERATOR

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
40 CFR 60.47a(c)	Continuous Monitoring of Nitrogen Oxides	BAAQMD Condition #14970, part 23b	Requirement for continuous emission monitor for NOx

Table IX-C
S203, S204, S205– AUXILIARY STEAM BOILERS

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
40 CFR 60.48b(b)	Continuous Monitoring of Nitrogen Oxides	BAAQMD Condition 14970, part 23b	Requirement for continuous emission monitor for NOx

X. GLOSSARY

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BTU
British thermal units

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CEQA
California Environmental Quality Act

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

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

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District Regulations.

X. Glossary

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.

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.

HHV
Higher heating value

HRSG
Heat Recovery Steam Generator

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
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.

NAAQS
National Ambient Air Quality Standards

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

NMHC
Non-methane Hydrocarbons

NOx

X. Glossary

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 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.)

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

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and 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 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.

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and

X. Glossary

developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2
Sulfur dioxide

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

TRMP
Toxic Risk Management Plan

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

XI. APPENDIX A - APPLICABLE STATE IMPLEMENTATION PLAN

See Attachments