

# Bay Area Air Quality Management District

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

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**Final**

## MAJOR FACILITY REVIEW PERMIT

Issued To:  
**Calpine Pittsburg Power Plant**  
**Facility #B1928**

**Facility Address:**  
901 Loveridge Road  
Pittsburg, CA 94565

**Mailing Address:**  
PO Box 551  
Pittsburg, CA 94565-0055

<b>Responsible Official</b>	<b>Facility Contact</b>
Michael Sommer, General Manager 925-252-2075	Michael Sommer, General Manager 925-252-2075

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<b>Type of Facility:</b>	Power Plant	BAAQMD Engineering
<b>Primary SIC:</b>	4911	Division Contact:
<b>Product:</b>	Electricity	Dennis Jang

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

Signed by Jack P. Broadbent  
Jack P. Broadbent, Executive Officer/APCO

July 5, 2007  
Date

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## I. STANDARD CONDITIONS

### A. Administrative Requirements

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

- BAAQMD Regulation 1 - General Provisions and Definitions  
(as amended by the District Board on 5/2/01);
- SIP Regulation 1 - General Provisions and Definitions  
(as approved by EPA through 6/28/99);
- BAAQMD Regulation 2, Rule 1 - Permits, General Requirements  
(as amended by the District Board on 6/15/05);
- SIP Regulation 2, Rule 1 - Permits, General Requirements  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 2 - Permits, New Source Review  
(as amended by the District Board on 6/15/05);
- SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking  
(as amended by the District Board on 12/24/04)
- 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).

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

1. This Major Facility Review Permit was issued on March 22, 2000 and expires on February 28, 2005. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than August 31, 2004 and no earlier than February 28, 2004. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after February 28, 2005.** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (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)

## **I. Standard Conditions**

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 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 that must be maintained pursuant to this permit that the permittee considers proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District 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**

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

## I. Standard Conditions

equipment that is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

### E. Records

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

### F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The first reporting period for this permit shall be March 22, 2000 to August 31, 2000. The report shall be submitted by September 30, 2000. Subsequent reports shall be for the following periods: March 1st through August 31<sup>st</sup> and September 1st through February 28<sup>th</sup> or 29<sup>th</sup>, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

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

(Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

### G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be March 1st to February 28<sup>th</sup> or 29<sup>th</sup> of the following year. The certification shall be submitted by March 31<sup>st</sup> 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

## **I. Standard Conditions**

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. 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)

### **K. Accidental Release**

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

## II. EQUIPMENT

**Table II A - Permitted Sources**

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

S-#	Description	Make or Type	Model	Capacity
S-11	Auxiliary Boiler (natural gas)	Foster Wheeler	AG-5275	306.5 MM BTU/hr
S-67	Gas Turbine #1 (natural gas)	Pratt & Whitney	FT4A-9GF	264.2 MM BTU/hr (19.4 MW)
S-68	Waste Heat Boiler #1 (natural gas)	Struthers-Wells	None	155.5 MM BTU/hr
S-69	Gas Generator GG-2 (natural gas)	Pratt & Whitney	FTA-9-GF	264.2 MM BTU/hr
S-70	Gas Turbine #2 (natural gas)	Pratt & Whitney	FT4C-1DGF	330.2 MM BTU/hr (20 MW)
S-71	Waste Heat Boiler #2 (natural gas)	Struthers-Wells	None	155.5 MM BTU/hr
S-73	Gas Turbine #3 (natural gas)	Pratt & Whitney	FT4C-1DGF	330.2 MM BTU/hr (25.4 MW)
S-74	Waste Heat Boiler #3 (natural gas)	Struthers-Wells	None	155.5 MM BTU/hr
S-75	Gas Generator GG-5 (natural gas)	Pratt & Whitney	FT4C1-D- GF	330.2 MM BTU/hr

**Table II B - Abatement Devices**

<b>A-#</b>	<b>Description</b>	<b>Source(s) Controlled</b>	<b>Applicable Requirement</b>	<b>Operating Parameters</b>	<b>Limit or Efficiency</b>
A-8	Selective Catalytic Reduction System	S-11	BAAQMD Condition #19356, part 3		9 ppmvd NO <sub>x</sub> , @ 3% O <sub>2</sub> , averaged over 3 hours
A-188	Selective Catalytic Reduction System	S-67, S-68	BAAQMD Regulation 9-9-301.3		9 ppmvd NO <sub>x</sub> , @ 15% O <sub>2</sub>
A-189	Selective Catalytic Reduction System	S-70, S-71	BAAQMD Regulation 9-9-301.3		9 ppmvd NO <sub>x</sub> , @ 15% O <sub>2</sub>
A-190	Selective Catalytic Reduction System	S-73, S-74	BAAQMD Regulation 9-9-301.3		9 ppmvd NO <sub>x</sub> , @ 15% O <sub>2</sub>



### III. Generally Applicable Requirements

### 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 are available on the EPA Region 9 website. The address is

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

**NOTE:**

There are differences between the current BAAQMD rule and the version of the rule in the SIP. All sources must comply with both versions of the rule until US 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 (10/7/98)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (6/15/05)	N
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (6/15/05)	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 5	Open Burning (11/2/94)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	N
BAAQMD Regulation 7	Odororous 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 (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	Y
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (12/15/99)	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 (6/15/94)	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
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (5/20/92)	Y

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
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
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	
Subpart F, 40 CFR 82.156	Leak Repair	Y
Subpart F, 40 CFR 82.161	Certification of Technicians	Y
Subpart F, 40 CFR 82.166	Records of Refrigerant	Y

**IV. Source-Specific Applicable Requirements**

**IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS**

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

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

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements are available on the EPA Region 9 website. The address is:

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

All other text may be found in the regulations themselves.

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-67 GAS TURBINE #1**  
**S-69 GAS GENERATOR GG-2**  
**S-70 GAS TURBINE #2**  
**S-73 GAS TURBINE #3**  
**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-107	Combination of Emissions	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	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-67 GAS TURBINE #1**  
**S-69 GAS GENERATOR GG-2**  
**S-70 GAS TURBINE #2**  
**S-73 GAS TURBINE #3**  
**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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	
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (8/28/99)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y <sup>1</sup>	
1-522.7	Emission limit exceedance reporting requirements	Y <sup>1</sup>	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 – Permits, General Requirements (6/15/05)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	

## IV. Source-Specific Applicable Requirements

**Table IV - A**  
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**S-70 GAS TURBINE #2**  
**S-73 GAS TURBINE #3**  
**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 9 Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/6/06)</b>		
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	
9-9-301.1.3	NOx Limit, Turbines over 10 MW with SCR	N	
9-9-301.2	NOx Limit, Turbine Heat Input Rating > 250 - 500 MM BTU/hr	N	1/1/10
9-9-401	Certification, Efficiency	N	
9-9-501	Monitoring and recordkeeping requirements	N	
<b>SIP BAAQMD Regulation 9 Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)</b>		
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	NOx Limit, Turbines over 10 MW with SCR	Y	
9-9-401	Certification, Efficiency	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>40 CFR 60, Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (2/24/06)</b>		
60.332(a)(1)	NOx limit	Y	
60.332(b)	NOx limit in 60.332(a)(1)	Y	
60.333(b)	Performance Standards, SO2	Y	
60.334(b)	CEM requirements	Y	
60.334(c)	CEM monitoring option	Y	

#### IV. Source-Specific Applicable Requirements

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**S-67 GAS TURBINE #1**  
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**S-70 GAS TURBINE #2**  
**S-73 GAS TURBINE #3**  
**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.334(h)(2)	Exemption from fuel nitrogen monitoring	Y	
60.334(h)(3)(i)	Current, valid purchase contract, tariff sheet or transportation contract	Y	
60.334(h)(3)(ii)	Representative fuel sampling data	Y	
60.334(j)(1)	Reports of excess NOx emissions	Y	
60.334(j)(5)	Deadline for excess emission reports	Y	
60.335	Test Methods and Procedures	Y	
60.335(a)	Performance tests as required by 40 CFR 60.8	Y	
60.335(b)	Performance tests for NOx	Y	
60.335(b)(1)	ISO correction	Y	
60.335(b)(2)	Testing at various loads	Y	
60.335(b)(3)	Optional measurement after duct burner	Y	
60.335(c)(1)	Optional method to adjust NOx emission level	Y	
<b>40 CFR 60 Appendix B</b>	<b>Performance Specifications</b>	Y	
Performance Specification 2	Specifications and test procedures for SO2 and NOx continuous emission monitoring systems in stationary sources	Y	
Performance Specification 3	Specifications and test procedures for O2 and CO2 continuous emission monitoring systems	Y	
<b>40 CFR 60 Appendix F</b>	<b>Quality Assurance Procedures</b>		
Procedure 1	Quality assurance requirements for gas continuous emission monitoring systems used for compliance determination	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
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**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>40 CFR 72</b>	<b>Acid Rain Program</b>		
72.6(b)(4)(i)	Exemption from requirements of Acid Rain Program	Y	
40 CFR Part 75	Code of Federal Regulations, Continuous Emissions Monitoring	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>BAAQMD Permit Condition #16885</b>			
Part 1	PUC quality natural gas requirement (BAAQMD 2-1-403)	Y	
Part 2	NOx emission limit	Y	
<b>BAAQMD Permit Condition #19675</b>			
Part 1	Combined Heat Input Rate Limit (cumulative increase, offsets)	Y	
Part 2	Annual NOx Mass Emission Limit (cumulative increase, offsets)	Y	
Part 3	NOx Emission concentration limit (9-9-301.3)	Y	
Part 4	PUC-quality natural gas requirement (cumulative increase)	Y	
Part 5	SCR Abatement Requirement (cumulative increase)	Y	
Part 6	Ringelmann No. 1 Limitation (6-301)	Y	
Part 7	Start-up and Shutdown Exclusion (2-1-403)	Y	
Part 8	Start-up Duration Limit (2-1-403)	Y	
Part 9	Shutdown Duration limit (2-1-403)	Y	
Part 10	Proper Maintenance and Operation (cumulative increase)	Y	
Part 11a	Combined heat input calculation (Recordkeeping)	Y	
Part 11b	Calculation of corrected NOx concentration	Y	



#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S-67 GAS TURBINE #1**  
**S-69 GAS GENERATOR GG-2**  
**S-70 GAS TURBINE #2**  
**S-73 GAS TURBINE #3**  
**S-75 GAS GENERATOR GG-5**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Part 12	Records and calculations of mass emission rates (recordkeeping)	Y	
Part 13	Source Identification (recordkeeping)	Y	

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-68 WASTE HEAT BOILER #1**  
**S-71 WASTE HEAT BOILER #2**  
**S-74 WASTE HEAT BOILER #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-107	Combination of Emissions	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 In-operation 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	
1-602	Area and Continuous Emission Monitoring Requirements	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-68 WASTE HEAT BOILER #1**  
**S-71 WASTE HEAT BOILER #2**  
**S-74 WASTE HEAT BOILER #3**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (8/28/99)</b>		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y <sup>1</sup>	
1-522.7	Emission limit exceedance reporting requirements	Y <sup>1</sup>	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (6/15/05)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9 Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)</b>		
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	Turbines over 10 MW with SCR	Y	
9-9-401	Certification, Efficiency	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
	<b>General Provisions</b>	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-68 WASTE HEAT BOILER #1**  
**S-71 WASTE HEAT BOILER #2**  
**S-74 WASTE HEAT BOILER #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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	
<b>40 CFR 60 Subpart Db</b>	<b>Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (2/27/06)</b>		
60.44b(a)(4)	NOx Emission Limit	Y	
60.44b(h)	NOx limit applicable at all times	Y	
60.44b(i)	Compliance: 24-hr day basis	Y	
60.44b(l)(1)	NOx Emission Limit	Y	
60.46b(c)	Compliance with NOx limit	Y	
60.46b(a)	NOx limits apply at all times	Y	
60.46b(c)	Performance test for NOx	Y	
60.46b(e)	Performance test for NOx	Y	
60.46b(e)(1)	Performance test for NOx (24-hr basis)	Y	
60.46b(e)(3)	Averaging time for compliance (24-hr basis)	Y	
60.46b(g)	Initial determination of maximum capacity	Y	
60.46b(h)(1)	Initial performance test for NOx at maximum capacity	Y	
60.46b(h)(2)	Periodic tests for NOx at maximum capacity	Y	
60.46b(h)(i)	Reports for 60.46b(g)	Y	
60.48b(f)	Standby Monitoring	Y	
60.49b(d)	Fuel records	Y	
60.49b(g)(5)	Records for each day of operation	Y	
60.49b(h)(2)	Excess emission reports	Y	
60.49b(o)	Records retention for two years	Y	
<b>40 CFR 60 Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (2/24/06)</b>		

#### IV. Source-Specific Applicable Requirements

**Table IV – B**  
**Source-specific Applicable Requirements**  
**S-68 WASTE HEAT BOILER #1**  
**S-71 WASTE HEAT BOILER #2**  
**S-74 WASTE HEAT BOILER #3**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.332(a)(1)	NOx Limit	Y	
60.333	Performance Standards, SO2	Y	
<b>40 CFR part 75</b>	<b>Code of Federal Regulations, Continuous Emission Monitors (6/12/02)</b>	<b>Y</b>	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>40 CFR 72</b>	<b>Title IV - Acid Rain Program (1/11/93)</b>		
72.6(b)(4)(i)	Exemption from requirements of Acid Rain Program	Y	
<b>BAAQMD Permit Condition #16885</b>			
Part 1	PUC quality natural gas requirement (BAAQMD 2-1-403)		
Part 2	NOX limit (9-9-301.3)		

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-11 AUXILIARY BOILER**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (5/2/01)</b>		
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NOx, CO <sub>2</sub> or O <sub>2</sub>	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-11 AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
1-522.3	Performance Testing	Y	
1-522.4	Periods of Non-operation Greater Than 24 Hours	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	Y	
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	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (6/15/05)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning	Y	
6-305	Visible Particles	Y	
6-310.3	Particulate Weight Limitation	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 3</b>	<b>Inorganic Gaseous Pollutants, Nitrogen Oxides From Heat Transfer Operations (3/17/82)</b>		
9-3-303	New or Modified Heat Transfer Operation Limits	N	
<b>BAAQMD Regulation 9, Rule 7</b>	<b>Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)</b>		
9-7-301	Emission Limits-Gaseous Fuel	Y	
9-7-301.1	NOx limit	Y	
9-7-301.2	CO limit	Y	

## IV. Source-Specific Applicable Requirements

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-11 AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
9-7-503	Records	Y	
9-7-503.4	Source test records	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>		
<b>40 CFR 60</b>	<b>Standards of Performance for New Stationary Sources (12/23/71)</b>	Y	
<b>Subpart A</b>	<b>General Provisions</b>	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	
<b>40 CFR 60 Subpart Db</b>	<b>Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (2/27/06)</b>		
60.44b(a)(1)(i)	NOx Emission Limit	Y	
60.44b(h)	NOx limit applicable at all times	Y	
60.44b(i)	Compliance: 24-hr day basis	Y	
60.44b(l)(1)	NOx Emission Limit	Y	
60.46b(c)	Compliance with NOx limit	Y	
60.46b(a)	NOx limits apply at all times	Y	
60.46b(c)	Performance test for NOx	Y	
60.46b(e)	Performance test for NOx	Y	
60.46b(e)(1)	Performance test for NOx (24-hr basis)	Y	
60.46b(e)(3)	Averaging time for compliance (24-hr basis)	Y	
60.46b(g)	Initial determination of maximum capacity	Y	
60.46b(h)(1)	Initial performance test for NOx at maximum capacity	Y	
60.46b(h)(2)	Periodic tests for NOx at maximum capacity	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-11 AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.46b(h)(i)	Reports for 60.46b(g)	Y	
60.48b(f)	Standby monitoring	Y	
60.49b(d)	Fuel records	Y	
60.49b(g)(5)	Records for each day of operation	Y	
60.49b(h)(2)	Excess emission reports	Y	
60.49b(o)	Records retention for two years	Y	
<b>BAAQMD Permit Condition #19356</b>			
Part 1	Fuel Specification and Heat Input Rate Limit (BACT, cumulative increase)	Y	
Part 2	SCR Abatement Requirement (BACT)	Y	
Part 3	Nitrogen Oxide emission concentration limit (BACT)	Y	
Part 4	Carbon Monoxide emission concentration limit (BACT)	Y	
Part 5	Ammonia emission concentration limit (TRMP)	Y	
Part 6	PM10 Mass Emission Limit (BACT)	Y	
Part 8	Ringelmann No. 1 Limitation (6-301)	Y	
Part 9	Start-up and Shutdown Exclusion (2-1-403)	Y	
Part 10	Start-up Duration Limit (2-1-403)	Y	
Part 11	Shutdown Duration Limit (2-1-403)	Y	
Part 12	Source Test Requirement (2-1-403)	Y	
Part 13	Annual Mass Emission Limits (cumulative increase)	Y	
Part 13a	Annual NOx Mass Emission Limit (offsets)	Y	
Part 13b	Annual CO Mass Emission Limit (cumulative increase)	Y	
Part 13c	Annual POC Mass Emission Limit (offsets)	Y	
Part 13d	Annual PM10 Mass Emission Limit (offsets)	Y	
Part 13e	Annual SO2 Mass Emission Limit (cumulative increase)	Y	
Part 14a	Exhaust Stack Source Test Sampling Requirements (1-520.1)	Y	
Part 14b	Ammonia Flowmeter Requirement (1-520.1)	Y	
Part 14c	NOx, CO, and CO or CO2 CEM Requirement (1-520.1)	Y	
Part 14d	Heat Input Rate Continuous Recorder (1-520.1)	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - C**  
**Source-specific Applicable Requirements**  
**S-11 AUXILIARY BOILER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Part 14e	Quarterly Fuel Sulfur Content Analysis (1-520.1)	Y	
Part 14f	PM10, POC, and NH3 Emission Monitoring (1-520.1)	Y	
Part 15	Recordkeeping (recordkeeping)	Y	

#### V. SCHEDULE OF COMPLIANCE

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

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

**Condition #16885 for:**

S-67, S-70, & S-73 Gas Turbines and S-68, S-71, & S-74 Waste Heat Boilers

1. S-67, S-70, & S-73 Gas Turbines and S-68, S-71, & S-74 Waste Heat Boilers shall be fired exclusively on PUC quality natural gas. (BAAQMD 2-1-403)
2. The maximum NOx emission concentration shall be limited to 9 PPM @ 15% O2, 3-hr average, for each gas turbine/boiler exhaust except for startup and shutdown periods per Regulation 9-9-114 and inspection and maintenance periods per Regulation 9-9-113. (basis: 9-9-301.3)

**Condition #19356 for:**

S-11 Auxiliary Boiler

1. The owner/operator shall insure that the S-11 Boiler be fired exclusively with natural gas at a firing rate not to exceed 306.5 MMBtu/hr. [Basis: BACT, Cumulative Increase]



## VI. PERMIT CONDITIONS

2. The owner/operator shall insure that the S-11 Boiler be abated by the properly operated and maintained A-8 Selective Catalytic Reduction System (SCR) during normal operations. The boiler may be operated without SCR provided the NO<sub>x</sub> mass limit in Condition #3 is met. [Basis: BACT]
3. The owner/operator shall insure that the emissions of nitrogen oxides (NO<sub>x</sub>) not exceed 9 ppmv (reference 3 percent O<sub>2</sub>, dry), averaged over any rolling 3 hour period, when firing natural gas with SCR. When the heat input to the boiler drops below 76 MMBtu/hr (25% of rated heat input), the NO<sub>x</sub> concentration may exceed 9 ppmv (reference 3 percent O<sub>2</sub>, dry) provided that NO<sub>x</sub> emissions do not exceed 0.82 lbs/hr, averaged over any rolling 3-hour period. [Basis: BACT]
4. The owner/operator shall insure that the emissions of carbon monoxide (CO) not exceed 50 ppmv (reference 3 percent O<sub>2</sub>, dry) averaged over any rolling 3 hour period. [Basis: BACT]
5. The owner/operator shall insure that the emissions of ammonia do not exceed 10 ppmv (reference 3 percent O<sub>2</sub>, dry) averaged over any rolling 3 hour period. [Basis: BACT]
6. The owner/operator shall insure that the emissions of PM-10 not exceed 1.53 lbs/hr. [Basis: BACT]
7. Deleted 11/19/02
8. The owner/operator shall insure that the visible particulate emissions from S-11 Boiler not exceed Ringelmann 1.0. [Regulation 6-301]
9. The limits specified in conditions 3 and 4 shall not apply during startup periods not exceeding 3 hours and shutdown periods not exceeding 2 hours for source S-11. [Basis: Regulation 2-1-403]
10. "Startup" shall mean that period of time commencing with the introduction of fuel to the boiler, and ending when the boiler has achieved compliance with two consecutive data CEMS points for the emission limits contained in Conditions 3 and 4, not to exceed 3 hours. [Basis: Regulation 2-1-403]
11. "Shutdown" shall mean that period of time during which the boiler in question is being taken out of service. This period commences when either of the emission limits in Conditions 3 and 4 are exceeded and ends at fuel cutoff, not to exceed 2 hours. [Basis: Regulation 2-1-403]
12. In order to demonstrate compliance with parts 3, 4, 5 and 6 above, the owner/operator shall perform a District approved source test at least once every 8,000 hours of boiler operation or at least once every 3 years, whichever comes first, in accordance with the District's Manual of

## VI. PERMIT CONDITIONS

Procedures. The owner/operator notify the Manager of the District's Source Test Section at least seven (7) days prior to the test, to provide the District staff the option of observing the testing. Within 60 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (basis: Regulation 2-1-403).

13. Cumulative emissions from the S-11 Boiler shall not exceed the following limits during any consecutive twelve-month period:

a. 6.0 tons of NO<sub>x</sub> (as NO<sub>2</sub>) per year

[Basis: Offsets]

b. 20.3 tons of CO per year

[Basis: Cumulative Increase]

c. 0.7 tons of POC (as CH<sub>4</sub>) per year

[Basis: Offsets]

d. 2.7 tons of PM<sub>10</sub> per year

[Basis: Offsets]

e. 0.4 tons of SO<sub>2</sub> per year

[Basis: Cumulative Increase ]

14. The owner/operator shall comply with the following requirements:

a. The boiler exhaust stack shall be equipped with permanent platforms and sampling ports.

b. The ammonia injection system shall be equipped with an operational ammonia flowmeter and injection pressure indicator accurate to plus or minus five percent at full scale and calibrated once every twelve months.

c. The boiler exhaust shall be equipped with continuously recording emissions monitors (CEM) for NO<sub>x</sub>, CO and O<sub>2</sub> or CO<sub>2</sub>. Continuous emissions monitors shall comply with the requirements of 40 CFR Part 60, Appendices B and F and shall be capable of monitoring concentrations and mass emissions during normal operating conditions and during startups and shutdowns.

d. The fuel heat input rate shall be continuously recorded using District-approved fuel flow meters along with quarterly fuel compositional analyses for the fuel's higher heating value (wet basis).

e. The total sulfur content of the fuel gas shall be analyzed on a quarterly basis.

f. Monitoring of PM-10, CO and NH<sub>3</sub> shall use a District approved calculation based on source testing. [Basis: Monitoring & record keeping, Regulation 1-520.1]

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15. To determine compliance with the above conditions, the Owner/Operator shall maintain records and provide all of the data necessary to evaluate compliance with the above conditions, including the following information:

- a. Monthly records of the quantity of natural gas (therms) fired in S-11.
- b. Monthly records of the number and duration (hours) of shutdowns and startups.
- c. Monthly records of the number of hours of boiler operation with and without SCR.
- d. Monthly records of the emissions of NO<sub>x</sub>, CO, POC and SO<sub>2</sub>.
- e. Monthly records shall be totaled for each consecutive 12-month period
- f. Monitoring of a pollutant not measured by the CEM shall use a District approved calculation based on source testing.

All records shall be retained on site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. [Basis: monitoring & record keeping, Regulation 1-520.1]

16. Commissioning period condition deleted 8/25/05.

17. Commissioning period condition deleted 8/25/05.

18. Commissioning period condition deleted 8/25/05.

### **Condition #19675 for:**

S-67, S-70, & S-73 Gas Turbines, S-69 and S-75 Gas Generators, and S-68, S-71, & S-74 Waste Heat Boilers

1. The owner/operator shall not operate the units at a combined heat input of greater than 924.6 MM BTU/hr and 466.5 MM BTU /hr, for sources S-67, 69, 70, 73 and 75, five gas generators, and S-68, 71 and 74, three waste heat boilers, respectively. [Cumulative increase and offsets]

2. The owner/operator shall not allow the plant to exceed the following combined mass emission limit per year from the CPPP Gas Generators (S-67, S-69, S-70, S-73 and S-75) and Waste Heat Boilers (S-68, S-71, and S-74) including emissions generated during Turbine Start-ups and Shutdowns.

NO<sub>x</sub> (as NO<sub>2</sub>) 54.9 tons  
[Cumulative increase and offsets]

## VI. PERMIT CONDITIONS

3. The owner/operator shall not allow the stack NO<sub>x</sub> concentration to exceed 9 ppmv @ 15% O<sub>2</sub> averaged over 3 hours except for turbine start-up and shutdown periods for sources S-67, S-69, S-70, S-73 and S-75, Gas Turbines and S-68, S-71, and S-74, Waste Heat Boilers. [Regulation 9-9-301.3]

4. The owner/operator shall fire the units exclusively on PUC-quality natural gas in the Gas Generators (S-67, S-69, S-70, S-73 and S-75) and Waste Heat Boilers (S-68, S-71, and S-74). [Cumulative increase]

5. The owner/operator of the Gas Generators S-67, S-69, S-70, S-73 and S-75 and the Waste Heat Boilers (S-68, S-71, and S-74) shall not operate these units unless they are abated by the Shell DeNO<sub>x</sub> Selective Catalytic Reduction System (SCR) A-188, A-189, & A-190. The SCR units must be properly maintained and operated. [Cumulative Increase]

6. The owner/operator shall not allow visible particulate emissions from S-67, S-69, S-70, S-73 and S-75 and S-68, S-71, & S-74 to exceed Ringelmann 1.0. [Regulation 6-301]

7. The limits specified in condition 3 shall not apply during startup periods not exceeding 3 hours and shutdown periods not exceeding 2 hours for source S-67, S-69, S-70, S-73 and S-75. [Basis: Regulation 2-1-403]

8. "Startup" shall mean that period of startup from first-fire to where the unit is in compliance with pollutant concentration limits (at least two consecutive data points), not to exceed 3 hours. [Basis: Regulation 2-1-403]

9. "Shutdown" shall mean that period of shutdown from where the unit is out of compliance with pollutant concentration limits to fuel cut-off, not to exceed 2 hours. [Basis: Regulation 2-1-403]

10. The owner/operator shall not operate the gas generators (S-67, S-69, S-70, S-73 and S-75), waste heat boilers (S-68, S-71, & S-74), emissions controls (A-188, A-189 & A-190), CEMs (NO<sub>x</sub> & O<sub>2</sub>), fuel gas flow meters and associated equipment unless the equipment are properly maintained and kept in good operating condition at all times when the gas turbine(s) is in operation.

11. The owner/operator shall use the parameters measured in condition 10 with District-approved calculation methods to calculate the following parameters:

- a. Combined heat input for S-67, S-68, S-69, S-70, S-71, S-73, S-74 and S-75
- b. Corrected NO<sub>x</sub> concentrations and NO<sub>x</sub> (as NO<sub>2</sub>) mass emissions at each of the following exhaust points: P-67, P-73 and P-79.

For each source, source grouping, or exhaust point, the owner/operator shall record the firing hours, fuel flow rates, NO<sub>x</sub> and O<sub>2</sub> parameters at least once every 15 minutes (excluding normal

## VI. PERMIT CONDITIONS

calibration periods). As specified below, the owner/operator shall utilize the data specified.  
[Recordkeeping]

12. Mass Emission limits: The owner/operator shall maintain hourly, three-hour rolling averages, daily and annual NO<sub>x</sub> mass emissions at each exhaust point. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including the following information:

- a. Monthly records of the quantity of natural gas (BTUs) at S-67, S-69, S-70, S-73 and S-75 Gas Generators and (S-68, S-71, and S-74) the Waste Heat Boilers
- b. Monthly records of the number and duration (hours) of shutdowns and startups.
- c. Monthly records shall be totaled for each consecutive 12-month period.

All records shall be retained on site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. [Recordkeeping]

13. The five gas generators shall be permanently identified as follows:

GG-1	Source 67	264.2 MM BTU/hr Max
GG-2	Source 69	264.2 MM BTU/hr Max
GG-3	Source 70	330.2 MM BTU/hr Max
GG-4	Source 73	330.2 MM BTU/hr Max
GG-5	Source 75	330.2 MM BTU/hr Max

[recordkeeping]

## 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 column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-67 GAS TURBINE #1; S-68 WASTE HEAT BOILER #1;**  
**S-69 GAS GENERATOR GG-2; S-70 GAS TURBINE #2; S-71 WASTE HEAT BOILER #2;**  
**S-73 GAS TURBINE #3; S-74 WASTE HEAT BOILER #3; S-75 GAS GENERATOR GG-5**

Type of limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Oxides of Nitrogen	SIP BAAQMD 9-9-301.3	Y		≤ 9 ppmv @ 15% O <sub>2</sub> , dry, excluding startup and shutdown	BAAQMD 9-9-501	C	CEM
	BAAQMD 9-9-301.1.3	N		≤ 9 ppmv @ 15% O <sub>2</sub> , dry, excluding startup and shutdown	BAAQMD 9-9-501	C	CEM
	BAAQMD 9-9-301.2	N		≤ 0.70 lb/MWhr or 15 ppmv @ 15% O <sub>2</sub> , dry, excluding startup and shutdown	BAAQMD 9-9-501	C	CEM
	BAAQMD Condition # 16885, part 2	Y		≤ 9 ppmv @ 15% O <sub>2</sub> , dry, averaged over any 3-hour period, excluding startup and shutdown	BAAQMD 9-9-501	C	CEM

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-67 GAS TURBINE #1; S-68 WASTE HEAT BOILER #1;**  
**S-69 GAS GENERATOR GG-2; S-70 GAS TURBINE #2; S-71 WASTE HEAT BOILER #2;**  
**S-73 GAS TURBINE #3; S-74 WASTE HEAT BOILER #3; S-75 GAS GENERATOR GG-5**

Type of limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD Condition #19675, part 2	Y		54.9 tons per year for S-67, S-68, S-69, S-70, S-71, S-73, S-74, and S-75 combined	BAAQMD Condition #19675, part 12	C	CEM
Oxides of Nitrogen	NSPS Subpart GG 60.332(a) (1)	Y		< 75 ppmv @ 15% O <sub>2</sub> dry, averaged over any consecutive 4-hour period	NSPS Subpart GG, 60.334(c)	C	CEM
Sulfur Dioxide	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	None
Sulfur Dioxide	BAAQMD 9-1-302	Y		300 ppm (dry)		N	None
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 min/hr		N	None
FP	BAAQMD 6-310	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	None
	BAAQMD Condition #19675, part 6	Y		Ringelmann No. 1 for < 3 min/hr		N	None

**Table VII – B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-11 AUXILIARY BOILER**

Type of limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Oxides of Nitrogen	NSPS 40 CFR 60.44b (a)(1)(ii)	Y		0.2 lb/MM BTU (30-day rolling average) except during startup, shutdown, or malfunction	BAAQMD Condition #19356, part 14(c)	C	CEM
Oxides of Nitrogen	BAAQMD Condition #19356, part 3	Y		≤ 9 ppmv @ 3% O <sub>2</sub> , dry, averaged over any rolling 3 hour period, excluding startup and shutdown	BAAQMD Condition #19356, part 14c	C	CEM
	BAAQMD Condition #19356, part 3	Y		≤ 9 ppmv @ 3% O <sub>2</sub> , dry, averaged over any rolling 3 hour period, excluding startup and shutdown	BAAQMD Condition #19356, part 12	Every 8,000 firing hours or 3 years, whichever comes first	Source Test
	BAAQMD Condition #19356, part 13a	Y		6 tons per consecutive twelve month period	BAAQMD Condition #19356, part 14c	C	CEM
Carbon Monoxide	BAAQMD Condition #19356, part 4	Y		< 50 ppmv @ 3% O <sub>2</sub> , dry, averaged over any rolling 3 hour period, excluding startup and shutdown	BAAQMD Condition #19356, part 14c	C	CEM
	BAAQMD Condition #19356, part 4	Y		< 50 ppmv @ 3% O <sub>2</sub> , dry, averaged over any rolling 3 hour period, excluding startup and shutdown	BAAQMD Condition #19356, part 12	Every 8,000 firing hours or 3 years, whichever comes first	Source Test
	BAAQMD Condition #19356, part 13b	Y		20.3 tons per consecutive twelve month period	BAAQMD Condition #19356, part 14c	C	CEM
Precursor Organic Compounds	BAAQMD Condition #19356, part 13c	Y		0.7 tons per consecutive twelve month period	BAAQMD Condition #19356, parts 14f, 15d, 15f	P/M	Record-keeping



**Table VII – B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-11 AUXILIARY BOILER**

Type of limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Sulfur Dioxide	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	None
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	None
Sulfur Dioxide	BAAQMD Condition #19356, part 13e	Y		0.4 tons per consecutive twelve month period	BAAQMD Condition #19356, parts 15d, 15f	P/M	Record-keeping
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for < 3 min/hr		N	None
FP	BAAQMD 6-310	Y		0.15 grain/dscf @ 6 % O <sub>2</sub>		N	None
	BAAQMD Condition #19356, part 8	Y		Ringelmann No. 1 for < 3 min/hr		N	None
PM10	BAAQMD Condition #19356, part 6	Y		< 1.53 lb/hour	BAAQMD Condition #19356, part 12	P/A	Source Test
	BAAQMD Condition #19356, part 13d	Y		2.7 tons per consecutive twelve month period	BAAQMD Condition #19356, part 15d	P/M	Record-keeping
Ammonia	BAAQMD Condition #19356, part 5	Y		< 10 ppmv @ 3% O <sub>2</sub> , dry, averaged over any rolling 3 hour period	BAAQMD Condition #19356, part 12	Every 8,000 firing hours or 3 years, whichever comes first	Source Test

## VIII. TEST METHODS

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

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-9-301.3	Emission Limits, General	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-401	Certification, Efficiency	ASTM D240-87 or ASTM D-2382-88 for liquid hydrocarbon fuel or ASTM 1826-88 or ASTM 1945-81 in conjunction w/ASTM D3588-89 for gaseous fuels

**IX. PERMIT SHIELD**

**Not applicable**

## **X. GLOSSARY**

### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

### **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.

**FE, Federally Enforceable**

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.

**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

**NO<sub>x</sub>**

Oxides of nitrogen.

**NSPS**

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

**NSR**

New Source Review. A federal program for pre-construction review and permitting of new

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

**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<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**Phase II Acid Rain Facility**

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

**POC**

Precursor Organic Compounds

**PM**

Total Particulate Matter

**PM<sub>10</sub>**

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

**SO<sub>2</sub>**

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.

**TSP**

Total Suspended Particulate

## 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 <sup>2</sup>	=	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