

# 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:

**Duke Energy Oakland LLC**  
**Facility #B1887**

**Facility Address:**

50 Martin Luther King Jr. Way  
Oakland, CA 94607

**Mailing Address:**

P. O. Box 690  
Moss Landing, CA 95039-0690

**Responsible Official**

Elton McCrillis, Plant Manager  
(813) 633-6746

**Facility Contact**

Steve Abbott, Environmental Specialist  
(831) 633-6649

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**Type of Facility:** Electric Power Generation  
**Primary SIC:** 4911  
**Product:** Electricity

**BAAQMD Permit Division Contact:**  
Brenda Cabral

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

Signed by Peter Hess for Ellen Garvey  
Ellen Garvey, Executive Officer/Air Pollution Control Officer

March 22, 2000  
Date

## TABLE OF CONTENTS

I. STANDARD CONDITIONS .....	3
II. EQUIPMENT .....	7
III. GENERALLY APPLICABLE REQUIREMENTS.....	8
IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS.....	10
V. SCHEDULE OF COMPLIANCE.....	14
VI. PERMIT CONDITIONS.....	14
VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS .....	17
VIII. TEST METHODS.....	20
IX. PERMIT SHIELD.....	21
X. GLOSSARY .....	22
XI. APPLICABLE STATE IMPLEMENTATION PLAN.....	27

## 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 10/7/98);
- 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 10/7/98);
- 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 10/7/98);
- 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 10/7/98);
- 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 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 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

## **I. Standard Conditions**

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

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

## **I. Standard Conditions**

### **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 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)

## 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.

S-#	Description	Make or Type	Model	Capacity
1	Gas Turbine Unit No. 1- Engine A (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
2	Gas Turbine Unit No. 1- Engine B (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
3	Gas Turbine Unit No. 2- Engine A (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
4	Gas Turbine Unit No. 2- Engine B (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
5	Gas Turbine Unit No. 3- Engine A (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
6	Gas Turbine Unit No. 3- Engine B (distillate oil)	Turbo Power & Marine 27.5 MW	TP4 Twin Pac	365 mmbtu/hr; 38,000 hp; 27.5 MW; w/water injection
9	Wipe Cleaning Operation			

### 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 both versions of the rule until US EPA has reviewed and approved the District’s revision of the regulation.

**Table III  
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (10/7/98)	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



### 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 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
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

#### 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**  
**Source-specific Applicable Requirements**  
**S1-S6, GAS TURBINES W/WATER INJECTION**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/19/90)</b>	Y	
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles		
6-310	Particulate Weight Limitation	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	
9-1-304	Fuel Burning (Liquid & Solid Fuels)	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - A**  
**Source-specific Applicable Requirements**  
**S1-S6, GAS TURBINES W/WATER INJECTION**

<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 (9/21/94)</b>		
9-9-302	Emission Limits, Low Usage	Y	
<b>BAAQMD Regulation 11, Rule 1</b>	<b>Lead (3/17/82)</b>		
11-1-301	Daily Limitation	Y	
11-1-302	Ground Level Concentration Without Background	Y	
<b>40 CFR 72</b>	<b>Acid Rain Program</b>		
72.6(b)(1)	Exemption from requirements of Acid Rain Program	Y	
<b>BAAQMD Condition #2571</b>			
Part 1	Restriction to distillate oil (NAAQS)	Y	
Part 2	Hourly fuel usage (NAAQS)	Y	
Part 3a	NOx Limit (NAAQS)	Y	
Part 3b	NOx Limit (9-9-302)	Y	
Part 4	Fuel Sulfur Limit (NAAQS)	Y	
Part 5	NMOC Limit (NAAQS)	Y	
Part 6	Hours of Operation Limit (NAAQS)	Y	
Part 7	Limit on operating in single-single-double combination (NAAQS)	Y	
Part 8	Requirement for water injection (NAAQS)	Y	
Part 9	Determination of sulfur in distillate oil (2-6-409.2)	Y	
Part 10	Source test (2-6-409.2)	Y	
Part 11	Visible emissions check (2-6-409.2)	Y	
Part 12	Periodic monitoring	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
**Source-specific Applicable Requirements**  
**S9, WIPE CLEANING OPERATION**

<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 8, Rule 4</b>	<b>Organic Compounds - General Solvent and Surface Coating Operations (5/15/96)</b>		
8-4-302	Limitation on Solvents and Surface Coatings	N	
8-4-302.1	Annual VOC Emission Limit or 8-4-302.3	N	
8-4-302.3	Coating VOC Content Limit or 8-4-302.1	N	
8-4-312	Solvent Evaporative Loss Minimization	Y	
8-4-501	Recordkeeping Requirements	Y	
<b>SIP Regulation 8, Rule 4</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE Organic Compounds - General Solvent and Surface Coating Operations (12/23/97)</b>		
8-4-302	Limitations on Non-Complying Solvents and Surface Coatings	Y <sup>1</sup>	
8-4-304	Alternate Compliance	Y <sup>1</sup>	
8-4-310	Limits on Container Size for Non-Industrial User	Y <sup>1</sup>	
8-4-311	Limits on Sale of Non-Complying Solvents and Surface Coatings	Y <sup>1</sup>	
<b>BAAQMD Regulation 8, Rule 16</b>	<b>Organic Compounds - Solvent Cleaning Operations</b>		
8-16-501	Solvent Records	N	
<b>SIP Regulation 8, Rule 16</b>	<b>PROVISIONS NO LONGER IN CURRENT RULE Organic Compounds - Solvent Cleaning Operations (12/09/94)</b>		
8-16-501	Solvent Records	Y <sup>1</sup>	
8-16-501.1	Trichloroethylene	Y <sup>1</sup>	
8-16-501.2	All Other Solvents	Y <sup>1</sup>	
<b>EPA Regulation 40 CFR 82</b>	<b>Protection of Stratospheric Ozone (2/21/95)</b>		

#### IV. Source-Specific Applicable Requirements

**Table IV - B**  
**Source-specific Applicable Requirements**  
**S9, WIPE CLEANING OPERATION**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
Subpart E, 40 CFR 82.106	Containers Containing a Class I or Class II Substance and Products Containing or Manufactured with a Class I Substance	Y	
Subpart E, 40 CFR 82.108	Warning Statements	Y	
Subpart E, 40 CFR 82.110	Labels	Y	
Subpart E, 40 CFR 82.112	Modification, Removal, or Interference with Warning Statements	Y	
<b>BAAQMD Condition #5974</b>			
Part 1	Usage Limit	N	
Part 2	Recordkeeping	N	
Part 3	Limitation on use of new solvents	N	

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

## 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.

## VI. PERMIT CONDITIONS

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

Condition #2571:

For S1-S6, Gas Turbines

1. Sources S1-S6, Turbines, shall be fired on No. 2 distillate oil or lighter fuel oil exclusively. (basis: NAAQS)
2. Fuel usage for each turbine shall not exceed 2,610 gal/hr. (basis: NAAQS)
- 3a. The maximum NOx emission concentration shall be limited to 75 PPM @ 15% O<sub>2</sub>, 3-hr average, for each gas turbine exhaust. (basis: NAAQS)
- 3b. The maximum NOx emission concentration shall be limited to 65 PPM @ 15% O<sub>2</sub>, 3-hr average, for each gas turbine exhaust except for startup and shutdown periods per Regulation 9-9-114. (basis: 9-9-302)
4. The fuel used shall have a sulfur content less than 0.3% by weight. (basis: NAAQS)
5. The maximum amount of non-methane hydrocarbon emissions shall not exceed 40 lbs/hr total (actual operating time) for all 6 gas turbines. (basis: NAAQS)
6. The maximum total operating time of the 6 gas turbines shall be limited to 5000 hours in any consecutive twelve months. (basis: NAAQS)
7. The gas turbine generating units shall not be operated in any single-single-double combination. (basis: NAAQS)

## VI. Permit Conditions

Condition #2571:  
For S1-S6, Gas Turbines

8. NO<sub>x</sub> emissions from each turbine shall be controlled at all times by water injection except during startup and shutdown. Water-to-fuel ratio shall be maintained in the range of 60% to 90% (volume basis) during all periods of operation. (basis: NAAQS)
9. Within 1 month of issuance of the Title V permit, the permit holder shall analyze a sample of the distillate oil in the fuel oil tank for sulfur content to ensure compliance with part 4 of this condition and Regulation 9-1-304. The sample shall be analyzed using District Method 10, Determination of Sulfur in Fuel Oils. The results of the analysis shall be sent to the Director of Enforcement and Compliance at the District. All subsequent shipments of fuel oil to the facility shall have a vendor certification of the sulfur content of the fuel. (basis: 2-6-409.2)
10. A source test shall be conducted at each turbine for every 2,000 hours of operation to verify compliance with the above NO<sub>x</sub> limits, NMOC limit, and the Regulation 9, Rule 9 limit. (basis: 2-6-409.2)
11. A visible emissions check shall be performed on every turbine for every 400 hours of operation. The visible emissions check shall take place while the equipment is operating and during daylight hours. If any visible emissions are detected, the operator shall take corrective action, and check for visible emissions the next time that the turbine is operated. If no visible emissions are detected, the operator shall continue to check for visible emissions every 400 hours of operation. (basis: 2-6-409.2)
12. To ensure compliance with parts 2, 3, 4, 6, 7, 8, 9, 10, 11, and 11 of this condition, the permit holder shall keep the following records:
  - a. Fuel usage at each turbine
  - b. The water to fuel volume ratio for each turbine on a daily basis when operating.
  - c. Vendor certification of sulfur content of all shipments of fuel to the facility
  - d. Total number of hours of operation for each turbine, totaled on a monthly basis by turbine
  - e. Records of all source tests
  - e. Records of all visible emissions checks, the person performing the check, and any

## VI. Permit Conditions

corrective actions taken  
(basis: 2-6-409.2)

Condition #5974:  
For S9, Wipe Cleaning

- \*1. Total evaporation of solvent from this source shall not exceed 20 gallons in any consecutive twelve-month period. (basis: cumulative increase)
- \*2. The operator shall maintain a log of all solvents used in this operation. The log shall contain the following information:
  - a. type and brand(s) of solvents used
  - b. mix ratio of components usedThese records shall be kept on an operational daily basis, with a quarterly summation. All records shall be retained for a period of five years from date of entry. This logbook shall be kept on site and made available to District staff upon request.  
(basis: cumulative increase)
- \*3. The permit holder shall apply for and receive permission from the District before using solvents other than 1,1,1-trichloroethane. (basis: cumulative increase)



## VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), 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.

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S1-S6, GAS TURBINES W/WATER INJECTION**

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 9-9-302	Y		65 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average	BAAQMD condition #2571, part 12b	P/D	water-to-fuel monitoring
	BAAQMD 9-9-302	Y		65 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average	BAAQMD condition #2571, part 10	P/every 2000 hours of operation	source test
	BAAQMD condition #2571, part 1a	Y		75 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average	BAAQMD condition #2571, part 12b	C	water-to-fuel monitoring
	BAAQMD condition #2571, part 1a	Y		75 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average	BAAQMD condition #2571, part 10	P/every 2000 hours of operation	source test

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S1-S6, GAS TURBINES W/WATER INJECTION**

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 #2571, part 1b	Y		65 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average, except for startup and shutdown	BAAQMD condition #2571, part 12b	P/H	water-to-fuel monitoring
	BAAQMD condition #2571, part 1b	Y		65 ppmv, dry @ 15% O <sub>2</sub> , 3-hr average, except for startup and shutdown	BAAQMD condition #2571, part 10	P/every 2000 hours of operation	source test
SO2	BAAQMD 9-1-301	Y		GLC 0.5 ppm (3 min average) 0.25 ppm (60 min average) 0.05 ppm (24 hr average)		N	
	BAAQMD 9-1-304	Y		Sulfur content of fuel < 0.5% by weight	BAAQMD condition #2571, part 9	P/E	fuel analysis or certification
	BAAQMD condition #2571, part 2	Y		Sulfur content of fuel < 0.3% by weight	BAAQMD condition #2571, part 9	P/E	fuel analysis or certification
TSP	BAAQMD Regulation 6-301	N		Ringelmann No. 1	BAAQMD condition #2571, part 11	P/every 400 hours	visible emissions check
	BAAQMD Regulation 6-310	Y		0.15 grain/dscf		N	
NMOC	BAAQMD condition #2571, part 3	Y		< 40 lb/hr for all turbines combined	BAAQMD condition #2571, part 10	P/every 2000 hours of operation	source test

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S1-S6, GAS TURBINES W/WATER INJECTION**

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Lead	BAAQMD 11-1-301	Y		15 lb/day		N	
	BAAQMD 11-1-302	Y		GLC not to exceed 1.0 ug/cu.m., 24 hr. avg.		N	
Hours of operation	BAAQMD 9-9-302	Y		< 877 hr/yr for each turbine	BAAQMD 9-9-302	P/E	records
	BAAQMD condition #2571, part 4	Y		< 5000 hr/yr for all turbines combined	BAAQMD condition #2571, part 12	P/E	records

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S9, WIPE CLEANING**

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC	BAAQMD condition #5974, part 1	Y		< 20 gal/yr	BAAQMD condition #5974, part 2	P/D	records

## VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally referenced 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  
 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 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
BAAQMD 9-9-302	Emission Limits, Low Usage	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 11-1-301	Daily Limitation	Manual of Procedures, Volume IV, ST-9, Lead
<b>BAAQMD Condition #2571</b>		
Part 3	NOx Limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
Part 4	Fuel Sulfur Limit	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
Part 5	NMOC Limit	Manual of Procedures, Volume IV, ST-7, "Organic Compounds"

## **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.



## **X. Glossary**

### **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.



## **X. Glossary**

### **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>**

## X. Glossary

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

## **XI. APPLICABLE STATE IMPLEMENTATION PLAN**

See Attachments