

EXPIRATION DATE:  
**January 3, 2015**

**DRAFT**

PERMIT NO:  
**03-TV-02**

**SHASTA COUNTY  
DEPARTMENT OF RESOURCE MANAGEMENT  
AIR QUALITY MANAGEMENT DISTRICT**

**City of Redding, Redding Power Plant**  
(Applicant)

IS HEREBY GRANTED A  
TITLE V OPERATING PERMIT  
SUBJECT TO CONDITIONS NOTED

**ELECTRIC POWER PRODUCTION**  
(Nature of Activity)

AT **17120 Clear Creek Road, Redding, CA**  
(AP#208-170-003)

DATE ISSUED: \_\_\_\_\_

APPROVED: **DRAFT**  
Air Pollution Control Officer

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**UNITS 1 THROUGH 3, PEAKING TURBINES**

**EQUIPMENT UNDER PERMIT**

ONE (1) RECONDITIONED G.E. FRAME 5 (MODEL G5271)  
R-NT GAS-FIRED TURBINE GENERATOR (UNIT 1)

TWO (2) RECONDITIONED G.E. FRAME 5 (MODEL PG5371)  
P-NT GAS-FIRED TURBINE GENERATORS (UNITS 2 & 3)

**OPERATING CONDITIONS**

- A1. The total electrical power generating capacity of the peaking power generation facility shall not exceed 76.9 MW. Within thirty (30) days after the end of each calendar year, the applicant shall forward to the District a report on the electrical energy production for the prior calendar year.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 15]

- A2. The following fuel conditions shall apply to Units 1 through 3:

- a. Natural gas shall be the primary fuel for each gas turbine peaking unit with propane used only as an alternate fuel.

[District Permit 92-PO-11e, Condition 16]

- b. Total heat input for each peaking unit shall be limited to  $360 \times 10^6$  Btu per hour.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 16]

- A3. Each gas turbine peaking unit shall be equipped with a selective catalytic reduction (SCR) system and control module that continuously adjusts the  $\text{NH}_3$  injection rate to achieve the desired NOx emission level.

[District Permit 92-PO-11e, Condition 18]

- A4. With respect to stack opacity, the provisions of the California Health and Safety Code, Sections 41701 and 41704, shall apply at all times.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 35]

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EMISSION LIMITS AND STANDARDS

A5. The following emission limitations must be complied with whenever firing the P-NT gas turbine peaking units (Units 2 or 3) at 100 percent load and ISO standard ambient conditions:

- a. When firing with natural gas:
  - PM<sub>10</sub> = 5.66 lb/hr
  - NO<sub>x</sub> = 12.10 lb/hr as NO<sub>2</sub>
  - CO = 17.00 lb/hr
  - SO<sub>x</sub> = 0.20 lb/hr as SO<sub>2</sub>
  - ROC = 1.40 lb/hr
  
- b. When firing with propane:
  - PM<sub>10</sub> = 5.66 lb/hr
  - NO<sub>x</sub> = 12.10 lb/hr as NO<sub>2</sub>
  - CO = 24.30 lb/hr
  - SO<sub>x</sub> = 0.20 lb/hr as SO<sub>2</sub>
  - ROC = 3.30 lb/hr

[District Permit 92-PO-11e, Condition 19]

A6. Within 180 days after initial startup, the applicant must demonstrate by source testing that the turbine peaking unit, model R-NT, (Unit 1) will achieve the following emission limits at 100 percent load and ISO standard ambient conditions:

- a. When firing with natural gas:
  - PM<sub>10</sub> = 5.66 lb/hr
  - NO<sub>x</sub> = 10.00 lb/hr as NO<sub>2</sub>
  - CO = 17.00 lb/hr
  - SO<sub>x</sub> = 0.20 lb/hr as SO<sub>2</sub>
  - ROC = 1.20 lb/hr
  
- b. When firing with propane:
  - PM<sub>10</sub> = 5.66 lb/hr
  - NO<sub>x</sub> = 10.00 lb/hr as NO<sub>2</sub>
  - CO = 20.80 lb/hr
  - SO<sub>x</sub> = 0.20 lb/hr as SO<sub>2</sub>
  - ROC = 2.80 lb/hr

[District Permit 92-PO-11e, Condition 20]

A7. Regardless of the type of fuel firing, and including those emissions during normal, startup, shutdown, and spinning reserve operational modes, the following peaking plant facility NO<sub>x</sub> emissions limits apply:

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<u>Daily Emission Limitation</u>	<u>826 lbs./day</u>
<u>Quarterly Emission Limitation</u>	<u>70,900 lbs. total in quarters 1, 2, and 4</u> <u>45,000 lbs./qtr. in quarter 3</u>
<u>Annual Emission Limitation</u>	<u>58 tons/yr</u>

[District Permit 92-PO-11e, Condition 21]

- A8. Sufficient emission reductions must be maintained to fully mitigate the PM<sub>10</sub>, NO<sub>x</sub>, and reactive organic compound (ROC) emissions from the City of Redding Peaking Power Generation Facility. The emission reductions must be in an amount equal to the daily emissions from the peaking facility, including those emissions during startup, shutdown, and spinning reserve operational modes.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 22]

- A9. The emission limits in Conditions A6, A7, and A12 shall not apply during startup, which is not to exceed two hours in length, or shutdown, which is not to exceed one hour in length. Selective catalytic reduction (SCR) catalytic controls, water injection, and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.

[District Permit 92-PO-11e, Condition 27]

- A10. The emissions of ammonia in each turbine exhaust discharged to the atmosphere shall not exceed 10 PPMVD, (one-hour average) calculated at 15 percent O<sub>2</sub> for operation at full load. Maximum ammonia emissions at spinning reserve (approximately 20 percent load) shall not exceed 60 PPMVD, (one-hour average).

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 28]

- A11. Best Available Control Technology (BACT) shall be required for control of oxides of nitrogen, reactive organic compounds, carbon monoxide, and particulate matter less than 10 microns in size (PM<sub>10</sub>). BACT emission limitations shall be as specified in Conditions A6 and A7 and shall be verified by emission testing or continuous emission monitoring systems. In addition, the following control technology shall be utilized at all times that the gas turbines are operated:

- a. Oxides of Nitrogen (NO<sub>x</sub>): Water injection and selective catalytic reduction (SCR) to reduce emissions to 9 PPM (natural gas and propane) at 15 percent O<sub>2</sub> by volume (dry) based on one-hour block averaging time measured at full load and ISO standard ambient conditions.
- b. Carbon Monoxide (CO): Combustion techniques to limit emissions to 20 PPM (natural gas) and 30 PPM (propane) at 15 percent O<sub>2</sub> by volume (dry) based on one-hour block averaging

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time measured at full load and ISO standard ambient conditions.

- c. Reactive Organic Compounds (ROC): Combustion techniques to limit emissions to 3 PPM (natural gas) and 7 PPM (propane) at 15 percent O<sub>2</sub> by volume (dry) based on one-hour block averaging time measured at full load and ISO standard ambient conditions.
- d. Particulate Matter (PM<sub>10</sub>): Use of only natural gas or propane as fuel.

[District Permit 92-PO-11e, Condition 26]

TESTING, MONITORING AND RECORDKEEPING

- A12. The applicant shall provide to the California Energy Commission (CEC) a copy of the peaking units' Permit to Operate within fifteen (15) days of issuance.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 23]

- A13. The applicant shall keep records during the operational life of the facility of NO<sub>x</sub>, CO, and ROC emissions for the previous 60-month period compiled on a daily basis. The emission records shall be made available to the CEC or the District staff upon request.

[District Permit 92-PO-11e, Condition 24]

- A14. A continuous monitoring system shall be installed and maintained to monitor and record the fuel consumption and the mass ratio of water to fuel being fired in each turbine. The system must be accurate to within plus or minus five percent.

[District Permit 92-PO-11e, Condition 25]

- A15. The selective catalytic reduction system shall include provisions for continuously monitoring and recording the amount of ammonia injected in pounds-per-hour.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 29]

- A16. A continuous emission monitoring system shall be installed, calibrated, and operated on each gas turbine exhaust to measure NO<sub>x</sub>, CO, and O<sub>2</sub>. The system shall meet monitoring specifications as required by 40 CFR 60.13 (d) and (e); and 40 CFR 60, Appendix F, except that Relative Accuracy Test Audit (RATA) as specified in Section 5.1.1 is not required unless requested by the Air Pollution Control Officer (APCO) as part of a source test required by Condition A19 pursuant to District Rule 2:11a.3(f).<sup>1</sup>

The system shall continuously record the measured concentrations, and shall calculate and continuously record the NO<sub>x</sub> and CO concentrations corrected to a value at 15 percent O<sub>2</sub>, dry. The system shall also be capable of calculating and recording NO<sub>x</sub> and CO emission rates in pounds-per-

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hour, pounds-per-day, and tons-per-year. District approval for the monitoring system must be received prior to installation.

<sup>1</sup> The annual sum of emissions from turbine generators 1, 2, and 3 shall be used to determine the facility emissions as shown in the table in section (f) of Rule 2:11.a.3. Four quarterly cylinder gas audits will be required in any year that a RATA is not required. The relative accuracy limits for a CO RATA shall be the greater of 10 percent of the mean value of the reference method test data or 20 percent of the applicable District permitted limit.

[District Permit 92-PO-11e, Condition 30]

- A17. Instrumentation shall be installed and maintained on each gas turbine system to measure electrical energy production, the SCR catalyst inlet temperature, and pressure differential across the SCR catalyst.

(District-only requirement, not federally enforceable)  
[District Permit 92-PO-11e, Condition 31]

- A18. Periodic emission testing shall be required pursuant to District Rule 2:11.a.3.(f). The emission testing shall be conducted by an independent testing firm in strict compliance with the specified test methods. Any deviation from the test methods must receive prior approval from the Air Quality Management District (District). Results of all stack tests shall be forwarded to the District for compliance verification. Results of the emission testing shall be provided to the District within forty-five (45) days after testing. A testing protocol shall be submitted to the District thirty (30) days prior to testing, and the District shall be notified at least ten (10) days prior to the actual date of testing so that a District observer can be present. Any of the following parameters may be required:

- a. Oxides of Nitrogen, as NO<sub>2</sub>: ppm at 15% O<sub>2</sub>, dry and ISO standard ambient conditions; lb/hr
- b. Carbon Monoxide: ppm at 15 percent O<sub>2</sub>, dry and ISO standard ambient conditions; lb/hr
- c. Ammonia: ppm at 15 percent O<sub>2</sub>, dry; lb/hr
- d. Non-methane hydrocarbons: ppm at 15 percent O<sub>2</sub> dry and ISO standard ambient conditions; lb/hr
- e. Particulate matter (front and back halves): gr/dscf; lb/hr
- f. Natural gas consumption: SCFH
- g. Electricity generated during the test
- h. Ammonia injected: lb/scf of natural gas burned; lb/hr
- i. Water injection rate and water-to-fuel ratio
- j. Oxides of Sulphur, as SO<sub>2</sub>: ppm at 15% O<sub>2</sub>, dry; lb/hr
- k. Stack exhaust flow rate in dry standard cubic feet per minute
- l. Exhaust gas oxygen concentration, in percent
- m. Exhaust gas temperature in degrees Fahrenheit
- n. Exhaust gas moisture content

The APCO may consider compliance monitoring methodologies outlined in 40 CFR Part 60.334(h)(3) before requiring emissions testing for Oxides of Sulphur, SO<sub>2</sub>.

[District Permit 92-PO-11e, Condition 32]

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A19. The following test methods shall apply when testing for the specific pollutant is required:

- |    |                            |                                 |
|----|----------------------------|---------------------------------|
| a. | Oxides of Nitrogen         | EPA Method 20                   |
| b. | Carbon Monoxide            | EPA Method 10 or ARB Method 100 |
| c. | Stack Gas Oxygen           | EPA Method 20                   |
| d. | Sulfur Dioxide             | EPA Method 20                   |
| e. | Reactive Organic Compounds | EPA Method 18                   |
| f. | Ammonia                    | Bay Area AQMD Method ST-1B      |
| g. | Particulate Matter         | CARB Method 5                   |

[District Permit 92-PO-11e, Condition 33]

A20. An excess emissions and monitoring systems performance report and/or summary report form shall be submitted to the EPA Regional Administrator quarterly. All reports shall be postmarked by the 30th day following the end of each quarter period. Written reports of emissions in excess of Federal standards shall include the magnitude and time of excess emissions computed in accordance with 40 CFR 60.13(h); specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions; the date and time identifying each period during which the continuous monitoring system (CMS) was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and when no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form (as shown in 40 CFR 60.7(c) figure 1) shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

[40 CFR 60.7(c) & (d), 60.334]

A21. The gas quality characteristics as shown in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less shall be maintained on site and available for District inspection.

[40 CFR Part 60.334(h)(3)]

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**UNITS 4a AND 4b, UTILITY BOILERS**

**EQUIPMENT UNDER PERMIT**

TWO (2) 208 MMBtu/HR NATURAL GAS OR PROPANE-FIRED  
RILEY STOKER CORPORATION UTILITY BOILERS  
WITH TODD LOW-NO<sub>x</sub> BURNERS AND FLUE GAS RECIRCULATION  
ONE (1) 15,000 GPM COOLING TOWER (shared with units 5 and 6)

**OPERATING CONDITIONS**

- B1. Natural gas shall constitute the primary fuel allowed for use at this facility. Propane may be used as an alternate fuel. The permittee shall be allowed to use other fuels only upon application for a permit modification and subsequent approval by the APCO. The permittee shall, prior to operating the facility on fuels other than specified, secure all necessary emission offsets necessary to mitigate any increases in emissions of non-attainment pollutants or precursors related to the fuel change.

[District Permit 84-PO-52g, Condition 15]

- B2. Natural gas firing in each boiler shall be limited to  $208 \times 10^6$  Btu per hour heat input. Wood waste fuel, if approved by the APCO, shall not be charged to any individual boiler unit at a rate (averaged over a 24-hour period) that exceeds 13 tons per hour (dry weight).

[District Permit 84-PO-52g, Condition 16]

- B3. BACT for carbon monoxide and non-methane hydrocarbon emissions shall be defined as the use of staged combustion, control of overfire and underfire air, control of combustion temperatures, control of excess air rate, and control of fuel types and feed rate.

[District Permit 84-PO-52g, Condition 21]

- B4. When firing natural gas or propane as a fuel, BACT for oxides of nitrogen emissions shall be defined as the use of low-NO<sub>x</sub> natural gas burners and flue gas recirculation on each boiler.

[District Permit 84-PO-52g, Condition 22]

**EMISSION LIMITS AND STANDARDS**

- B5. The opacity of any boiler stack discharge shall not exceed a Ringlemann 1 or 20 percent equivalent opacity for any period greater than six (6) minutes.

[District Permit 84-PO-52g, Condition 17]

- B6. The following emission limitations must be complied with whenever firing natural gas or propane as a fuel:

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- a. Emissions of oxides of nitrogen (NO<sub>x</sub>) shall not exceed 0.043 lb/MM Btu when firing natural gas and 0.07 lb/MM Btu when firing propane (dry basis, corrected to three percent O<sub>2</sub>) in any three-hour averaged period as described in condition B11.a., and shall be limited to a total of 42 tons each calendar year for both boilers when fired on natural gas or 57 tons each calendar year for both boilers when fired on propane. Total NO<sub>x</sub> emissions from both boilers, the gas turbines, and all other emission sources on the site shall not exceed 99 tons each year.
- b. Emissions of CO shall not exceed 0.3 lb/MM Btu when firing either natural gas or propane (dry basis, corrected to three percent O<sub>2</sub>) in any three-hour averaged reporting period as described in Condition B11.a. Total CO emissions from both boilers, the gas turbines, and all other emission sources on the site shall not equal or exceed 100 tons each year.
- c. Emissions of volatile HC shall not exceed 0.002 lb/MM Btu when firing either natural gas or propane and shall be limited to a total of 1.62 tons per calendar year for both boilers. Total volatile HC emissions from both boilers, the gas turbines, and all other emission sources on the site shall not equal or exceed 100 tons per year.
- d. Emissions of SO<sub>2</sub> shall not exceed a total of 0.5 ton per calendar year for both boilers. Total SO<sub>2</sub> emissions from both boilers, the gas turbines, and all other emission sources on the site shall not equal or exceed 100 tons per year.
- e. Emissions of particulate matter shall not exceed 0.001 lb/MM Btu when firing either natural gas or propane (dry basis, corrected to three percent O<sub>2</sub>) and shall be limited to a total of 0.81 tons per calendar year for both boilers. Total PM<sub>10</sub> emissions from both boilers, the gas turbines, and all other emission sources on the site shall not equal or exceed 100 tons each year.

[District Permit 84-PO-52g, Condition 23]

- B7. With respect to stack opacity, the provisions of the California Health and Safety Code, Sections 41701 and 41704, shall apply at all times.

[District Permit 84-PO-52g, Condition 28; PSD Permit Condition C.6. Issued 11/18/85]

**TESTING, MONITORING AND RECORDKEEPING**

- B8. Continuous monitoring devices shall be maintained for the following pollutants or operation parameters:
- a. carbon monoxide, and
  - b. oxides of nitrogen.

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The monitoring devices shall meet specifications as required by 40 CFR 60.13; 40 CFR 60, Appendix B, Specifications 2, 3, and 4; and 40 CFR 60, Appendix F. The monitoring system shall continuously record the measured concentrations, and shall calculate and continuously record the NO<sub>x</sub> and CO concentrations corrected to a value at three percent O<sub>2</sub> dry. The system shall also be capable of calculating and recording NO<sub>x</sub> and CO emission rates in pounds per million Btu, pounds per hour, and pounds per day. District approval for the monitoring system must be received prior to installation.

When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of 40 CFR Part 60, Method 7A of appendix A of 40 CFR Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

[District Permit 84-PO-52g, Condition 18] [40 CFR Part 60.48b(f)]

- B9. If continuous emission monitoring data indicates a violation of any emission limit contained in Condition B6, the permittee will take immediate action within four (4) hours to bring the emissions within the specified limits.

[District Permit 84-PO-52g, Condition 19]

- B10. The following process parameters shall be monitored on a continuous basis and maintained:

- a. fuel feed rate,
- b. excess air,
- c. grate temperature (wood firing only),
- d. percent oxygen in flue gas entering electrostatic precipitator (wood firing only),
- e. hourly steam production rate and hours of operation, and
- f. temperature at inlet to electrostatic precipitator.

Records shall be maintained of the amounts of each fuel combusted during each day and the annual capacity factor shall be calculated individually for natural gas and propane for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[District Permit 84-PO-52g, Condition 20] [40 CFR part 60.49b(d) and (p)]

- B11. Monthly emission reports to the District shall be required for each boiler. The reports shall be submitted by the 15th of the month following data recording and shall include:

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- a. Daily and monthly average of CO and NO<sub>x</sub> emissions expressed in pounds per hour and lb/MM Btu. All periods of inoperation (no boiler steam production) shall be excluded from the averages.
- b. Notification of all periods six (6) minutes and longer in duration when opacity exceeds 20 percent and the reason for the excursion.
- c. Notification of all three-hour averaged periods exceeding the permit limitation for oxides of nitrogen and the reason for the excursion.
- d. Notification of all three-hour averaged periods exceeding the permit limitation for carbon monoxide and the reason for the excursion.
- e. Notification of all periods the continuous monitors were not functioning and the reasons for the same.
- f. If no permit limitations have been exceeded, the report must so state.
- g. The number of hours-per-day and number of hours per month that each boiler was operating.

[District Permit 84-PO-52g, Condition 24]

- B12. Quarterly reports to the Environmental Protection Agency Regional Administrator for excess emissions indicated by the continuous monitoring device for NO<sub>x</sub> shall be submitted to the Administrator within time frames specified in 40 CFR Part 60. 7(c). This reporting must contain the information as required by 40 CFR Section 60.49b(h). This report must also provide the annual capacity factor for each boiler over the previous 12 months per 40 CFR Part 60.49b(q).

[40 CFR 60.49b(h)][40 CFR Part 60.49b(q)]

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**UNIT 5, GAS TURBINE GENERATOR  
EQUIPMENT UNDER PERMIT**

ONE (1) 47 MW Siemens Model SGT-800 Gas Turbine (508.5 MMBtu/Hr)  
ONE (1) 151,632 POUND/HR ATS EXPRESS HEAT RECOVERY STEAM GENERATOR (HRSG)  
ONE (1) EMERCHEM EMX  
SCONO<sub>x</sub>/SCOSO<sub>x</sub>, CO, & ROC EMISSION CONTROL SYSTEM  
ONE (1) MIST ELIMINATOR FOR GAS-TURBINE ENGINE  
ONE (1) STACK: 9.75 FT. DIAMETER, 100 FT. TALL  
ONE (1) 15,000 GPM COOLING TOWER (shared with units 4 and 6)

**OPERATING CONDITIONS**

- C1. The combustion turbine shall be exclusively fueled with California PUC pipeline quality natural gas.  
[District Permit 00-PO-39a, Condition 17]
- C2. Instrumentation shall be installed and maintained on the gas turbine generator system to measure electrical energy production.  
(District-only requirement, not federally enforceable)  
[District Permit 00-PO-39a, Condition 19]
- C3. Best Available Control Technology for the combustion turbine shall be defined as SCONO<sub>x</sub> technology for control of NO<sub>x</sub> emissions at a level not to exceed that specified in Condition C7.  
[District Permit 00-PO-39a, Condition 23]
- C4. As mitigation for the increased emissions due to the operation of the Unit 5 turbine and HRSG, one of the two gas-fired power boilers (Permit to Operate 84-PO-52g) shall be reduced in operation whenever the Unit 5 turbine and HRSG are operating to an extent that:
- a. There will be no increase in potential steam production above 300,000 pounds/hr. at the steam turbine rated operating conditions; and
  - b. There will be no increase in NO<sub>x</sub> emissions above the potential emissions from running both utility boilers.

[District Permit 00-PO-39a, Condition 29]

**EMISSION LIMITS AND STANDARDS**

- C5. The following opacity limits shall apply at all times:

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Emission Point	Opacity Limit
HRSG Exhaust	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor as determined by EPA Method 9
Oil Mist Eliminator Vent	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor as determined by EPA Method 9

[District Permit 00-PO-39a, Condition 25]

C6. Emissions from the gas turbine and associated HRSG shall meet all of the emission limitations listed in a. through e. below at any firing rate and ambient conditions (except as noted in Condition C7.):

	<u>POLLUTANT</u>	<u>CONCENTRATION</u>	<u>EMISSION RATE</u>			<u>VERIFICATION</u>
			<u>(Pounds/Hour)</u>	<u>(Pounds/D ay)</u>	<u>(Tons/Yea r)</u>	
a.	NO <sub>x</sub> as NO <sub>2</sub>	2.5 ppmvd, <sup>2</sup> 1-hr rolling	4.2	99.9	18.2	Verified by certified CEMS and initial compliance test at
b.	CO	6.0 ppmvd, 1-hr rolling averaging @ 15% O <sub>2</sub>	6.1	146	26.6	Verified by initial compliance test at maximum operating capacity of the turbine and as required per District Rule 2:11.a.3(f).
c.	ROC	1.4 ppmvd as CH <sub>4</sub> , 1-hour block averaging @ 15% O <sub>2</sub>	0.81	19.5	3.6	Verified by initial compliance test at maximum operating capacity of the turbine and as required per District Rule 2:11.a.3(f).
d.	SO <sub>x</sub> as SO <sub>2</sub>	0.27 ppmvd, 1-hr block averaging @ 15% O <sub>2</sub>	0.68	16.3	3.0	Verified by initial compliance test at maximum operating capacity of the turbine. Ongoing compliance demonstrated by fuel use data and emission factor verified by annual fuel sulfur content analysis or as required by District Rule 2:11.a.3(f).
e.	PM <sub>10</sub> (filterable + condensible)	0.0012 grain/dscf, 1-hour averaging at std.	2.7	64.7	11.8	Concentration limit verified by annual compliance test at maximum operating capacity of the turbine and as required per District rule 2:11.a.3(f).

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		conditions				
f.	Opacity	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.				Verified by annual visible emission evaluations as determined by EPA Method 9.

[District Permit 00-PO-39a, Condition 26]

- C7. The emission limits in Condition C6 shall not apply during any startup (which is not to exceed four hours in duration), or shutdown (which is not to exceed one hour in duration).

The SCONOX system and good combustion practices shall be used whenever the combustion turbine is operating and to the fullest extent practical during startup and shutdown conditions to minimize pollutant emissions. Startup shall be defined as the period beginning with ignition and lasting until equipment has reached stable operating mode and has achieved operating permit limits. Shutdown shall be defined as the period beginning with the lowering of equipment from stable operating load with the intention of full shutdown and lasting until fuel flow is completely off and combustion has ceased. Emissions from the gas turbine and associated HRSG shall meet all of the emission limitations listed below for each startup or shutdown.

Pollutant	Startup	Shutdown	Verification
NOx as NO <sub>2</sub>	127 lbs/4 hrs	6.6 lbs/hr	Verified by CEMS

[District Permit 00-PO-39a, Condition 27]

TESTING, MONITORING AND RECORDKEEPING

- C8. The gross calorific value of the pipeline natural gas fuel shall be determined at least once per calendar month in accordance with the requirements of 40 CFR, Part 75, Appendix D. Monthly records of gas heat content shall be maintained for five years and made available to the Air Pollution Control Officer upon request. The pipeline natural gas fuel shall also be sampled at least once per calendar year to determine total sulfur content in accordance with 40 CFR Part 75, Appendix D.

[District Permit 00-PO-39a, Condition 18]

- C9. The project owner/operator shall monitor and record turbine/HRSG exhaust gas temperature at the SCONOX catalyst inlet. This data shall be maintained for a period of five (5) years and be made available to District staff upon request.

[District Permit 00-PO-39a, Condition 20]

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- C10. To satisfy the monitoring and reporting requirements of the Acid Rain (Title IV) requirements of 40 CFR, Part 75, New Source Performance Standards of 40 CFR, Part 60, Subpart GG, as well as District requirements, the following monitoring and data acquisition systems shall be installed, calibrated, and operated as outlined below:
- a. A continuous fuel (natural gas) flow monitor and continuous emission monitors (CEMs) to monitor fuel flow, NO<sub>x</sub> and O<sub>2</sub> that meet the equipment, installation, and performance specifications in 40 CFR, Part 75, Appendix A and maintenance specifications according to the quality assurance and quality control procedures in 40 CFR, Part 75, Appendix B (which includes quarterly linearity and 1 to 2 RATA runs per year).
  - b. A data acquisition system capable of calculating and recording the following:
    - 1) Stack volumetric flow (in dscfm) calculated from fuel flow and O<sub>2</sub> CEM data using methods outlined in 40 CFR, Part 75, Appendix F, and G.
    - 2) Emissions of NO<sub>x</sub> (concentration expressed in ppmv corrected to a value at 15 percent O<sub>2</sub> (dry) and mass emissions expressed in lbs/MMBtu, and lbs/hr), from CEM data, fuel flow, and stack volumetric flow.
    - 3) Emissions of O<sub>2</sub> (in percentage) from CEM data.
    - 4) Emissions of CO<sub>2</sub>, calculated from fuel flow using methods outlined in 40 CFR, Part 75, Appendix G.
    - 5) Emissions of SO<sub>2</sub> (in lbs/hr), using methods outlined in 40 CFR, Part 75, Appendix D.
    - 6) Graphical trend analysis including summary reports of the respective one-hour averages, pounds per day, and tons per year of NO<sub>x</sub> emissions.

[District Permit 00-PO-39a, Condition 21]

- C11. The Continuous Emission Monitoring systems must also successfully pass the calibration and drift requirements of the equipment manufacturer. The NO<sub>x</sub> CEM system shall record measured concentrations, and shall calculate and record NO<sub>x</sub> concentrations corrected to a value at 15 percent O<sub>2</sub>, dry. The NO<sub>x</sub> CEM shall have the capability of recording NO<sub>x</sub> concentrations during all operating conditions, including startups and shutdowns.

[District Permit 00-PO-39a, Condition 22]

- C12. The dates and results of all visible emission evaluations required by Condition C6 shall be recorded in a log and maintained for five years for District inspection upon request.

[District Permit 00-PO-39a, Condition 24]

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C13. Emission testing for PM<sub>10</sub>, ROC, NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions from the HRSG exhaust shall be conducted annually (except as provided by Condition C6) by an independent testing firm(s) in strict compliance with the test methods specified in Condition C14. The Air Pollution Control Officer may approve the use of the NO<sub>x</sub> and CO CEMs readings to quantify annual emissions in lieu of emission testing after the first two annual compliance tests as provided by Condition C6 if annual relative accuracy procedures, consistent with EPA Quality Assurance Guidelines, are completed as required by Conditions C10 and C11. Results of all emission testing shall be forwarded to the District for compliance verification within forty five (45) days after testing. All exemptions from annual testing shall be requested in writing to the APCO. An emission testing protocol detailing the methods of sampling and analysis shall be submitted to the District for approval 30 days prior to the initial (and any subsequent) testing. The District shall be notified at least ten (10) days prior to the actual date of testing so that a District observer can be present. The following parameters shall also be determined during the emission testing:

- a. Natural gas consumption SCFH
- b. Steam produced in the HRSG
- c. Electricity generated at the turbine generator during the test
- d. HRSG exhaust gas temperature entering the SCONO<sub>x</sub>/SCOSO<sub>x</sub> catalyst
- e. Stack exhaust flow rate in dry standard cubic feet per minute
- f. Exhaust gas oxygen concentration, in percent
- g. Exhaust stack gas temperature in degrees Fahrenheit
- h. Exhaust stack gas moisture content
- i. Sulfur content of the fuel
- j. ROC emission rate

[District Permit 00-PO-39a, Condition 31]

C14. Each of the following test methods shall apply when testing for the specific pollutants listed below unless an EPA-approved alternative test method has been authorized by the District:

a.	Particulate Matter	CARB Method 5 (front and back half analysis)
b.	Oxides of Nitrogen	EPA Method 20
c.	Carbon Monoxide	EPA Method 10 or ARB Method 100
d.	Sulfur Dioxide	EPA Method 20
e.	Reactive Organic Compounds	EPA Method 18
f.	Stack Gas Oxygen	EPA Method 20

[District Permit 00-PO-39a, Condition 32]

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C15. To demonstrate compliance with the mass emission limitations for NO<sub>x</sub>, CO, PM<sub>10</sub>, SO<sub>x</sub>, and ROC stated in Condition C6, the owner/operator shall calculate and record the hourly, daily, and year-to-date mass emissions (including startup and shutdown emissions of NO<sub>x</sub>) from the gas turbine/HRSG train using CEM emission data (for NO<sub>x</sub>) and emission factors derived from the most recent annual emission test (for PM<sub>10</sub>, CO, ROC, and SO<sub>x</sub>). The owner/operator shall use the actual heat input rates, actual gas turbine startup times, actual gas turbine shutdown times, and District-approved emission factors developed during the emission testing required by Condition C13 to calculate these emissions.

[District Permit 00-PO-39a, Condition 33]

C16. Monthly emission reports shall be required to be submitted to the APCO by the 15th of the month following data recording and shall include:

- a. All periods three minutes and longer in duration when opacity from either HRSG exhaust stack or the oil mist eliminator exceeds the specified limits and the reason for the excursion;
- b. All periods when NO<sub>x</sub>, CO, ROC, PM<sub>10</sub>, or SO<sub>x</sub> emission from the exhaust stacks exceed the specified limits and the reason for the excursion;
- c. All periods when the NO<sub>x</sub>, CEMs, the fuel flow monitor, or the data acquisition system were not functioning and the reasons for the same;
- d. Documentation of any quarterly calibrations of the monitoring devices required in Conditions C11 and C13 and a report of corrective maintenance required as a result of the calibrations in the actual month of occurrence;
- e. Documentation of daily and monthly emissions of PM<sub>10</sub>, NO<sub>x</sub>, CO, SO<sub>x</sub>, and ROC from the HRSG exhausts using the methods specified in Conditions C10 and C11;
- f. Documentation of monthly natural gas fuel consumption for the gas turbine;
- g. Documentation of fuel sulfur content through monthly reports from natural gas supplier or in accordance with condition C20;
- h. Documentation of the date and times when the temperature entering the SCONO<sub>x</sub> catalyst system is less than 300°F;
- i. Documentation of total operation time, date and time at the beginning and end of each startup/shutdown period, and total hours in startup and shutdown periods for the gas-fired turbine;
- j. Documentation of quantity of electricity generated on a daily basis and total for the month;
- k. Documentation of corrective action taken for each period of excess emission, upset, breakdown, or malfunction;
- l. If no permit limitations were exceeded, the report must so state.

[District Permit 00-PO-39a, Condition 34]

C17. An excess emissions and monitoring systems performance report and/or summary report form shall be submitted to the EPA Regional Administrator (EPA Administrator/Administrator) semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period. Written

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reports of excess emissions shall include the magnitude and time of excess emissions computed in accordance with 40CFR 60.13(h), specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions, the date and time identifying each period during which the continuous monitoring system (CMS) was inoperative except for zero and span checks and the nature of the system repairs or adjustments, and when no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form (as shown in 40 CFR 60.7 (c) figure 1) shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the EPA Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

[40 CFR 60.7(c) & (d), 60.334]

- C18. Unit 5 shall be operated in compliance with the complete Acid Rain permit application submitted by the designated representative to the District.

[40 CFR Part 72]

- C19. The monitoring requirements as provided in Part 75 of 40 CFR will apply to Unit 5.

[40 CFR Part 72]

- C20. The emissions measurements recorded and reported in accordance with Part 75 of 40 CFR shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

[40 CFR Part 72]

- C21. The requirements of Part 75 of 40 CFR shall not affect the responsibility of the owner/operator to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Clean Air Act (CAA) and other provisions of the operating permit for the source.

[40 CFR Part 72]

- C22. Unit 5 shall comply with the applicable Acid Rain emissions limitation for sulfur dioxide. Allowances will be held in Unit 5's compliance subaccount in an amount not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit.

- a. The sulfur dioxide emissions from Unit 5 shall not exceed the annual emissions allowances (up to one ton per year of sulfur dioxide may be emitted for each emission allowance allotted)

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that the source lawfully holds for that unit under Title IV of the CAA or the regulations promulgated pursuant to Title IV;

- b. Any increase in Unit 5's sulfur dioxide emissions authorized by allowances acquired pursuant to Title IV of the CAA shall not require a revision of the acid rain portion of the operating permit provided that such increases do not require permit revision under any other applicable federal requirement;
- c. Although there is no limit on the number of sulfur dioxide emissions allowances held by a source, a source with an acid rain unit shall not use these emissions allowances as a defense for noncompliance with any applicable federal requirement or District requirement, including District Rule 2:1; and
- d. Unit 5's sulfur dioxide allowances shall be accounted for according to the procedures established in regulations promulgated pursuant to Title IV of the CAA.

[40 CFR Part 72; SCAQMD Rule 5]

- C23. Unit 5 shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

[40 CFR Part 72]

- C24. The designated representative for Unit 5 shall submit a proposed offset plan for emissions of nitrogen oxides and/or sulfur dioxide, as required under part 40 CFR Part 77, if Unit 5 has excess emissions in any calendar year.

[40 CFR Part 72]

- C25. The designated representative for Unit 5 shall submit the reports and compliance certifications required under the Acid Rain Program, including those under Subpart I of 40 CFR Part 72 and 40 CFR Part 75.

The designated representative shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA Administrator or permitting authority.

- (i) Certificate of representation, in accordance with §72.24; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
- (ii) All emissions monitoring information, in accordance with part 75 of this chapter; provided that to the extent that part 75 provides for a 3-year period for recordkeeping, the three-year period shall apply.
- (iii) Copies of all reports, compliance certifications, and other submissions and all records made

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or required under the Acid Rain Program.

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

In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature:

(1) The following statement, which shall be included verbatim in such submission: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made."

(2) The following statement, which shall be included verbatim in such submission: "I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

[40 CFR Part 72.9(f)] [40 CFR Part 72.21(b)]

- C26. The Unit 5 annual average natural gas firing rate shall not exceed 506.5 MM Btu/hour based on annual natural gas use and total yearly hours. The monthly average firing rate shall be reported to the District in the report required by condition C16. This monthly firing rate shall be calculated using total natural gas combusted in the Unit 5 turbine during the calendar month and the total hours of the month. The heating values of the natural gas used in the calculations will comply with 40 CFR 75 Appendix D requirements. Compliance with the annual average firing rate limits will be verified by calculations presented in the December monthly AQMD report for the previous calendar year's operation.

[District Permit 00-PO-39, Condition 36]

**UNIT 6, GAS TURBINE GENERATOR  
EQUIPMENT UNDER PERMIT**

- One 45 MW Seimens Model SGT 800 Gas Turbine (508 MM Btu/Hr.)
- One 155,000 lbs/hr ATX Express Heat Recovery Steam Generator (HRSG)
- One EMx™ SCONOx/SCOSOx, CO, & ROC Emission Control System
- One Mist Eliminator for Gas Turbine Engine
- One (1) Stack: 9.75 ft. Diameter, 100 ft. tall
- ONE (1) 15,000 GPM COOLING TOWER (shared with units 4 and 5)

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OPERATING CONDITIONS

D1. The combustion turbine shall be exclusively fueled with California PUC pipeline quality natural gas with a sulfur content not to exceed 0.5 grain per 100 standard cubic feet.

[District Permit 06-PO-42, Condition 19]

D2. Instrumentation shall be installed and maintained on the gas turbine generator system to measure electrical energy production.

(District-only requirement, not federally enforceable)  
[District Permit 06-PO-42, Condition 22]

D3. Best Available Control Technology (BACT) for the combustion turbine shall be defined as EMx™SCONox technology for control of NOx emissions at a level not to exceed that specified in Condition #C7.

[District Permit 06-PO-42, Condition 28]

D4. As mitigation for the increased emissions due to the operation of the Unit 6 turbine and associated HRSG, one of the two gas-fired power boilers (Permit to Operate 84-PO-52) shall be reduced in operation whenever the Unit 6 turbine and HRSG are operating to an extent that:

1. There will be no increase in potential steam production above 300,000 pounds/hr. at the steam turbine rated operating conditions, and
2. There will be no increase in NOx emissions above the potential emissions from running both Utility Boilers.

[District Permit 06-PO-42, Condition 34]

D5. No hexavalent chromium containing compounds shall be added to the circulating water of any cooling tower used at this facility.

[District Permit 06-PO-42, Condition 35]  
EMISSION LIMITS AND STANDARDS

D6. The following opacity limits shall apply at all times:

Emission Point	Opacity Limit
HRSG Exhaust	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor as determined by EPA Method 9

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Oil Mist Eliminator Vent	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor as determined by EPA Method 9
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[District Permit 06-PO-42, Condition 30]

D7. Emissions from the gas turbine and associated HRSG shall meet all of the emission limitations listed in a. through e. below at any firing rate and ambient conditions (except as noted in Condition D8):

	<u>Pollutant</u>	<u>CONCENTRATION</u>	<u>EMISSION RATE</u>			<u>Verification</u>
			<u>Pounds/hour</u>	<u>Pounds/Day</u>	<u>Tons/Year</u>	
a	NOx as NO <sub>2</sub>	2.0 ppmvd, 1-hr block average @ 15% O <sub>2</sub>	3.69	88.6	16.2	Verified by CEMS and initial compliance test at maximum operating capacity of the turbine
b	CO	4.0 ppmvd, 1-hr block averaging @ 15% O <sub>2</sub>	4.49	108	19.7	Verified by initial compliance test at maximum operating capacity of the turbine and as required per district rule 2:11.a.3.f.
c	ROC	1.4 ppmvd as CH <sub>4</sub> , 1-hour block averaging @ 15% O <sub>2</sub>	0.9	21.6	3.94	Verified by initial compliance test at maximum operating capacity of the turbine and as required per district rule 2:11.a.3.f.
d	SOx as SO <sub>2</sub>	0.28 ppmvd, 1-hr block averaging @ 15% O <sub>2</sub>	0.71	17.1	3.1	Verified by initial compliance test at maximum operating capacity of the turbine and by fuel use data and emission factor verified by annual sulfur content analysis.
e	PM <sub>10</sub> (filterable + condensable)	0.0012 grain/dscf, 1-hour averaging @ 3% CO <sub>2</sub>	2.8	67.2	12.3	Verified by initial compliance test at maximum operating capacity of the turbine and as required per district rule 2:11.a.3.f.

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f	Opacity	≤ 20% for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.				Verified by initial visible emission evaluation as determined by EPA Method 9 and annually thereafter.
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[District Permit 06-PO-42, Condition 31]

- D8. The emission limits in Condition D7 shall not apply during any startup (which is not to exceed 2 4 hours in duration), or shutdown (which is not to exceed 1.0 hour in duration).

The EMx™SCONOx system and good combustion practices shall be used whenever the combustion turbine is operating and to the fullest extent practical during startup and shutdown conditions to minimize pollutant emissions. Startup shall be defined as the period beginning with ignition and lasting until equipment has reached stable operating mode and has achieved operating permit limits. Shutdown shall be defined as the period beginning with the lowering of equipment from stable operating load with the intention of full shutdown and lasting until fuel flow is completely off and combustion has ceased. Emissions from the gas turbine and associated HRSG shall meet all of the emission limitations listed below for each startup or shutdown.

Pollutant	Startup	Shutdown	Verification
NOx as NO <sub>2</sub>	80 87 lbs/2 4 hrs	40 lbs/hr	Verified by CEMS

The operator must maintain the stationary combustion turbine, air pollution control equipment and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction.

[District Permit 06-PO-42, Condition 32] [40CFR60.4333]

**TESTING, MONITORING AND RECORDKEEPING**

- D9. The gross calorific value of the pipeline natural gas fuel shall be determined at least once per calendar month in accordance with the requirements of 40 CFR, Part 75, Appendix D. Monthly records of gas heat content shall be maintained for five years and made available to the Air Pollution Control Officer upon request. The pipeline natural gas fuel shall also be sampled at least once per calendar year to

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determine total sulfur content in accordance with 40 CFR Part 75, Appendix D.

[District Permit 06-PO-42, Condition 21]

- D10. The project owner/operator shall monitor and record turbine/HRSG exhaust gas temperature at the EMx™ SCONOX catalyst inlet. This data shall be maintained for a period of five years and be made available to District staff upon request.

[District Permit 06-PO-42, Condition 24]

- D11. To satisfy the monitoring and reporting requirements of the Acid Rain (Title IV) requirements of 40 CFR, Part 75, and New Source Performance Standards of 40 CFR, Part 60, Subpart KKKK, prior to commercial operation of the turbine, the following monitoring and data acquisition systems shall be installed, calibrated, and operated as outlined below:

- A. A continuous fuel (natural gas) flow monitor and continuous emission monitors (CEMs) to monitor fuel flow, NO<sub>x</sub> and O<sub>2</sub> that meet the equipment, installation, and performance specifications in 40 CFR, Part 75, Appendix A and maintenance specifications according to the quality assurance and quality control procedures in 40 CFR, Part 75, Appendix B. The continuous fuel flow monitor system must be accurate to within 2 percent of the upper-range value.
- B. A data acquisition system capable of calculating and recording the following:
1. Stack volumetric flow (in dscfm) calculated from fuel flow and O<sub>2</sub> CEM data using methods outlined in 40 CFR, Part 75, Appendix F and G;
  2. Emissions of NO<sub>x</sub> (concentrations expressed in ppmv corrected to a value at 15 percent O<sub>2</sub> (dry) and mass emissions expressed in lbs/MMBtu, and lbs/hr), from CEM data, fuel flow, and stack volumetric flow;
  3. Emissions of O<sub>2</sub> (in %) from CEM data;
  4. Emissions of CO<sub>2</sub> (in %), calculated from fuel flow using methods outlined in 40 CFR, Part 75, Appendix G;
  5. Emissions of SO<sub>2</sub> (in Lbs/Hr), calculated from fuel flow and the emission factor of 0.0006 LBS SO<sub>2</sub> per MMBtu for pipeline natural gas as given in 40 CFR 75, Appendix D;
  6. Graphical trend analysis including summary reports of the respective 1-hour averages, pounds per day, and tons-per-year of NO<sub>x</sub>.

[District Permit 06-PO-42, Condition 25] [40CFR60.4340]

- D12. To meet the monitoring requirements of the Acid Rain Program, and prior to commercial firing of the power train, a continuous emission monitoring system (CEM) shall be installed, calibrated, and operated on the HRSG exhaust to measure concentrations of NO<sub>x</sub> and percent O<sub>2</sub>. The system shall meet monitoring and quality assurance specifications as required by Appendix A in 40 CFR, Part 75. The monitoring systems must also successfully pass the calibration and drift requirements of the equipment manufacturer. (Reference 40 CFR 266, Appendix IX, Section 2.1.9.)

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The system shall continuously record the measured concentrations, and shall calculate and continuously record the NO<sub>x</sub> concentrations corrected to a value at 15 percent O<sub>2</sub>, dry. The NO<sub>x</sub> CEMs shall have the capability of recording NO<sub>x</sub> concentrations during all operating conditions, including startups and shutdowns. Multiple range analyzers or additional "coarse range" analyzers shall be provided as necessary to measure higher concentrations during startup periods. Due to the low concentrations of NO<sub>x</sub> with appreciable NO<sub>2</sub> expected during operation, chillers or condensers shall not be utilized as primary moisture removal in the CEMs for measuring NO<sub>x</sub> concentrations.

[District Permit 06-PO-42, Condition 26]

- D13. The dates and results of all visible emission evaluations required by Condition C7 shall be recorded in a log and maintained for five years for District inspection upon request.

[District Permit 06-PO, Condition 29]

- D14. Initial emission testing for PM<sub>10</sub>, ROC, NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions from the HRSG exhaust, and emission calculations of the PM<sub>10</sub> emissions from all wet cooling towers shall be conducted by an independent testing firm(s) in strict compliance with the test methods specified in Condition D15. Results of all emission testing shall be forwarded to the District for compliance verification within forty-five days after testing. An emission testing protocol detailing the methods of sampling and analysis shall be submitted to the District for approval 30 days prior to the initial (and any subsequent) testing. The District shall be notified at least 10 days prior to the actual date of testing so that a District observer can be present. The following parameters shall also be determined during the emission testing:

- a. Natural gas consumption SCFH;
- b. Steam produced in the HRSG;
- c. Electricity generated at the turbine generator during the test;
- d. HRSG exhaust gas temperature entering the SCONO<sub>x</sub>/SCOSO<sub>x</sub> catalyst;
- e. Stack exhaust flow rate in dry standard cubic-feet-per minute;
- f. Exhaust gas oxygen concentration in percent;
- g. Exhaust stack gas temperature in degrees Fahrenheit;
- h. Exhaust stack gas moisture content;
- i. Sulfur content of the fuel;
- j. CO/ROC surrogate ratio.

An annual NO<sub>x</sub> performance test as specified in 40 CFR Part 60.4400 is required. NO<sub>x</sub> testing must be performed no more than 14 calendar months following the previous performance test.

[District Permit 06-PO-42, Condition 36].[40 CFR 60.4400]

- D15. Each of the following test methods shall apply when testing for the specific pollutants listed below unless an EPA approved alternative test method has been authorized by the District:

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a.	Particulate Matter	CARB Method 5 (front and back half analysis) or EPA 201/201a and 202 w/N2
b.	Oxides of Nitrogen	EPA Method 20
c.	Carbon Monoxide	EPA Method 10 or ARB Method 100
d.	Sulfur dioxide	EPA Method 20
e.	Reactive Organic Compounds	EPA Method 18
g.	Stack Gas Oxygen	EPA Method 20

[District Permit 06-PO-42, Condition 38]

- D16. To demonstrate compliance with the mass emission limitations for NO<sub>x</sub>, CO, PM<sub>10</sub>, SO<sub>x</sub>, and VOC stated in Condition #33 above, the owner/operator shall calculate and record the hourly, daily, and year-to-date mass emissions (excluding startup and shutdown emissions) from the gas turbine/HRSG train using CEM emission data (for NO<sub>x</sub>) and emission factors derived from the most recent annual emission test (for PM<sub>10</sub>, ROC, CO, and SO<sub>x</sub>). The owner/operator shall use the actual heat input rates, actual gas turbine startup times, actual gas turbine shutdown times, and District-approved emission factors developed during the emission testing required by Condition D14 to calculate these emissions. The owner/operator shall additionally calculate and report to the District monthly, NO<sub>x</sub> emissions during startup and shutdown.

[District Permit 06-PO-42, Condition 40]

- D17. Exhaust stack heights of the HRSG shall not exceed 100 feet above grade level at the stack base. At least four sampling ports must be provided on the HRSG exhaust stack (located on the same horizontal plane, 90 degrees apart, and at least two [2] duct diameters downstream, and one-half [½] duct diameters upstream of any flow disturbance) and shall consist of 4-inch female NPT couplings welded to the stack. The couplings shall be supplied with 4-inch pipe plugs. A sampling platform shall be installed on the stack. The location of the sampling ports and design of the platform must be approved by the District. At least 45 days prior to the release to the manufacturer of the emission stack's "approved for construction" drawings and at least 120 days prior to installation, the owner/operator shall submit the drawings to the District for approval of the stack, platform, and sampling ports.

[District Rule 2:14]

- D18. Monthly emission reports shall be required to be submitted by the 15th of the month following data recording and shall include:

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- a. all periods three minutes and longer in duration when opacity from either HRSG exhaust stack or the oil mist eliminator exceeds the specified limits and the reason for the excursion;
- b. all periods when NO<sub>x</sub>, CO, ROC, PM<sub>10</sub>, or SO<sub>x</sub> emissions from the exhaust stacks exceed the specified limits and the reason for the excursion;
- c. all periods when the NO<sub>x</sub> CEMs, the fuel flow monitor, or the data acquisition system were not functioning and the reasons for the same;
- d. documentation of the quarterly calibrations of the monitoring devices required in Condition D12, and a report of corrective maintenance required as a result of the calibrations;
- e. documentation of daily and monthly emissions of PM<sub>10</sub>, NO<sub>x</sub>, CO, SO<sub>x</sub>, and ROC from the HRSG exhausts and the wet cooling towers using the methods specified in Conditions D11, D12, and D5;
- f. documentation of monthly natural-gas fuel consumption for the gas turbine;
- g. documentation of fuel sulfur content when annual testing has occurred;
- h. documentation of the date and times when the temperature entering the SCONOX catalyst system is less than 300°F;
- i. documentation of total operation time, date and time at the beginning and end of each startup/shutdown period, and total hours in startup and shutdown periods for the gas-fired turbine;
- j. documentation of quantity of electricity generated on a daily basis and total for the month;
- k. documentation of corrective action taken for each period of excess emission, upset, breakdown, or malfunction;
- l. if no permit limitations were exceeded, the report must so state.

[District Permit 06-PO-42, Condition 41]

- D19. An excess emissions and monitoring systems performance report and/or summary report form shall be submitted to the EPA Regional Administrator semi-annually. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the magnitude and time of excess emissions computed in accordance with 40CFR 60.13(h), specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions, the date and time identifying each period during which the continuous monitoring system (CMS) was inoperative except for zero and span checks, and the nature of the system repairs or adjustments. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form (as shown in 40 CFR 60.7 (c), figure 1) shall be submitted. The excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

[40 CFR 60.7(c) & (d), 60.334, 60.4375] [District Permit 06-PO-42, Condition 43]

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D20. Unit 6 shall be operated in compliance with the complete Acid Rain permit application submitted by the designated representative to the District.

[40 CFR Part 72] [District Permit 06-PO-42, Condition 44]

D21. The monitoring requirements as provided in Part 75 of 40 CFR will apply to Unit 6.

[40 CFR Part 72]

D22. The emissions measurements recorded and reported in accordance with Part 75 of 40 CFR shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

[40 CFR Part 72]

D23. The requirements of Part 75 of 40 CFR shall not affect the responsibility of the owner/operator to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Clean Air Act (CAA) and other provisions of the operating permit for the source.

[40 CFR Part 72]

D24. Unit 6 shall comply with the applicable Acid Rain emissions limitations for sulfur dioxide. Allowances will be held in Unit 6's compliance sub account in an amount not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit.

- a. The sulfur dioxide emissions from Unit #6 shall not exceed the annual emissions allowances (up to one ton per year of sulfur dioxide may be emitted for each emission allowance allotted) that the source lawfully holds for that unit under Title IV of the CAA or the regulations promulgated pursuant to Title IV;
- b. Any increase in Unit 6's sulfur dioxide emissions authorized by allowances acquired pursuant to Title IV of the CAA shall not require a revision of the acid rain portion of the operating permit provided that such increases do not require permit revision under any other applicable federal requirement;
- c. Although there is no limit on the number of sulfur dioxide emissions allowances held by a source, a source with an acid rain unit shall not use these emissions allowances as a defense for noncompliance with any applicable Federal requirement or District requirement, including District Rule 2:1; and
- d. Unit 6's sulfur dioxide allowances shall be accounted for according to the procedures established in regulations promulgated pursuant to Title IV of the CAA.

[40 CFR Part 72; SCAQMD Rule 5]

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D25. Unit 6 shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

[40 CFR Part 72]

D26. The designated representative for Unit 6 shall submit a proposed offset plan for emissions of nitrogen oxides and/or sulfur dioxide, as required under part 40 CFR Part 77, if Unit 6 has excess emissions in any calendar year.

[40 CFR Part 72]

D27. The designated representative for Unit 6 shall submit the reports and compliance certifications required under the Acid Rain Program, including those under Subpart I of 40 CFR Part 72 and 40 CFR Part 75.

The designated representative shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority.

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with §72.24; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.

(ii) All emissions monitoring information, in accordance with part 75 of this chapter; provided that to the extent that part 75 provides for a three-year period for recordkeeping, the three-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program.

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

In each submission under the Acid Rain Program, the designated representative shall certify, by his or her signature:

(1) The following statement, which shall be included verbatim in such submission: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made."

(2) The following statement, which shall be included verbatim in such submission: "I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the

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statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

[40 CFR Part 72.9(f)] [40 CFR Part 72.21(b)]

**FACILITY WIDE REQUIREMENTS**

**EMISSION LIMITS AND STANDARDS**

- E1. No person shall discharge contaminants from any single source into the atmosphere in amounts greater than those designated below (unless governed by EPA New Source Performance Standard). All emissions are to be measured by methods approved for use by the Air Pollution Control Officer (APCO). Any method approved by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB) is approved for use by the APCO:
- a. Combustion Particulate Matter<sup>1,2</sup> ..... 0.15 gr/dscf
  - b. Particulate Matter Less Than or Equal to 10 $\mu$  in Size<sup>1,2</sup> ..... 0.10 gr/dscf
  - c. All Other Particulate Matter<sup>1,2</sup> .....0.15 gr/dscf
  - d. Maximum Hourly Particulate Matter (E) as a Function of Process Weight (P<sub>t</sub>) in Tons Per Hour  
Where E = lbs/hr  
Less Than or Equal to 30 Tons/Hour.....E = 4.1 P<sub>t</sub><sup>.67</sup>  
Greater Than 30 Tons/Hour .....E = 55 P<sub>t</sub><sup>.11</sup> - 40
  - e. Oxides of Sulfur (as SO<sub>2</sub>)<sup>1,2,3</sup> .....300 ppm
  - f. Oxides of Nitrogen (as NO<sub>2</sub>)<sup>1,2,3</sup> .....250 ppm
  - g. Opacity<sup>4</sup>  
Ringelmann #2 and/or 40% equivalent opacity pursuant to California Health & Safety Code Section 41701

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Footnotes:

<sup>1</sup>Calculated at standard conditions: 70° F, one atmosphere, dry gas basis.

<sup>2</sup>When the emissions are generated by a combustion process, the gas volume shall be corrected to 12% CO<sub>2</sub> at standard temperature and pressure.

<sup>3</sup>The Air Pollution Control Officer (APCO) may specify an appropriate correction and/or reporting factor depending upon the type of process involved

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<sup>4</sup>This requirement does not apply to smoke emissions from burners used to produce energy and fired by forestry and agricultural residues with supplementary fuels when the emission resulted from startup or shutdown of the combustion process or from the malfunction of emission control equipment. However, this exemption does not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period, or which result from the failure to operate and maintain in good working order any emission control equipment.

[SCAQMD Rule 3:2, Specific Air Contaminants; 54 FR 14650, 4/12/89]

- E2. A person shall not discharge more than forty (40) pounds of photochemically reactive solvents into the atmosphere in any one day from any article, machine, equipment, or other contrivance used for employing, applying, evaporating, or drying any photochemically reactive solvent, as defined in District Rule 1:2, or material containing such solvent, unless all photochemically reactive solvents discharged from such article, machine, equipment, or other contrivance have been reduced either by at least 85 percent overall or to not more than 40 pounds in any one day. The provisions of this condition shall not apply to:
- a. The spraying or other employment of insecticides, pesticides, or herbicides.
  - b. The employment, application, evaporation, or drying of saturated halogenated hydrocarbons or perchloroethylene.
  - c. The employment or application of polyester resins or acetone used in a fiberglass reinforced plastics operation.

Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it shall be considered as a member of the most reactive chemical groups, i.e., the groups having the least allowable percent of the total of solvents.

No person shall discharge from any device, contrivance, or machine more than forty (40) pounds per day of any photochemically reactive substance other than those described above unless such discharge is controlled to reduce emissions by 85 percent.

[SCAQMD Rule 3:4, Industrial Use of Organic Solvents; 49 FR 47491, 10/3/84]

- E3. The opacity of any stack discharge not subject to a specific opacity standard in this permit shall not exceed a Ringelmann 2 or 40 percent equivalent opacity for any period greater than three (3) minutes in any period of sixty (60) consecutive minutes.

[SCAQMD Rule 3:2, Specific Air Contaminants; 54 FR 14650, 4/12/89]

- E4. The total emissions from all emissions units at the City of Redding Utilities location on Clear Creek Road shall not exceed the following on an annual (calendar year) basis (expressed in tons/calendar year).

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ANNUAL POTENTIAL TO EMIT (tons/calendar year)				
PM <sub>10</sub>	NO <sub>x</sub> (as NO <sub>2</sub> )	CO	SO <sub>x</sub>	ROC (as Methane)
53.6	99	99	7.6	15.9

[District Permit 00-PO-39a, Condition 28]

**OPERATING CONDITIONS**

- E5. Fugitive dust emissions from unpaved roads or any other area without vegetative cover shall be controlled at all times such that a violation of an ambient air standard or a public nuisance is not created at any point beyond the plant property line.

(District-only requirement, not federally enforceable)

[District Permit 92-PO-11e, Condition 36; District Permit 00-PO-39a, Condition 35]

**TESTING, MONITORING AND REPORTING REQUIREMENTS**

- E6. Emissions exceeding any of the limits established in this permit shall immediately be reported to the APCO:
- a. For facility wide scheduled maintenance, notice shall be provided to the APCO at least twenty-four (24) hours prior to shutdown, whether or not an emission exceedance is expected.
  - b. The emission source operator shall notify the APCO within four (4) hours of the occurrence of any excess emission and provide information on the time, duration, cause, and extent of the excess emission. Upon the request of the APCO, a full, written report of each occurrence, including a statement of all known causes and the nature of the actions to be taken pursuant to the requirements of Rule 3:10 or Rule 5 shall be submitted to the District.
  - c. Corrective action shall be taken immediately by the operator of the emission source to correct the conditions causing excessive emissions to reduce the frequency of the occurrence of such conditions. In no event shall equipment be operated with emission control equipment in a malfunctioning condition or in a manner that creates excessive emissions beyond the end of the work shift or twenty-four (24) hours, whichever occurs first.
  - d. An emergency constitutes an affirmative defense to any action brought for non-compliance with technology-based emission limits if:
    - 1) The emission source operator can identify the cause(s) of the emergency;

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- 2) The permitted facility was, at the time, being properly operated;
- 3) During the period of the emergency, the emission source operator took all reasonable steps to minimize levels of excess emission; and
- 4) The emission source operator submitted notice of the emergency to the APCO in accordance with this condition.

(For the purposes of this condition, emergency shall be as defined in Title 40 of the Code of Federal Regulations, Part 70, Section 70.6(g); i.e. "any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency.")

Within two (2) working days of the emergency event, the permittee shall provide the District with a description of the emergency and any mitigating or corrective actions taken. Within two (2) weeks of an emergency event, the responsible official shall submit to the District a properly signed contemporaneous log or other relevant evidence that contains all the information for what constitutes an emergency (as described in d.1)-4) of this condition).

In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred.

- e. An excess emission occurrence may not avoid enforcement action by the APCO if the occurrence is caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- f. Nothing expressed in this condition shall be construed to limit enforcement authorities under the Federal Clean Air Act.
- g. Excess emissions of applicable requirements during startup and shutdown shall be considered an emission violation unless an applicable requirement provides otherwise. Excess emissions of permit conditions shall be considered a violation if the owner or operator cannot demonstrate that the excess emissions are unavoidable when requested to do so by the APCO. The APCO may specify for a particular source the amount, time, duration, and under what circumstances excess emissions are allowed during startup or shutdown if consistent with an applicable requirement. The owner or operator shall, to the extent practicable, operate the emission source and any associated air pollution control equipment or monitoring equipment in a manner consistent with best practicable air pollution control practices to minimize emissions during startup and shutdown.
- h. An emergency is presumed to have occurred if there is an unavoidable incident of non-compliance with the technology based emission limits associated with supplying excess energy as the result of a California Independent System Operator (CAISO) Stage 1 or greater

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emergency, or as the result of a specific transmission constraint or voltage problem identified by CAISO that, if not mitigated, could result in the curtailment of load.

(District-only requirement, not federally enforceable)

[SCAQMD Rule 3:10, Excess Emissions, SCAQMD Rule 5; District Permits 84-PO-52g Condition 10, 92-PO-11e Condition 10, and 00-PO-39a Condition 6]

- E7. The permittee shall promptly report any deviation from permit requirements, including that attributable to upset conditions (as defined in the permit), to the APCO in accordance with District Rule 3:10, as listed in Condition D6. If the deviation is not defined in District Rule 3:10, reporting shall be no longer than ten days after the deviation.

(District-only requirement, not federally enforceable.)

[SCAQMD Rule 5]

- E8. The permittee shall submit a written monitoring report to the APCO every six months. A copy of the EPA 12-month certification report shall suffice for one of these six (6) month monitoring reports. The reporting periods shall be January 1 through June 30 and July 1 through December 31. The report shall state whether compliance was continuous or intermittent during the period. These reports shall be submitted within forty-five (45) days of the end of each reporting period. When no deviations have occurred for the reporting period, such information shall be stated in the report. The monitoring report shall include at a minimum:

- a. A report for each deviation from a permit requirement that occurred during the reporting period, including emergency events. All reports of a deviation from permit requirements shall include the probable cause of the deviation and any preventative or corrective action taken. The permittee shall use District approved forms to report each deviation from permit requirements.
- b. Results from any emission testing done during the reporting period if not provided earlier to the District immediately following the test.
- c. A Certification Report form (Forms 5-K1a, K1b, K2, and K3), which includes a written statement from the responsible official that certifies the truth, accuracy, and completeness of the report and shall state that " based upon information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete."

[SCAQMD Rule 5]

- E9. The permittee shall submit compliance certification reports to the EPA and a duplicate copy to the APCO every twelve (12) months. The report shall be submitted within forty-five (45) days of the end of the reporting period. The permittee shall use District approved forms for the compliance certification and shall also include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report.

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Compliance certifications shall be sent to EPA at the following address:

Director: Air Division  
U.S. EPA Region IX  
Air Division (AIR-3)  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Compliance certifications shall be sent to the APCO at the following address:

Air Pollution Control Officer  
Shasta County Air Quality Management District  
1855 Placer Street, Suite 101  
Redding, CA 96001

[SCAQMD Rule 5][40 CFR60.4 (a) and (b)]

- E10. The owner or operator shall provide written notification to the APCO and the EPA Administrator of any physical or operational change to an existing facility (as defined by 40 CFR 60.2) that may increase the emission rate of any air pollutant to which a standard under 40 CFR Part 60 applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Part 60.14(e). This notice shall be postmarked sixty (60) days, or as soon as practical, before the change is commenced, and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The District or the Administrator may request additional information subsequent to this notice.  
[40 CFR Part 60.7(a)4]

- E11. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements, all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, startup, shutdown, and malfunction records, CEMS downtime, and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurements, maintenance, reports, and records.

[40 CFR Part 60.7(b) and (f), District Rule 5]

- E12. The permittee shall provide the APCO and the EPA Administrator at least thirty (30) days prior notice of any performance test or CEMS performance evaluation, except as specified under other subparts, to afford the APCO and the Administrator the opportunity to have an observer present. All performance tests must be conducted per the procedures in 40 CFR Part 60.8(b).

[40 CFR Part 60.7(a)(5)] [40 CFR Part 60.8(b) and (d)]

- E13. The permittee shall provide, or cause to be provided, testing facilities as follows:

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- a. Sampling ports adequate for test methods applicable to such facility. This includes the following:
  - 1) Constructing the air pollution control system such that volumetric flow rates and pollution emission rates can be accurately determined by applicable test methods and procedures; and
  - 2) Providing stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- b. Safe sampling platform(s).
- c. Safe access to sampling platform(s).
- d. Utilities for sampling and testing equipment.  
[District Rule 2:14, 40 CFR Part 60.8.e]

E14. Emission opacity shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR Part 60.

[40 CFR Part 60.11(b)]

E15. No hexavalent chromium containing compounds shall be added to the circulating water of any cooling tower used at this facility.  
[SCAQMD Rule 3:19]

**STANDARD CONDITIONS**

F1. The Permit to Operate is issued in accordance with the rules and regulations of the District. If any provision of the permit is found invalid, such finding shall not affect the remaining provisions.

[District Permits 84-PO-52g Condition 3, 92-PO-11e Condition 5, 00-PO-39a Condition 1]

F2. In the event of any changes in control or ownership of facilities constructed or modified, the Permit to Operate shall be binding on all subsequent owners and operators. The permittee shall notify the succeeding owner and operator of the existence of the Permit to Operate and its conditions by letter, a copy of which shall be forwarded to the Air Pollution Control Officer (APCO) of the Shasta County Air Quality Management District.

(District-only requirement, not federally enforceable.)

[District Permit 00-PO-39a, Condition 2]

F3. Equipment is to be maintained so that it operates as it did when the permit was issued. Any intention to change equipment, method of operation, fuel use, or process which may cause an emission increase, shall be reported to the District at least thirty days prior to seeking other permits in order for

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the District to determine if an application for an Authority to Construct is necessary.

[District Permits 84-PO-52g Condition 3, 92-PO-11e Condition 3, 00-PO-39a Condition 3]

- F4. Acceptance of this permit is deemed acceptance of all conditions as specified. All equipment, facilities, and systems shall be designed and operated in a manner that maintains compliance with the conditions of this permit. Failure to comply with any condition of this permit or the rules and regulations of the District shall be grounds for revocation, either by the APCO or the District Hearing Board.

[District Permits 84-PO-52g Condition 5, 92-PO-11e Condition 5, 00-PO-39a Condition 4]

- F5. The District reserves the right to amend this permit, if the need arises, in order to insure compliance of this facility with applicable local, state, or federal regulations, or to abate any public nuisance.

[District Permits 84-PO-52g Condition 6, 92-PO-11e Condition 6, 00-PO-39a Condition 5]

- F6. This facility is subject to all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act of 1987, as cited in *California Health and Safety Code* Sections 44300 et seq.

(District-only requirement, not federally enforceable)

[District Permits 84-PO-52g Condition 13, 92-PO-11 Condition 13, 00-PO-39a Condition 7]

- F7. The right of entry described in *California Health and Safety Code Section 41510*, Division 26, shall apply at all times. The Regional Administrator of the EPA, the Executive Officer of the California Air Resources Board, the APCO, and/or their authorized representatives, upon the presentation of credentials, shall be permitted:

- a. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of the Permit to Operate; and
- b. At reasonable times to have access to and copy of any records required to be kept under the terms and conditions of the Permit to Operate; and
- c. To inspect any equipment, operation, or method required in the Permit to Operate; and
- d. To sample emissions from any and all emission sources within the facility.

[District Permits 84-PO-52g Condition 11, 92-PO-11e Condition 11, and 00-PO-39a Condition 9]

- F8. The owner/operator shall maintain all records and reports on site for a minimum of five years. These records shall include, but are not limited to the following: continuous monitoring records (firing hours, fuel flows, continuous emissions records, excess emissions, breakdowns, etc.), source test and analytical records, emission calculation records, and records of plant upsets and related incidents. All records and emission test results requested to be kept under the terms and conditions of the Permit to Operate shall be made available to District staff upon request.

[District Permit 00-PO-39 Condition 10, SCAQMD Rule 5]

- F9. The operating staff with management authority at this facility shall be advised of and be familiar with

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all the conditions of the permit.

(District-only requirement, not federally enforceable.)

[District Permits 84-PO-52g Condition 14, 92-PO-11e Condition 14, 00-PO-39a Condition 11]

- F10. References to rules, regulations, etc., within the permit shall be interpreted as referring to such rules and regulations in their present configuration and language as of the date of issuance of the permit.

(District-only requirement, not federally enforceable.) [District Permit 00-PO-39a, Condition 12]

- F11. *As per California Health & Safety Code Section 41700* states no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause or have a natural tendency to cause, injure, or damage to business or property.

(District-only requirement, not federally enforceable) [District Permit 00-PO-39a, Condition 13]

- F12. The owner/operator shall comply with the requirements of 40 CFR Part 68 Risk Management Plan requirements as applicable and provide compliance certification as required by Title V of the Federal Clean Air Act.

[District Permit 00-PO-39a, Condition 14]

- F13. The facility shall comply with all portions of the Federal New Source Performance Standards 40 CFR 60, Subpart A (General Provisions), Subpart GG (Standards of Performance for Stationary Gas Turbines), Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units), and Subpart KKKK Standards of Performance for Stationary Combustion Turbines. Notification with respect to commencement of construction (30-day notice), anticipated date of startup (30- day notice), actual date of startup (within 15 days), and modifications which could increase emission rates (60 days or as soon as practicable) shall be provided to the EPA Administrator in accordance with 40 CFR 60.7.

[District Permit 84-PO-52g Condition 12, 92-PO-11e Condition 12, and 00-PO-39a Condition 16]

- F14. The Permit to Operate shall be posted in a conspicuous location within the control center of the facility for which it was issued.

(District-only requirement, not federally enforceable.)

[District Permits 84-PO-52g Condition 1 and 92-PO-11e Condition 1]

- F15. The permit is not transferable from either one location to another, one piece of equipment to another, or from one person to another.

(District-only requirement, not federally enforceable.)

[District Permits 84-PO-52g Condition 2 and 92-PO-11e Condition 2]

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- F16. All equipment, facilities, and systems shall be designed to be operated in a manner that minimizes air pollutant emissions and maintains compliance with the conditions of the permit and the regulations of the District.
- (District-only requirement, not federally enforceable.)  
[District Permits 84-PO-52g Condition 8 and 92-PO-11e Condition 8]
- F17. Periods of scheduled maintenance shall be reported to the District at least 24 hours prior to shutdown.
- (District-only requirement, not federally enforceable.)  
[District Permits 84-PO-52g Condition 9 and 92-PO-11e Condition 9]
- F18. No person shall build, erect, install, or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission that would otherwise constitute a violation.
- [SCAQMD Rule 3:6, Circumvention; 42 FR 42223, 8/22/77; 40 CFR Part 60.12]
- F19. The permittee shall comply with all permit conditions of this Title V Operating Permit.
- [SCAQMD Rule 5]
- F20. This permit does not convey property rights or exclusive privilege of any sort.
- [SCAQMD Rule 5]
- F21. The non-compliance with any permit condition herein is grounds for Title V Operating Permit and District Permit to Operate termination, revocation, modification, enforcement action, or denial of permit renewal.
- [SCAQMD Rule 5]
- F22. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- [SCAQMD Rule 5]
- F23. A pending permit action or notification of anticipated non-compliance does not stay any permit condition.
- [SCAQMD Rule 5]
- F24. Within a reasonable time period, the permittee shall furnish any information requested by the APCO, in writing, for the purpose of determining: 1) compliance with the permit, and 2) whether cause exists for a permit or enforcement action.

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[SCAQMD Rule 5]

- F25. This Operating Permit shall become invalid five (5) years from the date of issuance. The owner/operator shall apply for renewal of this permit no earlier than eighteen (18) months and no later than six (6) months before the expiration date of the permit. Upon submittal of a timely and complete renewal application, this Operating Permit shall remain in effect until the APCO issues or denies the renewal application.

[SCAQMD Rule 5]

- F26. The permittee shall remit the Title V supplemental annual fee to the District on a timely basis. Failure to remit fees on a timely basis is grounds for forfeiture of this Operating Permit and the District Permit to Operate. Operation without a Permit to Operate subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to Section 502(a) of the Clean Air Act.

[SCAQMD Rule 5]

- F27. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit.

[SCAQMD Rule 5]

- F28. No person shall willfully deface, alter, forge, counterfeit, or falsify a Permit to Operate any article, machine, equipment, or other contrivance.

[SCAQMD Rule 2:21, Defacing Permit, 37 FR 19812, 9/22/72 (current Rule 2:24)]

- F29. A person who has been granted a Permit to Operate as described in Rule 2:1A.b. shall firmly affix such permit, an approved facsimile, or other approved identification bearing the permit number upon the article, machine, equipment, or other contrivance in such a manner as to be clearly visible and accessible. In the event that the article, machine, equipment or other contrivance is so constructed or operated that the Permit to Operate cannot be so placed, the Permit to Operate shall be mounted so as to be clearly visible in an accessible place within 25 feet of the article, machine, equipment, or other contrivance, or maintained readily available at all times on the operating premises.

[SCAQMD Rule 2:23, Posting of Permit to Operate; 54 FR 14650, 9/22/72]

- F30. All information, analyses, plans, or specifications that disclose the nature, extent, quantity, or degree of air contaminants or other pollution that any article, machine, equipment, or other contrivance will produce and that any air pollution control district or any other state or local agency or district requires any applicant to provide before such applicant builds, erects, alters, replaces, operates, sells, rents, or uses such article, machine, equipment, or other contrivance, are public records.

[SCAQMD Rule 2:25, Public Records - Trade Secrets; 42 FR 42223, 8/22/77]

- F31. All air or other pollution monitoring data, including data compiled from stationary sources, are public records.

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[SCAQMD Rule 2:25, Public Records - Trade Secrets; 42 FR 42223, 8/22/77]

- F32. Except as otherwise provided in Condition E33, trade secrets are not public records under this condition. As used in this condition, "trade secrets" may include (but are not limited to) any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information that:
- a. Is not patented;
  - b. Is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value, and
  - c. Gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

[SCAQMD Rule 2:25, Public Records - Trade Secrets; 42 FR 42223, 8/22/77]

- F33. Notwithstanding any other provision of law, all air pollution emission data, including those emission data that constitute trade secrets as defined in subdivision c of District Rule 2:25, are public records. Data used to calculate emission data are not emission data for the purposes of this subdivision, and data that constitute trade secrets and that are used to calculate emission data are not public records.

[SCAQMD Rule 2:25, Public Records - Trade Secrets; 42 FR 42223, 8/22/77]

- F34. Each and every applicable provision of federal or state law or applicable Air Basin Plan now or hereinafter enacted or as amended that regulates the discharge of any air contaminants is incorporated here by reference. Where such provisions conflict with local rules and regulations, the more restrictive provisions shall apply.

[SCAQMD Rule 3:1, Applicability of State Laws; 42 FR 42223, 8/22/77]

- F35. Persons performing maintenance, service, repair or disposal of appliances using CFCs, HCFCs, or other ozone-depleting substances must be certified by an approved technician certification program.

[40 CFR Part 82.161, Stratospheric Ozone Protection]

- F36. Persons opening appliances using CFCs, HCFCs or other ozone-depleting substances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

[40 CFR 82.156, Stratospheric Ozone Protection]

- F37. Equipment used during the maintenance, service, repair, or disposal of appliances using CFCs, HCFCs or ozone-depleting substances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

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[40 CFR 82.158, Stratospheric Ozone Protection]

- F38. The permittee shall obtain the approval of the APCO prior to using a halogenated solvent in the cold cleaning solvent degreaser.

[40 CFR Part 63, Subpart T, MACT Standards for Halogenated Solvent Cleaning Operations]

- F39. Certain equipment at this facility are subject to the applicable National Emission Standards for Hazardous Air Pollutants codified at 40 CFR Part 63, Subparts A, YYY, and proposed rule for industrial, commercial, institutional boilers and steam heaters if the facility is determined to be a major source of hazardous air pollutants.

[40 CFR Part 63]

**PERMIT SHIELD**

- G1. In accordance with 40 CFR Part 70.6, compliance with terms and conditions of this permit shall be deemed to be compliant with the following federal laws and regulations regarding air quality as of the date of permit issuance which were considered during the review of the renewal of this permit and its modification.

For the electrical generation systems, compliance with the conditions of this permit shall be assumed to be compliance with District SIP Rules numbered 1:2, 2:1A, 2:5, 2:6, 2:7, 2:10, 2:12, 2:14, 2:21, 2:23, 2:25, 3:1, 3:2, 3:4, 3:6, 3:9, 3:11, and 3:17.

For the utility boilers, Unit 4, compliance with the conditions of this permit shall be assumed to be compliance with federal Clean Air Act regulations contained in 40 CFR at the following sections:

1. 40 CFR Part 60 subparts A and Db (NSPS)
2. 40 CFR Part 63 (NESHAP) and
3. 40 CFR Part 64 (CAM)

For the gas turbine systems (Units 1, 2, 3, 5, and 6), compliance with the conditions of this permit shall be assumed to be compliance with federal Clean Air Act regulations contained in 40 CFR at the following sections:

1. 40 CFR Part 60 subparts A, D, GG, and KKKK (NSPS)
2. 40 CFR Part 63 (NESHAP)
2. 40 CFR Part 64 (CAM)

For the facility, compliance with the conditions of this permit shall be assumed to be compliance with 40 CFR Part 68 (RMP) and 40 CFR Part 82 (Stratospheric Ozone Protection).

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**INSIGNIFICANT EMISSIONS SOURCES**

[The following emission devices are determined to be insignificant sources per District Rule 5 Attachment 1.]

<b>EXEMPT EQUIPMENT</b>	<b>DESCRIPTION</b>	<b>BASIS FOR EXEMPTION</b>
Solvent Cleaning Equipment	Cold Solvent Cleaner	Rule 5, Att.1, Section B.15a,b
Internal Combustion Engine	126 Bhp Emergency Standby	Rule 5, Att.1, Section B.2.c
Portable Propane Heaters	Propane Space Heater	Rule 5, Att.1,Section B.2.d
Welding Equipment	Commercial Welding Equipment	Rule 5, Att.1,Section B.17
Lube Oil Cooling Tower	1,800 gpm Cooling Tower	Rule 5, Att.1, Section B.3
Aqueous Ammonia Tank	Ammonia Storage, 6000 gallons	Not a regulated air pollutant
Diesel Fuel Storage Tank	Low Vapor Pressure Fuel Storage	Rule 5, Att.1, Section B.8.a
Waste Lube Oil Tank	Low Vapor Pressure Oil Storage	Rule 5, Att.1, Section B.8.a
Lube and Control Oil Storage Tank	Low Vapor Pressure Oil Storage	Rule 5, Att.1, Section B.8.a
Laboratory Testing Equipment	Quality Control Laboratory Vents	Rule 5, Att.1, Section B.8.23
Aerosol Paint Cans	Consumer Products	Rule 5, Att.1, Section B.14a,b
Glycol Storage Tank	Low V.P. organic liquid	Rule 5, Att.1, Section B.8.a
Painting Operations	Architectural and Equipment Coating	Rule 5, Att.1, Section B.14
Adhesive Application	Equipment Adhesive application	Rule 5, Att.1, Section B.13
Refrigeration Units	Room Air Conditioning	Rule 5, Att.1, Section B.24