

PERMIT TO OPERATE

**ISSUED TO: SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING
AUTHORITY (SFA) - COSUMNES POWER PLANT**

EQUIPMENT LOCATION: 14295 CLAY EAST ROAD, HERALD, CA 95638

PERMIT NO.	EQUIPMENT DESCRIPTION
16006	GAS TURBINE UNIT 2, GENERAL ELECTRIC 7FA, COMBINED CYCLE, 1,865 MMBTU/HR, NATURAL GAS FIRED.
16012	AIR POLLUTION CONTROL SELECTIVE CATALYTIC REDUCTION SYSTEM SERVING THE TURBINE UNIT 2
16007	GAS TURBINE UNIT 3, GENERAL ELECTRIC 7FA, COMBINED CYCLE, 1,865 MMBTU/HR, NATURAL GAS FIRED.
16013	AIR POLLUTION CONTROL SELECTIVE CATALYTIC REDUCTION SYSTEM SERVING THE TURBINE UNIT 3

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.

DATE ISSUED: 03-21-2007
DATE EXPIRES: 02-13-2008 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: _____

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.
5. MALFUNCTION - THE AIR POLLUTION CONTROL OFFICER SHALL BE NOTIFIED OF ANY BREAKDOWN OF THE EMISSIONS MONITORING EQUIPMENT, ANY EQUIPMENT, OR ANY PROCESS WHICH RESULTS IN AN INCREASE IN EMISSIONS ABOVE THE ALLOWABLE EMISSIONS LIMITS STATED AS A CONDITION OF THIS PERMIT OR ANY APPLICABLE STATE OR FEDERAL REGULATION OR WHICH AFFECTS THE ABILITY FOR THE EMISSIONS TO BE ACCURATELY DETERMINED. SUCH BREAKDOWNS SHALL BE REPORTED TO THE DISTRICT IN ACCORDANCE WITH THE PROCEDURES AND REPORTING TIMES SPECIFIED IN RULE 602 - BREAKDOWN CONDITIONS; EMERGENCY VARIANCE.
6. SEVERABILITY - IF ANY PROVISION, CLAUSE, SENTENCE, PARAGRAPH, SECTION, OR PART OF THESE CONDITIONS FOR ANY REASON IS JUDGED TO BE UNCONSTITUTIONAL OR INVALID, SUCH JUDGEMENT SHALL NOT AFFECT OR INVALIDATE THE REMAINDER OF THESE CONDITIONS.

EMISSIONS LIMITATIONS

7. THE EQUIPMENT SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS RINGELMANN NO. 1 OR GREATER.
8. EMISSIONS FROM THE FOLLOWING EQUIPMENT SHALL NOT EXCEED THE FOLLOWING LIMITS, NOT INCLUDING PERIODS CONTAINING START-UPS/SHUT-DOWNS AND SHORT-TERM EXCURSIONS AS DEFINED IN CONDITION 16.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS	
	CTG #2 (LB/HR)	CTG #3 (LB/HR)
NOx	13.51 (A)	13.51 (A)
CO	16.46 (B)	16.46 (B)
ROC	3.30 (C)	3.30 (C)
SOx	1.31 (D)	1.31 (D)
PM10	9.00 (E)	9.00 (E)

- (A) BASED ON DATA SUBMITTED IN THE APPLICATION AND IS MONITORED BY THE TURBINE'S NOx CEM SYSTEM (1 HOUR AVERAGE).
- (B) BASED ON DATA SUBMITTED IN THE APPLICATION AND IS MONITORED BY THE TURBINE'S CO CEM SYSTEM (3 HOUR AVERAGE)
- (C) BASED ON A TURBINE ROC EMISSION FACTOR OF 0.00177 LB/MMBTU AND FIRING AT FULL CAPACITY.
- (D) BASED ON A TURBINE SOx EMISSION FACTOR OF 0.00071 LB/MMBTU AND FIRING AT FULL CAPACITY.
- (E) BASED ON A TURBINE PM10 EMISSION FACTOR OF 0.00483 LB/MMBTU AND FIRING AT FULL CAPACITY.

9. EMISSIONS OF NOx, CO, ROC, SOx, AND PM10 FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS (LB/DAY)			
	CTG #2	CTG #3	COOLING TOWER	TOTAL
NOx	523.7	523.7	NA	1,047.4
CO	3,051.7	3,051.7	NA	6,103.3
ROC	117.3	117.3	NA	234.6
SOx	31.4	31.4	NA	62.9
PM10	216.0	216.0	3.6	435.6

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

10. EMISSIONS OF NO_x, CO, ROC, SO_x, AND PM₁₀ FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS				
	QTR 1 (LB/QUARTER)	QTR 2 (LB/QUARTER)	QTR 3 (LB/QUARTER)	QTR 4 (LB/QUARTER)	TOTAL (LB/YEAR)
NO _x	62,021	62,643	63,265	63,265	251,194
CO	147,929	148,687	149,444	149,444	595,505
ROC	14,807	14,958	15,110	15,110	59,986
SO _x	5,405	5,465	5,525	5,525	21,922
PM ₁₀	39,204	39,640	40,075	40,075	158,994

11. EACH COMBINED CYCLE COMBUSTION TURBINE SHALL NOT EMIT MORE THAN 2.0 PPMVD NO_x AT 15% O₂, AVERAGED OVER ANY ONE HOUR PERIOD, EXCLUDING PERIODS CONTAINING START-UPS/SHUT-DOWNS AND SHORT TERM EXCURSIONS AS DEFINED IN CONDITION 16.
12. EACH COMBINED CYCLE COMBUSTION TURBINE SHALL NOT EMIT MORE THAN 4.0 PPMVD CO AT 15% O₂, AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING PERIODS CONTAINING START-UPS/SHUT-DOWNS AS DEFINED IN CONDITION 16.
13. EACH COMBINED CYCLE COMBUSTION TURBINE SHALL NOT EMIT MORE THAN 1.4 PPMVD ROC AT 15% O₂, AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING PERIODS CONTAINING START-UPS/SHUT-DOWNS AS DEFINED IN CONDITION 16.
14. EACH COMBINED CYCLE COMBUSTION TURBINE SHALL NOT EMIT MORE THAN 10 PPMVD AMMONIA AT 15% O₂, MEASURED AS NH₃, AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING START-UPS/SHUT-DOWNS AS DEFINED IN CONDITION 16.

EQUIPMENT OPERATION

15. EACH COMBINED CYCLE TURBINE SHALL NOT BE OPERATED WITHOUT A FUNCTIONING SELECTIVE CATALYTIC REDUCTION AIR POLLUTION CONTROL SYSTEM, EXCLUDING PERIODS OF START-UPS AND SHUT-DOWNS.
16. THE DURATION OF EACH COMBINED CYCLE TURBINE'S START-UP PERIOD SHALL NOT EXCEED 180 MINUTES. START-UPS ARE DEFINED AS TIME PERIODS COMMENCING WITH THE INTRODUCTION OF FUEL TO THE GAS TURBINE, AND ENDING AT THE TIME THAT 15-MINUTE AVERAGE NO_x AND CO CONCENTRATIONS DO NOT EXCEED 2.0 PPMVD AND 4.0 PPMVD RESPECTIVELY, BUT IN NO CASE EXCEEDING 180 CONSECUTIVE MINUTES.

THE DURATION OF EACH COMBINED CYCLE TURBINE'S SHUT-DOWN PERIOD SHALL NOT EXCEED 30 MINUTES. SHUT-DOWNS ARE DEFINED AS THE 30-MINUTE PERIOD IMMEDIATELY PRIOR TO THE TERMINATION OF FUEL FLOW TO THE GAS TURBINE.

COMPLIANCE WITH THE CONCENTRATION AND HOURLY NO_x EMISSION LIMITATIONS SPECIFIED IN CONDITIONS 8 AND 11 SHALL NOT BE REQUIRED DURING SHORT-TERM EXCURSIONS LIMITED TO A CUMULATIVE TOTAL OF 10 HOURS PER COMBUSTION TURBINE PER CALENDAR YEAR. SHORT-TERM EXCURSIONS ARE DEFINED AS 15-

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

MINUTE PERIODS DESIGNATED BY THE OWNER/OPERATOR THAT ARE THE DIRECT RESULT OF TRANSIENT LOAD CONDITIONS, NOT TO EXCEED FOUR CONSECUTIVE 15-MINUTE PERIODS, WHEN THE 15-MINUTE AVERAGE NO_x CONCENTRATION EXCEEDS 2.0 PPMVD @ 15% O₂. EXAMPLES OF TRANSIENT LOAD CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- A) INITIATION/SHUTDOWN OF COMBUSTION TURBINE INLET AIR COOLING
- B) RAPID COMBUSTION TURBINE LOAD CHANGES

THE MAXIMUM 1-HOUR AVERAGE NO_x CONCENTRATION FOR PERIODS THAT INCLUDE SHORT-TERM EXCURSIONS SHALL NOT EXCEED 30 PPMVD @ 15% O₂.

ALL EMISSIONS DURING START-UPS/SHUT-DOWNS AND SHORT-TERM EXCURSIONS SHALL BE INCLUDED IN ALL CALCULATIONS OF DAILY, QUARTERLY AND ANNUAL MASS EMISSIONS REQUIRED BY THIS PERMIT.

MONITORING SYSTEMS

- 17. THE CPP SHALL OPERATE A CONTINUOUS EMISSION MONITORING SYSTEM THAT HAS BEEN APPROVED BY THE AIR POLLUTION CONTROL OFFICER FOR EACH COMBINED CYCLE TURBINE'S EMISSIONS.
 - A. THE CONTINUOUS EMISSION MONITORING (CEM) SYSTEM SHALL MONITOR AND RECORD NITROGEN OXIDES, CARBON MONOXIDE, AND OXYGEN.
 - B. THE CEM SYSTEM SHALL COMPLY WITH THE EPA PERFORMANCE SPECIFICATIONS (TITLE 40, CODE OF FEDERAL REGULATIONS, PART 60, APPENDIX B, PERFORMANCE SPECIFICATIONS 2, 3, AND 4).
- 18. THE CPP SHALL OPERATE A CONTINUOUS MONITORING SYSTEM THAT HAS BEEN APPROVED BY THE AIR POLLUTION CONTROL OFFICER THAT EITHER MEASURES OR CALCULATES AND RECORDS THE FOLLOWING.

PARAMETER TO BE MONITORED	UNITS
FUEL CONSUMPTION OF EACH COMBINED CYCLE TURBINE	MMBTU/HR OF NATURAL GAS
EXHAUST GAS FLOW RATE OF TURBINE AND DUCT BURNER.	KSCFH OR LB/HR

RECORD KEEPING

- 19. THE FOLLOWING RECORD SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE-YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. QUARTERLY AND YEARLY RECORDS SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS OF THE END OF THE PREVIOUS QUARTER OR YEAR RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
GENERAL	<ul style="list-style-type: none">A. RECORD OF THE OCCURRENCE AND DURATION OF ANY START-UP, SHORT-TERM EXCURSION, OR SHUT-DOWN.B. MALFUNCTION IN OPERATION OF EACH TURBINE.C. MEASUREMENTS FROM THE CONTINUOUS MONITORING SYSTEM.D. MONITORING DEVICE AND PERFORMANCE TESTING MEASUREMENTS.E. ALL CONTINUOUS MONITORING SYSTEM PERFORMANCE EVALUATIONS.F. ALL CONTINUOUS MONITORING SYSTEM OR MONITORING DEVICE CALIBRATION CHECKSG. ALL CONTINUOUS MONITORING SYSTEM ADJUSTMENTS AND MAINTENANCE.
HOURLY	<ul style="list-style-type: none">A. EACH COMBINED CYCLE TURBINE'S NATURAL GAS FUEL CONSUMPTION (MMBTU/HR).B. INDICATE WHEN EACH COMBINED CYCLE TURBINE START-UP/SHUT-DOWN OCCURRED.C. EACH COMBINED CYCLE TURBINE'S NO_x, CO, ROC, SO_x AND PM10 HOURLY MASS EMISSIONS. FOR THOSE POLLUTANTS DIRECTLY MONITORED (NO_x AND CO), THE HOURLY MASS EMISSIONS SHALL BE CALCULATED BASED ON CONCENTRATION MEASUREMENTS FROM THE CEM SYSTEM REQUIRED PURSUANT TO CONDITION 17.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

	<p>FOR THOSE POLLUTANTS THAT ARE NOT DIRECTLY MONITORED (ROC, SO_x, AND PM₁₀), THE HOURLY MASS EMISSIONS SHALL BE CALCULATED BASED ON DISTRICT APPROVED EMISSION FACTORS CONTAINED IN FOOTNOTES TO CONDITION 8.</p> <p>D. EACH COMBINED CYCLE TURBINE'S NO_x AND CO CONCENTRATION MEASURED IN PPMVD AT 15% O₂.</p>
DAILY	TOTAL FACILITY NO _x , CO, ROC, SO _x , AND PM ₁₀ DAILY MASS EMISSIONS.
QUARTERLY	TOTAL FACILITY NO _x , CO, ROC, SO _x , AND PM ₁₀ QUARTERLY MASS EMISSIONS.

REPORTING

20. FOR EACH CALENDAR QUARTER SUBMIT TO THE AIR POLLUTION CONTROL OFFICER A WRITTEN REPORT WHICH CONTAINS THE FOLLOWING. EACH QUARTERLY REPORT IS DUE BY THE 30TH DAY FOLLOWING THE END OF THE CALENDAR QUARTER.

FREQUENCY	INFORMATION TO BE SUBMITTED
WHENEVER THE CONTINUOUS EMISSIONS MONITORING SYSTEM IS INOPERATIVE EXCEPT FOR ZERO AND SPAN CHECKS.	<p>A. DATE AND TIME OF NON OPERATION OF THE CONTINUOUS EMISSION MONITORING SYSTEM</p> <p>B. NATURE OF THE CONTINUOUS EMISSION MONITORING SYSTEM REPAIRS OR ADJUSTMENTS.</p>
WHENEVER AN EMISSION OCCURS AS MEASURED BY THE REQUIRED CONTINUOUS MONITORING EQUIPMENT THAT IS IN EXCESS OF ANY EMISSION LIMITATION	<p>A. MAGNITUDE OF THE EMISSION WHICH HAS BEEN DETERMINED TO BE IN EXCESS.</p> <p>B. DATE AND TIME OF THE COMMENCEMENT AND COMPLETION OF EACH PERIOD OF EXCESS EMISSIONS</p> <p>C. PERIODS OF EXCESS EMISSIONS DUE TO START-UP, SHUT-DOWN, SHORT-TERM EXCURSION, AND MALFUNCTION SHALL BE SPECIFICALLY IDENTIFIED.</p> <p>D. THE NATURE AND CAUSE OF ANY MALFUNCTION (IF KNOWN)</p> <p>E. THE CORRECTIVE ACTION TAKEN OR PREVENTIVE MEASURES ADOPTED.</p>
IF THERE WERE NO EXCESS EMISSIONS FOR A QUARTER	A REPORT SHALL BE SUBMITTED INDICATING THAT THERE WERE NO EXCESS EMISSIONS

COMPLIANCE TESTING REQUIREMENTS

21. A NO_x, ROC, CO, SO_x, PM₁₀, AMMONIA, AND CEM ACCURACY SOURCE TEST OF EACH COMBINED CYCLE TURBINE SHALL BE PERFORMED ONCE EACH CALENDAR YEAR. THE AIR POLLUTION CONTROL OFFICER MAY WAIVE THE ANNUAL PM₁₀ AND/OR ROC SOURCE TEST REQUIREMENT IF, IN THE AIR POLLUTION CONTROL OFFICER'S SOLE JUDGMENT, PRIOR TEST RESULTS INDICATE AN ADEQUATE COMPLIANCE MARGIN HAS BEEN MAINTAINED.
- SUBMIT A TEST PLAN TO THE AIR POLLUTION CONTROL OFFICER FOR APPROVAL AT LEAST 30 DAYS BEFORE THE SOURCE TEST IS TO BE PERFORMED.
 - THE AIR POLLUTION CONTROL OFFICER SHALL BE NOTIFIED AT LEAST 7 DAYS PRIOR TO THE EMISSION TESTING DATE.
 - DURING THE TEST(S), EACH TURBINE IS TO BE OPERATED AT ITS MAXIMUM FIRING CAPACITY DEFINED AS ≥ 90% OF RATED HEAT INPUT CAPACITY AND TAKING INTO ACCOUNT AMBIENT CONDITIONS.
 - THE SOURCE TEST RESULTS SHALL BE SUBMITTED TO THE AIR POLLUTION CONTROL OFFICER WITHIN 60 DAYS FROM THE COMPLETION OF THE SOURCE TEST(S).

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES - STATIONARY SOURCE
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
413	STATIONARY GAS TURBINES
420	SULFUR CONTENT OF FUELS
<u>NSPS</u>	<u>SUBPART TITLE</u>
SUBPART GG	GAS TURBINES

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

PERMIT TO OPERATE

**ISSUED TO: SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING
AUTHORITY (SFA) - COSUMNES POWER PLANT**

EQUIPMENT LOCATION: 14295 CLAY EAST ROAD, HERALD, CA 95638

PERMIT NO.	EQUIPMENT DESCRIPTION
16010	COOLING TOWER, 8 CELL, THREE PUMPS IN PARALLEL (ONLY TWO OPERATE AT ANY GIVEN TIME), 155,000 GPM WATER CIRCULATION RATE

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.
5. MALFUNCTION - THE AIR POLLUTION CONTROL OFFICER SHALL BE NOTIFIED OF ANY BREAKDOWN OF THE EMISSIONS MONITORING EQUIPMENT, ANY EQUIPMENT, OR ANY PROCESS WHICH RESULTS IN AN INCREASE IN EMISSIONS ABOVE THE ALLOWABLE EMISSIONS LIMITS STATED AS A CONDITION OF THIS PERMIT OR ANY

LARRY GREENE

DATE ISSUED: 03-21-2007

AIR POLLUTION CONTROL OFFICER

DATE EXPIRES: 02-13-2008 (UNLESS RENEWED)

BY: _____

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

APPLICABLE STATE OR FEDERAL REGULATION OR WHICH AFFECTS THE ABILITY FOR THE EMISSIONS TO BE ACCURATELY DETERMINED. SUCH BREAKDOWNS SHALL BE REPORTED TO THE DISTRICT IN ACCORDANCE WITH THE PROCEDURES AND REPORTING TIMES SPECIFIED IN RULE 602 - BREAKDOWN CONDITIONS; EMERGENCY VARIANCE.

6. SEVERABILITY - IF ANY PROVISION, CLAUSE, SENTENCE, PARAGRAPH, SECTION, OR PART OF THESE CONDITIONS FOR ANY REASON IS JUDGED TO BE UNCONSTITUTIONAL OR INVALID, SUCH JUDGMENT SHALL NOT AFFECT OR INVALIDATE THE REMAINDER OF THESE CONDITIONS.

EMISSIONS LIMITATIONS

7. THE EQUIPMENT SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS RINGELMANN NO. 1 OR GREATER.

8. EMISSIONS FROM THE COOLING TOWER SHALL NOT EXCEED THE FOLLOWING LIMITS AVERAGED OVER A THREE HOUR PERIOD.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS (LB/HOUR)
PM10	0.15 (A)

(A) BASED ON A WATER CIRCULATION RATE OF 155,000 GAL/MIN, COOLING TOWER DRIFT RATE OF 0.0005%, AND A TDS LEVEL OF 382 PPM_w.

9. EMISSIONS OF PM10 FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS (LB/DAY)			
	CTG #2	CTG #3	COOLING TOWER	TOTAL
PM10	216.0	216.0	3.6	435.6

10. EMISSIONS OF PM10 FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS				
	QTR 1 (LB/QUARTER)	QTR 2 (LB/QUARTER)	QTR 3 (LB/QUARTER)	QTR 4 (LB/QUARTER)	TOTAL (LB/YEAR)
PM10	39,204	39,640	40,075	40,075	158,994

11. THE TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING COOLING WATER SHALL NOT EXCEED 382 PPM_w, AVERAGED OVER ANY CONSECUTIVE THREE-HOUR PERIOD.

EQUIPMENT OPERATION

12. THE COOLING TOWERS SHALL NOT USE ANY CHROMIUM-CONTAINING WATER TREATMENT CHEMICALS.

MONITORING SYSTEMS

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

13. THE CPP SHALL OPERATE A CONTINUOUS MONITORING SYSTEM THAT HAS BEEN APPROVED BY THE AIR POLLUTION CONTROL OFFICER THAT EITHER MEASURES OR CALCULATES AND RECORDS THE FOLLOWING.

PARAMETER TO BE MONITORED	UNITS
TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING WATER IN THE COOLING TOWERS.	PPM _w

RECORD KEEPING

14. THE FOLLOWING RECORD SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE-YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. QUARTERLY AND YEARLY RECORDS SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS OF THE END OF THE PREVIOUS QUARTER OR YEAR RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
HOURLY	A. TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING WATER IN THE COOLING TOWERS IN PPM _w . B. COOLING TOWER HOURLY PM10 MASS EMISSION RATE. THE HOURLY EMISSIONS SHALL BE CALCULATED BASED ON THE COOLING WATER CIRCULATION RATE MULTIPLIED BY THE COOLING TOWER DRIFT RATE, DENSITY OF WATER, AND THE MEASURED TDS LEVEL.
DAILY	TOTAL FACILITY PM10 DAILY MASS EMISSIONS.
QUARTERLY	TOTAL FACILITY PM10 QUARTERLY MASS EMISSIONS.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES - STATIONARY SOURCE
401	RINGELMANN CHART

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

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AIR QUALITY

MANAGEMENT DISTRICT

AUTHORITY TO CONSTRUCT

A/C NO.: 20185

ISSUED BY: _____

DATE ISSUED: JUNE 12, 2007

BRIAN F. KREBS

DATE EXPIRES: JUNE 12, 2009

ISSUED TO: SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING AUTHORITY (SFA)
COSUMNES POWER PLANT

LOCATION: 14295 CLAY EAST ROAD, HERALD, CA 95638

DESCRIPTION: MODIFICATION OF CONDITIONS TO INCREASE THE TDS LEVEL OF THE
CIRCULATING WATER OF COOLING TOWER PERMIT (P/O 16010).

AUTHORITY TO CONSTRUCT CONDITIONS

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.
5. MALFUNCTION - THE AIR POLLUTION CONTROL OFFICER SHALL BE NOTIFIED OF ANY BREAKDOWN OF THE EMISSIONS MONITORING EQUIPMENT, ANY EQUIPMENT, OR ANY PROCESS WHICH RESULTS IN AN INCREASE IN EMISSIONS ABOVE THE ALLOWABLE EMISSIONS LIMITS STATED AS A CONDITION OF THIS PERMIT OR ANY APPLICABLE STATE OR FEDERAL REGULATION OR WHICH AFFECTS THE ABILITY FOR THE EMISSIONS TO B E ACCURATELY DETERMINED. SUCH BREAKDOWNS SHALL BE REPORTED TO THE DISTRICT IN ACCORDANCE WITH THE PROCEDURES AND REPORTING TIMES SPECIFIED IN RULE 602 - BREAKDOWN CONDITIONS; EMERGENCY VARIANCE.
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AIR QUALITY

MANAGEMENT DISTRICT

AUTHORITY TO CONSTRUCT

A/C NO.: 20185

EMISSIONS LIMITATIONS

7. THE EQUIPMENT SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS RINGELMANN NO. 1 OR GREATER.

8. EMISSIONS FROM THE COOLING TOWER SHALL NOT EXCEED THE FOLLOWING LIMITS AVERAGED OVER A THREE HOUR PERIOD.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS (LB/HOUR)
PM10	0.31 (A)

(A) BASED ON A WATER CIRCULATION RATE OF 155,000 GAL/MIN, COOLING TOWER DRIFT RATE OF 0.0005%, AND A TDS LEVEL OF 800 PPM_w.

9. EMISSIONS OF PM10 FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS (LB/DAY)			
	CTG #2	CTG #3	COOLING TOWER	TOTAL
PM10	216.0	216.0	7.4	439.4

10. EMISSIONS OF PM10 FROM THE CPP FACILITY INCLUDING START-UPS AND SHUT-DOWNS SHALL NOT EXCEED THE FOLLOWING LIMITS.

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS				
	QTR 1 (LB/QUARTER)	QTR 2 (LB/QUARTER)	QTR 3 (LB/QUARTER)	QTR 4 (LB/QUARTER)	TOTAL (LB/YEAR)
PM10	39,550	39,989	40,428	40,428	160,395

11. THE TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING COOLING WATER SHALL NOT EXCEED 800 PPM_w, AVERAGED OVER ANY CONSECUTIVE THREE-HOUR PERIOD.

EQUIPMENT OPERATION

12. THE COOLING TOWERS SHALL NOT USE ANY CHROMIUM-CONTAINING WATER TREATMENT CHEMICALS.

MONITORING SYSTEMS

13. THE CPP SHALL OPERATE A CONTINUOUS MONITORING SYSTEM THAT HAS BEEN APPROVED BY THE AIR POLLUTION CONTROL OFFICER THAT EITHER MEASURES OR CALCULATES AND RECORDS THE FOLLOWING.

PARAMETER TO BE MONITORED	UNITS
TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING WATER IN THE COOLING TOWERS.	PPM _w

**AIR QUALITY
MANAGEMENT DISTRICT**

AUTHORITY TO CONSTRUCT

A/C NO.: 20185

RECORD KEEPING

14. THE FOLLOWING RECORD SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE-YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. QUARTERLY AND YEARLY RECORDS SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS OF THE END OF THE PREVIOUS QUARTER OR YEAR RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
HOURLY	A. TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING WATER IN THE COOLING TOWERS IN PPM _w . B. COOLING TOWER HOURLY PM10 MASS EMISSION RATE. THE HOURLY EMISSIONS SHALL BE CALCULATED BASED ON THE COOLING WATER CIRCULATION RATE MULTIPLIED BY THE COOLING TOWER DRIFT RATE, DENSITY OF WATER, AND THE MEASURED TDS LEVEL.
DAILY	TOTAL FACILITY PM10 DAILY MASS EMISSIONS.
QUARTERLY	TOTAL FACILITY PM10 QUARTERLY MASS EMISSIONS.

EMISSION OFFSETS

15. THE FOLLOWING TABLE DEPICTS THE PM10 EMISSION INCREASE THAT WILL REQUIRE TO BE OFFSET.

POLLUTANT	QTR1 LB/QTR	QTR2 LB/QTR	QTR3 LB/QTR	QTR4 LB/QTR
PM10	346	349	353	353

16. THE APPLICANT SHALL PROVIDE THE DISTRICT, PRIOR TO COMMENCING OPERATION UNDER THIS PERMIT, EMISSION REDUCTION CREDIT CERTIFICATES IN SUFFICIENT QUANTITY TO OFFSET THE EMISSIONS INCREASE SPECIFIED IN CONDITION NO. 15 BY THE USE OF THE FOLLOWING CALCULATION PROCEDURE.

$$QTR_q = \frac{P_{q \leq 15}}{1.2} + \frac{P_{q > 15}}{1.5}$$

- PQ = EMISSION OFFSET CREDIT FOR POLLUTANT IN LB/QUARTER
- Q = QUARTER (1, 2, 3, OR 4)
- QTR = THIS IS THE QUARTERLY LIMIT SPECIFIED IN CONDITION 15
- <=15 = THOSE EMISSION REDUCTION CREDIT CERTIFICATES WHOSE POINT OF ORIGIN WAS WITHIN 15 MILES OF THE CPP PROJECT
- >15 = THOSE EMISSION REDUCTION CREDIT CERTIFICATES WHOSE POINT OF ORIGIN WAS GREATER THAN 15 MILES BUT LESS THAN 50 FROM THE CPP PROJECT.

AIR QUALITY

MANAGEMENT DISTRICT

AUTHORITY TO CONSTRUCT

A/C NO.: 20185

17 ERC 04-00909 IS EXPECTED TO BE SURRENDERED IN ACCORDANCE WITH CONDITION NO. 16.

FROM ERC 909	FACE VALUE OF CERTIFICATES SURRENDERED				OFFSET RATIO	VALUE APPLIED TO THE EMISSION LIABILITY			
	QTR1	QTR2	QTR3	QTR4		QTR1	QTR2	QTR3	QTR4
ERC'S SURRENDERED	519	524	530	530	1.5	346	349	353	353
ERC'S REMAINDER	1276	1271	1265	1265					
	PM10 LIABILITY OF THE PROJECT								
ERC 909	1795	1795	1795	1795		346	349	353	353

YOUR APPLICATION FOR THIS AIR QUALITY AUTHORITY TO CONSTRUCT WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
401	RINGELMANN CHART
402	NUISANCE

IN ADDITION, THE CONDITIONS ON THIS AUTHORITY TO CONSTRUCT MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.