



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

Title Page
Facility I.D.#: 044577
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FACILITY PERMIT TO OPERATE

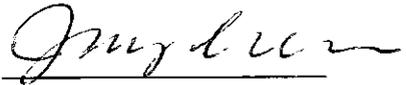
**LONG BEACH CITY, SERRF PROJECT
100 - 120 HENRY FORD AVE
LONG BEACH, CA 90802**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By 
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance

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**FACILITY PERMIT TO OPERATE
LONG BEACH CITY, SERRF PROJECT**

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FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

Facility Equipment and Requirements (Section H)

This section consists of a table listing all permitted equipment at the facility, facility wide requirements, all individual Permits to Construct issued to various equipment at the facility subject to source-specific requirements. Each permit will list operating conditions including periodic monitoring requirements, and applicable emission limits and requirements that the equipment is subject to. Also included is the rule origin and authority of each emission limit and permit condition.



**FACILITY PERMIT TO CONSTRUCT
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PERMITTED EQUIPMENT LIST

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AT THIS FACILITY:

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483532	RESOURCE RECOVERY SYSTEM #1	3
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NOTE: ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT WILL NOT BE FOUND IN THIS TITLE V PERMIT



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 8/13/09
A/N 483532

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 1 CONSISTING OF:

1. REFUSE RECEIVING HOPPER, CHARGING MUNICIPAL SOLID WASTE FIRED BOILER NO. 1.
2. COMBUSTOR/BOILER NO. 1, MUNICIPAL SOLID WASTE FIRED, L.C. STEINNULLER, WATER WALL TYPE, WITH RECIPROCATING GRATES, TWO NATURAL GAS FIRED AUXILIARY BURNERS WITH A COMBINED RATING OF 2,200,000 SCF/DAY, A MULTI-LEVEL AMMONIA INJECTION SYSTEM, UNDER GRATE PRIMARY COMBUSTION AIR FAN THAT VENTS THE WASTE RECEIVING AND STORAGE SYSTEM, AND OVER FIRE SECONDARY COMBUSTION AIR FAN.
3. CO BURNER, STEINMUELLER, MODEL NO. SSBG40, NATURAL GAS FIRED, 14.5 MM BTU PER HOUR.
4. BOILER SECTION, WATER TUBE TYPE, CONSISTING OF A SUPERHEATER, ECONOMIZER, TUBULAR STEAM COIL AIR PREHEATER, WITH MECHANICAL AND PNEUMATIC RAPPERS, AND EACH WITH A CAPACITY OF 130,000 POUNDS PER HOUR DAILY AVERAGE OF STEAM AT 660 PSIA AND 752 DEGREES FAHRENHEIT.
5. STEAM TURBINE, IMO DELAVAL, MODEL MJ-MZ-SF, 37,504 KW (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
6. GENERATOR, GEC ALSTHOM, MODEL T216-255 (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
7. AQUEOUS AMMONIA STORAGE TANK, 24,000 GALLON CAPACITY (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
8. BOILER IMPULSE CLEANING SYSTEM, GE POWERWAVE+, ETHYLENE GAS FIRED, SPARK IGNITED, 12 POWERWAVE DETONATION UNITS.

Conditions

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]



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2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION. THIS FACILITY SHALL BE IN COMPLIANCE WITH THE APPLICABLE OPERATOR REQUIREMENTS AS SPECIFIED UNDER 40 CFR 60.54b.
[RULE 204; 40CFR 60 Subpart Cb]
4. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A VALID PERMIT BY THE AQMD.
[RULE 402; RULE 1303(a)(1)-BACT]
5. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS ALL OF ITS PRIMARY COMBUSTION AIR IS VENTED FROM THE TIPPING HALL AND THE MUNICIPAL SOLID WASTE (REFUSE) PIT OF THE REFUSE RECEIVING AND STORAGE SYSTEM.
[RULE 402]
6. THIS EQUIPMENT MAY ONLY BE USED TO BURN REFUSE COLLECTED FROM RESIDENTIAL SOURCES, COMMERCIAL SOURCES AND OTHER SOURCES AS APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD. ANY MATERIAL SPECIFICALLY DESIGNATED AS HAZARDOUS MATERIAL OR HAZARDOUS WASTE SHALL NOT BE BURNED UNLESS OTHERWISE APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD.
[RULE 204; RULE 1402; 40CFR 60 Subpart Cb]
7. ALL MATERIALS THAT ARE LISTED AS HAZARDOUS BY A FEDERAL OR STATE AGENCY OR APPEAR ON A FEDERAL OR STATE CANDIDATE LIST SHALL BE CONSIDERED "HAZARDOUS MATERIAL" FOR THE PURPOSE OF THIS PERMIT.
[RULE 204]
8. NATURAL GAS SHALL BE FIRED IN THIS COMBUSTOR ONLY FOR THE SUPPORT OF GOOD COMBUSTION OF REFUSE AND FOR PERIODS OF WARM-UP, START-UP AND SHUTDOWN. NATURAL GAS SHALL NOT BE USED FOR THE SOLE PURPOSE OF GENERATING POWER. DAILY NATURAL GAS CONSUMPTION SHALL BE MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT; RULE 1303(b)(2)-OFFSET]
9. DURING THE WARM-UP PERIOD, NATURAL GAS FIRING MAY CONTINUE UNTIL THE STEAM TURBINE REACHES FULL LOAD. FOR THE PURPOSE OF THIS PERMIT, A WARM-UP SHALL BE DEFINED AS THE PERIOD OF TIME FROM WHICH THE NATURAL GAS BURNER IS INITIALLY FIRED TO THE TIME REFUSE IS FIRST INTRODUCED INTO THE FURNACE.
[RULE 1303(a)(1)-BACT]
10. START-UP BEGINS WHEN THE FACILITY STARTS THE CONTINUOUS BURNING OF REFUSE AND DOES NOT INCLUDE ANY WARM UP PERIOD.
[40CFR 60 Subpart Eb]



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11. SHUTDOWN BEGINS WHEN THE FACILITY CEASES REFUSE CHARGING TO THE COMBUSTOR, UNTIL COMPLETE REFUSE BURNOUT IS ACHIEVED. DURING SHUTDOWN, THE COMBUSTOR SHALL BURN NATURAL GAS UNTIL ALL REFUSE ON THE GRATES HAS BEEN COMBUSTED.
[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Eb]
12. THE APPLICABLE STANDARDS OF PERFORMANCE UNDER 40CFR 60 SUBPARTS Cb AND Eb, SHALL APPLY AT ALL TIMES EXCEPT DURING PERIODS OF START-UP, SHUTDOWN, OR MALFUNCTION. THE DURATION OF START-UP, SHUTDOWN OR MALFUNCTION PERIODS SHALL COMPLY WITH 40CFR 60 SUBPART Eb SECTION 60.58b.
[40CFR 60 Subpart Cb; 40CFR 60 Subpart Eb]
13. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS THE SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM IS IN OPERATION, EXCEPT DURING THE PERIODS OF WARM-UP, SHUTDOWN OR WHEN THE FLUE GAS TEMPERATURE IS LESS THAN 1,200 DEGREES FAHRENHEIT.
[RULE 1303(a)(1)-BACT]
14. RESIDUE FROM THE GRATES, BOILER HOPPERS, AND SIFTINGS FROM UNDER THE GRATES SHALL BE DISCHARGED ONLY INTO AN ASH QUENCH TANK.
[RULE 402]
15. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS LOAD MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b, TO MEASURE AND RECORD STEAM FLOW OR FEEDWATER FLOW RATE TO DETERMINE THAT THE RESOURCE RECOVERY SYSTEM IS NOT OPERATING AT A LOAD LEVEL GREATER THAN 110 PERCENT OF THE MAXIMUM DEMONSTRATED MUNICIPAL WASTE COMBUSTOR UNIT LOAD AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(b). THE STEAM FLOW OR FEEDWATER FLOW SHALL BE CALCULATED IN 4-HOUR BLOCK ARITHMETIC AVERAGES.
[40CFR 60 Subpart Cb].
16. THE COMBUSTOR/BOILER SHALL BE OPERATED TO PROVIDE A MINIMUM GAS RETENTION TIME OF ONE SECOND AT A TEMPERATURE ABOVE 1,800 DEGREES FAHRENHEIT, AS SHOWN BY A MINIMUM ROOF TEMPERATURE READING OF 1,000 DEGREES FAHRENHEIT, EXCEPT DURING WARM-UP, START-UP AND SHUTDOWN.
[RULE 1303(a)(1)-BACT]
17. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; 40CFR 60 Subpart Cb]
18. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, INCLUDING BUT NOT LIMITED TO CONDITION NOS. 23 THROUGH 31, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204; 40CFR 60 Subpart Cb]



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19. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR PART 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
20. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]

Periodic Monitoring:

21. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A SEMI-ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE SEMI-ANNUAL PERIOD. THE ROUTINE SEMI-ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
 - A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]



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Emissions And Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: 0.1 gr/scf, RULE 409
 - PM: 11 lb/hr AND 0.01 gr/scf, RULE 475
 - PM: 11 lb/hr AND 0.01 gr/scf, RULE 476
 - PM: 0.18 g/dscm, CORRECTED TO 12% CO₂, 40 CFR Subpart E
 - CO: 2000 PPM_v, RULE 407
 - SO_x: 500 PPM_v, RULE 407
 - NO_x: 225 PPM_v, RULE 476
23. THE OPERATOR SHALL RECORD THE FOLLOWING PARAMETERS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:
- A) ALL 6-MINUTE AVERAGE OPACITY LEVELS AS SPECIFIED IN 60.58b(c).
 - B) ALL 1-HOUR AVERAGE SO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(e).
 - C) ALL 1-HOUR AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(h).
 - D) ALL 1-HOUR AVERAGE CO EMISSION CONCENTRATIONS, MUNICIPAL WASTE COMBUSTOR UNIT LOAD MEASUREMENTS, AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).
- [40CFR 60 Subpart Eb, Section 60.59b]
24. THE OPERATOR SHALL COMPUTE AND RECORD THE FOLLOWING AVERAGES AND PERCENT REDUCTIONS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:
- A) ALL 24-HOUR DAILY GEOMETRIC AVERAGE SO_x EMISSION CONCENTRATIONS AND ALL 24-HOUR DAILY GEOMETRIC AVERAGE PERCENT REDUCTIONS IN SO_x EMISSIONS AS SPECIFIED IN 60.58b(e).
 - B) ALL 24-HOUR DAILY ARITHMETIC AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED IN 60.58b(h).
 - C) ALL 4-HOUR BLOCK OR 24-HOUR DAILY ARITHMETIC AVERAGE CO EMISSION CONCENTRATIONS, AS APPLICABLE, AS SPECIFIED UNDER 60.58b(i).
 - D) ALL 4-HOUR BLOCK ARITHMETIC AVERAGE MUNICIPAL WASTE COMBUSTOR UNIT LOAD LEVELS AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).
- [40CFR 60 Subpart Eb, Section 60.59b]



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25. THE OPERATOR SHALL IDENTIFY THE CALENDAR DATES WHEN ANY OF THE AVERAGE EMISSION CONCENTRATIONS, PERCENT REDUCTIONS, OR OPERATING PARAMETERS RECORDED UNDER (d)(2)(ii)(A) THROUGH (d)(2)(ii)(E) OR THE OPACITY LEVELS RECORDED UNDER (d)(2)(i)(A) OF SECTION 60.59b ARE ABOVE APPLICABLE LIMITS, WITH REASONS FOR SUCH EXCEEDENCES AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
26. THE OPERATOR SHALL IDENTIFY CALENDAR DATES FOR WHICH THE MINIMUM NUMBER OF HOURS OF ANY OF THE DATA SPECIFIED IN PARAGRAPHS SECTION 60.59b (d)(6)(i) THROUGH (d)(6)(v) HAVE NOT BEEN OBTAINED INCLUDING REASONS FOR NOT OBTAINING SUFFICIENT DATA AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
27. THE OPERATOR SHALL IDENTIFY EACH OCCURRENCE THAT SO_x AND NO_x EMISSIONS DATA OR OPERATIONAL DATA (CO EMISSIONS, UNIT LOAD, AND PARTICULATE MATTER CONTROL DEVICE TEMPERATURE) HAVE BEEN EXCLUDED FROM THE CALCULATION OF AVERAGE EMISSION CONCENTRATIONS OR PARAMETERS, AND THE REASONS FOR EXCLUDING THE DATA.
[40CFR 60 Subpart Eb, Section 60.59b]
28. THE OPERATOR SHALL RECORD THE RESULTS OF DAILY DRIFT TESTS AND QUARTERLY ACCURACY DETERMINATIONS FOR SO_x, NO_x AND CO CEMS AS REQUIRED BY APPENDIX F OF THIS SECTION 60.59b, PROCEDURE I.
[40CFR 60 Subpart Eb, Section 60.59b]
29. THE OPERATOR SHALL RECORD THE TEST REPORTS DOCUMENTING THE RESULTS OF THE INITIAL PERFORMANCE TEST AND ALL ANNUAL PERFORMANCE TESTS LISTED IN SECTION 60.59b (d)(9)(i) AND (d)(9)(ii) ALONG WITH SUPPORTING CALCULATIONS.
[40CFR 60 Subpart Eb, Section 60.59b]
30. THE OPERATOR SHALL RECORD THE FOLLOWING:
 - A) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN PROVISIONALLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - B) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN FULLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - C) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE COMPLETED THE EPA MW COMBUSTOR OPERATOR TRAINING OR APPROVED EQUIVALENT COURSE AS REQUIRED BY 60.54b(d) INCLUDING DOCUMENTATION OF TRAINING COMPLETION.
[40CFR 60 Subpart Eb, Section 60.59b]
31. THE OPERATOR SHALL RECORD THE NAMES OF PERSONS THAT HAVE COMPLETED A REVIEW OF THE OPERATIONS MANUAL AS REQUIRED BY 60.54b(f).
[40CFR 60 Subpart Eb, Section 60.59b]



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32. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).
[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

33. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW:

LEAD	0.08 LBS/HR (3-HOUR AVERAGE)
MERCURY	0.12 LBS/HR ((3-HOUR AVERAGE)
FLUORIDES (AS HYDROGEN FLUORIDE)	1.1 LBS/HR (3-HOUR AVERAGE)

[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

34. WITHIN SIXTY (60) DAYS OF INITIAL OPERATION, BUT NOT MORE THAN 180 DAYS AFTER INITIAL STARTUP, THE APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH AQMD TEST PROCEDURES AND FURNISH THE AQMD A WRITTEN RESULT OF SUCH PERFORMANCE TESTS WITHIN THIRTY (30) DAYS AFTER THE TESTS ARE CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TESTS SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE AQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO THE START OF THE TESTS.

THE PERFORMANCE TESTS SHALL BE CONDUCTED AT THE MAXIMUM FLOW RATES ALLOWED BY THIS PERMIT AND SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE BOILER EXHAUST FOR:

- A. TOTAL PARTICULATES
 - B. LEAD
 - C. MERCURY
 - D. FLUORIDES (AS HF)
 - E. MOISTURE CONTENT
 - F. TEMPERATURE
 - G. FLOW RATE
- [RULE 1303(b)(2)-OFFSET, 1401]

35. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THIS EQUIPMENT IS NOT COMPLETE WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE AQMD.
[RULE 205]

36. UNCONTROLLED ETHYLENE SHALL NOT BE RELEASED INTO THE ATMOSPHERE FROM THIS EQUIPMENT AT ANY TIME.
[RULE 204]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 8/13/09
A/N 483533

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 2 CONSISTING OF:

1. REFUSE RECEIVING HOPPER, CHARGING MUNICIPAL SOLID WASTE FIRED BOILER NO. 2.
2. COMBUSTOR/BOILER NO. 2, MUNICIPAL SOLID WASTE FIRED, L.C. STEINNULLER, WATER WALL TYPE, WITH RECIPROCATING GRATES, TWO NATURAL GAS FIRED AUXILIARY BURNERS WITH A COMBINED RATING OF 2,200,000 SCF/DAY, A MULTI-LEVEL AMMONIA INJECTION SYSTEM, UNDER GRATE PRIMARY COMBUSTION AIR FAN THAT VENTS THE WASTE RECEIVING AND STORAGE SYSTEM, AND OVER FIRE SECONDARY COMBUSTION AIR FAN.
3. CO BURNER, STEINMUELLER, MODEL NO. SSBG40, NATURAL GAS FIRED, 14.5 MM BTU PER HOUR.
4. BOILER SECTION, WATER TUBE TYPE, CONSISTING OF A SUPERHEATER, ECONOMIZER, TUBULAR STEAM COIL AIR PREHEATER, WITH MECHANICAL AND PNEUMATIC RAPPERS, AND EACH WITH A CAPACITY OF 130,000 POUNDS PER HOUR DAILY AVERAGE OF STEAM AT 660 PSIA AND 752 DEGREES FAHRENHEIT.
5. STEAM TURBINE, IMO DELAVAL, MODEL MJ-MZ-SF, 37,504 KW (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
6. GENERATOR, GEC ALSTHOM, MODEL T216-255 (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
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8. BOILER IMPULSE CLEANING SYSTEM, GE POWERWAVE+, ETHYLENE GAS FIRED, SPARK IGNITED, 12 POWERWAVE DETONATION UNITS.

Conditions

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[RULE 204]



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2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION. THIS FACILITY SHALL BE IN COMPLIANCE WITH THE APPLICABLE OPERATOR REQUIREMENTS AS SPECIFIED UNDER 40 CFR 60.54b.
[RULE 204; 40CFR 60 Subpart Cb]
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[RULE 402; RULE 1303(a)(1)-BACT]
5. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS ALL OF ITS PRIMARY COMBUSTION AIR IS VENTED FROM THE TIPPING HALL AND THE MUNICIPAL SOLID WASTE (REFUSE) PIT OF THE REFUSE RECEIVING AND STORAGE SYSTEM.
[RULE 402]
6. THIS EQUIPMENT MAY ONLY BE USED TO BURN REFUSE COLLECTED FROM RESIDENTIAL SOURCES, COMMERCIAL SOURCES AND OTHER SOURCES AS APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD. ANY MATERIAL SPECIFICALLY DESIGNATED AS HAZARDOUS MATERIAL OR HAZARDOUS WASTE SHALL NOT BE BURNED UNLESS OTHERWISE APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD.
[RULE 204; RULE 1402; 40CFR 60 Subpart Cb]
7. ALL MATERIALS THAT ARE LISTED AS HAZARDOUS BY A FEDERAL OR STATE AGENCY OR APPEAR ON A FEDERAL OR STATE CANDIDATE LIST SHALL BE CONSIDERED "HAZARDOUS MATERIAL" FOR THE PURPOSE OF THIS PERMIT.
[RULE 204]
8. NATURAL GAS SHALL BE FIRED IN THIS COMBUSTOR ONLY FOR THE SUPPORT OF GOOD COMBUSTION OF REFUSE AND FOR PERIODS OF WARM-UP, START-UP AND SHUTDOWN. NATURAL GAS SHALL NOT BE USED FOR THE SOLE PURPOSE OF GENERATING POWER. DAILY NATURAL GAS CONSUMPTION SHALL BE MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT; RULE 1303(b)(2)-OFFSET]
9. DURING THE WARM-UP PERIOD, NATURAL GAS FIRING MAY CONTINUE UNTIL THE STEAM TURBINE REACHES FULL LOAD. FOR THE PURPOSE OF THIS PERMIT, A WARM-UP SHALL BE DEFINED AS THE PERIOD OF TIME FROM WHICH THE NATURAL GAS BURNER IS INITIALLY FIRED TO THE TIME REFUSE IS FIRST INTRODUCED INTO THE FURNACE.
[RULE 1303(a)(1)-BACT]
10. START-UP BEGINS WHEN THE FACILITY STARTS THE CONTINUOUS BURNING OF REFUSE AND DOES NOT INCLUDE ANY WARM UP PERIOD.
[40CFR 60 Subpart Eb]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

11. SHUTDOWN BEGINS WHEN THE FACILITY CEASES REFUSE CHARGING TO THE COMBUSTOR, UNTIL COMPLETE REFUSE BURNOUT IS ACHIEVED. DURING SHUTDOWN, THE COMBUSTOR SHALL BURN NATURAL GAS UNTIL ALL REFUSE ON THE GRATES HAS BEEN COMBUSTED.
[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Eb]
12. THE APPLICABLE STANDARDS OF PERFORMANCE UNDER 40CFR 60 SUBPARTS Cb AND Eb, SHALL APPLY AT ALL TIMES EXCEPT DURING PERIODS OF START-UP, SHUTDOWN, OR MALFUNCTION. THE DURATION OF START-UP, SHUTDOWN OR MALFUNCTION PERIODS SHALL COMPLY WITH 40CFR 60 SUBPART Eb SECTION 60.58b.
[40CFR 60 Subpart Cb; 40CFR 60 Subpart Eb]
13. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS THE SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM IS IN OPERATION, EXCEPT DURING THE PERIODS OF WARM-UP, SHUTDOWN OR WHEN THE FLUE GAS TEMPERATURE IS LESS THAN 1,200 DEGREES FAHRENHEIT.
[RULE 1303(a)(1)-BACT]
14. RESIDUE FROM THE GRATES, BOILER HOPPERS, AND SIFTINGS FROM UNDER THE GRATES SHALL BE DISCHARGED ONLY INTO AN ASH QUENCH TANK.
[RULE 402]
15. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS LOAD MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b, TO MEASURE AND RECORD STEAM FLOW OR FEEDWATER FLOW RATE TO DETERMINE THAT THE RESOURCE RECOVERY SYSTEM IS NOT OPERATING AT A LOAD LEVEL GREATER THAN 110 PERCENT OF THE MAXIMUM DEMONSTRATED MUNICIPAL WASTE COMBUSTOR UNIT LOAD AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(b). THE STEAM FLOW OR FEEDWATER FLOW SHALL BE CALCULATED IN 4-HOUR BLOCK ARITHMETIC AVERAGES.
[40CFR 60 Subpart Cb]
16. THE COMBUSTOR/BOILER SHALL BE OPERATED TO PROVIDE A MINIMUM GAS RETENTION TIME OF ONE SECOND AT A TEMPERATURE ABOVE 1,800 DEGREES FAHRENHEIT, AS SHOWN BY A MINIMUM ROOF TEMPERATURE READING OF 1,000 DEGREES FAHRENHEIT, EXCEPT DURING WARM-UP, START-UP AND SHUTDOWN.
[RULE 1303(a)(1)-BACT]
17. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; 40CFR 60 Subpart Cb]
18. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, INCLUDING BUT NOT LIMITED TO CONDITION NOS. 23 THROUGH 31, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204; 40CFR 60 Subpart Cb]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

19. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR PART 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
20. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]

Periodic Monitoring:

21. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A SEMI-ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE SEMI-ANNUAL PERIOD. THE ROUTINE SEMI-ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
 - D. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - E. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - F. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- E. STACK OR EMISSION POINT IDENTIFICATION;
- F. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- G. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- H. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

Emissions And Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: 0.1 gr/scf, RULE 409
 - PM: 11 lb/hr AND 0.01 gr/scf, RULE 475
 - PM: 11 lb/hr AND 0.01 gr/scf, RULE 476
 - PM: 0.18 g/dscm, CORRECTED TO 12% CO₂, 40 CFR Subpart E
 - CO: 2000 PPM_v, RULE 407
 - SO_x: 500 PPM_v, RULE 407
 - NO_x: 225 PPM_v, RULE 476
23. THE OPERATOR SHALL RECORD THE FOLLOWING PARAMETERS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:
- A) ALL 6-MINUTE AVERAGE OPACITY LEVELS AS SPECIFIED IN 60.58b(c).
 - B) ALL 1-HOUR AVERAGE SO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(e).
 - C) ALL 1-HOUR AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(h).
 - D) ALL 1-HOUR AVERAGE CO EMISSION CONCENTRATIONS, MUNICIPAL WASTE COMBUSTOR UNIT LOAD MEASUREMENTS, AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).
[40CFR 60 Subpart Eb, Section 60.59b]
24. THE OPERATOR SHALL COMPUTE AND RECORD THE FOLLOWING AVERAGES AND PERCENT REDUCTIONS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:
- A) ALL 24-HOUR DAILY GEOMETRIC AVERAGE SO_x EMISSION CONCENTRATIONS AND ALL 24-HOUR DAILY GEOMETRIC AVERAGE PERCENT REDUCTIONS IN SO_x EMISSIONS AS SPECIFIED IN 60.58b(e).
 - B) ALL 24-HOUR DAILY ARITHMETIC AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED IN 60.58b(h).
 - C) ALL 4-HOUR BLOCK OR 24-HOUR DAILY ARITHMETIC AVERAGE CO EMISSION CONCENTRATIONS, AS APPLICABLE, AS SPECIFIED UNDER 60.58b(i).
 - D) ALL 4-HOUR BLOCK ARITHMETIC AVERAGE MUNICIPAL WASTE COMBUSTOR UNIT LOAD LEVELS AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).
[40CFR 60 Subpart Eb, Section 60.59b]



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25. THE OPERATOR SHALL IDENTIFY THE CALENDAR DATES WHEN ANY OF THE AVERAGE EMISSION CONCENTRATIONS, PERCENT REDUCTIONS, OR OPERATING PARAMETERS RECORDED UNDER (d)(2)(ii)(A) THROUGH (d)(2)(ii)(E) OR THE OPACITY LEVELS RECORDED UNDER (d)(2)(i)(A) OF SECTION 60.59b ARE ABOVE APPLICABLE LIMITS, WITH REASONS FOR SUCH EXCEEDENCES AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
26. THE OPERATOR SHALL IDENTIFY CALENDAR DATES FOR WHICH THE MINIMUM NUMBER OF HOURS OF ANY OF THE DATA SPECIFIED IN PARAGRAPHS SECTION 60.59b (d)(6)(i) THROUGH (d)(6)(v) HAVE NOT BEEN OBTAINED INCLUDING REASONS FOR NOT OBTAINING SUFFICIENT DATA AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
27. THE OPERATOR SHALL IDENTIFY EACH OCCURRENCE THAT SO_x AND NO_x EMISSIONS DATA OR OPERATIONAL DATA (CO EMISSIONS, UNIT LOAD, AND PARTICULATE MATTER CONTROL DEVICE TEMPERATURE) HAVE BEEN EXCLUDED FROM THE CALCULATION OF AVERAGE EMISSION CONCENTRATIONS OR PARAMETERS, AND THE REASONS FOR EXCLUDING THE DATA.
[40CFR 60 Subpart Eb, Section 60.59b]
28. THE OPERATOR SHALL RECORD THE RESULTS OF DAILY DRIFT TESTS AND QUARTERLY ACCURACY DETERMINATIONS FOR SO_x, NO_x AND CO CEMS AS REQUIRED BY APPENDIX F OF THIS SECTION 60.59b, PROCEDURE I.
[40CFR 60 Subpart Eb, Section 60.59b]
29. THE OPERATOR SHALL RECORD THE TEST REPORTS DOCUMENTING THE RESULTS OF THE INITIAL PERFORMANCE TEST AND ALL ANNUAL PERFORMANCE TESTS LISTED IN SECTION 60.59b (d)(9)(i) AND (d)(9)(ii) ALONG WITH SUPPORTING CALCULATIONS.
[40CFR 60 Subpart Eb, Section 60.59b]
30. THE OPERATOR SHALL RECORD THE FOLLOWING:
 - A) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN PROVISIONALLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - B) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN FULLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - C) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE COMPLETED THE EPA MW COMBUSTOR OPERATOR TRAINING OR APPROVED EQUIVALENT COURSE AS REQUIRED BY 60.54b(d) INCLUDING DOCUMENTATION OF TRAINING COMPLETION.
[40CFR 60 Subpart Eb, Section 60.59b]
31. THE OPERATOR SHALL RECORD THE NAMES OF PERSONS THAT HAVE COMPLETED A REVIEW OF THE OPERATIONS MANUAL AS REQUIRED BY 60.54b(f).
[40CFR 60 Subpart Eb, Section 60.59b]



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32. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).

[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

33. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW:

LEAD	0.08 LBS/HR (3-HOUR AVERAGE)
MERCURY	0.12 LBS/HR ((3-HOUR AVERAGE)
FLUORIDES (AS HYDROGEN FLUORIDE)	1.1 LBS/HR (3-HOUR AVERAGE)

[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

34. WITHIN SIXTY (60) DAYS OF INITIAL OPERATION, BUT NOT MORE THAN 180 DAYS AFTER INITIAL STARTUP, THE APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH AQMD TEST PROCEDURES AND FURNISH THE AQMD A WRITTEN RESULT OF SUCH PERFORMANCE TESTS WITHIN THIRTY (30) DAYS AFTER THE TESTS ARE CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TESTS SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE AQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO THE START OF THE TESTS.

THE PERFORMANCE TESTS SHALL BE CONDUCTED AT THE MAXIMUM FLOW RATES ALLOWED BY THIS PERMIT AND SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE BOILER EXHAUST FOR:

- A. TOTAL PARTICULATES
 - B. LEAD
 - C. MERCURY
 - D. FLUORIDES (AS HF)
 - E. MOISTURE CONTENT
 - F. TEMPERATURE
 - G. FLOW RATE
- [RULE 1303(b)(2)-OFFSET, 1401]

35. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THIS EQUIPMENT IS NOT COMPLETE WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE AQMD.

[RULE 205]

36. UNCONTROLLED ETHYLENE SHALL NOT BE RELEASED INTO THE ATMOSPHERE FROM THIS EQUIPMENT AT ANY TIME.

[RULE 204]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 8/13/09
A/N 483534

Equipment Description:

RESOURCE RECOVERY SYSTEM NO. 3 CONSISTING OF:

1. REFUSE RECEIVING HOPPER, CHARGING MUNICIPAL SOLID WASTE FIRED BOILER NO. 3.
2. COMBUSTOR/BOILER NO. 3, MUNICIPAL SOLID WASTE FIRED, L.C. STEINNULLER, WATER WALL TYPE, WITH RECIPROCATING GRATES, TWO NATURAL GAS FIRED AUXILIARY BURNERS WITH A COMBINED RATING OF 2,200,000 SCF/DAY, A MULTI-LEVEL AMMONIA INJECTION SYSTEM, UNDER GRATE PRIMARY COMBUSTION AIR FAN THAT VENTS THE WASTE RECEIVING AND STORAGE SYSTEM, AND OVER FIRE SECONDARY COMBUSTION AIR FAN.
3. CO BURNER, STEINMUELLER, MODEL NO. SSBG40, NATURAL GAS FIRED, 14.5 MM BTU PER HOUR.
4. BOILER SECTION, WATER TUBE TYPE, CONSISTING OF A SUPERHEATER, ECONOMIZER, TUBULAR STEAM COIL AIR PREHEATER, WITH MECHANICAL AND PNEUMATIC RAPPERS, AND EACH WITH A CAPACITY OF 130,000 POUNDS PER HOUR DAILY AVERAGE OF STEAM AT 660 PSIA AND 752 DEGREES FAHRENHEIT.
5. STEAM TURBINE, IMO DELAVAL, MODEL MJ-MZ-SF, 37,504 KW (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
6. GENERATOR, GEC ALSTHOM, MODEL T216-255 (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
7. AQUEOUS AMMONIA STORAGE TANK, 24,000 GALLON CAPACITY (COMMON TO RESOURCE RECOVERY SYSTEMS NO. 1, 2 AND 3).
8. BOILER IMPULSE CLEANING SYSTEM, GE POWERWAVE+, ETHYLENE GAS FIRED, SPARK IGNITED, 12 POWERWAVE DETONATION UNITS.

Conditions

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]



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2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION. THIS FACILITY SHALL BE IN COMPLIANCE WITH THE APPLICABLE OPERATOR REQUIREMENTS AS SPECIFIED UNDER 40 CFR 60.54b.
[RULE 204; 40CFR 60 Subpart Cb]
4. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A VALID PERMIT BY THE AQMD.
[RULE 402; RULE 1303(a)(1)-BACT]
5. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS ALL OF ITS PRIMARY COMBUSTION AIR IS VENTED FROM THE TIPPING HALL AND THE MUNICIPAL SOLID WASTE (REFUSE) PIT OF THE REFUSE RECEIVING AND STORAGE SYSTEM.
[RULE 402]
6. THIS EQUIPMENT MAY ONLY BE USED TO BURN REFUSE COLLECTED FROM RESIDENTIAL SOURCES, COMMERCIAL SOURCES AND OTHER SOURCES AS APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD. ANY MATERIAL SPECIFICALLY DESIGNATED AS HAZARDOUS MATERIAL OR HAZARDOUS WASTE SHALL NOT BE BURNED UNLESS OTHERWISE APPROVED AND IN A MANNER PRESCRIBED IN WRITING BY THE AQMD.
[RULE 204; RULE 1402; 40CFR 60 Subpart Cb]
7. ALL MATERIALS THAT ARE LISTED AS HAZARDOUS BY A FEDERAL OR STATE AGENCY OR APPEAR ON A FEDERAL OR STATE CANDIDATE LIST SHALL BE CONSIDERED "HAZARDOUS MATERIAL" FOR THE PURPOSE OF THIS PERMIT.
[RULE 204]
8. NATURAL GAS SHALL BE FIRED IN THIS COMBUSTOR ONLY FOR THE SUPPORT OF GOOD COMBUSTION OF REFUSE AND FOR PERIODS OF WARM-UP, START-UP AND SHUTDOWN. NATURAL GAS SHALL NOT BE USED FOR THE SOLE PURPOSE OF GENERATING POWER. DAILY NATURAL GAS CONSUMPTION SHALL BE MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT; RULE 1303(b)(2)-OFFSET]
9. DURING THE WARM-UP PERIOD, NATURAL GAS FIRING MAY CONTINUE UNTIL THE STEAM TURBINE REACHES FULL LOAD. FOR THE PURPOSE OF THIS PERMIT, A WARM-UP SHALL BE DEFINED AS THE PERIOD OF TIME FROM WHICH THE NATURAL GAS BURNER IS INITIALLY FIRED TO THE TIME REFUSE IS FIRST INTRODUCED INTO THE FURNACE.
[RULE 1303(a)(1)-BACT]
10. START-UP BEGINS WHEN THE FACILITY STARTS THE CONTINUOUS BURNING OF REFUSE AND DOES NOT INCLUDE ANY WARM UP PERIOD.
[40CFR 60 Subpart Eb]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

11. SHUTDOWN BEGINS WHEN THE FACILITY CEASES REFUSE CHARGING TO THE COMBUSTOR, UNTIL COMPLETE REFUSE BURNOUT IS ACHIEVED. DURING SHUTDOWN, THE COMBUSTOR SHALL BURN NATURAL GAS UNTIL ALL REFUSE ON THE GRATES HAS BEEN COMBUSTED.
[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Eb]
12. THE APPLICABLE STANDARDS OF PERFORMANCE UNDER 40CFR 60 SUBPARTS Cb AND Eb, SHALL APPLY AT ALL TIMES EXCEPT DURING PERIODS OF START-UP, SHUTDOWN, OR MALFUNCTION. THE DURATION OF START-UP, SHUTDOWN OR MALFUNCTION PERIODS SHALL COMPLY WITH 40CFR 60 SUBPART Eb SECTION 60.58b.
[40CFR 60 Subpart Cb; 40CFR 60 Subpart Eb]
13. THE COMBUSTOR/BOILER EQUIPMENT SHALL NOT BE OPERATED UNLESS THE SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM IS IN OPERATION, EXCEPT DURING THE PERIODS OF WARM-UP, SHUTDOWN OR WHEN THE FLUE GAS TEMPERATURE IS LESS THAN 1,200 DEGREES FAHRENHEIT.
[RULE 1303(a)(1)-BACT]
14. RESIDUE FROM THE GRATES, BOILER HOPPERS, AND SIFTINGS FROM UNDER THE GRATES SHALL BE DISCHARGED ONLY INTO AN ASH QUENCH TANK.
[RULE 402]
15. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS LOAD MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b, TO MEASURE AND RECORD STEAM FLOW OR FEEDWATER FLOW RATE TO DETERMINE THAT THE RESOURCE RECOVERY SYSTEM IS NOT OPERATING AT A LOAD LEVEL GREATER THAN 110 PERCENT OF THE MAXIMUM DEMONSTRATED MUNICIPAL WASTE COMBUSTOR UNIT LOAD AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(b). THE STEAM FLOW OR FEEDWATER FLOW SHALL BE CALCULATED IN 4-HOUR BLOCK ARITHMETIC AVERAGES.
[40CFR 60 Subpart Cb]
16. THE COMBUSTOR/BOILER SHALL BE OPERATED TO PROVIDE A MINIMUM GAS RETENTION TIME OF ONE SECOND AT A TEMPERATURE ABOVE 1,800 DEGREES FAHRENHEIT, AS SHOWN BY A MINIMUM ROOF TEMPERATURE READING OF 1,000 DEGREES FAHRENHEIT, EXCEPT DURING WARM-UP, START-UP AND SHUTDOWN.
[RULE 1303(a)(1)-BACT]
17. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; 40CFR 60 Subpart Cb]
18. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, INCLUDING BUT NOT LIMITED TO CONDITION NOS. 23 THROUGH 31, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204; 40CFR 60 Subpart Cb]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

19. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR PART 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
20. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]

Periodic Monitoring:

21. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON A SEMI-ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE SEMI-ANNUAL PERIOD. THE ROUTINE SEMI-ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:
 - G. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;
 - H. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
 - I. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- I. STACK OR EMISSION POINT IDENTIFICATION;
- J. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- K. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- L. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

Emissions And Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS
PM: 0.1 gr/scf, RULE 409
PM: 11 lb/hr AND 0.01 gr/scf, RULE 475
PM: 11 lb/hr AND 0.01 gr/scf, RULE 476
PM: 0.18 g/dscm, CORRECTED TO 12% CO₂, 40 CFR Subpart E
CO: 2000 PPM_v, RULE 407
SO_x: 500 PPM_v, RULE 407
NO_x: 225 PPM_v, RULE 476

23. THE OPERATOR SHALL RECORD THE FOLLOWING PARAMETERS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:

A) ALL 6-MINUTE AVERAGE OPACITY LEVELS AS SPECIFIED IN 60.58b(c).
B) ALL 1-HOUR AVERAGE SO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(e).
C) ALL 1-HOUR AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED UNDER 60.58b(h).
D) ALL 1-HOUR AVERAGE CO EMISSION CONCENTRATIONS, MUNICIPAL WASTE COMBUSTOR UNIT LOAD MEASUREMENTS, AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).

[40CFR 60 Subpart Eb, Section 60.59b]

24. THE OPERATOR SHALL COMPUTE AND RECORD THE FOLLOWING AVERAGES AND PERCENT REDUCTIONS AND MAKE THEM AVAILABLE FOR SUBMITTAL TO THE ADMINISTRATOR OR ON-SITE REVIEW BY AN INSPECTOR:

A) ALL 24-HOUR DAILY GEOMETRIC AVERAGE SO_x EMISSION CONCENTRATIONS AND ALL 24-HOUR DAILY GEOMETRIC AVERAGE PERCENT REDUCTIONS IN SO_x EMISSIONS AS SPECIFIED IN 60.58b(e).
B) ALL 24-HOUR DAILY ARITHMETIC AVERAGE NO_x EMISSION CONCENTRATIONS AS SPECIFIED IN 60.58b(h).
C) ALL 4-HOUR BLOCK OR 24-HOUR DAILY ARITHMETIC AVERAGE CO EMISSION CONCENTRATIONS, AS APPLICABLE, AS SPECIFIED UNDER 60.58b(i).
D) ALL 4-HOUR BLOCK ARITHMETIC AVERAGE MUNICIPAL WASTE COMBUSTOR UNIT LOAD LEVELS AND PARTICULATE MATTER CONTROL DEVICE INLET TEMPERATURES AS SPECIFIED UNDER 60.58b(i).

[40CFR 60 Subpart Eb, Section 60.59b]



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25. THE OPERATOR SHALL IDENTIFY THE CALENDAR DATES WHEN ANY OF THE AVERAGE EMISSION CONCENTRATIONS, PERCENT REDUCTIONS, OR OPERATING PARAMETERS RECORDED UNDER (d)(2)(ii)(A) THROUGH (d)(2)(ii)(E) OR THE OPACITY LEVELS RECORDED UNDER (d)(2)(i)(A) OF SECTION 60.59b ARE ABOVE APPLICABLE LIMITS, WITH REASONS FOR SUCH EXCEEDENCES AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
26. THE OPERATOR SHALL IDENTIFY CALENDAR DATES FOR WHICH THE MINIMUM NUMBER OF HOURS OF ANY OF THE DATA SPECIFIED IN PARAGRAPHS SECTION 60.59b (d)(6)(i) THROUGH (d)(6)(v) HAVE NOT BEEN OBTAINED INCLUDING REASONS FOR NOT OBTAINING SUFFICIENT DATA AND A DESCRIPTION OF CORRECTIVE ACTIONS TAKEN.
[40CFR 60 Subpart Eb, Section 60.59b]
27. THE OPERATOR SHALL IDENTIFY EACH OCCURRENCE THAT SO_x AND NO_x EMISSIONS DATA OR OPERATIONAL DATA (CO EMISSIONS, UNIT LOAD, AND PARTICULATE MATTER CONTROL DEVICE TEMPERATURE) HAVE BEEN EXCLUDED FROM THE CALCULATION OF AVERAGE EMISSION CONCENTRATIONS OR PARAMETERS, AND THE REASONS FOR EXCLUDING THE DATA.
[40CFR 60 Subpart Eb, Section 60.59b]
28. THE OPERATOR SHALL RECORD THE RESULTS OF DAILY DRIFT TESTS AND QUARTERLY ACCURACY DETERMINATIONS FOR SO_x, NO_x AND CO CEMS AS REQUIRED BY APPENDIX F OF THIS SECTION 60.59b, PROCEDURE I.
[40CFR 60 Subpart Eb, Section 60.59b]
29. THE OPERATOR SHALL RECORD THE TEST REPORTS DOCUMENTING THE RESULTS OF THE INITIAL PERFORMANCE TEST AND ALL ANNUAL PERFORMANCE TESTS LISTED IN SECTION 60.59b (d)(9)(i) AND (d)(9)(ii) ALONG WITH SUPPORTING CALCULATIONS.
[40CFR 60 Subpart Eb, Section 60.59b]
30. THE OPERATOR SHALL RECORD THE FOLLOWING:
 - A) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN PROVISIONALLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - B) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE BEEN FULLY CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM AS REQUIRED BY 60.54b(a) INCLUDING DATES IF INITIAL AND RENEWAL CERTIFICATIONS.
 - C) RECORDS SHOWING THE NAMES OF THE MW COMBUSTOR CHIEF FACILITY OPERATOR, SHIFT SUPERVISORS, AND CONTROL ROOM OPERATORS WHO HAVE COMPLETED THE EPA MW COMBUSTOR OPERATOR TRAINING OR APPROVED EQUIVALENT COURSE AS REQUIRED BY 60.54b(d) INCLUDING DOCUMENTATION OF TRAINING COMPLETION.
[40CFR 60 Subpart Eb, Section 60.59b]
31. THE OPERATOR SHALL RECORD THE NAMES OF PERSONS THAT HAVE COMPLETED A REVIEW OF THE OPERATIONS MANUAL AS REQUIRED BY 60.54b(f).
[40CFR 60 Subpart Eb, Section 60.59b]



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32. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).
[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

33. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW:

LEAD	0.08 LBS/HR (3-HOUR AVERAGE)
MERCURY	0.12 LBS/HR ((3-HOUR AVERAGE)
FLUORIDES (AS HYDROGEN FLUORIDE)	1.1 LBS/HR (3-HOUR AVERAGE)

[RULE 1703 – PSD Analysis][40CFR – 52-21 PSD]

34. WITHIN SIXTY (60) DAYS OF INITIAL OPERATION, BUT NOT MORE THAN 180 DAYS AFTER INITIAL STARTUP, THE APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH AQMD TEST PROCEDURES AND FURNISH THE AQMD A WRITTEN RESULT OF SUCH PERFORMANCE TESTS WITHIN THIRTY (30) DAYS AFTER THE TESTS ARE CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TESTS SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE AQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO THE START OF THE TESTS.

THE PERFORMANCE TESTS SHALL BE CONDUCTED AT THE MAXIMUM FLOW RATES ALLOWED BY THIS PERMIT AND SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE BOILER EXHAUST FOR:

- A. TOTAL PARTICULATES
 - B. LEAD
 - C. MERCURY
 - D. FLUORIDES (AS HF)
 - E. MOISTURE CONTENT
 - F. TEMPERATURE
 - G. FLOW RATE
- [RULE 1303(b)(2)-OFFSET, 1401]

35. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THIS EQUIPMENT IS NOT COMPLETE WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE AQMD.
[RULE 205]

36. UNCONTROLLED ETHYLENE SHALL NOT BE RELEASED INTO THE ATMOSPHERE FROM THIS EQUIPMENT AT ANY TIME.
[RULE 204]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 1/6/10
A/N 497354

Equipment Description:

POWDER ACTIVATED CARBON INJECTION SYSTEM, NORIT, (COMMON TO APC SYSTEM NO. 1, 2 AND 3)
CONSISTING OF:

1. POWDER ACTIVATED CARBON HOLDING SACK, 1200 LBS MAXIMUM HOLDING CAPACITY
2. FEED HOPPER
3. FEEDER, ROTARY SCREW
4. EDUCTOR
5. FOUR AIR BLOWERS, ONE STANDBY, POWDER ACTIVATED CARBON TRANSPORT

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. OPERATION OF THIS EQUIPMENT SHALL NOT RELEASE FUGITIVE EMISSIONS OF POWDER ACTIVATED CARBON INTO THE ATMOSPHERE.
[RULE 204]
4. THIS EQUIPMENT SHALL BE LOCATED IN AN ENCLOSED BUILDING.
[RULE 204]
5. THE POWDER ACTIVATED CARBON SACKS SHALL BE STORED IN AN ENCLOSED BUILDING.
[RULE 204]
6. RECORDS OF THE POWDER ACTIVATED CARBON REPLACEMENT DATES AND USAGE (LBS) SHALL BE KEPT AND MAINTAINED FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204]
7. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THIS EQUIPMENT IS NOT COMPLETE WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE AQMD.
[RULE 205]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 1/6/10
A/N 497359

Equipment Description:

MODIFICATION TO AIR POLLUTION CONTROL SYSTEM NO. 1 CONSISTING OF:

1. ROTARY ATOMIZER NO. 1 WITH CYCLONE INLETS VENTING COMBUSTOR/BOILER NO. 1.
2. SPRAY REACTOR TYPE REACTORS WITH CALCIUM HYDROXIDE INJECTION, EACH SERVING ROTARY ATOMIZER NO. 1.
3. BAGHOUSE NO. 1, WITH TEN COMPARTMENTS, REVERSE AIR CLEANING, 73,416 SQ. FT. OF FILTER AREA.
4. INDUCED DRAFT FAN NO. 1 VENTING RESOURCE RECOVERY SYSTEM NO. 1.

BY THE ADDITIONAL INJECTION OF POWDER ACTIVATED CARBON (COMMON TO APC SYSTEM NO. 1, 2 AND 3).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
4. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]
5. DUST OR FLYASH COLLECTED IN THE BAGHOUSE COMPARTMENT HOPPERS AND THE SPRAY REACTOR HOPPER SHALL BE DISCHARGED ONLY INTO CLOSED CONVEYORS AND/OR CONTAINERS EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; RULE 1303(a)(1)-BACT]



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6. A GAUGE SHALL BE MAINTAINED TO INDICATE, IN INCHES OF WATER PRESSURE, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE BAGS.
[RULE 1303(a)(1)-BACT]
7. THE VOLUME OF LIME SLURRY SUPPLIED TO THE ATOMIZERS FOR SO₂ CONTROL SHALL BE CONTINUOUSLY MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT]
8. A CONTINUOUS MONITORING SYSTEM TO MONITOR AND RECORD MASS EMISSIONS AND CONCENTRATIONS OF NITROGEN OXIDES (NO_x), OXIDES OF SULFUR (SO_x) AND CARBON MONOXIDE (CO) IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b.
[RULE 476; 40CFR 60 Subpart Cb]
9. A CONTINUOUS OXYGEN MONITOR AND RECORDER, AS APPROVED BY THE AQMD, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE CONCENTRATIONS OF OXYGEN IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK.
[40CFR 60 Subpart Cb]
10. A SYSTEM, AS APPROVED BY THE AQMD, SHALL BE OPERATED TO CONVERT AND RECORD THE STACK NITROGEN OXIDES CONCENTRATIONS TO 3% OXYGEN ON A DRY BASIS AND REPORT THE RESULTS IN A MANNER WHICH DEMONSTRATES COMPLIANCE WITH RULE 476.
[RULE 476]
11. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS OPACITY MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE OPACITY OF FLUE GAS IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK. THE MEASURED OPACITY SHALL NOT EXCEED 10 PERCENT IN 6-MINUTE AVERAGE.
[40CFR 60 Subpart Cb]
12. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS TEMPERATURE MONITOR IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MONITOR THE TEMPERATURE OF THE FLUE GAS STREAM AT THE INLET TO EACH PARTICULATE MATTER CONTROL DEVICE FOR THE RESOURCE RECOVERY SYSTEM. THE MONITORED TEMPERATURE SHALL NOT EXCEED 17 DEGREES IN CELSIUS (4-HR BLOCK AVERAGE) ABOVE THE MAXIMUM DEMONSTRATED PARTICULATE MATTER CONTROL DEVICE TEMPERATURE AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(c).
[40CFR 60 Subpart Cb]
13. ALL CONTINUOUS EMISSION MONITORS SHALL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS AND OPERATING PROCEDURES AS APPROVED BY THE AQMD.
[40CFR 60 Subpart Cb]
14. CONTROLLED EMISSIONS OF OXIDES OF NITROGEN (NO_x) IN THE AIR POLLUTION CONTROL SYSTEM EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED 225 PPM (15 MINUTES AVERAGE) AT 3% OXYGEN ON A DRY BASIS.
[RULE 476; RULE 1303(b)(2)-OFFSET]



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15. CONTROLLED NO_x EMISSIONS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 205 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS. WHEN AVERAGING EMISSIONS FROM ALL COMBUSTORS AS ALLOWED IN PART 60.33b(d) OF 40 CFR SUBPART Cb, THE AVERAGED NO_x EMISSIONS SHALL NOT EXCEED 180 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS (24-HR DAILY ARITHMETIC AVERAGE).

[40CFR 60 Subpart Cb]

16. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).

[RULE 1303(b)(2)-OFFSET]

17. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW. THE FOLLOWING LIMITS ARE CORRECTED TO 7% OXYGEN ON A DRY BASIS UNLESS OTHERWISE INDICATED:

OXIDES OF SULFUR (SO _x)	29 PPMV OR 75% WT. REDUCTION (24-HR DAILY GEOMETRIC MEAN)
PARTICULATE MATTERS (PM)	27 mg/DSCM
DIOXIN/FURAN	30 ng/DSCM
CADMIUM	0.04 mg/DSCM
LEAD	0.44 mg/DSCM
MERCURY	0.08 mg/DSCM OR 85% WT. REDUCTION
HYDROGEN CHLORIDE	29 PPMV OR 95% WT. REDUCTION

18. CONTROLLED EMISSIONS OF CARBON MONOXIDE (CO) IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 100 PPMV (4-HR ARITHMETIC AVERAGE) CORRECTED TO 7% OXYGEN ON A DRY BASIS.

[40CFR 60 Subpart Cb]

19. THE CONTROLLED EMISSIONS IN THE EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED THE FOLLOWING LIMITS:

<u>CONTAMINANT</u>	<u>LB/DAY</u>
NITROGEN OXIDES	816
PM ₁₀	120
SULFUR OXIDES	288
CARBON MONOXIDE	792
REACTIVE ORGANIC GAS	72
HYDROGEN CHLORIDE	204

[RULE 1303(b)(2)-OFFSET]



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20. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[40CFR 60 Subpart Cb]
21. THE AQMD APPROVED SAMPLING PORTS SHALL BE MAINTAINED IN THE FOLLOWING LOCATIONS:
- A. IN THE DUCT FOLLOWING THE COMBUSTOR/BOILER BUT PRECEDING THE SPRAY REACTOR;
 - B. IN THE DUCT FOLLOWING THE SPRAY REACTOR BUT PRECEDING THE BAGHOUSE;
 - C. IN THE EXHAUST STACK;
 - D. IN THE COMBUSTION AIR INLET DUCT BETWEEN THE INTAKE AND THE COMBUSTOR.
[RULE 204]
22. THE OWNER OR OPERATOR OF SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF) SHALL CONDUCT PERFORMANCE TESTS ON AN ANNUAL BASIS IN ACCORDANCE WITH THE AQMD TEST PROCEDURES AND 40 CFR 60.58b. WRITTEN NOTICE OF SUCH PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TEST SO THAT AN OBSERVER MAY BE PRESENT.

THE PERFORMANCE TESTS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF ONE OF THE THREE COMBUSTOR/BOILER EXHAUST STREAMS FOLLOWING THE BAGHOUSE UNLESS OTHERWISE REQUESTED BELOW FOR THE FOLLOWING POLLUTANTS:

- A. HYDROCARBONS
- B. PARTICULATE MATTER
- C. HYDROGEN CHLORIDE
- D. EXHAUST FLOW RATE, WET AND DRY
- E. POLYNUCLEAR AROMATIC HYDROCARBONS (BENZO-A-PYRENE, BENZO-E-PYRENE, BENZO-A-ANTHRACENE AND CORONENE).
- F. TETRA- THROUGH OCTA-CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS
- G. HEAVY METALS (ARSENIC, BERYLLIUM, CADMIUM, CHROMIUM, COPPER, LEAD, MERCURY, NICKEL, AND ZINC)
- H. OPACITY
- I. FLUE GAS TEMPERATURE AT THE INLET TO THE BAGHOUSE DURING DIOXIN/FURAN TEST
- J. LOAD LEVEL (STEAM FLOW OR FEEDWATER FLOW) DURING DIOXIN/FURAN TEST
- K. OXIDES OF NITROGEN (NO_x)
- L. OXIDES OF SULFUR (SO_x)
- M. CARBON MONOXIDE
- N. FUGITIVE ASH USING EPA METHOD 22



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IF THE PERFORMANCE TESTS OF ALL THREE COMBUSTION UNITS DEMONSTRATE THAT DIOXIN/FURAN EMISSIONS ARE LESS THAN OR EQUAL TO 7 ng/DSCM (TOTAL MASS) FOR A 2-YEAR PERIOD, THE OWNER OR OPERATOR MAY ELECT TO CONDUCT ANNUAL PERFORMANCE TEST ON ONLY ONE OF THE THREE UNITS. UNDER THIS ALTERNATIVE TESTING SCHEDULE, A DIFFERENT UNIT SHALL BE TESTED IN SEQUENCE EACH YEAR. IF ANY ANNUAL TEST INDICATES DIOXIN/FURAN EMISSIONS EXCEED 7 ng/DSCM (TOTAL MASS), PERFORMANCE TESTS SHALL BE CONDUCTED ON ALL THREE COMBUSTION UNITS UNTIL SERRF CAN QUALIFY FOR THE ALTERNATIVE TESTING SCHEDULE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

23. THE OWNER OR OPERATOR OF SERRF SHALL SUBMIT WRITTEN RESULTS OF THE PERFORMANCE TESTS TO THE AQMD BY FEBRUARY 1ST OF EACH YEAR FOLLOWING THE CALENDAR YEAR IN WHICH THE TESTS WERE CONDUCTED. THE OWNER OR OPERATOR OF SERRF SHALL ALSO COMPLY WITH THE REPORTING AND RECORDKEEPING REQUIREMENTS SPECIFIED IN 40 CFR 60.59b, AS APPLICABLE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

24. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

[RULE 204; 40CFR 60 Subpart Cb]

Periodic Monitoring:

25. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THE PARAMETER BEING MONITORED ONCE EVERY WEEK.

[RULE 3004 (a)(4)]

26. THE OPERATOR SHALL PERFORM A BIENNIAL INSPECTION OF THE EQUIPMENT AND BAGS FOR LEAKS, BROKEN OR TORN BAGS AND IMPROPERLY INSTALLED BAGS. ADDITIONAL INSPECTION SHALL BE CONDUCTED WHEN THE STACK OPACITY AS MEASURED BY THE CONTINUOUS OPACITY MONITORING SYSTEM EXCEEDS 5% FOR ONE HOUR OR MORE. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE BAGS;

B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.

[RULE 3004 (a)(4)]



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27. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE AQMD, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
TO PROVE COMPLIANCE WITH CONDITION 25.
[RULE 3004 (a)(4)]
28. THE OPERATOR SHALL USE THE DUST COLLECTOR IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THIS PARAMETER ONCE EVERY WEEK.
[RULE 3004 (a)(4)]

Emissions and Reporting:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 1/6/10
A/N 497360

Equipment Description:

MODIFICATION TO AIR POLLUTION CONTROL SYSTEM NO. 2 CONSISTING OF:

1. ROTARY ATOMIZER NO. 1 WITH CYCLONE INLETS VENTING COMBUSTOR/BOILER NO. 2.
2. SPRAY REACTOR TYPE REACTORS WITH CALCIUM HYDROXIDE INJECTION, EACH SERVING ROTARY ATOMIZER NO. 2.
3. BAGHOUSE NO. 2, WITH TEN COMPARTMENTS, REVERSE AIR CLEANING, 73,416 SQ. FT. OF FILTER AREA.
4. INDUCED DRAFT FAN NO. 2 VENTING RESOURCE RECOVERY SYSTEM NO. 2.

BY THE ADDITIONAL INJECTION OF POWDER ACTIVATED CARBON (COMMON TO APC SYSTEM NO. 1, 2 AND 3).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
4. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]
5. DUST OR FLYASH COLLECTED IN THE BAGHOUSE COMPARTMENT HOPPERS AND THE SPRAY REACTOR HOPPER SHALL BE DISCHARGED ONLY INTO CLOSED CONVEYORS AND/OR CONTAINERS EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; RULE 1303(a)(1)-BACT]



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6. A GAUGE SHALL BE MAINTAINED TO INDICATE, IN INCHES OF WATER PRESSURE, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE BAGS.
[RULE 1303(a)(1)-BACT]
7. THE VOLUME OF LIME SLURRY SUPPLIED TO THE ATOMIZERS FOR SO₂ CONTROL SHALL BE CONTINUOUSLY MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT]
8. A CONTINUOUS MONITORING SYSTEM TO MONITOR AND RECORD MASS EMISSIONS AND CONCENTRATIONS OF NITROGEN OXIDES (NO_x), OXIDES OF SULFUR (SO_x) AND CARBON MONOXIDE (CO) IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b.
[RULE 476; 40CFR 60 Subpart Cb]
9. A CONTINUOUS OXYGEN MONITOR AND RECORDER, AS APPROVED BY THE AQMD, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE CONCENTRATIONS OF OXYGEN IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK.
[40CFR 60 Subpart Cb]
10. A SYSTEM, AS APPROVED BY THE AQMD, SHALL BE OPERATED TO CONVERT AND RECORD THE STACK NITROGEN OXIDES CONCENTRATIONS TO 3% OXYGEN ON A DRY BASIS AND REPORT THE RESULTS IN A MANNER WHICH DEMONSTRATES COMPLIANCE WITH RULE 476.
[RULE 476]
11. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS OPACITY MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE OPACITY OF FLUE GAS IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK. THE MEASURED OPACITY SHALL NOT EXCEED 10 PERCENT IN 6-MINUTE AVERAGE.
[40CFR 60 Subpart Cb]
12. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS TEMPERATURE MONITOR IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MONITOR THE TEMPERATURE OF THE FLUE GAS STREAM AT THE INLET TO EACH PARTICULATE MATTER CONTROL DEVICE FOR THE RESOURCE RECOVERY SYSTEM. THE MONITORED TEMPERATURE SHALL NOT EXCEED 17 DEGREES IN CELSIUS (4-HR BLOCK AVERAGE) ABOVE THE MAXIMUM DEMONSTRATED PARTICULATE MATTER CONTROL DEVICE TEMPERATURE AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(c).
[40CFR 60 Subpart Cb]
13. ALL CONTINUOUS EMISSION MONITORS SHALL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS AND OPERATING PROCEDURES AS APPROVED BY THE AQMD.
[40CFR 60 Subpart Cb]
14. CONTROLLED EMISSIONS OF OXIDES OF NITROGEN (NO_x) IN THE AIR POLLUTION CONTROL SYSTEM EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED 225 PPM (15 MINUTES AVERAGE) AT 3% OXYGEN ON A DRY BASIS.
[RULE 476; RULE 1303(b)(2)-OFFSET]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

15. CONTROLLED NO_x EMISSIONS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 205 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS. WHEN AVERAGING EMISSIONS FROM ALL COMBUSTORS AS ALLOWED IN PART 60.33b(d) OF 40 CFR SUBPART Cb, THE AVERAGED NO_x EMISSIONS SHALL NOT EXCEED 180 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS (24-HR DAILY ARITHMETIC AVERAGE).
[40CFR 60 Subpart Cb]
16. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).
[RULE 1303(b)(2)-OFFSET]
17. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW. THE FOLLOWING LIMITS ARE CORRECTED TO 7% OXYGEN ON A DRY BASIS UNLESS OTHERWISE INDICATED:
- | | |
|--------------------------|---|
| OXIDES OF SULFUR (SOX) | 29 PPMV OR 75% WT. REDUCTION (24-HR DAILY GEOMETRIC MEAN) |
| PARTICULATE MATTERS (PM) | 27 mg/DSCM |
| DIOXIN/FURAN | 30 ng/DSCM |
| CADMIUM | 0.04 mg/DSCM |
| LEAD | 0.44 mg/DSCM |
| MERCURY | 0.08 mg/DSCM OR 85% WT. REDUCTION |
| HYDROGEN CHLORIDE | 29 PPMV OR 95% WT. REDUCTION |
18. CONTROLLED EMISSIONS OF CARBON MONOXIDE (CO) IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 100 PPMV (4-HR ARITHMETIC AVERAGE) CORRECTED TO 7% OXYGEN ON A DRY BASIS.
[40CFR 60 Subpart Cb]
19. THE CONTROLLED EMISSIONS IN THE EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED THE FOLLOWING LIMITS:
- | <u>CONTAMINANT</u> | <u>LB/DAY</u> |
|----------------------|---------------|
| NITROGEN OXIDES | 816 |
| PM ₁₀ | 120 |
| SULFUR OXIDES | 288 |
| CARBON MONOXIDE | 792 |
| REACTIVE ORGANIC GAS | 72 |
| HYDROGEN CHLORIDE | 204 |
- [RULE 1303(b)(2)-OFFSET]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

20. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[40CFR 60 Subpart Cb]
21. THE AQMD APPROVED SAMPLING PORTS SHALL BE MAINTAINED IN THE FOLLOWING LOCATIONS:
- A. IN THE DUCT FOLLOWING THE COMBUSTOR/BOILER BUT PRECEDING THE SPRAY REACTOR;
 - B. IN THE DUCT FOLLOWING THE SPRAY REACTOR BUT PRECEDING THE BAGHOUSE;
 - C. IN THE EXHAUST STACK;
 - D. IN THE COMBUSTION AIR INLET DUCT BETWEEN THE INTAKE AND THE COMBUSTOR.
[RULE 204]
22. THE OWNER OR OPERATOR OF SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF) SHALL CONDUCT PERFORMANCE TESTS ON AN ANNUAL BASIS IN ACCORDANCE WITH THE AQMD TEST PROCEDURES AND 40 CFR 60.58b. WRITTEN NOTICE OF SUCH PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TEST SO THAT AN OBSERVER MAY BE PRESENT.

THE PERFORMANCE TESTS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF ONE OF THE THREE COMBUSTOR/BOILER EXHAUST STREAMS FOLLOWING THE BAGHOUSE UNLESS OTHERWISE REQUESTED BELOW FOR THE FOLLOWING POLLUTANTS:

- A. HYDROCARBONS
- B. PARTICULATE MATTER
- C. HYDROGEN CHLORIDE
- D. EXHAUST FLOW RATE, WET AND DRY
- E. POLYNUCLEAR AROMATIC HYDROCARBONS (BENZO-A-PYRENE, BENZO-E-PYRENE, BENZO-A-ANTHRACENE AND CORONENE).
- F. TETRA- THROUGH OCTA-CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS
- G. HEAVY METALS (ARSENIC, BERYLLIUM, CADMIUM, CHROMIUM, COPPER, LEAD, MERCURY, NICKEL, AND ZINC)
- H. OPACITY
- I. FLUE GAS TEMPERATURE AT THE INLET TO THE BAGHOUSE DURING DIOXIN/FURAN TEST
- J. LOAD LEVEL (STEAM FLOW OR FEEDWATER FLOW) DURING DIOXIN/FURAN TEST
- K. OXIDES OF NITROGEN (NO_x)
- L. OXIDES OF SULFUR (SO_x)
- M. CARBON MONOXIDE
- N. FUGITIVE ASH USING EPA METHOD 22



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

IF THE PERFORMANCE TESTS OF ALL THREE COMBUSTION UNITS DEMONSTRATE THAT DIOXIN/FURAN EMISSIONS ARE LESS THAN OR EQUAL TO 7 ng/DSCM (TOTAL MASS) FOR A 2-YEAR PERIOD, THE OWNER OR OPERATOR MAY ELECT TO CONDUCT ANNUAL PERFORMANCE TEST ON ONLY ONE OF THE THREE UNITS. UNDER THIS ALTERNATIVE TESTING SCHEDULE, A DIFFERENT UNIT SHALL BE TESTED IN SEQUENCE EACH YEAR. IF ANY ANNUAL TEST INDICATES DIOXIN/FURAN EMISSIONS EXCEED 7 ng/DSCM (TOTAL MASS), PERFORMANCE TESTS SHALL BE CONDUCTED ON ALL THREE COMBUSTION UNITS UNTIL SERRF CAN QUALIFY FOR THE ALTERNATIVE TESTING SCHEDULE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

23. THE OWNER OR OPERATOR OF SERRF SHALL SUBMIT WRITTEN RESULTS OF THE PERFORMANCE TESTS TO THE AQMD BY FEBRUARY 1ST OF EACH YEAR FOLLOWING THE CALENDAR YEAR IN WHICH THE TESTS WERE CONDUCTED. THE OWNER OR OPERATOR OF SERRF SHALL ALSO COMPLY WITH THE REPORTING AND RECORDKEEPING REQUIREMENTS SPECIFIED IN 40 CFR 60.59b, AS APPLICABLE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

24. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

[RULE 204; 40CFR 60 Subpart Cb]

Periodic Monitoring:

25. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THE PARAMETER BEING MONITORED ONCE EVERY WEEK.

[RULE 3004 (a)(4)]

26. THE OPERATOR SHALL PERFORM A BIENNIAL INSPECTION OF THE EQUIPMENT AND BAGS FOR LEAKS, BROKEN OR TORN BAGS AND IMPROPERLY INSTALLED BAGS. ADDITIONAL INSPECTION SHALL BE CONDUCTED WHEN THE STACK OPACITY AS MEASURED BY THE CONTINUOUS OPACITY MONITORING SYSTEM EXCEEDS 5% FOR ONE HOUR OR MORE. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE BAGS;

B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.

[RULE 3004 (a)(4)]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

27. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE AQMD, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
TO PROVE COMPLIANCE WITH CONDITION 25.
[RULE 3004 (a)(4)]

28. THE OPERATOR SHALL USE THE DUST COLLECTOR IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THIS PARAMETER ONCE EVERY WEEK.
[RULE 3004 (a)(4)]

Emissions and Reporting:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

PERMIT TO CONSTRUCT

Granted as of 1/6/10
A/N 497361

Equipment Description:

MODIFICATION TO AIR POLLUTION CONTROL SYSTEM NO. 3 CONSISTING OF:

1. ROTARY ATOMIZER NO. 3 WITH CYCLONE INLETS VENTING COMBUSTOR/BOILER NO. 3.
2. SPRAY REACTOR TYPE REACTORS WITH CALCIUM HYDROXIDE INJECTION, EACH SERVING ROTARY ATOMIZER NO. 3.
3. BAGHOUSE NO. 3, WITH TEN COMPARTMENTS, REVERSE AIR CLEANING, 73,416 SQ. FT. OF FILTER AREA.
4. INDUCED DRAFT FAN NO. 3 VENTING RESOURCE RECOVERY SYSTEM NO. 3.

BY THE ADDITIONAL INJECTION OF POWDER ACTIVATED CARBON (COMMON TO APC SYSTEM NO. 1, 2 AND 3).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATING PRACTICE REQUIREMENTS LISTED IN 40 CFR 60.53b (b) AND (c).
[40CFR 60 Subpart Cb]
4. THE OWNER OR OPERATOR SHALL COMPLY WITH THE MUNICIPAL WASTE COMBUSTOR OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS LISTED IN 40 CFR 60.54b (a) THROUGH (g).
[40CFR Subpart Cb]
5. DUST OR FLYASH COLLECTED IN THE BAGHOUSE COMPARTMENT HOPPERS AND THE SPRAY REACTOR HOPPER SHALL BE DISCHARGED ONLY INTO CLOSED CONVEYORS AND/OR CONTAINERS EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[RULE 402; RULE 1303(a)(1)-BACT]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

6. A GAUGE SHALL BE MAINTAINED TO INDICATE, IN INCHES OF WATER PRESSURE, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE BAGS.
[RULE 1303(a)(1)-BACT]
7. THE VOLUME OF LIME SLURRY SUPPLIED TO THE ATOMIZERS FOR SO₂ CONTROL SHALL BE CONTINUOUSLY MEASURED AND RECORDED.
[RULE 1303(a)(1)-BACT]
8. A CONTINUOUS MONITORING SYSTEM TO MONITOR AND RECORD MASS EMISSIONS AND CONCENTRATIONS OF NITROGEN OXIDES (NO_x), OXIDES OF SULFUR (SO_x) AND CARBON MONOXIDE (CO) IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b.
[RULE 476; 40CFR 60 Subpart Cb]
9. A CONTINUOUS OXYGEN MONITOR AND RECORDER, AS APPROVED BY THE AQMD, SHALL BE MAINTAINED AND OPERATED IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE CONCENTRATIONS OF OXYGEN IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK.
[40CFR 60 Subpart Cb]
10. A SYSTEM, AS APPROVED BY THE AQMD, SHALL BE OPERATED TO CONVERT AND RECORD THE STACK NITROGEN OXIDES CONCENTRATIONS TO 3% OXYGEN ON A DRY BASIS AND REPORT THE RESULTS IN A MANNER WHICH DEMONSTRATES COMPLIANCE WITH RULE 476.
[RULE 476]
11. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS OPACITY MONITOR AND RECORDER IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MEASURE OPACITY OF FLUE GAS IN THE EXHAUST OF THE COMBUSTOR/BOILER STACK. THE MEASURED OPACITY SHALL NOT EXCEED 10 PERCENT IN 6-MINUTE AVERAGE.
[40CFR 60 Subpart Cb]
12. THE OWNER OR OPERATOR SHALL MAINTAIN AND OPERATE A CONTINUOUS TEMPERATURE MONITOR IN A MANNER PRESCRIBED IN 40 CFR 60.58b TO MONITOR THE TEMPERATURE OF THE FLUE GAS STREAM AT THE INLET TO EACH PARTICULATE MATTER CONTROL DEVICE FOR THE RESOURCE RECOVERY SYSTEM. THE MONITORED TEMPERATURE SHALL NOT EXCEED 17 DEGREES IN CELSIUS (4-HR BLOCK AVERAGE) ABOVE THE MAXIMUM DEMONSTRATED PARTICULATE MATTER CONTROL DEVICE TEMPERATURE AS DEFINED IN 40 CFR 60.51b EXCEPT AS SPECIFIED UNDER 40 CFR 60.53b(c).
[40CFR 60 Subpart Cb]
13. ALL CONTINUOUS EMISSION MONITORS SHALL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS AND OPERATING PROCEDURES AS APPROVED BY THE AQMD.
[40CFR 60 Subpart Cb]
14. CONTROLLED EMISSIONS OF OXIDES OF NITROGEN (NO_x) IN THE AIR POLLUTION CONTROL SYSTEM EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED 225 PPM (15 MINUTES AVERAGE) AT 3% OXYGEN ON A DRY BASIS.
[RULE 476; RULE 1303(b)(2)-OFFSET]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

15. CONTROLLED NO_x EMISSIONS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 205 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS. WHEN AVERAGING EMISSIONS FROM ALL COMBUSTORS AS ALLOWED IN PART 60.33b(d) OF 40 CFR SUBPART Cb, THE AVERAGED NO_x EMISSIONS SHALL NOT EXCEED 180 PPMV CORRECTED TO 7% OXYGEN ON A DRY BASIS (24-HR DAILY ARITHMETIC AVERAGE).
[40CFR 60 Subpart Cb]
16. CONTROLLED EMISSIONS OF OXIDES OF SULFUR (SO_x) FROM THE COMBUSTOR/BOILER SHALL NOT EXCEED THE MORE STRINGENT OF 17 LB/HR OR 70 PPM, DRY CORRECTED TO 12% CO₂ (3 HOUR AVERAGE), AND THE MORE STRINGENT OF 12 LB/HR OR 26 PPM, DRY CORRECTED TO 12 % CO₂ (8 HOUR AVERAGE).
[RULE 1303(b)(2)-OFFSET]
17. CONTROLLED EMISSIONS OF THE FOLLOWING POLLUTANTS IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED THE LIMITS SPECIFIED BELOW. THE FOLLOWING LIMITS ARE CORRECTED TO 7% OXYGEN ON A DRY BASIS UNLESS OTHERWISE INDICATED:
- | | |
|--------------------------|---|
| OXIDES OF SULFUR (SOX) | 29 PPMV OR 75% WT. REDUCTION (24-HR DAILY GEOMETRIC MEAN) |
| PARTICULATE MATTERS (PM) | 27 mg/DSCM |
| DIOXIN/FURAN | 30 ng/DSCM |
| CADMIUM | 0.04 mg/DSCM |
| LEAD | 0.44 mg/DSCM |
| MERCURY | 0.08 mg/DSCM OR 85% WT. REDUCTION |
| HYDROGEN CHLORIDE | 29 PPMV OR 95% WT. REDUCTION |
18. CONTROLLED EMISSIONS OF CARBON MONOXIDE (CO) IN THE EXHAUST FROM THE SYSTEM SHALL NOT EXCEED 100 PPMV (4-HR ARITHMETIC AVERAGE) CORRECTED TO 7% OXYGEN ON A DRY BASIS.
[40CFR 60 Subpart Cb]
19. THE CONTROLLED EMISSIONS IN THE EXHAUST FROM THIS SYSTEM SHALL NOT EXCEED THE FOLLOWING LIMITS:
- | <u>CONTAMINANT</u> | <u>LB/DAY</u> |
|----------------------|---------------|
| NITROGEN OXIDES | 816 |
| PM ₁₀ | 120 |
| SULFUR OXIDES | 288 |
| CARBON MONOXIDE | 792 |
| REACTIVE ORGANIC GAS | 72 |
| HYDROGEN CHLORIDE | 204 |
- [RULE 1303(b)(2)-OFFSET]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

20. VISIBLE FUGITIVE ASH EMISSIONS FROM AN ASH CONVEYING SYSTEM SHALL NOT EXCEED 5 PERCENT OF THE OBSERVATION PERIOD WHICH IS DEFINED IN 40 CFR 60.58b(k), EXCEPT DURING MAINTENANCE AND REPAIR OF ASH CONVEYING SYSTEMS.
[40CFR 60 Subpart Cb]
21. THE AQMD APPROVED SAMPLING PORTS SHALL BE MAINTAINED IN THE FOLLOWING LOCATIONS:
- A. IN THE DUCT FOLLOWING THE COMBUSTOR/BOILER BUT PRECEDING THE SPRAY REACTOR;
 - B. IN THE DUCT FOLLOWING THE SPRAY REACTOR BUT PRECEDING THE BAGHOUSE;
 - C. IN THE EXHAUST STACK;
 - D. IN THE COMBUSTION AIR INLET DUCT BETWEEN THE INTAKE AND THE COMBUSTOR.
[RULE 204]
22. THE OWNER OR OPERATOR OF SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF) SHALL CONDUCT PERFORMANCE TESTS ON AN ANNUAL BASIS IN ACCORDANCE WITH THE AQMD TEST PROCEDURES AND 40 CFR 60.58b. WRITTEN NOTICE OF SUCH PERFORMANCE TESTS SHALL BE PROVIDED TO THE AQMD SEVEN (7) DAYS PRIOR TO THE TEST SO THAT AN OBSERVER MAY BE PRESENT.

THE PERFORMANCE TESTS SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF ONE OF THE THREE COMBUSTOR/BOILER EXHAUST STREAMS FOLLOWING THE BAGHOUSE UNLESS OTHERWISE REQUESTED BELOW FOR THE FOLLOWING POLLUTANTS:

- A. HYDROCARBONS
- B. PARTICULATE MATTER
- C. HYDROGEN CHLORIDE
- D. EXHAUST FLOW RATE, WET AND DRY
- E. POLYNUCLEAR AROMATIC HYDROCARBONS (BENZO-A-PYRENE, BENZO-E-PYRENE, BENZO-A-ANTHRACENE AND CORONENE).
- F. TETRA- THROUGH OCTA-CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS
- G. HEAVY METALS (ARSENIC, BERYLLIUM, CADMIUM, CHROMIUM, COPPER, LEAD, MERCURY, NICKEL, AND ZINC)
- H. OPACITY
- I. FLUE GAS TEMPERATURE AT THE INLET TO THE BAGHOUSE DURING DIOXIN/FURAN TEST
- J. LOAD LEVEL (STEAM FLOW OR FEEDWATER FLOW) DURING DIOXIN/FURAN TEST
- K. OXIDES OF NITROGEN (NO_x)
- L. OXIDES OF SULFUR (SO_x)
- M. CARBON MONOXIDE
- N. FUGITIVE ASH USING EPA METHOD 22



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

IF THE PERFORMANCE TESTS OF ALL THREE COMBUSTION UNITS DEMONSTRATE THAT DIOXIN/FURAN EMISSIONS ARE LESS THAN OR EQUAL TO 7 ng/DSCM (TOTAL MASS) FOR A 2-YEAR PERIOD, THE OWNER OR OPERATOR MAY ELECT TO CONDUCT ANNUAL PERFORMANCE TEST ON ONLY ONE OF THE THREE UNITS. UNDER THIS ALTERNATIVE TESTING SCHEDULE, A DIFFERENT UNIT SHALL BE TESTED IN SEQUENCE EACH YEAR. IF ANY ANNUAL TEST INDICATES DIOXIN/FURAN EMISSIONS EXCEED 7 ng/DSCM (TOTAL MASS), PERFORMANCE TESTS SHALL BE CONDUCTED ON ALL THREE COMBUSTION UNITS UNTIL SERRF CAN QUALIFY FOR THE ALTERNATIVE TESTING SCHEDULE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

23. THE OWNER OR OPERATOR OF SERRF SHALL SUBMIT WRITTEN RESULTS OF THE PERFORMANCE TESTS TO THE AQMD BY FEBRUARY 1ST OF EACH YEAR FOLLOWING THE CALENDAR YEAR IN WHICH THE TESTS WERE CONDUCTED. THE OWNER OR OPERATOR OF SERRF SHALL ALSO COMPLY WITH THE REPORTING AND RECORDKEEPING REQUIREMENTS SPECIFIED IN 40 CFR 60.59b, AS APPLICABLE.

[RULE 1303(a)(1)-BACT; 40CFR 60 Subpart Cb]

24. ALL RECORDS REQUIRED BY THIS PERMIT OR 40 CFR 60.59b, AS APPLICABLE, SHALL BE MAINTAINED AND KEPT ON FILE FOR A PERIOD OF AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

[RULE 204; 40CFR 60 Subpart Cb]

Periodic Monitoring:

25. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THE PARAMETER BEING MONITORED ONCE EVERY WEEK.

[RULE 3004 (a)(4)]

26. THE OPERATOR SHALL PERFORM A BIENNIAL INSPECTION OF THE EQUIPMENT AND BAGS FOR LEAKS, BROKEN OR TORN BAGS AND IMPROPERLY INSTALLED BAGS. ADDITIONAL INSPECTION SHALL BE CONDUCTED WHEN THE STACK OPACITY AS MEASURED BY THE CONTINUOUS OPACITY MONITORING SYSTEM EXCEEDS 5% FOR ONE HOUR OR MORE. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

- A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE BAGS;
- B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.

[RULE 3004 (a)(4)]



FACILITY PERMIT TO CONSTRUCT LONG BEACH CITY, SERRF PROJECT

27. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE AQMD, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
TO PROVE COMPLIANCE WITH CONDITION 25.
[RULE 3004 (a)(4)]
28. THE OPERATOR SHALL USE THE DUST COLLECTOR IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 15 INCHES WATER COLUMN. THE OPERATOR SHALL DETERMINE AND RECORD THIS PARAMETER ONCE EVERY WEEK.
[RULE 3004 (a)(4)]

Emissions and Reporting:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATION:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS