

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO OPERATE

Permit No. TBD
A/N 518817

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL, NO. G379 SI-TA-HCR, NATURAL GAS FIRED WITH LPG STANDBY, TURBOCHARGED, AFTERCOOLED, RICH BURN, 8 CYLINDER, 465 BHP, WITH A MIRATECH, MODEL SP-IQS-22X3-08-EC2, NON-SELECTIVE CATALYTIC CONVERTER, AND AIR TO FUEL RATIO CONTROLLER, ALTRONIC, MODEL EPC 100E, DRIVING AN AERATION BLOWER.

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. THIS ENGINE SHALL NOT BE OPERATED UNLESS ITS EXHAUST IS VENTED TO AN AIR POLLUTION CONTROL DEVICE, WHICH IS IN FULL OPERATION AND WHICH IS IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
4. THE EQUIPMENT SHALL ONLY USE NATURAL GAS AS FUEL, EXCEPT WHEN NATURAL GAS IS NOT AVAILABLE FOR USE AS FUEL.
[RULE 204, RULE 1110.2]
5. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF RULE 1110.2, RULE 431.1, AND 40 CFR 63 SUBPART ZZZZ.
[RULE 1110.2, RULE 431.1, 40CFR63 SUBPART ZZZZ]
6. THE CATALYST IN THE CONVERTER SHALL BE MAINTAINED IN GOOD WORKING CONDITION. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.
[RULE 204]
7. THE TEMPERATURE OF THE EXHAUST GAS ENTERING THE CATALYST SHALL BE MAINTAINED BETWEEN 600 DEGREES F AND 1250 DEGREES F., EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.
[RULE 204, RULE 1110.2]

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8. THE TEMPERATURE OF THE EXHAUST GAS AT THE CATALYST OUTLET SHALL NOT EXCEED 1350 DEGREES F.
[RULE 204, RULE 1110.2]
9. THE OPERATOR SHALL MAINTAIN AND IMPLEMENT AN INSPECTION AND MONITORING (I&M) PLAN, BASED ON EQUIPMENT AS DESCRIBED IN THIS PERMIT IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF RULE 1110.2(f)(1)(D).
[RULE 1110.2]
10. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. TOTAL HOURS OF OPERATION.
 - B. THE NUMBER OF HOURS THE ENGINE IS OPERATED ON SPECIFIC FUEL OR FUEL BLENDS USED AND THE FUEL USED.
 - C. FUEL CONSUMPTION OF EACH FUEL TYPE.
 - D. CUMULATIVE HOURS OF OPERATION SINCE THE LAST SOURCE TEST.[RULE 1110.2]
11. THE ENGINE SHALL OPERATE BETWEEN 1044 AND 1276 RPM, EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.
[RULE 1110.2]
12. THE OPERATOR SHALL COMPLY WITH THE REPORTING REQUIREMENTS OF RULE 1110.2(f)(1)(H)(i) THROUGH (iii) – AMENDED 7/9/2010, PERTAINING TO ANY EQUIPMENT BREAKDOWN THAT RESULTS IN EMISSIONS IN EXCESS OF RULE OR PERMIT EMISSION LIMITS.
[RULE 1110.2]
13. THE CONCENTRATION OF THE FOLLOWING COMPOUNDS MEASURED AT THE OUTLET OF THE AIR POLLUTION CONTROL SYSTEM OF THE ENGINE SHALL NOT EXCEED THE FOLLOWING EFFECTIVE JULY 1, 2011, EXCEPT DURING COLD START WHICH SHALL NOT EXCEED 30 MINUTES, UNLESS OTHERWISE APPROVED BY SCAQMD:

NOX: 11 PPMVD AT 15% O2
VOC: 30 PPMVD AT 15% O2
CO: 250 PPMVD AT 15% O2
[RULE 1110.2]
14. OPERATING RECORDS FOR THE EQUIPMENT, WHICH SHALL INCLUDE ALL DATA, LOGS, TEST REPORTS, DATES OF OPERATION, TOTAL HOURS OF OPERATION, AND FUEL CONSUMPTION FOR EACH TYPE OF FUEL SHALL BE MAINTAINED AND KEPT FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 1110.2]

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15. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO, NOX, AND VOC EMISSION LIMITS BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY 2 YEARS, OR EVERY 8,760 OPERATING HOURS, WHICHEVER OCCURS FIRST. THE SOURCE TEST FREQUENCY MAY BE REDUCED TO ONCE EVERY THREE YEARS IF THE ENGINE HAS OPERATED LESS THAN 2,000 HOURS SINCE THE LAST SOURCE TEST. THE TEST SHALL BE CONDUCTED USING THE TEST METHOD AS STATED IN RULE 1110.2. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 1110.2 CONCENTRATION LIMITS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 1110.2]
16. THIS ENGINE SHALL NOT BE OPERATED WITHOUT THE USE OF AN AUTOMATIC AIR TO FUEL RATIO CONTROLLER WHICH SHALL BE MAINTAINED AND KEPT IN PROPER OPERATING CONDITIONS AT ALL TIMES AS SPECIFIED BY THE MANUFACTURER.
[RULE 1110.2]
17. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE TOTALIZING TIME METER TO DETERMINE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2]

Periodic Monitoring:

18. THIS ENGINE SHALL BE EQUIPPED WITH AN OXYGEN SENSOR AT THE EXHAUST OF THE ENGINE. A RECORDING SYSTEM SHALL BE INSTALLED TO VERIFY COMPLIANCE WITH MANUFACTURER SPECIFICATIONS. PARAMETRIC OPERATING DATA MAY BE USED IN LIEU OF DIRECT OXYGEN MEASUREMENTS, BUT RECORDS OF HOW THE PARAMETRIC DATA RELATES TO OXYGEN CONTENT MUST BE RETAINED AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2, RULE 3004(a)(4)]
19. THE OPERATOR SHALL INSTALL AND MAINTAIN A TEMPERATURE GAUGE AND RECORDING SYSTEM TO ACCURATELY INDICATE THE TEMPERATURE AT THE INLET OF THE CATALYST.
[RULE 204, RULE 1110.2, RULE 3004 (a)(4)]
20. THE OPERATOR SHALL INSTALL AND MAINTAIN A TEMPERATURE GAUGE AND RECORDING SYSTEM TO ACCURATELY INDICATE THE TEMPERATURE AT THE OUTLET OF THE CATALYST.
[RULE 204, RULE 1110.2, RULE 3004 (a)(4)]

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Emissions and Requirements:

21. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

NOX: 0.15 GM/BHP-HR, RULE 1303

NOX: 45 PPMV, RULE 1110.2

VOC: 0.15 GM/BHP-HR, RULE 1303

VOC: 250 PPMV, RULE 1110.2

CO: 0.6 GM/BHP-HR, RULE 1303

CO: 2000 PPMV, RULE 1110.2