

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

A/N 526292
Granted: TBD

Equipment Description:

INTERNAL COMBUSTION ENGINE, NON-EMERGENCY, WAUKESHA, MODEL H24 GLD, SPARK IGNITION, FOUR CYCLE, 8-CYLINDER, 530 BHP, LEAN BURN, TURBOCHARGED, AFTERCOOLED, FUELED WITH DIGESTER GAS, A DIGESTER GAS/ NATURAL GAS BLEND, OR A NATURAL GAS/ AIR BLEND, WITH AN EXHAUST HEAT RECOVERY SYSTEM, AND AN AIR-TO-FUEL RATIO CONTROLLER, WAUKESHA, MODEL CEC, DRIVING AN AERATION BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE 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 CONDITIONS AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE FIRED ON DIGESTER GAS, A DIGESTER GAS/ NATURAL GAS BLEND, OR A NATURAL GAS/ AIR BLEND. THE NATURAL GAS/ AIR BLEND SHALL NOT EXCEED 650 BTU/SCF.
[RULE 1110.2, RULE 1303]
4. 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]
5. A NON-RESETTABLE OPERATIONAL TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE IN CUMULATIVE HOURS THE ENGINE IS OPERATED.
[RULE 1110.2]
6. A FUEL METER SHALL BE INSTALLED AND MAINTAINED IN THE FUEL SUPPLY LINE TO THE ENGINE TO INDICATE THE FUEL USAGE IN CUBIC FEET, FOR EACH TYPE OF FUEL USED, AND FUEL USAGE SHALL BE RECORDED.
[RULE 204, RULE 1110.2]
7. THE TWO DIGESTER GAS FIRED ENGINES MAY ONLY BE OPERATED AT THE SAME TIME IF THE AVAILABLE DIGESTER GAS IS GREATER THAN THE 100% OF THE TOTAL HEAT INPUT (HIGHER HEATING VALUE BASIS) FOR ONE ENGINE, UNLESS THE THIRD ENGINE USED TO DRIVE AN AERATION BLOWER IS TEMPORARILY OUT OF SERVICE FOR REPAIR, MAINTENANCE, OR TESTING.
[RULE 1110.2]

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8. THE DIGESTER GAS ENGINES SHALL BE OPERATED WITH AT LEAST 50% OF THE TOTAL HEAT INPUT SUPPLIED BY DIGESTER GAS (HIGHER HEATING VALUE BASIS) FOR THE FACILITY AVERAGE IN EACH CALENDAR MONTH EXCEPT WHEN THIS SEWAGE TREATMENT PLANT ACTIVATES AN EMERGENCY OPERATIONS CENTER OR INCIDENT COMMAND SYSTEM, AS PART OF AN EMERGENCY RESPONSE PLAN, BECAUSE OF EITHER HIGH INFLUENT FLOWS CAUSED BY PRECIPITATION OR A DISASTER.
[RULE 1110.2]
9. 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. THE BTU RATING OF THE DIGESTER GAS.
 - D. FUEL CONSUMPTION OF EACH FUEL TYPE.
 - E. THE PERCENT DIGESTER GAS OF THE TOTAL FUEL BY VOLUME.
 - F. THE NUMBER OF HOURS THE ENGINE IS OPERATED CUMULATIVE HOURS OF OPERATION SINCE THE LAST SOURCE TEST.[RULE 204, RULE 1110.2]
10. THE ENGINE SHALL OPERATE BETWEEN 1539 AND 1881 RPM, EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.
[RULE 1110.2]
11. 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]
12. 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]
13. 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]

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14. 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]
15. 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]

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - NOX: 0.6 GM/BHP-HR, RULE 1303
 - NOX: 0.70 LBS/HR, RULE 1303
 - NOX: 36 PPMV, RULE 1110.2
 - VOC: 0.8 GM/BHP-HR, RULE 1303
 - VOC: 0.29 LBS/HR, RULE 1303
 - VOC: 250 PPMV, RULE 1110.2
 - CO: 2.5 GM/BHP-HR, RULE 1303
 - CO: 2.42 LBS/HR, RULE 1303
 - CO: 2000 PPMV, RULE 1110.2

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