

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: TBD
A/N 504377

Equipment Description:

BOILER, HURST, MODEL S5-X-125-125W, FIRE TUBE TYPE, DIGESTER GAS AND NATURAL GAS FIRED, 5,400,000 BTU/HR MAXIMUM HEAT INPUT RATE, WITH ULTRA LOW NOX BURNER, POWER FLAME, MODEL LNINVC5-GG-30.

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 OR NATURAL GAS ONLY.
[RULE 204, RULE 1146, RULE 1303(a)(1)-BACT]
4. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL PROVISIONS OF RULE 1146.
[RULE 1146]
5. A NON-RESETTABLE, TOTALIZING FUEL METER SHALL BE INSTALLED AND MAINTAINED IN THE FUEL SUPPLY LINE TO MEASURE AND RECORD THE FUEL USAGE IN CUBIC FEET, FOR EACH TYPE OF FUEL USED.
[RULE 204, RULE 1303(a)(1)-BACT]
6. WHEN IN OPERATION, TOTAL HEAT INPUT FOR THIS EQUIPMENT SHALL NOT EXCEED 5.4 MMBTU/HR. A MONTHLY LOG SHALL BE KEPT INDICATING THE TOTAL HEATING VALUE (BTU/SCF) OF FUEL GAS BURNED IN THIS EQUIPMENT BASED ON THE RECORDED FLOW RATE (SCFM) AND THE LATEST MONTHLY BTU CONTENT READING.
[RULE 1146, RULE 1303(a)(1)-BACT]
7. THIS EQUIPMENT SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO REGULATE AUTOMATICALLY THE COMBUSTION AIR AND FUEL RATE AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED PERIODICALLY, ACCORDING TO ATTACHMENT I OF RULE 1146.
[RULE 1146]

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8. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT AN INITIAL SOURCE TEST AND SUBSEQUENT SOURCE TESTS ONCE EVERY FIVE YEARS THEREAFTER, UNDER THE FOLLOWING CONDITIONS AND PER RULE 1146:
- A. TESTING SHALL BE CONDUCTED BY AN APPROVED CONTRACTOR UNDER THE SCAQMD LABORATORY APPROVAL PROGRAM AND IN COMPLIANCE WITH SCAQMD RULE 304 (NO CONFLICT OF INTEREST).
 - B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO SCAQMD WITHIN 30 DAYS OF INITIAL START UP AND SHALL BE APPROVED BY SCAQMD BEFORE THE TEST COMMENCES. THE PROTOCOL SHALL INCLUDE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST AND DESCRIPTIONS OF ALL SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
 - C. SOURCE TESTS SHALL BE CONDUCTED WITHIN 60 CALENDAR DAYS AFTER NORMAL OPERATION OF THE EQUIPMENT HAS BEEN ESTABLISHED, BUT NO LATER THAN 180 DAYS AFTER INITIAL START UP.
 - D. SOURCE TESTS SHALL BE PERFORMED WHEN THE BOILER IS OPERATING AT MAXIMUM, MINIMUM AND AVERAGE LOADS FOR EACH FUEL (DIGESTER GAS AND NATURAL GAS). THE SAMPLING TIME AT EACH LOAD SHALL BE FOR A MINIMUM OF 15 CONSECUTIVE MINUTES.
 - E. TWO COPIES OF THE SOURCE TEST RESULTS SHALL BE SUBMITTED TO SCAQMD WITHIN 60 DAYS OF TESTING. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - I. FUEL FLOW RATE FOR EACH FUEL
 - II. FLUE GAS FLOW RATE FOR EACH FUEL
 - III. METHANE CONTENT FOR DIGESTER GAS
 - IV. TOTAL NON-METHANE ORGANICS FOR DIGESTER GAS AND EXHAUST GAS
 - V. SPECIATED TRACE ORGANICS FOR DIGESTER GAS AND EXHAUST GAS
 - VI. TOTAL PARTICULATES FOR EXHAUST GAS
 - VII. OXIDES OF NITROGEN FOR EXHAUST GAS
 - VIII. CARBON MONOXIDE FOR EXHAUST GAS
 - IX. CARBON DIOXIDE FOR EXHAUST GAS
 - X. OXYGEN FOR EXHAUST GAS
 - XI. HIGHER HEATING VALUE FOR DIGESTER GAS
 - XII. TOTAL SULFUR CONTENT, AS H₂S, PPMV FOR DIGESTER GAS
- [RULE 217, RULE 404, RULE 1146, RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-Offsets, RULE 1401]
9. THE OWNER OR OPERATOR SHALL CHECK NOX EMISSIONS WITH A PORTABLE NOX, CO AND O₂ ANALYZER ACCORDING TO THE SCAQMD APPROVED PROTOCOL FOR RULES 1146 AND 1146.1 AT LEAST MONTHLY OR EVERY 750 UNIT OPERATING HOURS, WHICHEVER OCCURS LATER. IF A UNIT IS IN COMPLIANCE FOR THREE CONSECUTIVE EMISSION CHECKS, WITHOUT ANY ADJUSTMENTS TO THE OXYGEN SENSOR SET POINT, THEN THE UNIT SHALL BE CHECKED QUARTERLY OR EVERY 2,000 UNIT OPERATING HOURS, WHICHEVER OCCURS LATER, UNTIL THERE IS AN EMISSION CHECK INDICATING NONCOMPLIANCE.
- [RULE 1146]

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Periodic Monitoring:

10. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT AND MAINTAINED FOR A MINIMUM OF FIVE YEARS AND SHALL BE MADE AVAILABLE TO SCAQMD PERSONNEL UPON REQUEST.
[RULE 1146, RULE 3004(a)(4)]
11. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE EMISSION LIMITS OF CO AND NOX, AT LEAST ONCE EVERY FIVE YEARS USING SCAQMD-APPROVED TEST METHODS. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING AND RECORDKEEPING REQUIREMENTS IN SECTION E AND K OF THIS PERMIT.
[RULE 1146, RULE 3004(a)(4)]

Emissions and Requirements:

12. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - PM: 0.1 GRAIN/SCF @ 12% CO₂, RULE 409
 - PM10: 0.06 LBS/HR FOR DIGESTER GAS FIRING, RULE 1303(b)(2)-Offsets
 - PM10: 0.04 LBS/HR FOR NATURAL GAS FIRING, RULE 1303(b)(2)-Offsets
 - CO: 400 PPM @ 3% O₂, DRY BASIS, RULE 1146
 - CO: 100 PPMV @ 3% O₂, DRY BASIS FOR DIGESTER GAS FIRING, RULE 1303-BACT
 - CO: 50 PPMV @ 3% O₂, DRY BASIS FOR NATURAL GAS FIRING, RULE 1303-BACT
 - CO: 0.42 LBS/HR FOR DIGESTER GAS FIRING, RULE 1303(b)(2)-Offsets
 - CO: 0.20 LBS/HR FOR NATURAL GAS FIRING, RULE 1303(b)(2)-Offsets
 - NO_x: 30 PPM @ 3% O₂, DRY BASIS, RULE 1146
 - NO_x: 30 PPMV @ 3% O₂, DRY BASIS FOR DIGESTER GAS FIRING, RULE 1303-BACT
 - NO_x: 12 PPMV @ 3% O₂, DRY BASIS FOR NATURAL GAS FIRING, RULE 1303-BACT
 - NO_x: 0.21 LBS/HR FOR DIGESTER GAS FIRING, RULE 1303(b)(2)-Offsets
 - NO_x: 0.08 LBS/HR FOR NATURAL GAS FIRING, RULE 1303(b)(2)-Offsets
 - ROG: 0.05 LBS/HR FOR DIGESTER GAS FIRING, RULE 1303(b)(2)-Offsets
 - ROG: 0.03 LBS/HR FOR NATURAL GAS FIRING, RULE 1303(b)(2)-Offsets