MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

INACTIVE

B010168

Inactive type Permit has no description information.

EXPIRES LAST DAY OF: JULY 2009

OWNER OF OPERATOR (Co.#46)

Victorville, City of
14343 Civic Drive
Victorville, CA 92392-2399

EQUIPMENT LOCATION (Fac.#2666)

Victorville - SCLA Power Plant #1
17951 Phantom West
Victorville, CA 92394

Description:
BIO-BI-FUEL IC ENGINE (BFG-3) consisting of: Yr of Mfg 2001, Date Installed 03/01/08

One WPS Bio Power, Bio-Dsl fired internal combustion engine Model No. BFG S16R-PTA and Serial No. 11122, After Cooled, Direct Injected, Inter Cooled, Other, Other, Turbo Charged, producing 2396 bhp with 16 cylinders at 1800 rpm while consuming a maximum of 120.0 gal/hr. This equipment powers a Leroy Somer Generator Model No. LS 2000 and Serial No. BW5L4130, rated at 1650 kw.

EMISSIONS RATES

Emission Type	Est. Max Load	Unit
CO	0.9	gm/bhp-hr
NOx	0.6	gm/bhp-hr
PM10	0.29	gm/bhp-hr
VOC	0.2	gm/bhp-hr

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.

Fee Schedule: 1 (d) | Rating: 2396 bhp | SIC: 4911 | SCC: 20100202 | Location/UTM(Km): 473E/3820N

This permit does not authorize the emission of air contaminants in excess of those allowed by law, including Division 26 of the Health and Safety Code of the State of California and the Rules and Regulations of the District. This permit cannot be construed as permission to violate existing laws, ordinances, statutes or regulations of this or other governmental agencies. This permit must be renewed by the expiration date above. If billing for renewal fee required by Rule 301(c) is not received by expiration date above, please contact the District.

Victorville, City of
Public Works - Fleet Division

Victorville, CA 92392-2399

By: **COPY**
Brad Poiriez
Executive Director

2. This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles.

3. This equipment shall not be operated without venting through the properly operating selective catalytic reduction system with valid District Permit C010169 (this requirement shall not apply during a catalyst break-in period not to exceed thirty days beginning with the first firing of fuel in this unit).

4. This equipment shall be exclusively fueled with pipeline quality natural gas and/or biofuel (B99 and higher) with a range from 20% to 30% (by heat input (btu)). This equipment may operate on 100% biofuel when the natural gas involuntary interrupted or under "emergency conditions".

5. The biofuel should meet the requirements of ASTM D6751-07b. This can be accomplished by the o/o testing each load of biofuel or have the vendor provide certification for the process utilized to produce the biofuel.

6. This unit shall only be fired on a fuel blend, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per ASTM Method D6751-07b.

7. The natural gas and biofuel consumption shall be monitored using a monitoring system. The operator shall install, calibrate, maintain and operate this monitoring system according to a District-approved monitoring plan, and it shall be installed prior to initial equipment startup.

8. Emissions from this equipment to the atmosphere shall not exceed the following emission limits:
a. Hourly rates, verified by compliance tests (initial compliance test in the case of PM10 and formaldehyde):
i. NOx as NO2 - 3.17 lb/hr and 0.60 gram/bhp-hr (averaged over one hour)
ii. VOC as CH4 - 1.06 lb/hr and 0.20 gram/bhp-hr
iii. CO - 4.75 lb/hr and 0.90 gram/bhp-hr
iv. PM10 - 1.53 lb/hr and 0.29 gram/bhp-hr (front and back half)
v. Ammonia Slip - 10 ppmvd (corrected to 15% oxygen and averaged over three hours)
vi. Aldehyde - 0.26 lb/hr and 0.051 grams/bhp-hr
b. Annual rates, based on a rolling 12 month summary, verified by fuel use and compliance tests:
i. NOx - 27,764 pounds/year (13.882 tpy)
ii. VOC - 9,254 pounds/year (4.627 tpy)
iii. PM10 - 13,420 pounds/year (6.710 tpy) (front and back half)
iv. CO - 41,646 pounds/year (20.823 tpy)

9. Particulate emissions from this equipment shall not exceed an opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.

10. Emissions from this facility shall not exceed the following emission limits, based on a rolling 12 month summary:
a. NOx - 24.9 tons/year, verified by emission factors from annual source testing
b. PM10 - 14.9 tons/year, verified by emission factors from annual source testing

11. The o/o shall perform the following compliance tests each year beginning in 2008 in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit. The following compliance tests are required:
a. PM10 in lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method 5)
b. NOx as NO2 in gm/bhp-hr and lb/hr (measured per USEPA Reference Methods 19 and 20)
c. VOC as CH4 in gm/bhp-hr and lb/hr (measured per USEPA Reference Methods 25A or 18)
d. CO in gm/bhp-hr and lb/hr (measured per USEPA Reference Method 10)
e. Flue gas flow rate in dscfm
f. Ammonia slip in ppmvd at 15% oxygen
g. Opacity (measured per USEPA Reference Method 9).

h. Fuel analysis for heating value metals and chloride as reported by fuel supplier

12. The o/o shall maintain a log for this equipment which, at a minimum, contains the information specified below. This log shall be maintained current and on-site for a minimum of five (5) years and shall be provided to District personnel on request:
a. Natural Gas consumption in standard cubic feet per calendar month, with average heating value (btu per cubic feet of therms).
b. Biofuel consumption in gallons per calendar month with average heating value (btu per gallon).
c. A copy of test of sulfur content of the biofuel.
d. Hourly catalyst performance data (inlet temperature and differential pressure across catalyst).
e. The monthly and the 12 month rolling average of electrical generation at this facility, in megawatts.
f. The monthly and the 12 month rolling average of hours operated by this permit unit and the facility.

13. An initial annual compliance test shall be performed within 60 days after achieving maximum power output, but not later than 180 days after initial firing of fuel in this unit. This test shall demonstrate that this equipment is capable of operation at normal and maximum output and a different fuel rations (NG 80% & Biofuel 20%; NG 90% & Biofuel 10%; and NG 95% and Biofuel 5%) in compliance with the emission limits in Conditions 8, 9 and 10 above, and shall include the tests required by Condition 11 above and the following additional tests:
a. Polycyclic Aromatic Hydrocarbons (PAH) in gm/bhp-hr and lb/h (measured per CARB Method 429)
b. Aldehyde and Acrolein in gm/bhp-hr and lb/hr (using an FTIR analyzer, CARB Method 430 or other District-approved method)
c. Full set of Metals (measured per CARB Method 436)
d. Benzene in gm/bhp-hr and lb/h (measured per CARB Method 410A or 410B).

14. Emissions of CO and NOx from this equipment shall only exceed the limits contained in Condition 8 during startup and shutdown periods. Startup is defined as the period beginning with ignition and lasting until the equipment has reached operating permit limits. Shutdown is defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased.

15. The o/o shall provide stack sampling ports and platforms necessary to perform source tests required to verify compliance with District rules, regulations and permit conditions. The location of these ports and platforms shall be subject to District approval.

16. The o/o shall conduct all required compliance/certification tests in accordance with a District-approved test plan. Thirty (30) days prior to the compliance/certification tests the o/o shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the tests so that an observer may be present. A written report with the results of such compliance/certification tests shall be submitted to the District within forty-five (45) days after testing.

17. The o/o shall submit to the District the following information for the preceding calendar year by January 30 of each year this permit is in effect. This information shall be maintained on site for a minimum of five (5) years and shall be provided to District, State or Federal personnel on request:
a. Operating parameters of emission control equipment, including but not limited to ammonia injection rate, NOx emission rate and ammonia slip.
b. Total plant operation time (hours), number of startups, hours in startup, and hours in shutdown period.
c. Date and time of the beginning and end of each startup and shutdown period.
d. Total calendar year emissions of PM10, NOx and CO (including calculation protocol).
e. A log of all excess emissions, including the information regarding malfunctions/breakdowns required by Rule 430.
f. Any permanent changes made in the plant process or production which would affect air pollutant emissions, and indicate when changes were made.
g. Any maintenance to any air pollutant control system (recorded on an as-performed basis).

18. This facility shall not produce (to the grid and for parasitic use) more that 11,900 megawatt-hours/year on a 12 month rolling average. The monthly and the 12 month rolling average of electrical generation, in megawatts, and hours operated by this permit unit and the facility shall be recorded in the log required by Condition # 12.

19. The o/o shall submit to the District a Compliance Assurance Monitoring (CAM) Plan and/or a Parametric Emission Monitoring system (PEMS) that details the operating parameters and there operating ranges that will be monitored and used by the operator to insure compliance with Conditions 8, 9 and 10 above, at least 30 days prior to the initial compliance test required per Condition 13 above.