MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
14306 Park AvenueVictorville,CA92392-2310
760.245.1661 -- 800.635.4617 -- FAX760.245.2022

INACTIVE

B013198

Inactive type Permit has no description information.

EXPIRES LAST DAY OF:JUNE 2021

OWNER OF OPERATOR (Co.#2415)

Envirepel Energy Inc.
219 Rancho Bonito Road
Fallbrook,CA92028

EQUIPMENT LOCATION (Fac.#3807)

Phelan Park Renewable Energy Facility
18101 Sheep Creek Road
Adelanto,CA92301

Description:
GROUND GREEN WASTE/CLEAN WOOD WASTE COMBUSTION PROCESS LINE #2 consisting of:A custom manufactured modular starved air combustor (MSAC) and a custom-manufactured thermal oxidizer/dwell tunnel. The MSAC has a 28.0 MMBtu/hour maximum heat input rating, fueled by ground green waste and clean wood waste at a maximum rate of 2.5 tons per hour. The hot gases from the MSAC flow into the custom manufactured thermal oxidizer with a designed 57,900 lbs/hour maximum mass flow rate at an average temperature of 1950 degrees Fahrenheit and an expected resonance time of 3.1 seconds. The exhaust from this thermal oxidizer exhaust is then fed through a modified Cleaver-Brooks steam generator with a maximum steam flow rate of approximately 60,000 lbs per hour used to turn a 3.3 MW electrical generator. Emissions from the exhaust gases are controlled with a non-selective catalytic converter, a dual-cyclone dust collector, a scrubber, and a wet Electrostatic Precipitator (ESP). Exhaust flow is approximately 10112 acfm at 80 degrees Fahrenheit through a 45 foot tall by 5.2 inch diameter stack.

EQUIPMENT

Capacity	Equipment Description
28	Modular Starved Air Combustor (MSAC) Serial # 001. Capacity is in MMBtu/hr
0	Heat Recovery Steam Generator (HRSG), a modified Cleaver-Brooks boiler to use exhaust gases from MSAC to produce a maximum of 60,000 lbs of steam per hour used to spin the electrical generator.
0	Electrical Generator, 3.3 MW maximum output. Uses steam produced in modified Cleaver-Brooks boiler.

CONDITIONS:

Fee Schedule:2 (e) Rating:28000000Btu SIC:4953 SCC:10101207 Location/UTM(Km):446E/3826N

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.

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By: **COPY**
Brad Poiriez
Air Pollution Control Officer

1.This equipment shall be installed, operated and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.
[District Rules 204 and 1303]

2.This equipment shall only be operated when the Air Pollution Control Devices described in District Permits C013199, C013200, C013201, and C013202 are operating and properly functioning.
[District Rules 1302 and 1320]

3.Only ground green waste and clean wood waste shall be introduced into the system, herein defined as:
a. Grass, shrubbery, and ground cover clipppings;
b. Trees, tree trimmings, tree bark, and tree stumps;
c. Clean construction lumber and wood waste; and
d. Clean lumber and lumber products.

The above shall be completely free of all plastics, paints/coatings, metals, and chemical preservatives. Certification records from the supplier shall verify that each delivery meets the above requirements.

No other material(s) shall be introduced into this system without first submitting a Permit Modification Request and obtaining a revised permit from the District.
[District Rules 204 and 1320]

4.A maximum of 5,000 pounds of ground green waste and clean wood waste as defined in condition 3 may be introduced into this process line in any one hour. The method(s) used to measure/calculate the hourly throughput must be approved by the District prior to startup.
[District Rules 1303 and 1320]

5.Prior to combusting any waste material in this system, the owner/operator shall notify USEPA Region IX, with a copy to the District, of their intent to commence operations exempted by 40 CFR 60, subpart CCCC as required by 40 CFR 60.2020(e) and (f).
[40 CFR 60.2020(e) and (f), 40 CFR 60.2175(w) and (x), District Rule 204]

6.All piping, valves, and flanges shall be properly maintained to minimize emissions of air pollutants to the atmosphere.
[District Rules 1302 and 1320]

7.The facility shall not exceed the following emission limits whenever any material is being processed, except for periods of malfunction/breakdown:
a. Oxides of Nitrogen (NOx): No more than 20 lbs per day nor more than 3.5 tons per year;
b. Oxides of Sulfur (SOx): No more than 4 lbs per day nor more than 0.7 tons per year;
c. Volatile Organic Compounds (VOC): No more than 4 lbs per day nor more than 0.7 tons per year;
d. Carbon Monoxide (CO): No more than 20 lbs per day nor more than 3.5 tons per year;
e. Particulate Matter 10 Microns and Less (PM10): No more than 5.75 lbs per day nor more than 1.0 tons per year; and
f. Ammonia Slip: No more than 20 lbs per day nor more than 3.5 tons per year.
[District Rules 1157, 1302 and 1320]

8.The owner/operator shall conduct an initial performance (source test) to ensure compliance with the emission limits set forth in Condition #7. This test shall be conducted within 60 days of reaching full production rate but in no case shall exceed 180 days from first placing any ground green waste/clean wood waste into the system. The tests shall be completed in accordance with the following USEPA Reference Methods unless specifically authorized in writing by the District:
a. NOx: USEPA Reference Method 7 or 7E;
b. SOx: USEPA Reference Method 6 or 6C;
c. VOC: USEPA Reference Method 18 or 25A;
d. CO: USEPA Reference Method 10 or 10B;
e. PM10: USEPA Reference Method 5;
f. Hydrogen Halides and Halogens: USEPA Method 26A;
g. Volatile Organic HAPs: USEPA Reference Method 028; and

h. Ammonia slip: USEPA Conditional Test Method 027 or equivalent

The owner/operator must provide a written emissions compliance test plan or protocol at least thirty days (30) prior to the test date. The owner/operator must conduct all required emissions compliance tests in accordance with a District-approved test protocol. The owner/operator must notify the District a minimum of ten (10) days prior to the emissions compliance test date so that an observer may be present. The final emissions compliance test results must be submitted to the District not later than forty-five (45) days after the source test date. All emissions compliance test notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov.

Furthermore, the facility shall provide all required platforms, ports, and support systems necessary to properly and safely conduct the above tests.

Upon receipt of the initial source test results, the District shall complete a revised HARP Prioritization Score analysis to determine if a full Health Risk Assessment (HRA) or additional/periodic source testing will be required.
[District Rules 217, 1303, and 1320; District Compliance Test Procedural Manual]

9.The minimum outlet temperature of the MSAC shall be 1750 degrees Fahrenheit during normal operations.
[District Rules 1302 and 1320]

10.The owner/operator shall establish the following maximum and minimum operating parameters during the initial performance testing discussed in condition #7. Furthermore, the facility shall establish procedures and provide equipment necessary to meet the following required measurement and recording frequencies:
// Operating Parameter // Minimum Data Measurement Frequency // Minimum Data Recording Frequency
Maximum Charge Rate // Hourly // Once per Hour and Cumulative Daily
MSAC Outlet Temperature // Once per minute // Once per Hour
Urea Injection Rate // Once per hour // Once per hour
NOx Box Outlet Temperature // Once per minute // Once per Hour
Minimum Sorbent Flow Rate // Once per minute // Once per Hour
Wet ESP Plate Voltage // Once per minute // Once per Hour
Wet ESP Plate Amperage // Once per hour // Once per Hour
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Once these operating parameters are determined during the initial performance testing, operating this system outside of the established parameters by more than ten percent (10%), will result in a violation, but in no case shall the MSAC outlet temperature be less than 1750 degrees Fahrenheit. The values for these parameters shall be submitted to the District within 60 days of completing initial source testing and shall include a description, including sample calculations, of how the operating parameters were established.
[District Rules 204, 1303, and 1320]

11.In the event of a malfunction of any part of this equipment, the entire process line must be shut down as soon as safely possible and shall not be restarted until all malfunctions have been corrected. Equipment breakdowns shall be reported to the District in accordance with District Rule 430.
[District Rules 430 and 1302]

12.The owner/operator must maintain an operations log for each day this equipment is operated. This log shall be maintained current, kept on-site or readily available for a minimum of three (3) years and be provided to authorized District, State, or Federal personnel upon request. The log shall contain the following at a minimum:
a. The daily throughput and hourly charge rates, in pounds.
b. Data collected for all operating parameters used to determine compliance with the operating limits.
c. Times and durations of malfunctions, and a description of the malfunction and the corrective action taken.
d. Records of the calibration of all monitoring devices.
e. The results of all initial and all subsequent performance tests, including Method 9 and Method 22 observation results, if any.
f. Equipment vendor specifications and related operation and maintenance requirements for the MSAC, thermal oxidizer, emission controls, and monitoring equipment.
g. Certification records from the fuel supplier that the fuel meets the requirements of condition 3.
[District Rules 204 and 1302]

13.Operation of this equipment shall not cause or allow the discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
(a) As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines,

or
(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a).
[District Rule 401]

14.Operation of this equipment shall not cause or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[District Rule 402]

15.Operation of this equipment shall not cause or allow the emissions of fugitive dust from any transport, handling, construction or storage activity so that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source. Furthermore, the facility shall take every reasonable precaution to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land and solid waste disposal operations.
[District Rule 403]

16.A facility wide Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.
[District Rule 107(b), H&S Code 39607 & 44341-44342, and 40 CFR 51, Subpart A]