



## MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue Victorville, CA 92392-2310  
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

**INACTIVE**

B012119

Inactive type Permit has no description information.

**EXPIRES LAST DAY OF: SEPTEMBER 2017**

### **OWNER OF OPERATOR (Co.#84)**

NTC - Public Works  
Bldg 602, 5th Street  
Fort Irwin, CA 92310

### **EQUIPMENT LOCATION (Fac.#3534)**

Fort Irwin Solid Waste Landfill (FISL)  
Barstow Road and Inner Loop Road  
Fort Irwin, CA 923105085

#### **Description:**

WASTE TO ENERGY PLANT PYROLYZER / THERMAL OXIDIZER SYSTEM consisting of: A 34 ton per day maximum throughput pyrolyzer (Thermal Converter) manufactured by Integrated Energy Services, coupled in series to a Thermal Oxidizer (Burner) manufactured by Zeeco. Exhaust gases from the pyrolyzer and thermal oxidizer then provide heat for a Heat Recovery Steam Generator (HRSG), which drives a 1.6MW steam turbine electrical generator. Exhaust gases from the pyrolyzer and thermal oxidizer are vented through the multi-treatment air pollution control device described in District permit C012121.

#### **EQUIPMENT**

Capacity	Equipment Description
0	Pyrolyzer Feed Conveyors and Feed Hopper
0	Pyrolyzer, Integrated Energy Services, LPG Fueled
0	Thermal Oxidizer, Zeeco, LPG and Syngas fueled
0	Heat Recovery Steam Generator, Victory Energy
0	Electrical Generator, Siemens, 1.6 MW
5.46	Total Heat input for LPG, MMBtu/Hour

#### **CONDITIONS:**

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 air 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 Rule 1302]

Fee Schedule: 2 (d)

Rating: 5184000 Btu

SIC: 4953

SCC: 10101202

Location/UTM(Km):  
529E/3902N

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.

NTC - Public Works  
Attn: Air Resources Manager

Fort Irwin, CA 92310

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

2. This equipment shall not be operated unless it is being vented to the air pollution control system described in District permit C012121.  
[District Rules 1302 and 1320]

3. A maximum of 34 tons of Municipal Solid Waste (MSW) may be introduced into the Pyrolyzer in any one day, defined as any continuous twenty four (24) hour period. The method used to measure/calculate the daily throughput must be approved by the District prior to startup.  
[District Rules 204 and 1302]

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

5. No medical waste or treated wood products shall be introduced into the system.  
[District Rule 204]

6. This equipment must meet the following emission limits while the equipment is operating at all normal operating loads:

// Pollutant // Emission Limit // Test Method(s)

Cadmium (Cd) // 18 micrograms per dscm // USEPA Test Method 29

Carbon Monoxide (CO) // 40 ppmvd // USEPA Test Method 10, 10A, or 10B and CEMS

Dioxins/furans (total basis) // 33 nanograms per dscm // USEPA Test Method 23

Hydrogen Chloride (HCl) // 15 ppmvd // USEPA Test Method 26A

Lead (Pb) // 226 micrograms per dscm // USEPA Test Method 29

Mercury (Hg) // 74 micrograms per dscm // USEPA Test Method 29

Opacity // 10 percent // USEPA Test Method 9

Oxides of Nitrogen (NOx) // 103 ppmvd // USEPA Test Method 7, 7A, 7C, 7D, or 7E, or ANSI/ASME PTC 19.10-1981 (IBR, see Subpart 60.17(h)) in lieu of Methods 7 and 7C only.

Particulate Matter // 0.013 grains per dscf // USEPA Test Method 5 or 29

Sulfur Dioxide (SO<sub>2</sub>) // 3.1 ppmvd // USEPA Test Method 6 or 6C, or ANSI/ASME PTC 19.10-1981 (IBR, see Subpart 60.17(h)) in lieu of Method 6 only.

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Note 1: dscm means dry standard cubic meter

Note 2: ppmvd means parts per million by dry volume

Note 3: dscf means dry standard cubic foot

These emission limits shall be measured, tested, and monitored at the exhaust stack of the associated air pollution control system described in District permit C012121.  
[District Rules 1302, 1303, and 1320]

7. The owner/operator must conduct annual performance tests for all pollutants listed in Condition #6 for the first two (2) years of operation, then every two years following the second annual test. Testing may be skipped for four years if the prior two consecutive tests show emission rates equal to or less than fifty (50) percent of the emission limits listed in Condition #6. The initial testing shall be conducted no later than ninety (90) days after the first day fuel is burned in the pyrolyzer.  
[District Rules 204, 1302, and 1320]

8. Continuous Emission Monitoring Systems (CEMS) for both Carbon Monoxide (CO) and Oxygen (O<sub>2</sub>) must be properly installed, calibrated, maintained and operated.  
[District Rules 204 and 1302]

9. The owner/operator must maintain an operations log for this equipment. this log shall be maintained current, kept for a total of five (5) years and on-site for a minimum of two (2) years and be provided to authorized District, State, or Federal personnel upon request. The log shall contain the following at a minimum:

- Calendar date of each record.
- The daily throughput and hourly charge rates.
- Data collected for all operating parameters used to determine compliance with the operating limits.
- All 1-hour average concentrations of carbon monoxide emissions.
- All 12-hour rolling average values of carbon monoxide emissions.
- Records of the dates, times, and durations of any bypass of the control device.

- g. Times and durations of malfunctions, and a description of the malfunction and the corrective action taken. This shall include all CEMS malfunctions.
  - h. For the carbon monoxide continuous emissions monitoring systems, the results of daily drift tests and quarterly accuracy determinations.
  - i. Records of the calibration of all monitoring devices.
  - j. The results of the initial, annual, and any subsequent performance tests.
  - k. Equipment vendor specifications and related operation and maintenance requirements for the pyrolyzer, thermal oxidizer, emission controls, and monitoring equipment.
- [District Rules 204 and 1302]

10. The owner/operator must submit the following information prior to initial startup:

- a. The type(s) of waste to be burned.
- b. The maximum design waste burning capacity.
- c. The anticipated maximum charge rate.
- d. The anticipated date of initial startup.

[District Rule 1302]

11. The facility shall not emit NO<sub>x</sub>, VOCs, PM<sub>10</sub>, CO, H<sub>2</sub>S, Pb, and SO<sub>x</sub> into the atmosphere at a rate exceeding the following limits in any 12 month rolling period to remain below the Synthetic Minor - 80% (SM-80) threshold:

- a. NO<sub>x</sub>: 20 tons
- b. VOC: 20 tons
- c. PM<sub>10</sub>: 12 tons
- d. CO: 80 tons
- e. H<sub>2</sub>S: 8 tons
- f. Pb: 0.48 tons
- g. SO<sub>x</sub>: 20 tons

[District Rule 1303]