



## MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

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

**INACTIVE**

B011013

Inactive type Permit has no description information.

**EXPIRES LAST DAY OF: NOVEMBER 2012**

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

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

### EQUIPMENT LOCATION (Fac.#589)

NTC Training Mission  
Bldg. 602, 5th street  
Fort Irwin, CA 923105085

#### Description:

PYROLYSIS WASTE DISPOSAL SYSTEM consisting of: PyTect 100M Serial #P100m500/000/0001/SdFwSo

#### EQUIPMENT

Capacity	Equipment Description
0	Compactor Hopper - 200 lbs of solids per hour; 21.77 CuFt
0.01	Compactor - 7.66 CuFt - Motor 4 bhp
0.01	Food Waste System - 95 lbs per hour; 5.04 CuFt 2 motors 3 bhp & 1 bhp
0	Waste feed pipe
0.006	Pyrolysis Tube and Screw Motor 2.4 bhp
1.88	Pyrolyser Jacket
0	Gasifier 17.56 CuFt
0.006	Ash Removal System - Motor 2.4 bhp to 55 gallon drum
0	Oxidiser 4 chamber; Total volume 45.87 CuFt
1.3	Oxidizer Burner
1.71	Oxidizer Oil Injection Lance
0.006	Forced Draught Fan; Motor 2.4 bhp
0	Exhaust Dilution; 0 to 312.6 CTM
0	Exhaust Heat exchanger with Emergency Air Inlet 0 to 2,100 cfm
0	Exhaust Oil Heat Exchanger
0.02	Induced Draught Fan - Motor 10 bhp

Fee Schedule: 2 (d)

Rating: 4900000 Btu

SIC: 9711

SCC: 50100999

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

Capacity	Equipment Description
0	Stack

## CONDITIONS:

- 1.This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles.
- 2.This equipment shall be operated by personnel properly trained in its operation, per 40 CFR 60.2905.
- 3.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. See the document entitled "Functional Control Specification" Reference Number USA-021-R1. The following conditions must be met before any waste is feed into the unit:
  - a) The Pyrolyser exit temperature is greater than 800 DegC for 1 minute
  - b) The Thermal Oxidizer average temperature is greater than 875 DegC,
  - c) The start-up pressure of the system is less than -2.5 mBars (0.036 psi),
  - d) The process pressure of the system is less than -5 mBars (0.072 psi),
  - e) Once all waste feed stream are stops (disabled) initiate 45-minute shutdown times, and
  - e) See conditions 7 and 8 for low operating temperature requirements
- 4.This pyrolysis unit shall not process more than 220 pounds of solid waste per hour, 95 pounds of food waste per hour and/or tbd gallons of sludge oil that is directly injected into the Thermal Oxidizer.
- 5.The o/o shall use either regulated pipeline natural gas or LPG in this equipment. When natural gas service is interrupted, and LPG is not available the unit can be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirement.subsequent to proper notification of the APCO.
- 6.The o/o shall maintain an operational log for this Pyrolysis system. This log shall be maintained current, on-site for a minimum of two years and provided to District personnel on request. The log shall contain the following at a minimum:
  - a) Date and total number of hours operated daily,
  - b) Start and stop time of each operating cycle,
  - c) Type and amount (in pounds) of waste processed daily,
  - d) Amount of gas generated daily and how was gas used
  - e) Volume of natural gas and/or LPG used on a calendar month basis,
  - f) Date and time of all alarms, upsets and/or malfunctions,
  - g) A description of all repairs or maintenance performed by date, and
  - h) All other data and information required per 40 CFR 60.2951 and 40 CFR 60 subpart EEEE Table 4
- 7.The temperature of pyrolyser shall not be less than 800 degrees C (1472 degrees F). This operating temperature shall be recorded electronically or by chart. If the pyrolysiser drops below 800 degree C the unit shall automatically revert to Start-up mode.
- 8.The temperature of oxidizer shall not be less than 875 degrees C (1607 degrees F). This operating temperature shall be recorded electronically or by chart. If the oxidizer drops below 875 degree C the unit shall automatically revert to Start-up mode.
- 9.The exhaust must be vented to a properly functioning filtration device. Details on the filtration device are unknown at this time.
- 10.This unit shall not emit substance at a rate or concentration greater than listed in Table 1 of 40 CFR 60 subpart EEEE. The emissions limits are as follows:
  - Cadmium - 18 um/dscm
  - Carbon Monoxide - 40 ppmvd
  - Dioxins/furans - 33 ng/dscm
  - Lead - 226 um/dscm
  - Mercury - 74um/dscfm

Opacity - 10 percent  
Oxides of Nitrogen - 103 ppm<sub>dv</sub>  
Particulate Matter - 0.013 grains per dscf  
Sulfur Dioxide - 3.1 ppm<sub>dv</sub>

11. This unit shall be initial source tested within 60 days of reach maximum input or 180 days of start-up whichever ever occurs first and annual of the substances listed in 40 CFR 60.2915 and 40 CFR 60 subpart E Table 1. All source testing must be done in accord with a District approved protocol. The substance to be tested and the 40 CFR 60 Appendix A test methods are as follows:

Cadmium - Method 29  
Carbon Monoxide - Method 10, 10A or 10B  
Dioxins/furans - Method 23  
Lead - Method 29  
Mercury - Method 29  
Opacity - Method 9  
Oxides of Nitrogen - Method 7, 7A, 7C, 7D, or 7E  
Particulate Matter - Method 5 or 29  
Sulfur Dioxide - Method 6 or 6c

12. This unit shall be equipped with a properly functioning CEMS for CO and O<sub>2</sub>, per 40 CFR 60.2939 and 60.2940 and 40 CFR 60 subpart E Table 3.

13. Within one year of the issue date of this permit this facility must obtain a Title V Federal Operating Permit, per 40 CFR 60.2966.

14. This unit is subject to the requirements of the Mojave Desert AQMD, the California Air Resources Board and the US Environmental Protection Agency, to include 40 CFR 60 subpart E, entitled "Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006". In the event of conflict between these conditions and these requirements, the more stringent shall govern.