



**MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT**

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

**PERMIT TO OPERATE**

B013448

Operation under this permit must be conducted in compliance with all information included with the initial application, initial permit condition, and conditions contained herein. The equipment must be maintained and kept in good operating condition at all times. This Permit to Operate or copy must be posted on or within 8 meters of equipment. If a copy is posted, the original must be maintained on site, available for inspection at all times.

**EXPIRES LAST DAY OF: NOVEMBER 2026**

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

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

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

NTC Refuse Systems  
Barstow Road and Inner Loop Road  
Fort Irwin, CA 923105085

**Description:**

DIESEL IC ENGINE, TUB GRINDER consisting of: A certified Tier 4F diesel engine, EPA Family FCPXL15.2HTF, manufactured in 2015, with factory equipped emission control devices installed. Exhaust flow is approximately 1993 ACFM at 819 degrees Fahrenheit through a 6 inch diameter by 12 foot tall stack. This engine powers a Morbark 1100 Tub Grinder with a 24 inch by 52 inch hammermill system and a 36 inch by 26 foot long discharge conveyor: Please note that the PM emission rates listed below are for the engine only. The grinder system produces approximately 0.10 lbs PM10 per ton of wood waste processed. Device is co-located with the Fort Irwin Sanitary Landfill with SWIS Identification Number 36-AA-0068; see: <https://www2.calrecycle.ca.gov/SolidWaste/SiteDocument/Index/2674> Facility Elevation is 2418 feet above sea level.

One Caterpillar, Diesel fired internal combustion engine Model No. C15 and Serial No. N5F00663, Direct Injected, Turbo Charged, Selective Catalytic Reduction, Exhaust Gas Recirculation, Exhaust Gas Recirculation, Electronic Control Module, Oxidation Catalyst, Compression-Ignited, Periodic Trap Oxidizer, Selective Catalytic Reduction, Ammonia Oxidation Catalyst, Charge Air Cooler, producing 542 bhp with 12 cylinders at 2100 rpm while consuming a maximum of 28.1 gal/hr. This equipment powers a Morbark Grinder Model No. 1100 and Serial No. 565-554, rated at 50 tons per hour.

**EMISSIONS RATES**

Emission Type	Est. Max Load	Unit
CO	0.075	gm/bhp-hr
NOx	0.08	gm/bhp-hr
PM10	0.007	gm/bhp-hr
PM2.5	0.007	gm/bhp-hr
SOx	0.005	gm/bhp-hr

Fee Schedule: 1 (c)

Rating: 542 bhp

SIC: 4953

SCC: 20100102

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**  
**Eldon Heaston**  
Air Pollution Control Officer

Emission Type	Est. Max Load	Unit
VOC	0.045	gm/bhp-hr

**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 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; 40 CFR 60.4211(a)]

2. This engine shall not be operated unless all of the following emission control systems are properly functioning:  
a. Diesel Oxidation Catalyst;  
b. Electronic Control Module;  
c. Exhaust Gas Recirculation System;  
d. SCR-U Catalyst;  
e. Ammonia Oxidation Catalyst; and,  
f. Periodic Trap Oxidizer.  
Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician. [District Rule 1302; 40 CFR 60.4211]

3. This equipment shall only be fired on diesel fuel that meets the following requirements, or an alternative fuel approved by the ATCM for Stationary CI Engines:  
a. Ultra-low sulfur concentration of 0.0015% (15 ppm) or less, on a weight per weight basis; and,  
b. A cetane index or aromatic content, as follows:  
(i) A minimum cetane index of 40; or,  
(ii) A maximum aromatic content of 35 volume percent.  
[17 CCR 93115.5(a), 40 CFR 80.510(b)]  
Note: Use of CARB certified ULSD fuel satisfies these requirements.

4. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time. [Title 17 CCR 93115.10(d)]

5. This tub grinder shall not operate for more than 5 hours in any one day, midnight to midnight. This restriction is to remain below the 25 lb/day Best Available Control Technology (BACT) limit for the grinder portion of the equipment. [District Rules 1303 and 1320]

6. The owner/operator shall maintain an operations log for this engine current and on-site (or at a central location) for a minimum of five (5) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the following information:  
a. Monthly and consecutive 12 month period hour meter readings, including the dates of all monthly readings;  
b. Date of each maintenance action or repair on any equipment noted in Condition #2;  
c. Description of each maintenance action or repair on any equipment noted in Condition #2;  
d. Fuel sulfur concentration as required by condition #3 (the owner/operator may use the supplier's certification of sulfur content if it is maintained as part of this log);  
e. Calendar year operating hours as determined by the installed hour meter (to assist in CEI calculations); and,  
f. Results of any source testing conducted on the engine.  
[District Rules 1302 and 1320; Title 17 CCR 93115]

7. This engine is subject to the requirements of Title 17 CCR 93115, the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines and 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS). In the event of a conflict between these conditions and the ATCM or NSPS, the more stringent requirements shall govern. [40 CFR 60 Subpart IIII, Title 17 CCR 93115, and District Rule 1302]

8. This equipment shall not process any Hazardous Air Pollutant (HAP) or Toxic Air Contaminant (TAC) containing materials.  
[District Rule 1320]

9. Visible 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.  
[District Rule 401]

10. This equipment shall not discharge air contaminants or materials constituting a nuisance to any considerable number of persons or to the public.  
[District Rule 402]

11. Roadways, work areas and stockpiles shall be kept sufficiently moist to control fugitive dust, and no visible emissions shall extend beyond the property line of the emission source.  
[District Rule 403]

12. Equipment to properly wet the material being processed shall be maintained in operable condition on-site and used as necessary to assure compliance with this condition.  
[District Rules 401, 402, 403, and 1302(C)(2)(a)]

13. The owner operator, pursuant to the CA LMR, specifically 95470(b)(4), (<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2009/landfills09/landfillfinalfro.pdf>), shall submit a Waste-in-Place Report by March 15 of each year; any owner or operator subject to the requirements of sections 95463(a), or 95643(b)(2)(B)3 must report the following information to the Executive Officer:

- a. MSW landfill name, owner and operator, address, and solid waste information system (SWIS) identification number;
- b. The landfill's status (active, closed, or inactive) and the estimated waste-in-place, in tons, and
- c. Most recent topographic map of the site showing the areas with final cover and a geomembrane and the areas with final cover without a geomembrane with corresponding percentages over the landfill surface.

These Reports shall be sent to the MDAQMD at [reporting@mdaqmd.ca.gov](mailto:reporting@mdaqmd.ca.gov) and the California Air Resources Board (CARB) at [LMR@arb.ca.gov](mailto:LMR@arb.ca.gov), by March 15 of each year.  
[Derived from the CA LMR, and District Rule 1302]

14. This entire facility (MDAQMD Facility no. 3534 - Fort Irwin Solid Waste Landfill (FISL)) shall not emit any regulated air pollutant or any pollutant listed under section 112(b) of the Clean Air Act listed below in excess of the following limits in any consecutive 12 month period to remain below the USEPA's Synthetic Minor - 80% (SM-80) threshold:

- a. Oxides of Nitrogen (NOx): 20 tons per consecutive twelve (12) month period, measured as NO<sub>2</sub>;
- b. Oxides of Sulfur (SOx): 20 tons per consecutive twelve (12) month period;
- c. Volatile Organic Compounds (VOC): 20 tons per consecutive twelve (12) month period;
- d. Carbon Monoxide (CO): 80 tons per consecutive twelve (12) month period;
- e. Hydrogen Sulfide (H<sub>2</sub>S): 8 tons per consecutive twelve (12) month period;
- f. Lead (Pb): 0.48 tons per consecutive twelve (12) month period; and,
- g. Particulate Matter 10 microns and less (PM<sub>10</sub>): 12.0 tons per consecutive twelve (12) month period;
- h. Any single Hazardous Air Pollutant (HAP): 8 tons per consecutive twelve (12) month period; and,
- i. All HAPs combined: 20 tons per consecutive twelve (12) month period.

For the purposes of implementation of the Title I (Part D) Nonattainment New Source Review (nonattainment NSR), Title I (Part C) Prevention of Significant Deterioration (PSD), and Title V Operating Permit Programs under the Clean Air Act, Facility refers to a stationary source, or group of stationary sources that are located on one or more contiguous or adjacent properties that are owned, operated, supervised, or controlled by one or more Department of Defense (DoD) component(s) that were disaggregated during the course of major source determination(s), based upon appropriate industrial groupings and support facility relationships. Compliance with these limits shall be demonstrated through the submission of an installation-wide Comprehensive Emission Inventory (CEI) for all emitted regulated air pollutants or any pollutant listed under section 112(b) of the Clean Air Act (including 12 month emissions summary). Exceedance of these emission limits may trigger offsets, BACT, and/or require submission of a Title V permit application.

[District Rules 1302 and 1303, 40 CFR 51.165, 40 CFR 52.21(b), 40 CFR 70.2 and "Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, (Aug. 2, 1996)]

15. This entire facility (MDAQMD Facility no. 3534 - Fort Irwin Solid Waste Landfill (FISL)) shall not emit any Hazardous Air Pollutants (HAP) listed in or pursuant to Section 112(b) of the Clean Air Act in excess of the following limits in any consecutive 12 month period to remain below the USEPA's Synthetic Minor - 80% (SM-80) threshold:

- a. Any single Hazardous Air Pollutant (HAP): 8 tons per consecutive twelve (12) month period; and,
- b. All HAPs combined: 20 tons per consecutive twelve (12) month period.

For the purposes of determining the applicability of Section 112 air toxics requirements under the Clean Air Act, Facility refers to a stationary source, or group of stationary sources that are located within a contiguous area and under common control. Compliance with these limits shall be demonstrated through the submission of an installation-wide Comprehensive Emission Inventory (CEI) for all emitted pollutants listed under section 112 (b) (including 12 month emissions summary). Exceedance of these emission limits may trigger National Emission Standards for Hazardous Air Pollutants (NESHAP) or Maximum Achievable Control Technology (MACT) standards.

[40 CFR 63.2]

16. A Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants located at this military installation (including, but not limited to, MDAQMD Facility nos. 589, 2806, 3023, 3280, 3534, and 3903) must be submitted to the District, in a format approved by the District, upon District request. For the purposes of CEI, Facility is defined as every structure, appurtenance, installation, and improvement on land which is associated with a source of air releases or potential air releases of a hazardous material. [District Rule 107(b), H&S Code 39607, 44304 and 44341-44342]