



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

B012344

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. #88)

NAWS
429 E Bowen Road - Stop 4014
China Lake, CA 93555-6108

EQUIPMENT LOCATION (Fac. #567)

NAWCWD Test Stands
429 E Bowen Road - Stop 4014
China Lake, CA 935556108

Description:

DIESEL IC ENGINE, GENERATOR (MOM SITE, UNIT #2) consisting of: A certified Tier 4i diesel engine, EPA Family CPKXL04.4ML1, manufactured by Perkins Engines in 2012 with factory installed emission control devices/systems included. Exhaust flow is 576 CFM at 871 degrees F:

One Perkins, Diesel fired internal combustion engine Model No. 1204E-E44TTAG2 and Serial No. U00485W, Direct Injected, Turbo Charged, After Cooled, Exhaust Gas Recirculation, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Electronic Control Module, Compression-Ignited, producing 146.6 bhp with 4 cylinders at 1800 rpm while consuming a maximum of 8.1 gal/hr. This equipment powers a Generator Model No. 220395-501 and Serial No. 1020738-004, rated at 100 kW(e).

EMISSIONS RATES

Emission Type	Est. Max Load	Unit
CO	0.149	gm/bhp-hr
NOx	1.86	gm/bhp-hr
PM10	0.003	gm/bhp-hr
SOx	0.005	gm/bhp-hr
VOC	0.004	gm/bhp-hr

CONDITIONS:

Fee Schedule: 7 (g)

Rating: 1 device

SIC: 9711

SCC: 20100102

Location/UTM(Km):
450E/3946N

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.

NAWS
Environmental Management Division

China Lake, CA 93555-6108

By: **COPY**
Eldon Heaston
Air Pollution Control Officer

1. This certified stationary compression-ignited internal combustion engine and its associated emission control systems 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 204; 40 CFR 60.4211(a) and (c)]

2. A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed and maintained on this unit to indicate elapsed engine operating time.
[District Rule 204; 17 CCR 93115.10(d)]

3. The owner/operator must purchase diesel fuel for this engine that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, which are as follows:

- a. A 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:
 - 1. A minimum cetane index of 40; or,
 - 2. A maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b)]

Note: Use of CARB certified ULSD fuel satisfies the above requirements.

4. 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 shall include, at a minimum, the following information:

- (a) Monthly and consecutive 12 month rolling period operation in terms of fuel consumption (in total hours);
- (b) Fuel sulfur concentration (the o/o may use the supplier's certification of sulfur content. Such certification may be stored separately from the remainder of the log);
- (c) Maintenance and repair actions performed on the engine;
- (d) Maintenance and repair actions performed on both the Diesel Oxidation Catalyst and the Continuous Trap Oxidizer; and
- (e) Records of all performance tests and evaluations.

[17 CCR 93115.10; 40 CFR 70.6(a)(3)(ii)(b)]

5. The Continuous Trap Oxidizer must be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[District Rule 204; 40 CFR 60.4209(b)]

6. 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.

[District Rule 1302]

7. This engine shall not be operated unless all of the following emission control systems are properly functioning:

- (a) Continuous Trap Oxidizer;
- (b) Diesel Oxidation Catalyst;
- (c) Electronic Control Module; and
- (d) Backpressure Monitor.

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]

8. The total combined operating hours for the two engines described in District permits B012343 and B012344 shall not exceed 7,850 hours in any consecutive 12-month period.

[District Rules 204, 1303 and 1305]

9. 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]