



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

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

INACTIVE

B014619

Inactive type Permit has no description information.

EXPIRES LAST DAY OF: OCTOBER 2023

OWNER OF OPERATOR (Co.#970)

Lockheed Martin Aeronautics Co.
1011 Lockheed Way
Palmdale, CA 93599

EQUIPMENT LOCATION (Fac.#4274)

Lockheed - Fort Irwin
983 Inner Loop Road
Fort Irwin, CA 92310

Description:

DIESEL IC ENGINE, PORTABLE BACKUP GENERATOR consisting of: A certified Tier 4f diesel engine, EPA Family LJDXL04.5315, manufactured in 2022 and equipped with factory-installed emission controls. Exhaust flow is approximately 779 scfm at 889 degrees Fahrenheit through a 7 foot tall by 4 inch diameter stack:

One John Deere, Diesel fired internal combustion engine Model No. 4045HFG04A and Serial No. TBD, Ammonia Oxidation Catalyst, Charge Air Cooler, Direct Injected, Electronic Control Module, Exhaust Gas Recirculation, Exhaust Gas Recirculation, Oxidation Catalyst, Selective Catalytic Reduction, Selective Catalytic Reduction, Turbo Charged, producing 133 bhp with 4 cylinders at 1800 rpm while consuming a maximum of 6.60 gal/hr. This equipment powers a OEM Generator Model No. TBD and Serial No. TBD, rated at 99 kW.

EMISSIONS RATES

Emission Type	Est. Max Load	Unit
CO	0.07457	gm/bhp-hr
NOx	0.2461	gm/bhp-hr
PM10	0.0149	gm/bhp-hr
PM2.5	0.0148	gm/bhp-hr
SOx	0.0044	gm/bhp-hr
VOC	0.0149	gm/bhp-hr

CONDITIONS:

1. This certified 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 contaminants. Unless otherwise noted, this equipment shall also be operated in accordance

Fee Schedule: 10 (1b) Rating: 133bhp SIC: 3812 SCC: 20100102 Location/UTM(Km): 528E/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.

Lockheed Martin Aeronautics Co.
1011 Lockheed Way

Palmdale, CA 93599

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

with all data and specifications submitted with the application for this permit.
[District Rule 1302(C)(a)]

2.This diesel ICE and its associated equipment cannot be operated at the same engine-print (spot) for more than 365 consecutive days. This equipment must be moved within this facility or moved to another facility annually. The amount of time that the equipment is kept in the storage location does not count towards the residence requirement so long as the equipment is not set up in an operational configuration.

[Title 17 CCR 93116.2(a)(29)]

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

- a. Diesel Oxidation Catalyst;
- b. Exhaust Gas Recirculation System;
- c. Turbocharger;
- d. Electronic Control Module;
- e. Selective Catalytic Reduction System; and,
- f. Ammonia Oxidation Catalyst.

Furthermore, no changes shall be made to any of the above systems unless done so by a factory certified technician.

[District Rule 1302]

4.This unit shall only 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 requirements; or alternative diesel fuel, or CARB diesel fuel utilizing fuel additives, that has been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

[Title 17 CCR 93116.3(a)]

5.A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this unit to indicate elapsed engine operating time.

[District Rule 1302(C)(2)(a)]

6.The owner/operator shall maintain an operations log for this unit, 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 information specified below:

- a. Date, location (decimal degrees, xx.xxxx;-yy.yyyyy), and duration of each use (in hours);
- b. Monthly and consecutive 12 month period hour meter readings, including the dates of all monthly readings;
- c. Date of each maintenance action or repair on any equipment noted in Condition #4;
- d. Description of each maintenance action or repair on any equipment noted in Condition #4; and
- e. Fuel sulfur concentration as required by condition #4 (you may use the supplier's certification of sulfur content if it is maintained as part of this log).

[District Regulation XIII - NSR]

7.This engine shall not operate at Fort Irwin NTC for more than 350 hours in any consecutive 12 month period. Additionally, this unit shall not operate more than 10 hours per day (midnight to midnight). Before these limitations can be increased, the facility is required to submit to the District an application to modify the permit, which may trigger BACT review and may necessitate a Health Risk Assessment (HRA). In addition, public notice and/or a commenting period may be required.

[District Rules 1302, 1303, and 1320]

8.The primary function of this engine is to provide a backup to the PERP engine powering the one-time project at Fort Irwin NTC under PERP registration no. 190295. Only one engine may be used to provide power to the trailer located at this one-time project at any one time, except for a 10-minute load shifting period where one engine is being taken offline and another is being brought online.

In the event that one generator is insufficient to power the trailer, the owner/operator must immediately submit a permit modification request to redesignate this standby equipment unit from a Back-Up Equipment Unit ("M" Permit) to a Basic Equipment Unit ("B" Permit).

[District Rules 219 and 1302]

9.This engine shall not be operated at this facility after October 1, 2023. Any proposed extension of use beyond this date will require the submission of an application to modify the permit, and will require the preparation of a Health Risk Assessment (HRA). In addition,

public notice, additional equipment restrictions, and/or a commenting period may be required.
[District Rules 1302 and 1320]

10. This unit is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Portable Compression Ignition Engines (Title 17 CCR 93116). In the event of conflict between these conditions and the ATCM, the more stringent requirements shall govern.
[Title 17 CCR 93116, District Rule 1302]

11. The operation of the permitted units under this facility at any one location shall not emit any of the Regulated Pollutants 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 (NO_x): 20 tons per consecutive twelve (12) month period, measured as NO₂;
- b. Oxides of Sulfur (SO_x): 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 (H₂S): 8 tons per consecutive twelve (12) month period;
- f. Lead (Pb): 0.48 tons per consecutive twelve (12) month period;
- g. Particulate Matter 10 microns and less (PM₁₀): 14.5 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.

Compliance with these limits shall be demonstrated through the submission of a facility-wide Comprehensive Emission Inventory (CEI) for all emitted Regulated Air Pollutants. Exceedance of these emission limits may trigger offsets, BACT, National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart WWWW, Reinforced Plastic Composites Production, and/or require submission of a Title V permit application.
[District Rules 1302 and 1303]

12. 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]