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

E000280

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: SEPTEMBER 2026

OWNER OF OPERATOR (Co.#133)

NASA/Goldstone
93 Goldstone Rd.
Fort Irwin, CA 92310

EQUIPMENT LOCATION (Fac.#611)

NASA/Goldstone Deep Space Communications Complex
Goldstone Lake
Fort Irwin, CA 92311

Description:
DIESEL IC ENGINE, EMERGENCY GENERATOR (UNIT #1A: Building G-81) - MARS SITE consisting of: Year of Manufacturer 1964, uncertified, existing ICE with a stack height of 27.9', stack diameter of 12", and an exhaust flow rate of 1155 cubic feet per minute at 738 degrees Fahrenheit.

One Caterpillar, Diesel fired internal combustion engine Model No. 398 and Serial No. 66B2911, Direct Injected, Turbo Charged, After Cooled, producing 875 bhp with 12 cylinders at 1200 rpm while consuming a maximum of 48.0 gal/hr. This equipment powers a Kato Engineering Generator Model No. A2421600001 and Serial No. 97979, rated at 600 kW(e).

CONDITIONS:

1. This existing, diesel engine, and any associated air pollution control equipment, shall be installed, operated, and maintained in strict accord 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.
[40 CFR 63.6605(a) and (b) and 63.6625(e)]

2. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this equipment to indicate elapsed engine operating time.
[17 CCR 93115.10(d) and 40 CFR 63.6625(f)]

Fee Schedule: 7 (g)	Rating: 875 device	SIC: 9661	SCC: 20100102	Location/UTM(Km): 517E/3906N

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.

NASA/Goldstone
93 Goldstone Rd.
Fort Irwin, CA 92310

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

3. This equipment shall not be fired using diesel fuel with a sulfur content in excess of 15 ppm by weight.
[District Rule 431(c)(2)(a)]

4. This equipment shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted or may be interrupted or disrupted by weather. In addition, this unit shall be operated no more than 120 hours per year for testing and maintenance.
[40 CFR 63.6640(f)(2)(i)]

5. This equipment is allowed to operate for up to 2 hours (two minutes for each second the Site Wide Uninterruptable Power Supply (SWUPS) system was operated) to recharge batteries in the SWUPS system for each loss of power. This time shall be counted towards, and subject to, the limit of 120 hours of operation allowed in condition 4.
[40 CFR 63.6640(f)(2)(i)]

6. Facility-wide (includes facility nos. 611 and 4402) emissions shall not exceed 80 tons per year of NOx, 24 tons per year of VOC, and 18 tons per year of PM10. Facility-wide emissions shall be calculated and recorded, in tons, on a calendar month basis and totaled for each consecutive twelve-month basis. For emergency engines, only emissions generated during testing and maintenance shall apply toward the facility-wide emission limits. These records shall be maintained as current for a minimum of five (5) years, and made available upon District, State and/or Federal request.
[District Rule 221(B)]

7. Emergency use includes providing electrical power or mechanical work during day-of-rocket launch and day of space plane vehicle re-entry/landing system checks and tracking performed (in parallel with grid power) by the United States Department of Defense at Command Transmitter sites (also known as "CT" sites) that occur within the 24-hour time period associated with the scheduled time of the launch or re-entry/landing.
[17 CCR 93115.4(a)(30)(G)]

8. The owner/operator shall maintain an operations log for this equipment 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/or Federal personnel, upon request. The log shall include, at a minimum, the information specified below:
a. Date of each use and hours of operation with documentation of how many hours are spent for emergency operation, including what classified the operation as emergency (i.e. commercial power unavailable, weather-threatening power availability, or command transmitting as allowed per condition 6), and how many hours are spent for non-emergency operation, including what classified the operation as non-emergency. [17 CCR 93115.10(f) and 40 CFR 63.6655(f)]; and,
b. Monthly and calendar year operation in terms of total hours, both emergency and non-emergency use, classified as described in 'a.' above [17 CCR 93115.10(f)]; and,
c. Monthly fuel use [17 CCR 93115.10(f)]; and,
d. Documentation of certified fuel use, as required by condition 3 (may use the supplier's certification of sulfur content if it is maintained as part of this log); and,
e. Maintenance performed on this equipment, inclusive of the management practice requirements of condition 8 below; and,
f. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment [40 CFR 63.6640(b) and 63.6655(a)(2)]; and,
g. Records of all required maintenance performed on the air pollution control and monitoring equipment [40 CFR 63.6655(a)(4)]; and,
h. Records of actions taken during periods of malfunction to minimize emissions in accordance with condition 1, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR63.6655(a)(5)].

9. This engine is subject to the requirements of 40 CFR 63, Subpart ZZZZ, and pursuant to this federal regulation, this engine is required to meet the following compliance requirements by May 3, 2013:

The owner/operator of this equipment shall demonstrate continuous compliance by committing to a maintenance schedule inclusive of the management practice requirements listed below:
a. Change oil and oil filter every 500 hours of operation or annually, whichever comes first (source has the option to utilize an oil analysis program pursuant to 40 CFR 63.6625(i) in order to extend the specified oil change requirement.);
b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and,
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 CFR 63.6603(a) and 63.6640(a)]

10. If this emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements required by condition 8, or shutting down the engine would pose an unacceptable risk, the management practice can be delayed until the emergency is over, or the risk has been abated. The management practice should be performed as soon as practicable after the emergency/risk has ended. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.
[40 CFR 63.6603(a)]

11. This equipment is allowed to preemptively operate in the event of disruptive weather, including high winds, when there are critical deep space tracking events scheduled. This equipment is also allowed to operate in the event that the Site Wide Uninterruptable Power Supply (SWUPS) system is not functional during times when critical deep space tracking events are scheduled. Operation in accordance with circumstances described in this condition is considered emergency use, and shall not be counted toward the limit of 120 hours of operation allowed in condition 4.
[17 CCR 93115.4(a)(30)(G)]

12. The owner/operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply.
[40 CFR 63.6625(h)]

13. This equipment may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.
[17 CCR 93115.6(b)(1)]

14. This equipment shall not be used to provide power during a voluntary agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.
[17 CCR 93115.6(c)(2)(C)]

15. This equipment does not require a regularly scheduled emission compliance test. However, emission compliance testing may be required at the discretion of the District.

16. The requirements of sections 93115.5, 93115.6(a)(3), 93115.6(b)(3), 93115.7(a), and 93115.7(b) do not apply to any stationary diesel-fueled CI engine used to power equipment that is owned by the National Aeronautics and Space Administration (NASA) and used solely at manned-space flight facilities including launch, tracking, and landing sites, provided the District APCO approves this exemption in writing. This exemption only applies to diesel engines that power equipment which is maintained in the same configuration as similar equipment at all manned space flight facilities.
[17 CCR 93115.3(o)]

17. 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]