



**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**

E013576

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.#681)**

General Atomics - LSNC  
3550 General Atomics Court  
San Diego, CA 92121-1194

**EQUIPMENT LOCATION (Fac.#1648)**

G A Aeronautical Sys - El Mirage Rd  
73 El Mirage Airport Road  
Adelanto, CA 92301

**Description:**

DIESEL IC ENGINE, EMERGENCY FIRE PUMP consisting of: A Certified Tier 3 diesel engine, USEPA family JJDXL09.0114, model year 2018 with no exhaust after-treatment device installed. Exhaust flow is approximately 1867 cfm, at 842 degrees Fahrenheit through a 6.75 foot high by 6 inch diameter exhaust stack. Facility refers to this Permit Unit as "Fire Pump #4".

One John Deere, Diesel fired internal combustion engine Model No. JW6H-UFAD70 and Serial No. RG609L138164, Direct Injected, Turbo Charged, After Cooled, Electronic Control Module, producing 376 bhp with 6 cylinders at 1760 rpm while consuming a maximum of 18.8 gal/hr. This equipment powers a Clarke Fire Pump Model No. JW6H-UFAD70 and Serial No. 1940371-02RE, rated at TBD.

**EMISSIONS RATES**

Emission Type	Est. Max Load	Unit
CO	0.67	gm/bhp-hr
NOx	2.84	gm/bhp-hr
PM10	0.08	gm/bhp-hr
SOx	0.01	gm/bhp-hr
VOC	0.04	gm/bhp-hr

**CONDITIONS:**

Fee Schedule: 7 (g)

Rating: 1 device

SIC: 3721

SCC: 20100102

Location/UTM(Km):  
459E/3826N

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.

General Atomics - LSNC  
ATTN: LSNC  
  
San Diego, CA 92186-5608

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

1. This certified Tier 3 stationary compression-ignited internal combustion 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 60.4211(a)]

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)]

3. This engine 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:

1. A minimum cetane index of 40; or,

2. A maximum aromatic content of 35 volume percent.

[17 CCR 93115.5(a) and 40 CFR 80.510(c)]

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

4. This engine shall be limited to use for emergency power, defined as in response to a fire or flood, or when commercially available power has been interrupted. In addition, this engine shall be operated no more than 50 hours per year for testing and maintenance.  
[17 CCR 93115.6(a)(3)(A)(1)(c)]

5. The hour limit indicated in condition 4, above, does not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel-fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2002 edition, which is incorporated herein by reference.  
[17 CCR 93115.3(n)]

6. 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(s) of each use and hours of operation;

b. Reason for use (regular maintenance & testing, NFPA maintenance & testing, emergency, etc.

c. Monthly and rolling 12 month period operation in terms of fuel consumption (in gallons) and/or total hours (both emergency and non-emergency use, classified as described in b. above);

d. Fuel sulfur concentration as required by condition #3 above (the owner/operator 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.

[17 CCR 93115.10(f)]

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.

[District Rule 1302]

8. The entire facility 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 (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;
- g. Particulate Matter 10 microns and less (PM<sub>10</sub>): 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), and/or require submission of a Title V permit application.  
[District Rules 1302 and 1303]

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]