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

C011458

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.#87)

Commanding Officer, MCLB Barstow, CA
Box 110570 Bldg 196 Attn: Air Program Manager
Barstow, CA 92311-5050

EQUIPMENT LOCATION (Fac.#587)

USMC MCLB - Yermo Annex
USMC Logistics Base
Barstow, CA 923115013

Description:
THERMAL OXIDIZER SYSTEM (#3) consisting of: A Munters Zeol System, Model Number IZS-3546-TH that includes: A concentrator (a continuously rotating rotor made of zeolite (an absorptive medium), operating in three modes, adsorption, regeneration and cooling; a thermal oxidizer that utilizes one 5,780,000 Btu/hr Eclipse Ratiomatic RM500 natural gas burner set and limited to fire at a rate of 2,842,040 Btu/hr with a combustion chamber temperature of 1375 degrees Fahrenheit (+/- 75 degrees Fahrenheit) under normal operating conditions. This unit has a stack height of 20 feet and a stack diameter of 20 inches. Normal exhaust temperature is less than 900 degrees Fahrenheit at an exhaust flow rate of 3,410 standard cubic feet per minute (scfm). The natural gas low NOx burner is stated by the manufacturer to generate less than 0.15 pounds (lbs) of NOx per million British thermal units (MMBtu) and has been designed for an inlet flowrate of 36,000 scfm into the zeolite concentrator with an inlet temperature of 85 degrees Fahrenheit. This device is guaranteed by the manufacturer to achieve a destruction and removal efficiency of 95 percent. This device controls VOC emissions from the Spray Booth described in District Permit S002872. Facility Elevation is 1964 ft above MSL.

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 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 1302(B)(1)(a), 40 CFR 63.6640(a)]

Fee Schedule: 7 (h) | Rating: 1 device | SIC: 9711 | SCC: 40288801 | Location/UTM(Km): 512E/3861N

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.

Commanding Officer, MCLB Barstow, CA
Box 110570 Attn: Air Program Manager
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By: **COPY**
Brad Poiriez
Executive Director

2. This thermal oxidizer shall be fully functional and operating whenever the associated spray booths listed in the above description is being used.
[District Rule 1302(B)(1)(a)]

3. 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. Results of initial Capture Efficiency source test results;
b. Results of annual Destruction Efficiency demonstrations;
c. Monthly and rolling consecutive twelve month period VOC release records; and
d. Descriptions of all malfunctions and corrective actions taken.
[District Rule 1302(B)(1)(a); 40 CFR 70.6(a)(3)(ii)(b)]

4. The combined VOC emissions from all equipment described in District permits S008392, S008393, S008394, S008395, S008396, S009622, S009969, C008397, C009623, and C009968 (the entire Paint and Undercoat Facility) into the atmosphere shall not exceed 3089 pounds of VOC in any consecutive twelve month period. Compliance with this condition shall be verified through reaction chamber temperature and VOC release records, calibrated with initial capture efficiency source test results and annual destruction efficiency demonstrations.
[District Rules 1302(B)(1)(a), 1115, 1116, and 1303]

5. This equipment shall operate with a control efficiency of 95 percent (capture times destruction), comparing total VOC release in the booths and ovens and actual VOC emissions exhausted to the atmosphere from this device. Compliance tests described below, in conjunction with initial capture efficiency source test results, shall be used to demonstrate this control efficiency.

The owner/operator shall conduct compliance tests at least once every twelve (12) months at the concentrator outlet/oxidizer inlet, oxidizer outlet, and concentrator exhaust to determine VOC concentrations at high VOC loading and corresponding destruction efficiency (over three separate complete concentrator cycles), in accordance with the MDAQMD Compliance Test Procedural Manual. VOC concentrations shall be determined in accordance with USEPA Test Methods 25, 25A, or 25B, with USEPA Test Method 18, or CARB Method 422 used to determine exempt compound concentrations.

VOC concentrations in the concentrator exhaust shall be less than 10 ppm as methane. VOC emissions to the atmosphere shall be determined as the sum of emissions from the oxidizer outlet and concentrator exhaust. The concentrator exhaust flow rate shall be assumed as the sum of maximum design flow rates from all connected spray booths if not measured as part of the compliance test procedures.

Compliance Test Notifications, Protocols, and Results:
a. The owner/operator must submit a compliance/source test protocol at least thirty (30) days prior to the compliance/source test date. The owner/operator must conduct all required compliance/certification tests in accordance with a District-approved test protocol.
b. The owner/operator must notify the District a minimum of ten (10) days prior to the compliance/source test date so that an observer may be present.
c. The final compliance/source test results must be submitted to the District within forty-five (45) days of completion of the test.
d. All compliance/source test notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov.
[Rule 1302(B)(1)(a)]

6. This thermal oxidizer shall only use PUC-regulated pipeline quality natural gas for fuel.
[District Rule 1303]

7. Emissions from this unit shall not exceed the following limits, verified by an initial source test for NOx and CO and the sole use of PUC-regulated pipeline quality natural gas and good combustion practices for PM10:
a. NOx as NO2: 0.43 lb/hour in normal operating mode
b. CO: 0.24 lb/hour in normal operating mode
c. PM10: 79 lbs/year
[District Rule 1303]

Note: Initial source testing was completed on March 28, 2013. NOx emissions were 0.25 lb/hour, CO emissions were 0.17 lb/hour and the average control efficiency was 98.6%

8. Fuel consumption by this equipment shall not exceed 10,640,598 standard cubic feet in any consecutive 12 month period (Rolling Annual Period) (based on annual operation of 3744 hours). Records of monthly and rolling consecutive twelve month period fuel usage must be maintained onsite and made available upon request.
[District Rule 1303]

9. When in operation, the nominal reaction chamber temperature shall be maintained at 1375 degrees Fahrenheit (plus or minus 75 degrees Fahrenheit).
[District Rule 1303]

10. The o/o surrendered 2075 pounds total of NOx and 79 pounds total of PM10 Emission Reduction Credits to the District prior to the start of construction of this equipment.
[District Rule 1303]

11. 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.
[Rule 107(b), HSC 39607 and 44341-44342, 40 CFR 51, Subpart A]