MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

AUTHORITY TO CONSTRUCT C015590

If construction is not completed by the expiration date of this permit, it may be renewed for one additional year upon payment of applicable fees. Any additional extension will require the written approval of the Air Pollution Control Officer. This Authority to Construct may serve as a temporary Permit to Operate provided the APCO is given prior notice of intent to operate and the Permit to Operate is not specifically denied.

EXPIRES LAST DAY OF: FEBRUARY 2027

OWNER OF OPERATOR (Co.#2768)

Amazon.com Services LLC
PO Box 80842
Seattle, WA 98108

EQUIPMENT LOCATION (Fac.#4656)

Amazon.com Services LLC - CAZ5
11500 Phelan Road
Hesperia, CA 92345

Description:
SELECTIVE CATALYTIC REDUCTION SYSTEM, DIESEL OXIDATION CATALYST, AND DIESEL PARTICULATE FILTER consisting of: Tier 4 Final equivalent control device retrofit for a Mitsubishi S16R-T2PTAW2-1, certified Tier 2 diesel engine, USEPA family SMVXL65.4BBA, manufactured in 2025. Retrofit package consists of Selective Catalytic Reduction (SCR), Diesel Oxidation Catalyst (DOC), and Diesel Particulate Filter (DPF) manufactured by Miratech; SCR/DOC Model no. M3-64-56-24PF-J, DPF Model no. LTD DPF. SCR Serial no. TBD, DOC Serial no. TBD, DPF Serial no. TBD. The DPF is a CARB approved device with CARB EO: DE-14-005-08. Stack height of approximately 18 feet, stack diameter of 1.5 feet, with an exhaust temperature TBD and an exhaust flow rate of approximately 7,286 scfm. This equipment must be installed, operational, and have completed the initial source test required for E015589 and C015590 by the final compliance deadline of July 31st, 2027.

EQUIPMENT

Capacity	Equipment Description
1	Miratech M3-64-56-24PF-J Diesel Oxidation Catalyst (DOC), 36.4% reduction of VOC. Pre-control emission factor: 0.22 g/bhp-hr. Post-control emission factor: 0.14 g/bhp-hr.
1	Miratech LTR Diesel Particulate Filter (DPF), 80% reduction of PM10. Pre-control emission factor: 0.10 g/bhp-hr. Post-control emission factor: 0.02 g/bhp-hr.
1	Miratech M3-64-56-24PF-J Selective Catalytic Reduction (SCR), 88% reduction of NOx. Pre-control emission factor: 4.18 g/bhp-hr. Post-control emission factor: 0.50 g/bhp-hr.

Fee Schedule: 7 (h) | Rating: 3 device | SIC: 4225 | SCC: 20100102 | Location/UTM(Km): 462E/3809N

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.

Amazon.com Services LLC
PO Box 80842

Seattle, WA 98108

By: **COPY**
Brad Poiriez
Executive Director

UNOFFICIAL

CONDITIONS:

1. Air pollution control equipment under this District Permit 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 pollutants. 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; District Rule 1303(A)(2) - BACT: Continuous Compliance]

2. After the compliance deadline of July 31st, 2027, the Mitsubishi diesel engine (S16R-T2PTAW2-1) under valid District Permit E015589 shall not be operated unless all of the following emission control systems under this permit are properly functioning:
a. Diesel Oxidation Catalyst (Miratech, M3-64-56-24PF-J);
b. Selective Catalytic Reduction (Miratech, M3-64-56-24PF-J); and,
c. Diesel Particulate Filter (Miratech, LTD DPF, CARB EO: DE-14-005-08).
[District Rule 204; District Rule 1302(C) - PTE; District Rule 1303(A) - BACT]

3. Compliance testing is required for engines under District Permits E015587, E015589, E015591, and E015593 to demonstrate compliance with Tier 4 Final emission standards for NOx and VOC through installation of aftermarket retrofit control devices. Initial compliance testing must abide by the requirements below to demonstrate compliance with Tier 4 Final emission standards for NOx and VOC emissions:
a. Installation of retrofit control devices and initial compliance testing of the engine and associated control devices, including passing compliance test results, shall be completed by July 31st, 2027 to demonstrate compliance with the NOx and VOC emission limits; and,
b. Prior to any compliance testing, a pre-test meeting may be held if requested by the Facility, the testing firm, or the District (attended by the District, the Facility, and the testing firm). Not later than 30 days prior to proposed test date (and not later than 30 days after the pre-test meeting if any) a written Compliance Test Plan or Protocol must be submitted for District review by email. Not later than 10 days prior to proposed test date the District must be notified of proposed test date by email. Not later than 45 days after the last day of the Compliance Test the written Compliance Test Report must be submitted to the District by email. The District email address is: Reporting@mdaqmd.ca.gov.
c. Compliance testing shall be conducted with the engine operating at a single full-load point (80% load or greater). An appropriately-sized resistance load bank (or equivalent) shall be used during the emissions compliance testing to ensure the engine is operating at the load conditions required;
d. The percent load, engine output, and stack gas volumetric flow rate shall be used to convert engine emissions to a brake-specific emission factor (g/bhp-hr);
e. For compliance testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit;
f. The following test methods shall be used:
I. NOx (g/bhp-hr) - EPA Method 7E or ARB Method 100;
II. VOC (g/bhp-hr) - EPA Method 18, 25A or 25B, or ARB Method 100;
g. Engines will be evaluated for compliance with USEPA Tier 4 Final emission standards for NOx and VOC, the standards are:
I. NOx: 0.5 g/bhp-hr;
II. VOC: 0.14 g/bhp-hr;
NOTE: All manufacturer specifications and documentation for the control devices shall be submitted with the written Compliance Test Report.
[District Rule 204; District Rule 1303(A) - BACT: Initial Compliance Demonstration]

4. No later than forty-five (45) days prior to installation of this equipment, the owner or operator must submit a Continuous Parametric Monitoring System (CPMS) Monitoring and Quality Assurance Plan for District review and approval. The owner or operator must install, calibrate, maintain, and operate the CPMS according to a District-approved CPMS Monitoring and Quality Assurance Plan as an indicator of NOx and VOC emissions compliance when this equipment is in operation. Continuous compliance monitoring is a requirement of Best Available Control Technology (BACT). Engines under District Permits E015587, E015589, E015591, and E015593 trigger Best Available Control Technology (BACT) for NOx and VOC emissions. The facility shall continuously monitor SCR and DOC parameters that maintain emissions within the specified limits, including but not limited to the preliminary parameters and limits listed below, as part of the District-approved CPMS Monitoring and Quality Assurance Plan. Final SCR operating parameters and ranges must be submitted in a revised CPMS Monitoring and Quality Assurance Plan no later than six (6) months after the initial compliance test. The District-approved CPMS Monitoring and Quality Assurance Plan must be maintained with the recordkeeping for this equipment and made available to District, state, or federal personnel upon request. All measurement devices shall be accurate to 5% of span and calibrated no less than once per 12 consecutive months:
a. Urea injection rate (in gal/hr at 32.5% urea concentration): 6.7 gal/hr +/- 0.2 gal/hr;
b. Pressure drop (dP) across the SCR (in inches of water): 18 inH2O <= dP <= 22 inH2O;

c. Steady-state operating temperature (T) of the SCR (in Fahrenheit): 572 F <= T <= 977 F;
d. Pressure drop (dP) across the DOC (in inches of water): 18 inH2O <= dP <= 22 inH2O; and,
e. Steady-state operating temperature (T) of the DOC (in Fahrenheit): 572 F <= T <= 977 F.
NOTE: Acceptable ranges for the parameters listed in this condition are defined by the control device manufacturer, Miratech, or compliance test results. All parameters shall be maintained within the range determined by the equipment manufacturer or compliance testing results except for periods of start-up, shut-down, or equipment malfunction. The owner or operator must maintain records in accordance with Condition 15.
[District Rule 204; District Rule 1302(C) - PTE; District Rule 1303(A) - BACT: Continuous Compliance]

5. Urea shall be injected whenever the selective catalytic reduction system has reached or exceeded the minimum required operating temperature as determined by the equipment manufacturer except for periods of start-up, shut-down, or equipment malfunction.
[District Rule 204; District Rule 1303(A) - BACT: Continuous Compliance]

6. Operation outside of ranges specified in the District-approved CPMS Monitoring and Quality Assurance Plan required by Condition 4 is considered non-compliant operation and must be addressed as follows:
a. If, during non-emergency operation, the parameters drift out of the manufacturer suggested ranges the owner or operator is required to immediately shut-down the equipment, identify the cause of out of range operation, and perform the necessary repairs to restore the equipment to normal operations as expeditiously as possible; or,
b. If, during emergency operation, the parameters drift out of the manufacturer ranges the owner or operator may continue operation until the emergency has passed. The owner or operator must then shut-down the equipment, identify the cause of out of range operation, and perform the necessary repairs to restore the equipment to normal operations as expeditiously as possible.
Recordkeeping for Non-Compliant Operation: Any operation outside of ranges specified in the District-approved CPMS Monitoring and Quality Assurance Plan must be logged according to Condition 7(k-m).
NOTE: The District may perform a site inspection to ensure operation is being conducted within the acceptable parametric ranges, at the discretion of the District.
[District Rule 204; District Rule 1303(A) - BACT: Continuous Compliance]

7. The owner or operator shall maintain a compliance log for this unit current and on-site (or at a central location) for a minimum of five (5) calendar years, and this log shall be provided to District, State and Federal personnel upon request. The compliance log shall include, at a minimum, the information specified below:
a. District-approved CPMS Monitoring Plan and associated records, as required by Condition 4;
b. Compliance test results from testing required by Condition 3;
c. Records of all maintenance and repair actions performed on the engine and any emissions control equipment;
d. The date and time of all DPF inspections and maintenance, including regeneration or cleaning;
e. Records of all maintenance and repair actions performed on the SCR and DOC;
f. Continuous compliance records for items required by Conditions 4, 5, and 6;
g. Monthly differential pressure readings across the SCR and DOC;
h. Daily temperature readings at the inlet or matrix of the SCR and DOC, for every day that the equipment was operated;
i. Monthly total of ammonia injected into the SCR;
j. Calibration reports as required by Condition 4.
k. Non-compliant operation, including operation outside of operating ranges for parameters required to be monitored by the District-approved CPMS Monitoring Plan;
l. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment;
m. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation in accordance with Condition 6.
[District Rule 204; District Rule 1303(A) - BACT: Continuous Compliance]

8. All Generac SD/MD 2000 generators under District Permits E015587, E015589, E015591, and E015593 must achieve compliance with Tier 4 Final emission standards by July 31st, 2027. To be deemed compliant, the following three control devices must be installed and operational on each Mitsubishi engine (S16R-T2PTAW2-1) and the initial compliance test must be completed by the date above: Miratech DPF (LTR DPF, CARB Certified), Miratech DOC (M3-64-56-24PF-J), and Miratech SCR (M3-64-56-24PF-J). The control devices are permitted under District Permits C015588, C015590, C015592, and C015594.
OPERATION PRIOR TO COMPLIANCE DATE: The District is allowing operation of the certified Tier 2 engines, prior to installation of the retrofit control devices, under District Permits E015587, E015589, E015591, and E015593 until the compliance deadline of July 31st, 2027 to accommodate scheduling, delivery, and installation of control devices. After this date, if compliance is not satisfactorily demonstrated, the engines under the District Permits listed above are prohibited from operating for any purpose until compliance is

achieved.
[District Rule 204; District Rule 1303(A) - BACT]

9. In the event that any of the Tier 4 Final equivalent aftermarket retrofit emission control equipment under this permit is replaced, the new (replacement) emission control device must be of the same manufacturer and model designation and it must be installed by manufacturer-certified personnel. All emission control device replacements will require the engine and control devices to undergo initial compliance testing pursuant to Condition 3 within 180 days after the equipment replacement. The compliance test results must confirm that the engine meets the standards outlined in Condition 3.
[District Rule 204; District Rule 1302(C) - PTE; District Rule 1303(A) - BACT]

10. 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; 17 CCR 93400 et seq.; 40 CFR 51, Subpart A]