**Source Category Permit to Construct and Operate Stationary Natural Gas-Fired Emergency Engines Subject to NSPS Subpart JJJJ**

**Permit No. 7043-SC-R2**

January 17, 2024

I. Applicability[[1]](#footnote-1):

a. This source category permit is applicable to a subset of owners and operators of natural gas-fired emergency engines in the District of Columbia who submit an application to the Department of Energy and Environment (“the Department”), Air Quality Division (“AQD”) and are approved for coverage under this permit, either actively or by passive approval which will occur 45 days after submission of a complete application to AQD, unless AQD objects to the approval in writing in that timeframe.

b. This source category permit covers new installation as well as operation of natural gas-fired spark ignition (SI) internal combustion engines that are regulated under 40 CFR 60, Subpart JJJJ and are classified as emergency engines (a subset of stationary spark ignition internal combustion engines). To be covered under this permit, equipment must meet the following criteria:

1. The equipment consists of a natural gas-fired emergency generator set or other natural gas fired emergency engine;

2. The equipment is stationary (i.e., it will remain in place for greater than 12 months);

3. The project that involves construction of the equipment to be covered does not trigger applicability of 20 DCMR 204, Permit Requirements for Major Sources Located in Non-Attainment Areas (New Source Review);

4. One of the following must be true:

A. The equipment was installed before January 1, 2014;

B. The equipment has been or will be installed after January 1, 2014 and is no more than one model year older than the year of installation (e.g., if it is installed in calendar year 2015, it is no older than a model year 2014 unit.); or

C. The potential to emit NOx from the equipment, assuming 500 hours per year of operation, is less than 5 TPY.

5. One of the following must be true:

A. The maximum engine power is less than or equal to 25 horsepower (HP) [19 mechanical kilowatts (kWm)] and it was manufactured on or after July 1, 2008;

B. The manufacturer participates in the voluntary manufacturer certification program described in 40 CFR 60, Subpart JJJJ and the date of manufacture of the emergency engine is after January 1, 2009; or

C. The emergency engine was ordered after June 12, 2006, was manufactured on or after January 1, 2009, and has a maximum engine power greater than 25 HP (19 kWm); and

6. The equipment must be constructed and operated in compliance with all conditions of this permit.

c. Similar sources that do not meet the above criteria may be eligible for a different source category permit or a standard unit-specific permit issued pursuant to 20 DCMR Chapter 2, but cannot be covered by this source category permit.

II. General Requirements:

a. The emergency engine shall be maintained and operated in accordance with the air pollution control requirements of the applicable sections of 20 DCMR.

b. This permit expires on January 16, 2029 [20 DCMR 200.4]. If an applicant covered by this permit wishes to continue operation after this date, the owner or operator shall submit an application for renewal by October 16, 2028.

c. Construction or operation of equipment under the authority of this permit shall be considered acceptance of its terms and conditions.

d. The Permittee shall allow authorized officials of the District, upon presentation of identification, to:

1. Enter upon the Permittee’s premises where a source or emission unit is located, an emissions related activity is conducted, or where records required by this permit are kept;

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement.

e. A copy of this permit, as well as any associated coverage approval letter, shall be kept on the premises and produced upon request.

1. Failure to comply with the provisions of this permit may be grounds for suspension or revocation of a Permittee’s approval to construct and operate under this permit. [20 DCMR 202.2]
2. For any equipment covered by this permit that is located at a major stationary source (as defined in 40 CFR 199) facility or other facility subject to 20 DCMR Chapter 3, the Permittee shall submit a complete Chapter 3 (Title V) permit amendment request or, in the case of a facility with a current application under review, a revision to that pending application, within twelve (12) months of the date of approval of coverage under this permit, to include the requirements of this permit in the facility’s Title V permit for the covered equipment. [20 DCMR 301.2]

III. Emission Limitations:

a. Emissions from the engine shall not exceed those specified in 40 CFR 60.4233 for the appropriate engine type. Any engine subject to a Family Emission Limit (FEL) shall comply with any such limits as specified on the applicable EPA Certificate of Conformity. If the engine is certified as a non-emergency engine, the engine shall comply with the standards to which it has been certified. [40 CFR 60.4233 and 20 DCMR 201]

b. Visible emissions shall not be emitted into the outdoor atmosphere from the engine, except that discharges shall be permitted for two (2) minutes during any start-up, cleaning, adjustment of combustion or operational controls, or regeneration of emissions control equipment; provided, that such discharges shall not exceed twenty-seven percent (27%) opacity (unaveraged). [20 DCMR 606.1 and 606.2(d)]

c. An emission into the atmosphere of odorous or other air pollutants from any source in any quantity and of any characteristic, and duration which is, or is likely to be injurious to the public health or welfare, or which interferes with the reasonable enjoyment of life or property is prohibited. [20 DCMR 903.1]

Violation of the requirements of this condition that occur as a result of unavoidable malfunction, despite the conscientious employment of control practices, shall be an affirmative defense for which the owner or operator shall bear the burden of proof. A malfunction shall not be considered unavoidable if the owner or operator could have taken, but did not take, appropriate steps to eliminate the malfunction within a reasonable time, as determined by the Department. [20 DCMR 903.13(b)]

*Note: This condition is District enforceable only.*

IV. Operational Limitations:

* 1. a. The emergency engine shall be operated for fewer than 500 hours in any 12-consecutive-month period. If operation of 500 hours or more is intended, the engine is not eligible for coverage under this permit and must seek and obtain an equipment-specific Chapter 2 permit from the Department prior to initiating such operation.

b. Except as specified in Condition IV(c), the emergency engine shall be operated only during emergencies as follows:

1. For engines associated with emergency generators, emergencies resulting from electrical power outages due to: a failure of the electrical grid; on-site disaster; local equipment failure; or public service emergencies such as flood, fire, natural disaster, or severe weather conditions (e.g. hurricane, tornado, blizzard, etc.);

2. For engines associated with fire pumps, any fire emergency; or

3. For engines associated with emergency water pumps, any stormwater management emergency.

c. The emergency engine may be operated for the purpose of maintenance checks and readiness testing and in non-emergency situations for a period not to exceed one hundred (100) hours per calendar year as specified in Conditions IV(c)(1) and (2) below. Any such operation shall be considered as part of the 500 hours allowed under Condition IV(a) above. [40 CFR 60.4243(d)]

1. The emergency engine may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. [40 CFR 60.4243(d)(2)(i) and DCMR 201]; and

1. The emergency engine may be operated for up to fifty (50) hours per calendar year in non-emergency situations, subject to the following conditions [40 CFR 60.4243(d)(3) and 20 DCMR 201]:
2. Any such operations shall be counted as part of the 100 hours per calendar year for maintenance and testing as provided in Condition IV(c);
3. These 50 hours of non-emergency operations per calendar year cannot be used for peak shaving, or as part of any program to supply power to generate income for the facility as part of a financial arrangement with another entity;
4. All operations prohibited under Condition IV(f) are also prohibited under this condition; and
5. All operations of the emergency generator resulting from a deviation in voltage or frequency from the electric provider to the premises shall be considered non-emergency operation and counted as part of this 50 hour per calendar year allowance.

d. The emergency engine shall fire only natural gas. [20 DCMR 201]

e. The emergency engine shall be certified by the manufacturer according to the procedures specified in 40 CFR 60, Subpart JJJJ, and operated and maintained in accordance with the equipment manufacturer’s emission-related instructions. [20 DCMR 201, 20 DCMR 606.4(b), and 40 CFR 60.4243]

f. The emergency engine shall not be operated in conjunction with a voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant, or system operator. [20 DCMR 201]

g. At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [20 DCMR 201 and 20 DCMR 606.4(a)]

1. The owner or operator shall ensure that persons participating in the maintenance and operation of the equipment are adequately trained and supervised to meet the requirements of Conditions IV(e) and (g). [20 DCMR 606.4(c)]

V. Monitoring and Testing Requirements:

a. The owner or operator shall monitor the date, time, duration, and reason for each emergency engine startup to ensure compliance with Conditions IV(a), (b), (c), and (f).

b. In order to ensure compliance with Condition IV(a), the owner or operator shall monitor the total hours of operation each month with the use of properly functioning, non-resettable hour metering device. [40 CFR 60.4237(c)]

c. The owner or operator shall conduct and allow the Department access to conduct tests of air pollution emissions from any source as requested. [20 DCMR 502.1]

d. The owner or operator shall maintain an awareness of the operation of the engine to identify potential exceedances of Conditions III(b) and (c). If significant visible emissions are observed from the engine, the Permittee shall have the visible emissions tested by a qualified person certified to perform testing pursuant to 40 CFR 60, Appendix A, Method 9. [20 DCMR 502.1]

VI. Record Keeping Requirements:

a. The following information shall be recorded, initialed (except records generated automatically by an electronic system), and maintained in a log at the facility (or readily accessible electronically from the facility) for a period not less than three (3) years or, in the case of any major stationary source facility or other facility subject to 20 DCMR Chapter 3, five (5) years [20 DCMR 20 DCMR 302.1(c)(2)(B), 20 DCMR 500. 8, and 40 CFR 60.4245(a)]:

1. The date, time, duration, and reason for each start-up of the emergency engine, including the following specific information:

i. If the unit is operated in non-emergency situations pursuant to Condition IV(c)(2), the specific purpose for each operation period must be recorded; and;

ii. If the unit is operated for emergency purposes, what classified the operation as emergency;

2. The total hours of operation for each month and the cumulative 12-month rolling period shall be calculated and recorded within 15 days of the end of each calendar month for the previous month and the 12-month period ending at the end of that month;

3. Records of the date, time, and duration of any equipment manual startup, manual shutdown, cleaning, combustion control adjustment, emission control regeneration, and malfunction [20 DCMR 606.5(a)];

4. For any malfunction, investigate the cause of the malfunction and maintain records of the investigatory activities and conclusions of such investigation [20 DCMR 606.5(b)];

5. The total hours of operation for maintenance checks and readiness testing and non-emergency operation pursuant to Condition IV(c) each month, recorded within 15 days of the end of each calendar month, and totaled for each calendar year by January 15 of each year for the previous calendar year;

6. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition IV(c)(2), totaled by January 15 of each calendar year for the previous calendar year;

7. Records of the maintenance performed on the unit *[Note that these records must be sufficient such that the Permittee is complying with the requirements of Conditions IV(e) and (g)]*;

8. Records of the results of any visible emissions monitoring performed;

9. Records of the occurrence and duration of each malfunction of operation;

10. Records of the actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunction process and air pollution control and monitoring equipment to its normal or usual manner of operation;

11. Records of staff training performed pursuant to Condition IV(h); and

12. For any equipment covered by this permit that is located at a major stationary source (as defined in 40 CFR 199) facility or other facility subject to 20 DCMR Chapter 3, the Permittee shall maintain fuel usage records for the unit on a monthly and annual total basis for use in reporting fuel use and emissions from the facility, including equipment covered by this permit, pursuant to the requirements of the Title V permit.

b. The owner or operator shall maintain a copy of the emergency engine’s manufacturer’s maintenance and operating recommendations at the facility or at an electronic location readily accessible from the facility, for the life of the equipment. [20 DCMR 501]

c. The owner or operator shall maintain a copy of the EPA Certificate of Conformity at the facility (or at an electronic location readily accessible from the facility) at all times, for th life of the equipment. [40 CFR 60.4245(a)(3)]

VII. Reporting Requirements:

1. If the facility at which the engine is located is subject to a permit issued pursuant to 20 DCMR Chapter 3 (Title V), the Permittee shall include the equipment covered by this source category permit in all reports required by the Title V permit, including, but not limited to, semi-annual and annual compliance certifications and reports.
2. The Permittee shall, within ten (10) days of becoming aware of a deviation from any condition of this permit, submit a written report to the Department at the following address [20 DCMR 502]:

air.quality@dc.gov

Approved by:

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Stephen S. Ours, P.E. Date

Chief, Permitting Branch

SSO:JCN

1. For definitions of terms used in this permit, please see the relevant definition sections in 20 DCMR as well as 40 CFR 60.2 and 40 CFR 60.4248. [↑](#footnote-ref-1)