GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

RENEWAL APPLICATION FOR COVERAGE OF AN EMERGENCY ENGINE SUBJECT TO A SOURCE CATEGORY PERMIT

Instructions:

- Please complete a separate copy of this form for each covered engine or generator.
- This application is a shortened form for equipment previously approved for coverage by a source category permit, where the source category permit has been renewed or amended, and therefore renewed approval of coverage is required. Separate application forms are available for equipment to be covered for the first time.
- If you have questions, please contact the Air Quality Division (AQD) at (202) 535-2250.

I. Applicability

- 1. Check the source category permit under which you are applying for coverage:
 - □ Permit 7043-SC-R1 for operation of a stationary natural gas-fired emergency engine subject to NSPS Subpart JJJJ; or
 - □ Permit 7048-SC-R1 for operation of a stationary diesel-fired emergency engine subject to NSPS Subpart IIII.
- 2. List the approval number found on your most recently received approval letter for this equipment:
- 3. Please attach a copy of your most recently received approval letter for this equipment to this application.
- 4. Please check the following box to certify that you have reviewed the source category permit under which you are applying for coverage and are both able to and intend to comply with its requirements: I so certify:

If you have questions about your eligibility or how to complete this application, please contact AQD at (202) 535-2250.

APPLICATION CONTINUED ON NEXT PAGE





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	cility and Applicant Information		
1.	Full Legal Name of Applicant/Organization		
2.	Type of Organization		
	Type of Organization		
3.	Name of Owner(s) or Principal Partner(s) of Above Organization		
4.	Mailing Address of Applicant (No., Street, City, State, Zip)		
5.			
5.	Street Address of Facility (if different from Mailing Address)		
6.	Owner/Responsible Official Name:		
	Owner/Responsible Official Title:		
	Phone NoE-mail:		
7.	Contact Person:		
	Contact Person Title:		
	Phone No E-mail:		
III.G	eneral Equipment Information		
1.	Equipment Name/Identification:		
2.	Fuel type:		
3.	Is the engine used in a load response program or for peak shaving? Yes \Box No \Box Note: If the unit is to be used in a load response program or for peak shaving, it is not eligible for coverage by a source category permit. Please contact AQD at (202) 535-2256 with any questions.		
4.	Rated generator electrical output: kW/kWe		
	Note: Enter n/a if your engine is not associated with a generator		
5.	Maximum engine power: HP or _ kWm (choose units) @ RPM		

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6. Has the equipment or its operational purpose been modified since submittal of the previous source category application for this unit? Yes □ No □

If so, please specify how:

7. Have there been any other changes since the last application that you believe might be relevant to review of this application? Yes □ No □

If so, please describe:

IV. Notes and Required Attachments

- 1. Please attach a copy of the EPA Certificate of Conformity applicable to the unit.
- 2. Please attach a copy the previous source category permit coverage approval letter issued for this unit.
- 3. Please attach any other supporting documentation you feel would assist the AQD in its review of this application.
- 4. Deviations from submitted plans and specifications are not permissible without securing formal approval from AQD via an application update request and re-approval, if already approved. If an application update is submitted, the 45 day passive approval period will re-set as of the date of submission of the revised application.
- 5. The complete application and applicable supporting documentation must be submitted to the following address:

Branch Chief, Air Quality Permitting Branch Department of Energy and Environment 1200 First Street NE, 5th Floor Washington DC 20002

APPLICATION CONTINUED ON NEXT PAGE

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V. Applicant Certification:

I hereby certify, under penalty of D.C. Official Code § 8-101.05e, that I am authorized to submit this application on behalf of the applicant and that the statements contained herein are true and correct to the best of my knowledge. I further certify that all attached information and previously submitted information referenced in this application remains true, correct, and current, to the best of my knowledge.

Authorized Signature:

Owner/Responsible Official Signature Print Name and Title Date

Mailing Address of Owner/Responsible Official if Different From II.4 above

Report Fraud, Waste, Abuse, and Mismanagement to the District of Columbia Office of the Inspector General. Confidential Toll Free Hotline: 1-800-521-1639 or 202-724-TIPS (8477). Email: hotline.oig@dc.gov

Attachment 1

Source Category Permit to Construct and Operate Stationary Diesel-Fired Emergency Engines Subject to NSPS Subpart IIII

Permit No. 7048-SC-R1

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

Source Category Permit to Construct and Operate Stationary Diesel-Fired Emergency Engines Subject to NSPS Subpart IIII

Permit No. 7048-SC-R1

September 27, 2019

I. <u>Applicability¹</u>:

- a. This source category permit is applicable to a subset of owners and operators of dieselfired 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 the 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 diesel-fired compression ignition (CI) internal combustion engines that are regulated under 40 CFR 60, Subpart IIII and are classified as emergency engines (a subset of stationary compression ignition internal combustion engines). To be covered under this permit, equipment must meet the following criteria:
 - 1. The equipment consists of a diesel-fired emergency generator set or other diesel-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. The engine's per cylinder displacement is less than 30 liters;
 - 5. The engine has not been modified or reconstructed as defined in 40 CFR 60.14 or 60.15;
 - 6. One of the following must be true:
 - A. The model year of the engine is 2007 or later for engines that are not fire pump engines;

¹ For definitions of terms used in this permit, please see the relevant definition sections of 20 DCMR as well as 40 CFR 60.2 and 40 CFR 60.4219.



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B. The engine is for a fire pump and its model year is equal to or newer than those specified in the following table, based on the size of the engine:

Fire Pump Engine Applicability Table			
Engine I	Starting Applicability		
Mechanical Kilowatts (kW _{m)}	Horsepower (hp)	Model Year*	
kW _m <75	hp<100	2011	
75 <u>≤</u> kW _m <130	100 <hp<175< td=""><td>2010</td></hp<175<>	2010	
130 <u><</u> kW _m ≤560	175 <u>≤hp</u> ≤750	2009	
kW _m >560	hp>750	2008	

Fire pump engines with a maximum engine power greater than or equal to 37 kW_m (50 hp) and less than 450 kW_m (600 hp) and a rated speed of greater than 2,650 revolutions per minute (rpm) are covered only three years after the model year listed in this table for the applicable power category.

or;

- C. The engine was ordered by the owner or operator after July 11, 2005 and one of the following is true:
 - i. The engine was manufactured after April 1, 2006 and is not a fire pump engine; or
 - ii. The engine was manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006;
- 7. One of the following must be true:

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- 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 NO_x from the equipment, assuming 500 hours per year of operation, is less than 5 TPY; and
- 8. 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.

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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 September 26, 2024 [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 June 26, 2024.
- 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.
- f. 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]
- g. 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]

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III. Emission Limitations:

- a. Emissions from the engine shall not exceed those specified in 40 CFR 60.4205 for the appropriate engine type. Any engine subject to a Family Emission Limit (FEL) shall comply with any such limits as specified on an 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 60.4205 and 20 DCMR 201]
- b. Visible emissions shall not be emitted into the outdoor atmosphere from the engine, except that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two (2) minutes in any sixty (60) minute period and for an aggregate of twelve (12) minutes in any twenty-four hour (24 hr.) period during start-up, cleaning, adjustment of combustion controls, or malfunction of the equipment [20 DCMR 606.1].

Note that 20 DCMR 606 is subject to an EPA-issued call for a State Implementation Plan (SIP) revision (known as a "SIP call") requiring the District to revise 20 DCMR 606. See "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction", 80 Fed. Reg. 33840 (June 12, 2015). It is likely that this federal action will result in changes to the requirements of 20 DCMR 606. Any such changes, once finalized in the DCMR, will supersede the language of Condition III(b) as stated above.

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]

IV. Operational Limitations:

- a. The emergency engine shall be operated for fewer than 500 hours in any given 12 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.)

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- 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 60.4211(f)]
 - 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 60.4211(f)(2)(i) and DCMR 201]; and
 - 2. The emergency generator may be operated for up fifty (50) hours per calendar year in non-emergency situations, subject to the following conditions [40 CFR 60.4211(f)(3) and 20 DCMR 201]:
 - i. 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);
 - ii. 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;
 - iii. All operations prohibited under Condition IV(f) are also prohibited under this condition; and
 - iv. 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 diesel fuel that contains a maximum sulfur content of 15 ppm (0.0015 percent by weight) and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b)]
- e. The emergency engine shall be operated and maintained in accordance with the recommendations of the equipment manufacturer. [20 DCMR 201]

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- f. The emergency engine shall not be operated in conjunction with a voluntary demandreduction 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 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]

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).
 [20 DCMR 500.2]
- 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 60.4209(a) and 40 CFR 60.4214(b)]
- c. The owner or operator shall monitor and/or test fuel oil as necessary to show compliance with Conditions IV(d) and VI(c) in accordance with ASTM method D-4294 or D-5453 or other method approved in advance by the Department. [20 DCMR 502.3 and 502.6]
- d. 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]

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 302.1(c)(2)(B), 20 DCMR 500. 8, and 40 CFR 60.4214(b)]:
 - 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

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- 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. The total hours of operation for maintenance checks and readiness testing 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.
- 4. The total hours of operation each calendar year for non-emergency purposes pursuant to Condition IV(c).
- 5. 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 Condition IV(e);
- 6. Records of the results of any visible emissions monitoring performed;
- 7. Records of the occurrence and duration of each malfunction of operation;
- 8. 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; and
- 9. 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. [20 DCMR 501]
- c. For each delivery of diesel fuel, the owner or operator shall maintain one of the following:
 - 1. A fuel delivery receipt containing the date, fuel type, and amount of the delivery and certification from the fuel supplier that the fuel delivered was tested in accordance with an appropriate ASTM method (specified in the certification) and met the requirements of Condition IV(d); or

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- 2. A fuel delivery receipt and documentation of sampling and analysis containing the following information:
 - i. The fuel oil type and the ASTM method used to determine the type (see the definition of distillate oil in 40 CFR 60.41c for appropriate ASTM methods);
 - ii. The weight percent sulfur of the fuel oil as determined using ASTM test method D-4294 or D-5453 or other method approved in advance by the Department;
 - iii. The date and time the sample was taken,
 - iv. The name, address, and telephone number of the laboratory that analyzed the sample, and
 - v. The test method used to determine the sulfur content.
- d. 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. [40 CFR 60.4214(a)(2)(iii)]

VII. Reporting Requirements:

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.

Approved by:

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Stephen S. Ours, P.E. Chief, Permitting Branch

SSO:JCN

9/27/2019

Date

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