

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

TO: File

THROUGH: Stephen S. Ours, P.E. *SSO*
Chief, Permitting Branch, Air Quality Division

FROM: John Nwoke *SSO For JCN*
Environmental Engineer

SUBJECT: **Source Category Permit No. 7048-SC-R1 to Construct and Operate Stationary Diesel-Fired Emergency Engines Subject to NSPS Subpart III – Renewed and Revised for a Partial Vacatur of NSPS Subpart III**

DATE: August 14, 2019

BACKGROUND INFORMATION

The Air Quality Division (AQD) of the Department of Energy and Environment (the Department) issued a source category permit (No. 7048-SC) on September 30, 2015, for owners or operators to construct and operate stationary diesel-fired emergency compression ignition (CI) internal combustion engines in the District of Columbia. This particular source category permit is limited to engines covered by the federal New Source Performance Standard (NSPS) “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines” (40 CFR 60, Subpart III). However, on May 2, 2016 the U.S. Court of Appeals for the District of Columbia Circuit vacated 40 CFR 60.4211(f)(2)(ii)-(iii). The vacated paragraph specified that emergency engines may operate for a limited number of hours per year in two situations: (1) emergency demand response due to an energy emergency and (2) when there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency. Also vacated are the reporting requirements associated with the vacated provision of the CFR noted above.

Since the vacatur, the Department has continued to issue approvals of coverage under the previously issued source category permit, but has conditioned those approvals on compliance with the revisions to the federal rule. However, this is not an ideal solution to the conflicts between the permit and regulatory language.

As such, the Department has determined that it must revise Source Category Permit No. 7048-SC to reflect the change in the federal regulation and has developed a proposed permit to reflect that change. The source category permit includes the requirements of all relevant District of Columbia (“District”) and federal air quality laws and regulations for this category of source. With this revision, the source category permit will be enforceable as a practical matter.

Additionally, because the existing source category permit is scheduled to expire on September 29, 2020, it is not worthwhile to just amend the existing permit, but to instead issue a full five-year term permit. This new permit (No. 7048-SC-R1) will begin to be used exclusively for new

CHAPTER 2 SOURCE CATEGORY PERMIT TECHNICAL MEMORANDUM

Source Category Permit No. 7048-SC-R1 to Construct and Operate Stationary Diesel-Fired Emergency Engines Subject to NSPS Subpart IIII, Renewed and Revised for a Partial Vacatur of NSPS Subpart IIII

August 14, 2019

Page 2

applications and, by being issued approximately a year ahead of expiration of the old permit (No. 7048-SC), will allow the Department and the various previously permitted entities time to re-permit under the new permit. The old permit will not be cancelled or amended, but will rather expire on its scheduled expiration date.

TECHNICAL INFORMATION

The existing source category permit language must be revised to comply with the court mandate on the partial vacatur of the 40 CFR 60, Subpart IIII in the new permit and use of the old permit phased out. The demand response portion of the vacatur is not relevant to the District of Columbia, because the District regulation does not grant demand response operation for emergency engines. Such applications would be considered under the standard Chapter 2 permitting process on a case-by-case basis. The voltage or frequency deviation aspect of the vacatur, as well as the reporting requirements in the existing source category permit will be addressed in this technical support memorandum.

Because the vacated provisions of NSPS Subpart JJJJ no longer have any legal effect, operation of emergency engines in those circumstances are now deemed non-emergency operation. Most emergency engines operate in circumstances resulting from low voltage or frequency of the main power grid when circumstances require. As such, the language of the source category permit will remove the previous language that treats a limited amount of this operation as emergency operation and clarify that it is now considered part of the non-emergency operation allowed under other parts of the NSPS, as well as other conditions of the permit.

Additionally, this revised source category permit updates the record keeping requirements of Condition VI of the existing permit while removing the associated reporting requirements of Condition VII of the permit.

This source category permit covers only the installation and operation of emergency internal combustion engines that are regulated under 40 CFR 60, Subpart IIII. This regulation is broader in scope, but this source category permit covers only regulated equipment that is classified as an emergency engine and triggers NSPS applicability based on one of the following three triggers:

1. The model year of the engine is 2007 or later for engines that are not fire pump engines;
2. 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:

CHAPTER 2 SOURCE CATEGORY PERMIT TECHNICAL MEMORANDUM

Source Category Permit No. 7048-SC-R1 to Construct and Operate Stationary Diesel-Fired Emergency Engines Subject to NSPS Subpart III, Renewed and Revised for a Partial Vacatur of NSPS Subpart III

August 14, 2019

Page 3

Fire Pump Engine Applicability Table		
Engine Power		Starting Applicability Model Year*
Mechanical Kilowatts (kW_m)	Horsepower (hp)	
kW _m < 75	hp < 100	2011
75 ≤ kW _m < 130	100 ≤ hp < 175	2010
130 ≤ kW _m ≤ 560	175 ≤ hp ≤ 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;

3. 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;

Note that the federal regulation covers non-emergency engines. However, AQD plans to continue to require a case-by-case review of applications for any such engines at this time, so they are not covered by this source category permit.

There are additional limitations placed on the equipment covered by this source category permit that are not required by the federal rule and may not be required in all cases by specific District regulations. This source category permit is not intended to disallow such operation in all cases. Instead, for some situations that may need further review by AQD, a case-by-case permit review process is still required to determine if such permits should be issued.

For equipment not covered by this source category permit (or other source category permits), if any entity owns, operates, or plans to install any equipment of this sort, they should consult with AQD to determine the applicability of any other permitting requirements pursuant to 20 DCMR 200. The main phone number for AQD is (202) 535-2250.

Also note that this source category permit does not cover all emergency engines, such as engines subject to the requirements of the spark ignition NSPS (40 CFR 60, Subpart JJJJ), engines subject to the Reciprocating Internal Combustion Engine (RICE) National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63, Subpart ZZZZ (except to the extent that

CHAPTER 2 SOURCE CATEGORY PERMIT TECHNICAL MEMORANDUM

**Source Category Permit No. 7048-SC-R1 to Construct and Operate Stationary Diesel-Fired
Emergency Engines Subject to NSPS Subpart IIII, Renewed and Revised for a Partial
Vacatur of NSPS Subpart IIII**

August 14, 2019

Page 4

Subpart ZZZZ references Subpart IIII for new sources), or existing engines exempt from these standards. These categories may be covered by other source category permits or may be handled on a case-by-case basis by AQD.

REGULATORY REVIEW

The regulatory review for the source category permit is not significantly impacted by this source category permit revision and renewal beyond the revision of the record keeping requirements of Condition VI and the removal of the reporting requirements of Condition VII that were part of the existing source category permit conditions.

The details of the regulatory review are available in the Technical Supporting Memorandum for the existing Source Category Permit No. 7048-SC dated August 24, 2015.

RECOMMENDATIONS

The notice providing the public the opportunity to comment on the proposed source category permit will be published in the D.C. Register on August 23, 2019. The draft permit will be available for public comment for thirty (30) days following the date of publication. Pursuant to 20 DCMR 210, the public notice will also be sent to EPA Region 3 and affected states (VA, MD, and WV).

The attached proposed revised and renewed permit complies with all applicable federal and District air pollution control laws and regulations. I recommend that the attached source category permit No. 7048-SC-R1 be issued upon completion of the public review period, assuming no adverse comments are received.

If adverse comments are received, such comments will be addressed prior to issuance of any final permit for this source category.

SSO/JCN

08219