UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 17, 2023

Mr. Dan Chisholm, Sr., CEO
Motor and Gear Institute
PO Box 560042
Orlando, Florida 32856

Dear Mr. Chisholm:

This letter is in response to your request dated January 12, 2023, regarding a proposed change in the operation scenario for diesel fueled compression ignition (CI) internal combustion engines (ICEs) located at John Hopkins' All Childrens Hospital's (Hospital) campus in St. Petersburg, Florida, which are subject to Title 40 C.F.R. Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Based on a review of your submittal, the EPA confirms that a change in the operating scenario from *emergency service* to *nonemergency service* operation, for the site-specific engines presented, does not change the tiering classification under the provisions of Subpart ZZZZ, and the engines will continue to be subject to Tier 2 Emissions Standards. Details regarding the basis for our regulatory interpretation are provided in the remainder of this letter.

Description of Engines and Current Operation

The Hospital owns and operates six emergency operation two-megawatt (MW) electrical power generators to support Campus operations during periods of emergency circumstances (*e.g.*, loss of electrical power from the local public electrical power supplier). Each generator is mechanically driven by one Caterpillar Model 3516C V-16 engine rated at 2,937 brake-horsepower (HP), with a displacement is 4.3 liters per cylinder (l/cyl). The engines were manufactured on September 10, 2007 and placed in service on October 8, 2008. Each engine is characterized and regulated as a Tier 2 Emissions Standard CI ICE under the provisions of Subpart ZZZZ.

Description of Proposed Operation

The Hospital, with assistance from your firm, is considering feasibility aspects related to implementing a change in the operating scenario for the generators from *emergency service* to *nonemergency service* operation. The nonemergency service operation of consideration involves routinely supplying electrical power to the Duke Energy Florida electrical power grid. Based on information you provided, the Campus is currently classified as a minor (area) source for emissions of hazardous air pollutants (HAPs) (*e.g.*, < 10 tons per year (TPY) of a single HAP and < 25 TPY of a combination of HAPs) and will remain so after the change in operating scenario.

EPA's Review of 40 C.F.R. 63, Subpart ZZZZ

Under 40 C.F.R. § 63.6580, Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary RICE located at major and area sources of HAP emissions and establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

Under 40 C.F.R. § 63.6585, you are subject to Subpart ZZZZ if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

Under 40 C.F.R. § 63.6590(a), an affected source includes any new stationary RICE located at a major or area source of HAP emissions. Under 40 C.F.R. § 63.6590(a)(2), a new affected source is any: (1) stationary RICE with a site rating of more than 500 HP located at a major source of HAP emissions where construction or reconstruction commenced on or after December 19, 2002, and (2) stationary RICE located at an area source of HAP emissions where construction or reconstruction on or after June 12, 2006.

Under 40 C.F.R. 63.6590(c), a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

EPA's Review of 40 C.F.R. 60, Subpart IIII

1) **2007 model year and later stationary *emergency engines* with a displacement of < 30 l/cyl, constructed after July 11, 2005, and manufactured after April 1, 2006.**

Under 40 C.F.R. § 60.4205(b), owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of < 30 l/cyl that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 C.F.R. § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

Under 40 C.F.R. § 60.4202(a)(2), stationary CI ICE manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power of ≤ 3,000 HP, but > 50 HP, and a displacement of < 10 l/cyl that are not fire pump engines to the Tier 2 or Tier 3 Emission Standards for new nonroad CI engines for the same rated power as described in 40 C.F.R. Part 1039, Appendix I, for all pollutants, and the smoke standards as specified in 40 C.F.R. § 1039.105 beginning in model year 2007.

Under Table 2 of Appendix I to 40 C.F.R. Part 1039, Model Year 2007 stationary emergency operation CI ICEs are required to meet the Tier 2 Emissions Standards of nonroad compression ignition engines.

2) **2007 and later model year stationary *non-emergency engines* with a displacement of less than 30 l/cyl constructed after July 11, 2005 and manufactured after April 1, 2006.**

Under 40 C.F.R. § 60.4204(b), owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of < 30 l/cyl must comply with the emission standards for new CI engines in 40 C.F.R. § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

Under 40 C.F.R. § 60.4201(a), stationary CI ICE manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 3,000 HP and a displacement of < 10 l/cyl to the certification emission standards for new nonroad CI engines in 40 C.F.R. 1039 §§ 101, 102, 104, 105, 107, 115, and 40 C.F.R. 1039, Appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.

Under Table 2 of Appendix I to 40 C.F.R. Part 1039, Model Year 2007 stationary CI ICEs are required to meet the Tier 2 Emissions Standards of nonroad CI engines.

40 C.F.R. 1039 §§ 101, 102, 104, 105, 107, and 115 do not apply to the subject engines since the engines are Model Year 2007 engines, operated at constant speed (1800 rpm), specify no evaporative emission standards for diesel-fueled engines, and are equipped with turbochargers.

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EPA's Determination

The emissions standards for 2007 Model Year *emergency* and *non-emergency* CI ICEs, as presented within your request, are equivalent for the purposes of Subpart ZZZZ. The CI ICEs are required to meet Tier 2 Emissions Standards for both emergency and non-emergency service operations.

The review of your regulatory interpretation request was coordinated with the EPA Office of Enforcement and Compliance Assurance and the EPA Office of Air Quality Planning and Standards. If you have any questions about the response provided in this letter, please contact Mr. Tracy Watson of my staff at (404) 562-8998 or by email at watson.marion@epa.gov.

Sincerely,

CAROLINE FREEMAN

Digitally signed by CAROLINE FREEMAN
Date: 2023.03.17 13:13:38 -04'00'

Caroline Y. Freeman
Director
Air and Radiation Division

cc: Sara Ayres, EPA OECA
Melanie King, EPA OAQPS
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