

# **Enforcement Alert**

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# Stationary Engines Cause Excess Emissions in Communities Across the Country

# **Purpose**

This Enforcement Alert informs owners and operators of stationary engines that EPA has been finding numerous violations of the applicable Clean Air Act requirements. The Agency has taken enforcement actions and assessed substantial penalties for facilities that have failed to comply. Stationary engines are used in applications such as generating electricity, providing primary power, and powering various equipment such as pumps and compressors. They are also used to supply power in the event of emergencies such as fire or flood. Stationary engines combust fuel oil or natural gas and have the potential to emit pollutants that negatively impact air quality.

# **Public Health Concerns**

Noncomplying stationary engines potentially emit excess air pollutants. The key pollutants from stationary engines include volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxide (NOx), particulate matter (PM), formaldehyde, acetaldehyde, acrolein, methanol, and polycyclic aromatic hydrocarbon (PAH). The health effects associated with exposure to these pollutants include a range of respiratory issues, especially asthma among children and seniors. These "demand response engines," which operate in the summer to offset electricity demand, further exacerbate poor air quality, including the formation of ground-level ozone. Many of these demand response engines are located in communities already overburdened by pollution, adding to air quality concerns.



# **Non-Compliance Concerns**

EPA investigations have uncovered numerous violations. The most serious violations include the failure to retrofit existing engines with necessary pollution controls. Depending on the age and size of the engine, and the type of source at which it is located, pollution controls may be required. In addition, owners of emergency stationary engines sometimes participate in demand response programs run by electricity system operators, thus voiding the emergency status of these engines. EPA has also found that some facilities have installed pollution controls, but without conducting testing in accordance with EPA requirements.

# **Recent Cases**

EPA has taken numerous enforcement actions against owners and operators of stationary engines used for primary power, directing them to take action to comply and assessing penalties for violations. By compelling these facilities to comply (e.g., installing air pollution controls, converting to grid power, or purchasing new, cleaner engines), these enforcement actions have reduced emissions of carbon monoxide, hazardous air pollutants, and particulates.

# **Examples of Some Recent Cases include:**

#### Green Mountain Power Corporation - Vergennes, VT (2021)

Green Mountain Power is an electric utility that operates two diesel engines, both 2,737 horsepower. EPA found these engines to be in violation of Subpart ZZZZ as they lacked the proper monitoring equipment and Green Mountain Power had not submitted the required reports and plans. Green Mountain Power addressed these issues in accordance with EPA's settlement.

#### J.K. Merrill & Sons, Inc. - Fort Hall Reservation, ID (2020)

J.K. Merrill operates a sand and gravel plant on the Fort Hall Reservation in Idaho. The facility uses two large diesel engines (of 1,576 and 536 horsepower) to supply electric power to the facility's crushing and wash plant operations. EPA found these engines to be in violation of Subpart ZZZZ. Under a settlement agreement with EPA, J.K. Merrill retrofitted the engines with diesel oxidation catalysts, conducted the required testing and monitoring, and submitted the required reports.

#### Boro Sand and Stone Corp. - North Attleborough, MA (2020)

Boro is a concrete and stone producer in North Attleborough, Massachusetts, using three diesel engines (of 896, 464, and 464 horsepower) to supply electric power to the facility's wash and recycle plant operations. EPA found these engines to be in violation of Subpart ZZZZ. As a result of EPA's action, Boro has since invested in a new utility line to supply electric grid power to its operations.

# A&L Iron and Metal Company - Gaylord, MI (2019)

A&L owns and operates a metal shredding facility in Gaylord, Michigan. The metal shredder is powered by a 3,506-horsepower diesel engine. EPA found this engine to be in violation of Subpart ZZZZ. Under a settlement agreement with EPA, A&L retrofitted the engine with a diesel oxidation catalyst and a diesel particulate filter, conducted the required testing and monitoring, and submitted the required reports.

# **Highpoint Resources Corporation – Denver, CO (2019)**

Highpoint operates the Pelican Lake Compressor Station in the Uinta Basin of Utah, which uses a 760-horsepower engine. EPA and representatives of the Ute Indian Tribe inspected the compressor station and found this engine to be in violation of Subpart JJJJ. During testing, the engine exceeded emission limits for oxides of nitrogen and carbon monoxide. As a result of EPA's action, Highpoint subsequently replaced the catalyst, conducted tuning and retested the engine to demonstrate compliance with the emission limits.

#### **Recommended Actions**

To help minimize emissions and achieve compliance, EPA recommends that owners and operators of stationary engines:

- Review the helpful resources about stationary engines on EPA's website available at: <a href="https://www.epa.gov/stationary-engines">https://www.epa.gov/stationary-engines</a>. In particular, click "Tools to Help You Comply" and then, based on which regulation may apply to your engine, see the "Regulation Navigation Tool" or "Summary Tables."
- · Review the Stationary Engine Regulations
  - Several regulations may apply depending on the age of the engine, the size of the engine, its location, and the type of fuel used. These regulations
    include:
    - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (see 40 CFR Part 63, Subpart ZZZZ);
    - New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (see 40 CFR Part 60, Subpart IIII); and
    - New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (see 40 CFR Part 60, Subpart JJJJ).
- Determine the applicable engine regulations based on the following:
  - The year the engine was manufactured;
  - The engine design (e.g., compression ignition, spark ignition);
  - o The capacity of the engine in brake horsepower;
  - o The engine fuel type; and
  - o The use type (emergency or non-emergency).
- Determine whether the engine has or needs an emissions control system.
- Determine whether the engine has a Certificate of Conformity from the manufacturer.
- Review the regulations for stationary engines paying close attention to the emission and operating limitations as well as recordkeeping and reporting
  obligations.
- Consider replacing older engines with new, cleaner engines or converting to grid power if it is an option.

DISCLAIMER: This document aims to explain the application of certain EPA regulatory provisions using plain language. Nothing in this Alert revises or replaces any regulatory provisions, any other part of the Code of Federal Regulations, the Federal Register, or the Clean Air Act. Following the recommendations discussed in this Alert does not guarantee compliance with the Clean Air Act, its implementing regulations, and associated state/local requirements. For more information, visit: <a href="https://www.epa.gov/compliance">www.epa.gov/compliance</a>.