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Office of Transportation and Air Quality

Technical Highlights

Emission Regulations for Stationary and Mobile Engines

The U.S. Environmental Protection Agency (EPA) has adopted emission standards for various types of nonroad engines. As directed by Congress in the Clean Air Act, these emission standards do not apply to stationary engines. This fact sheet is addressed to owners of stationary engines to answer several questions about how we implement these requirements.

Why does it matter whether an engine is "stationary" or "mobile"?

Congress has directed EPA to set emission standards for new nonroad engines and prevented state and local governments from adopting any standards for these engines, with certain exceptions. At the same time, Congress reserved the right of state and local governments to regulate emissions from stationary engines. As a result, we went through a public rulemaking to establish clearly which engines are nonroad (mobile) engines and which are stationary engines.

What are examples of nonroad and stationary engines?

Stationary engines are used in many applications where they can be installed in a fixed location, such as power generators or irrigation

pumps. Nonroad (mobile) applications include these same types of equipment if they are made to be portable (or transportable). For example, a generator mounted on a pallet or a trailer would generally not be considered stationary. Nonroad engine applications also include many kinds of vehicles that are clearly not stationary, such as tractors, loaders, forklifts, locomotives, and many kinds of marine vessels.

So, what exactly is a stationary engine?

Stationary engines include all internal-combustion engines that are used either in a fixed application, or in a portable (or transportable) application in which the engine will stay at a single site for at least a full year. Engine and equipment manufacturers need to determine before the engine is placed in service whether their customers will use the engine in a mobile or stationary application. This way, engine manufacturers will appropriately build an engine (and certify it if necessary) before it reaches its final installation. Similarly, nonroad equipment manufacturers must install only certified nonroad engines in nonroad equipment. For example, a trailer-mounted generator would be considered stationary only if the equipment and engine manufacturers had clear information showing that, throughout the engine's life, the owner would operate the engine at single locations for at least 12 months.

What about engines that operate only at summer construction projects?

We are aware that some work sites, such as summer construction projects, operate for less than a full year. For engines at these seasonal work sites, we apply a different test to determine if they qualify as stationary engines. For a work site to qualify for having any stationary engines, it must be in operation for at least two consecutive years with a "work season" of at least three months. We would consider individual engines at such a work site to be stationary if they operate as stationary engines for a full season.

What emission standards apply to nonroad (mobile) engines?

We have adopted emission standards for almost all nonroad engines. These emission standards are generally tailored to the specific application and type of engine. For example, we have separate emission standards for marine engines, locomotives, and other land-based diesel

engines (see Table 1). We also usually have separate standards for diesel- and gasoline-fueled engines. These standards typically apply to engine manufacturers, who certify with us that their new engines will meet emission standards over an established period of operation with proper maintenance and use. EPA's nonroad emission standards generally do not affect any engines that have already been placed into service, unless they are installed in new equipment or used in a different application (such as converting a locomotive engine to power a generator or a vessel)[1].

In addition, California may adopt (and has adopted) standards for most nonroad engines, which other states may copy. State and local authorities may also regulate the use and operation of nonroad engines.

What emission standards apply to stationary engines?

EPA may adopt New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP) for stationary engines. We have not yet done so, but are expecting to propose NESHAPs for stationary engines in 2002.

In addition, state and local agencies may adopt requirements for stationary engines. These requirements are usually designed to help areas meet ambient air quality standards under federally mandated State Implementation Plans (SIPS), though states may also adopt requirements for other air quality purposes. In any case, these requirements typically take the form of a permit process in which you show that your engines use a certain type of technology or operate at a certain emission level. Manufacturers typically take the responsibility of showing that their engines meet these requirements, but you may have a significant responsibility to ensure proper operation and maintenance.

Especially in rural counties, it may be that no state or local emission standards apply. In other areas, local authorities may simply require that engines meet EPA emission standards that apply to comparable nonroad engines. In areas with the most need to address air quality problems, local requirements may call for emission controls that are more chal-

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[1] EPA's locomotive regulations apply to certain older locomotive engines when those engines are rebuilt.

lenging than EPA standards. See www.cleanairworld.org/ for links to many state and local offices that would implement requirements for stationary engines.

What happens if someone moves a stationary engine?

If you have a stationary engine that is not certified to EPA emission standards, you must use it consistently with our definition of stationary engines. Converting it to a mobile engine would require engine certification to applicable standards for nonroad engines. Anyone who moves a stationary engine or installs it in a mobile application may be considered a manufacturer of new nonroad equipment and risks substantial fines if the engine is not certified.

If you need to replace a stationary engine that fails prematurely, this restriction on moving the failed engine does not apply. You may replace it without recalculating the residence time described above.

May I use an EPA-certified nonroad engine in stationary applications where there are no local requirements?

Yes. Many engine manufacturers choose to do this to avoid the complexity of offering multiple engine models and to reduce the risk of someone using an uncertified engine in a mobile application.

Can I convert a used mobile engine to provide power as a stationary engine?

This depends on local requirements. State or local authorities may choose to apply emission-control requirements to these engines.

How does Customs treat imported stationary engines?

The U.S. Customs Service works with us to enforce our requirements. If anyone tries to import an uncertified engine without clear evidence that it will be used in a stationary application, Customs may impound the engine temporarily or refuse entry, depending on the circumstances. We therefore recommend that all imported stationary engines have a perma-

nent label identifying them as stationary engines that are not subject to EPA's emission standards for nonroad engines. See EPA's declaration form for more information about importing stationary engines at: www.epa.gov/otaq/imports/forms/3520-21.pdf .

Table 1
Current Emission-Control Programs

Engine Category	Location in the Code of Federal Regulations
Land-based nonroad diesel engines	40 CFR part 89
Lawn and garden engines (and other spark-ignition engines under 19 kW)	40 CFR part 90
Marine spark-ignition engines	40 CFR part 91
Marine diesel engines	40 CFR part 94
Locomotives	40 CFR part 92
Industrial spark-ignition engines (and other land-based engines over 19 kW)	40 CFR part 1048
Recreational vehicles	40 CFR part 1051

Where Can I Get More Information?

Additional documents on nonroad engine emission standards are available electronically on the Web site for the Office of Transportation and Air Quality at:

www.epa.gov/otaq/nonroad.htm

Additional information related to EPA regulation of stationary engines is available electronically on the Web site for the Office of Air Quality Planning and Standards at:

www.epa.gov/ttn/atw/rice/ricepg.html

Document information is also available by contacting:

Nonroad Engines
ASD Information Line
Phone: (734) 214-4636
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