



GUIDANCE ON STATIONARY VS. NONROAD ENGINES

Classifying Internal Combustion Engines

Air Resources Division/Permitting and Environmental Health Bureau



Background:

Env-A 607.01, *Specific Applicability for Temporary Permits*, requires a permit for one or more internal combustion (IC) engines at a source where:

- Each device combusts liquid fuel oil and has a design gross heat input greater than 0.15 MMBtu/hr, and the combined total design gross heat input for all such devices is greater than or equal to 1.5 MMBtu/hr; or
- Each device combusts gaseous or liquefied propane gas fuel and has a design gross heat input greater than 1.5 MMBtu/hr, and the combined total design gross heat input of all such devices is greater than or equal to 10 MMBtu/hr.

This permitting requirement is for those devices which are classified as stationary sources¹.

The USEPA also regulates the use of IC engines as mobile sources in both on-road and nonroad applications. These devices are regulated through federal emissions standards. IC engines that are considered nonroad engines are not classified as stationary sources and therefore, are not required to obtain an air permit. The following discussion is intended to provide guidance on the classification of IC engines and how these classifications will be treated in terms of air permitting requirements.

Discussion:

The USEPA regulates mobile sources separately from stationary sources. IC engines that are permanently mounted and used to power generators or other equipment (either for emergency or prime power use) at a facility are considered stationary sources. IC engines used to power mobile equipment such as trucks and bulldozers are considered mobile sources. Mobile sources are not considered part of a stationary source and do not require air permits.

There are some uses of IC engines where it is not readily apparent whether they should be considered a stationary source or a mobile source. For instance, an IC engine used to power a trailer mounted compressor may remain on the property of a stationary source, but it is used at various locations around the property. In this application, the IC engine would be classified as a nonroad engine and therefore, an air permit would not be required in this case. If the same IC engine and compressor were permanently mounted, or used in the same location at the stationary source for a period of 12 months (or full annual operating period of a seasonal source), then it would be classified as a stationary source and would be subject to stationary source permitting requirements.

USEPA regulates nonroad engines in the Code of Federal Regulations, 40 CFR 89 *Control of Emissions from New and In-use Nonroad Compression-ignition Engines*. Nonroad engine is defined in 40 CFR 89.2, Definitions (see below from 3-15-2015 version). As this distinction between stationary and mobile or nonroad engines can be difficult to determine and generally site specific, the owner or operator of an engine can request that NHDES assist them in determining stationary vs. nonroad status.

Nonroad engine means:

(1) Except as discussed in paragraph (2) of this definition, a nonroad engine is any internal combustion engine:

- (i) In or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or
- (ii) In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or

¹ Stationary Source is defined in NH Code of Administrative Rules, Env-A 101.187, "Stationary Source" & New Hampshire Revised Statutes Annotated, RSA 125-C:2 XI as:
"Stationary source" means any building, structure, facility, or installation that emits or might emit any regulated air pollutant.

This is essentially the same as the USEPA's definition in 40 CFR 70.2:

Stationary source means any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act.

(iii) That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

(2) An internal combustion engine is not a nonroad engine if:

(i) the engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the Act; or

(ii) the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the Act; or

(iii) the engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location.

Summary

The same IC engine may be classified as a stationary source or a mobile source depending upon how long it is in one location.

Additional Resources:

USEPA has issued guidance on what are/are not nonroad engines. (See <http://www.epa.gov/ttn/atw/icengines/>).