There are three federal regulations that apply to Reciprocating Internal Combustion Engines (RICE), depending on the type of engine and the date of construction: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary RICE, New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Engines, and NSPS for Stationary Spark Ignition (SI) Engines. In addition to the federal regulations, Wisconsin has several regulations that may apply to your RICE which are outlined in this factsheet.

Definitions

Area source of hazardous air pollutants (HAPs) – a source that has the potential to emit less than 10 tons of any single HAP and less than 25 tons of total HAPs.

Emergency electric generator - as defined in Wis. Adm. Code NR 400.02(56), an electrical generator whose purpose is to provide electricity to a facility if normal electrical service is interrupted and which is operated no more than 200 hours per year.

Non-road engine - an engine that is not used in a motor vehicle but is portable - As defined in 40 CFR 1068.30, an engine is portable if it does not stay and is not intended to stay at a single location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. Portable (non-road) engines are not stationary engines for purposes of this rule. A facility may consult with its EPA regional office or request a site-specific applicability determination if it is uncertain whether it meets the criteria specified to be considered a nonroad or stationary engine. To view determinations already issued by EPA visit http://cfpub.epa.gov/adi/.

Stationary – means not used in a motor vehicle and not a non-road engine.

Permitting

Emergency generators are exempt from construction permitting under Wisconsin Administrative Code NR 406.04(1)(w). Also, facilities where the only emission sources are emergency generators may also be exempt from operation permitting under s. NR 407.03 (1)(u). However, facilities with other emission units that have new generators, emergency or otherwise, that are subject to NSPS are NOT eligible for the operation permit exemptions under NR 407.03(1m) (under 10 tons/year) or any facility-wide exemptions under NR 407.03(2). Those facilities will need an operation permit. If the facility would be otherwise exempt, the facility might qualify for a registration operation permit (ROP). If you have questions regarding applicability of a ROP, please refer to the Department web site at: http://dnr.wi.gov/topic/airPermits/Options.html.
Wis. Adm. Code NR 431—Control of Visible Emissions

If the visible emissions from an engine are not already regulated under one of the New Source Performance Standards, then they are regulated under either NR 431.04 if constructed on or before April 1, 1972, or NR 431.05 if constructed after April 1, 1972.

Wis. Adm. Code NR 445—State Hazardous Air Pollutants

For sources that combust Group I Virgin Fossil Fuels (natural gas and #2 distillate fuel), the emissions are exempt from the requirements of NR 445.07.

Engines that are subject to emission limits or control requirements within the spark ignition or the compression ignition NSPS standards (as referred to via the RICE NESHAP) are exempt from the requirements of NR 445.07.

Sources that combust fuel oil may be subject to NR 445.09, fuel, control and compliance for CI engines.

Sources that combust biofuels need to keep emissions below the threshold values for formaldehyde in Table A, s. NR 445.07 or apply Best Available Control Technology (BACT).

Wis. Adm. Code NR 485.055 – Particulate Emission Limit for Gasoline and Diesel Internal Combustion Engines

This rule limits the particulate matter emissions from stationary or semi-stationary gasoline or diesel-powered internal combustion reciprocating engines to 0.50 pounds of particulate matter per million Btu heat input, unless a more restrictive limit applies, either in an applicable New Source Performance Standard or as established in an air permit.

Questions contact:

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