

OLDER (PRE-NSPS) ENGINES



Generator engines in Michigan do not require a Michigan Permit to Install (PTI) if the heat input is less than 10 mmbtu/hr under Rule 285(2)(g). Even engines that do not require a PTI or have few regulatory requirements must be operated properly and according to manufacturer's recommendations to ensure environmental compliance.

FEDERAL NESHAP (40 CFR PART 63, SUBPART ZZZZ)

Keep in mind that aggregate storage facilities are likely an area source of hazardous air pollutants (HAPs) and only rules associated with areas sources are included below.

Older engines (before June 12, 2006, for SI¹ or natural gas-fired/gasoline engines or July 11, 2005, for CI² or diesel-fired engines) are subject to the ZZZZ regulations and owners are required to:

- Change oil and filter every 1,000 hours of operation or annually, whichever comes first;¹
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary (CI); Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary (SI); and
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

An oil analysis program described at 40 CFR 63.6625 may be substituted for changing the oil.

These non-emergency engines have CO emission limits or requirements because CO is a surrogate for HAPs. For engines larger than 100 hp, engine operators must install a catalyst and/or ensure that engine emissions are less than specific limits for that size engine. Engines between 100 and 300 hp must comply with an emission limit of 230 ppm CO. Engines between 300 and 500 hp must comply with a 49 ppm CO limit or reduce CO emissions by 70%. Engines over 500 hp must comply with a 23 ppm CO limit or reduce emissions over the catalyst by 70%. Catalyst pressure drop must be monitored as well as inlet temperature to the catalyst to ensure it is operating properly. Semi-annual reports to EGLE and USEPA may also be required.

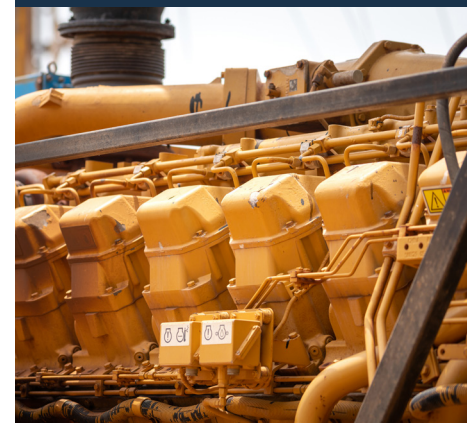
Diesel engines must also use ultra low sulfur diesel (ULSD) containing 15 ppm S or less and control crankcase emissions. If the engine is over 500 hp, emissions testing must be performed every 8,760 hours of operation or every three years (whichever comes first).

¹SI spark ignition or natural gas-fired | ²CI compression ignition or diesel-fired

Prepared by Fishbeck for Use by Michigan Aggregate Association members. It is not meant to represent legal advice but an overview of generator engine requirements.

These air quality rules do not apply to motor vehicles and non-road engines which are:

- Self-propelled (tractors, bulldozers)
- Propelled while performing their function (lawnmowers)
- Portable or transportable (has wheels, skids, carrying handles, dolly, trailer, or platform). Note: a portable non-road engine becomes stationary if it stays in one location for more than 12 months (or full annual operating period of a seasonal source).



ADDITIONAL INFORMATION: USEPA Controlling Air Pollution from Stationary Engines | www.epa.gov/stationary-engines

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