



Health Facilities Information Sheet

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EPA Tier 4 Emission Standards for Generators

Background

The Environmental Protection Agency (EPA) has established four tiers of emission standards for Nonroad Diesel Engines including stationary building generators. The standards are primarily directed to engine manufacturers based upon model year and capacity.

Tiers 1 through 3 were adopted in 1994 and phased in for engine model years 1996 through 2011. Tier 4 was adopted in 2008 and phased in for engine model years 2008 and beyond. As of this writing, all engines manufactured in the size range IHS typically purchases, and built in 2014 or after, are required to comply with Tier 4 standards.

The multiple tiers and phased rollout has generated some confusion among IHS Facility Managers and Construction Project Managers regarding the impact of these standards on the design, installation, and operation of generators in IHS facilities.

New Construction

Given that manufacturers are not permitted to manufacture non-compliant engines after 2014, little action is necessary to ensure compliance on new construction projects. When the IHS OEHE A/E Design Guide is updated in 2016, some minor revision to the requirements will be added to highlight compliance with Tier 4 standards.

Operations and Maintenance

Existing generators are permitted to remain in place. They must comply with the appropriate tier based upon their year of manufacture and use.

When existing generators are being replaced, the replacement generator must comply with EPA requirements.

There is no limit to the number of hours a generator may be run each year for the purpose of producing emergency power.

Maintenance checks and readiness testing of generators is limited to 100 hours per year. Additional hours may be permitted when more than 100 hours is required by other Federal or local standards. For example, the basic readiness testing requirements of the National Electrical Code (NFPA 70) may exceed 100 hours annually depending upon circumstances.

Non-emergency operation is permitted for up to 50 hours per year. The 50 hours counts towards the 100 hours allowed for maintenance checks and readiness testing.

Peak Shaving

Generators labeled “for emergency use only”, may not be used for peak shaving. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid.

Please consult with DES or DFO if you are intending to pursue using a generator for other than emergency purposes.

Detailed requirements may be found on the EPA website:

<http://www.epa.gov/nonroad/>

<http://www.epa.gov/otaq/nonroad-diesel.htm>