**Chapter 169: STATIONARY GENERATORS**

**SUMMARY**: This regulation establishes emission standards and stack requirements for stationary electric generators powered by reciprocating internal combustion engines.

# Applicability.

This regulation applies to all stationary generators installed after the effective date of this rule, and that are powered by engines subject to licensure requirements pursuant to *Major and Minor Source Air Emission License Regulations,* 06-096 C.M.R. ch. 115, or *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140. This regulation does not supersede any part of 06-096 C.M.R. ch. 115 or 06‑096 C.M.R. ch. 140 but does establish minimum requirements for stationary generators.

# Definitions.

As used in this Chapter, the following terms have the following meanings:

1. **Demand Response Program.**“Demand response program” means an agreement whereby under specified circumstances a facility voluntarily curtails its demand for electricity from the grid in exchange for some type of economic incentive.
2. **Emergency Generator.** “Emergency generator” means a generator that meets all of the following criteria:
3. The generator is only operated to provide electrical power during an emergency situation, except as provided in paragraphs 2 and 3 below. Examples include producing power for critical networks or equipment (including power supplied to portions of a facility) when electrical power from the local utility (or the normal power source if the facility runs on its own power production) is interrupted.
4. The generator is operated for no more than 100 hours per calendar year for the non-emergency purposes of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may be allowed additional hours for maintenance checks and readiness testing if a petition for approval is granted by the EPA in accordance with federal requirements or the owner or operator maintains records which demonstrate that maintenance and testing beyond 100 hours per calendar year is required by federal, state, or local standards.
5. Each generator may be used for non-emergency purposes other than maintenance checks and readiness testing described in paragraph 2 above for up to 50 hours per calendar year. These operating hours will be accounted as part of the 100 hours per calendar year non-emergency operating allowance in paragraph 2 above. Those uses expressly prohibited in this rule are not permitted as part of this 50-hour allowance.
6. **Generator.** “Generator” means a combination of a reciprocating internal combustion engine and a device that converts the mechanical energy produced by the engine into electricity.
7. **Installed.** “Installed” means a generator that has been placed, secured, and connected at the location where it is intended to be operated.
8. **Non-Emergency Generator.** “Non-emergency generator” means any generator that does not meet the definition of emergency generator in this Chapter.
9. **Nonroad Engine.** “Nonroad engine” has the same meaning as defined in 40 C.F.R. §1068.30 as amended on October 25, 2016.
10. **Peak Shaving.** “Peak shaving” means the use of on-site power generation to reduce power consumption from the grid.
11. **Stationary Engine.** “Stationary engine” means an engine that is not used in a motor vehicle and is not a nonroad engine.

# Exemptions.

The following types of generators are exempt from the requirements of this Chapter.

1. A generator powered by a nonroad engine.
2. A generator that was included in an air emission license issued pursuant to either 06-096 C.M.R. ch. 115 or 06-096 C.M.R. ch. 140 prior to the effective date of this rule.
3. A generator powered by a stationary engine that is not subject to licensure requirements pursuant to 06-096 C.M.R. ch. 115.
4. A generator powered by a stationary engine with a maximum heat input of less than 0.5 million British Thermal Units per hour.
5. A generator powered by an engine that fires landfill gas or digester gas.

# Emission Standards.

Stationary generators subject to regulation under this Chapter shall meet the following emissions standards:

1. **Non-Emergency Generators.** A non-emergency generator shall be powered by an engine that meets, at a minimum, the emission standards contained in 40 C.F.R. Part 60, Subpart IIII as amended on June 29, 2021, 40 C.F.R. Part 60, Subpart JJJJ as amended on June 29, 2021, or 40 C.F.R. Part 63, Subpart ZZZZ as amended on December 4, 2020, as applicable.
2. **Emergency Generators.**
3. An engine with rated output of less than 1,000 brake horsepower (747 kilowatts) used to power an emergency generator must meet, at a minimum, the applicable emission standards and compliance methods contained in 40 C.F.R. Part 60, Subpart IIII as amended on June 29, 2021, 40 C.F.R. Part 60, Subpart JJJJ as amended on June 29, 2021, or 40 C.F.R. Part 63, Subpart ZZZZ as amended on December 4, 2020.
4. An engine with rated output equal to or greater than 1,000 brake horsepower (747 kilowatts) used to power an emergency generator must comply with one of the following:
5. If the unit is a compression ignition engine, it must meet, at a minimum, the emission standards and compliance methods in 40 C.F.R. Part 60, Subpart IIII (as amended on June 29, 2021) for new non-emergency engines of the same size;
6. If the unit is a spark ignition engine, it must meet, at a minimum, the emission standards and compliance methods in 40 C.F.R. Part 60, Subpart JJJJ (as amended June 29, 2021) for new non-emergency engines of the same size;
7. The engine must be limited by a license condition to a total usage (emergency and non‑emergency use combined) of 500 hours per year on a 12-month rolling total basis. If there are periods of extended outage such as a natural disaster or other similar event outside the control of the owner or operator, the owner or operator may apply to the Commissioner of the Department of Environmental Protection for a temporary variance to exempt specific time periods from this annual hour limit. The Commissioner may, without hearing, issue that variance for a period of time not to exceed 30 days if, in his/her judgement, the variance is necessary to avoid immediate threat to public health, safety, or general welfare or to protect critical infrastructure;
8. Results of a qualitative ambient impact screening analysis must demonstrate to the Department’s satisfaction that emissions from the engine(s) will not cause or contribute to violations of ambient air quality standards including, but not limited to, ambient increments as adopted by the Department pursuant to 38 M.R.S. §584. The analysis may consider factors including, but not limited to, emission rates, stack height and location, height and configuration of nearby structures, proximity of sensitive receptors (e.g., schools, nursing homes, normally occupied building air intakes), terrain features, and operational limits. Agreement with the conclusions of such analysis and its sufficiency to assure protection of standards is solely at the discretion of the Department; or
9. Results of an ambient air quality dispersion modeling analysis as approved by the Department must demonstrate that emissions from the engine, either alone or in conjunction with existing emissions from other sources, will not cause or contribute to violations of ambient air quality standards including, but not limited to, ambient increments as adopted by the Department pursuant to 38 M.R.S. §584.

Note: In some instances, federal emission standards may be more stringent than the requirements of this rule. In all cases, the more stringent standard shall apply.

# Prohibitions.

No person shall cause, allow, or permit the operation of any emergency generator for any of the following purposes:

1. Non-emergency operation for more than 100 hours per calendar year as described in paragraph 2.B above;
2. Participation in a demand response program;
3. Participation in peak shaving activities; or
4. Supplying power for non-emergency purposes as part of a financial arrangement with another entity.

# Stack Height Requirements.

Any stack used to exhaust any generator engine or combination of generator engines, whether emergency or non-emergency, with a combined rated output equal to or greater than 1,000 brake horsepower (747 kilowatts) shall have a minimum height equal to the lesser of the heights in Sections (A) – (C) below; however, in no case shall the stack height be less than a height determined in accordance with Sections 4(B)(2)(d) or (e) as applicable:

1. 60% Good Engineering Practice (GEP) stack height. For the purposes of this chapter, GEP stack height is determined through use of the following formula:

Hg = H + 1.5L

where Hg = full GEP stack height

H = height of the overall controlling structure as measured from the ground-level elevation at the base of the stack

L = the lesser dimension of height or projected width of the same structure.

All structures within 5L of the proposed stack shall be considered when determining the overall controlling structure.

NOTE: The owner or operator may refer to EPA’s Building Profile Input Program (BPIP) and Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document For the Stack Height Regulations (EPA-450/4-80-023R, June 1985) for concepts and procedures for determining GEP stack height.

or

1. The height, as demonstrated by a qualitative ambient impact screening analysis and approved by the Department, that ensures that emissions from the stack, either alone or in conjunction with existing emissions from other sources, will not cause or contribute to violations of ambient air quality standards including, but not limited to, ambient increments as adopted by the Department pursuant to 38 M.R.S. §584. The analysis may take into account factors including, but not limited to, emission rates, stack height and location, height and configuration of nearby structures, proximity of sensitive receptors (e.g., schools, nursing homes, normally occupied building air intakes), terrain features, and operational limits. Acceptance of a qualitative ambient impact screening analysis is solely at the discretion of the Department.

or

1. The height, as demonstrated by ambient air quality dispersion modeling and approved by the Department, that ensures that emissions from the modeled stack, either alone or in conjunction with existing emissions from other sources, will not cause or contribute to violations of ambient air quality standards, including, but not limited to, ambient increments as adopted by the Department pursuant to 38 M.R.S. §584.

Individual generators with a maximum power capacity of less than 300 kilowatts shall not be included in the assessment of the combined power capacity of the generators exhausted by the stack.

NOTE: Copies of sections of the Code of Federal Regulations (C.F.R.) referenced in this Chapter can be accessed at <https://ecfr.federalregister.gov> and are also from the Department by calling (207) 287-7688.

STATUTORY AUTHORITY:

 38 M.R.S. §§ 585, 585-A

EFFECTIVE DATE:

 October 9, 2022 – filing 2022-205