

Summary of NJ Amendments To Nitrogen Oxides Rule For IC Engines

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A stylized silhouette of a mountain range in a teal color, located at the bottom right of the slide.

Engines Generating Electricity

- ◆ Any engines generating electricity are subject. (Connection to “Grid” or sale of electricity is not a consideration)
- ◆ “Construction engines” are not subject to the rule.
- ◆ Engines that do not generate electricity are not subject to the new NO_x RACT limits.

Stationary Reciprocating Engines

Definitions {19.1}

- ◆ **"Stationary reciprocating engine"** means an internal combustion engine that is a reciprocating engine that remains for more than 30 days at a single site (for example, any building, structure, facility, or installation), and:
 - Is not self-propelled, but may be mounted on a vehicle for portability; or
 - Is self-propelled on tracks at a facility, but does not in the course of its normal operation leave the facility.
 - This term does not include mobile electric generators being used by the military, locomotive engines or construction engines.

Stationary Reciprocating Engines Definitions {con't}

- ◆ **“Construction engine” means a mobile engine used for construction at a site for a limited time period. It includes a mobile electric generator that is used until regular electric power lines are available to replace the function of the electric generator at the construction site.**
- ◆ **Construction engine does not include**
 - **An engine attached to a foundation;**
 - **An engine (including any replacement engines) at the same location for more than 12 months;**
 - **An engine (or replacement engines) at a seasonal source for at least 90 days per year for at least two years; or**
 - **An engine that is moved from one location to another in an attempt to circumvent the residence time criteria in 2 or 3 above.**

Engines Generating Electricity

NO_x Emission Limits {19.8 (e):

- New engines ≥ 37 kW : ≤ 0.9 gram/ Bhp-hr
- Modified engines ≥ 37 kW: ≤ 0.9 gram/Bhp or 90% control

- Existing engines ≥ 148 kW (200 Bhp) or (Group of two or more ≥ 37 kW)
 - ◆ Rich-Burn (gas or liquid fuel): ≤ 1.5 gr/bhp
 - ◆ Lean-burn gas fuel: ≤ 1.5 or 80 % NO_x control
 - ◆ Lean-burn liquid fuel: ≤ 2.3 gr/bhp
 - ◆ Lean-burn dual fuel (gas/liquid): ≤ 2.3 gr/bhp

Impact on Permitting {Subchapter 8}

- ◆ Air Permits are now required for smaller Stationary Reciprocating Engines that generate electricity
- ◆ Formerly 1MM Btu (~150 bhp) now reduced to 50 bhp (37 kW output)
 - No change for emergency electric generators that are greater than 1 MMBtu/hr

Revised Definition of Emergency Generator

- Removes former 500 hour limitation on total use;
- Limits testing and maintenance hours to manufacturer's recommendations;
- Prohibits testing on unhealthful air quality days, except where required by law;
- Response to voltage reduction is an allowable use;
- Clarifies that use for peak shaving or demand response is not an allowed use.

Definition of Emergency Generator {19.1}

- ◆ "Emergency generator" means a combustion source that:
 - **Is located at a facility and produces mechanical or thermal energy, or electrical power exclusively for use at the facility;**
 - **Is the source of mechanical or thermal energy, or electrical power during an emergency when the primary source of energy is unavailable; and**

Is operated only:

- i. **During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation;**
- ii. **When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency; or**
- iii. **When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu.**