



STATE OF NEW HAMPSHIRE DEPARTMENT OF SAFETY

John J. Barthelmes, Commissioner



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**Informational Bulletin 2016-03
Residential Stationary Generator Installation & Safety**

Purpose:

This informational bulletin was designed to provide valuable information about portable generator safety during periods of power outages. Improper generator use can lead to serious injuries and death. Accidental fires from improper refueling methods, electrical hazards due to improper wiring, and carbon monoxide poisoning from generator exhaust are just a few of the hazards associated with generator use.

Stationary Generator Installations

The following list of documents is adopted directly or by reference by the State of New Hampshire and must be followed to ensure compliance with the law.

- NFPA 37: Standard for the Installation and use of Stationary Combustion and Gas Turbines (2006 Edition)
- NFPA 54: National Fuel Gas Code (2009 Edition)
- NFPA 70: National Electrical Code (2014 Edition)
- The Manufacturer’s Instructions and Specifications

NFPA 37 requires stationary generator engines and their weatherproof housings if provided, that are installed outdoors to be located **at least 5’ from openings in walls**. This standard recognizes the potential danger of deadly carbon monoxide gas entering the structure and injuring the occupants. Building openings could be, but are not limited to, the following:

- Basement doors & bulkhead openings
- Basement windows
- Exit doors or sliding glass openings
- Windows, Air intake openings, or screens
- Dryer vents
- Kitchen appliance vents
- Mechanical exhaust vents for heating or hot water appliances



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NFPA 37 also requires stationary generator engines and their weatherproof housings, if provided, that are installed outdoors to be placed **a minimum of five feet (5') from structures having combustible walls**. The minimum separation is not required where:

- (1) The adjacent wall of the structure has a fire resistance rating of at least 1 hour or
- (2) The weatherproof enclosure is constructed of noncombustible materials, which has been listed and approved in accordance with nationally recognized standards, verifying that a fire within the enclosure will not ignite combustible materials outside the enclosure.

NOTE: Recently, the NH State Fire Marshal's Office has received information from several generator manufacturers demonstrating proof as meeting the requirements of the code compliance exception for NFPA 37.4.1.4 (2). Therefore, consumers and installers must carefully research the unit they are installing to confirm that the model in question is clearly identified as meeting the 18" installation requirements. We encourage all consumers and installers to look for and verify a **label** with the listing number affixed adjacent to the data plate within the weatherproof enclosure.

These allowances apply to the required separation from the **combustible wall surface** and in no case shall **reduce the minimum distance to a building opening**.

At no time should a stationary generator be installed under porches, decks, or balconies, which could allow deadly carbon monoxide fumes to pool in such areas.

Stationary generator models that are not properly listed and labeled remain prohibited from using the clearance reduction exception specified in NFPA 37.

The fuel gas piping must be installed in accordance with both NFPA 37 and NFPA 54 (National Fuel Gas Code). These documents require that the **second stage system regulator be placed a minimum of five feet (5') from any building opening and ignition source**. Care must be given in placement of both the generator engine and delivery system piping to address the minimum separation distances. A licensed NH fuel gas fitter shall make the final determination as to the safe installation location before energizing and/or connecting the liquefied or natural gas supply to the stationary generator.

Homeowners and generator installation professionals are required to conform to local and state mandated electrical codes in addition to the requirements of NFPA 37 and 54.

For additional safety inspection information or generator tips, please contact your local Fire Department or this office at (603) 223-4289 or fmo@dos.nh.gov