



# NORTHSTAR FIRE DEPARTMENT



## Standby Power Generator (Single-Family Residential) – Guidelines & Specifications

### Fire Prevention Guideline P-18

## PURPOSE

These guidelines are applicable to the installation of emergency and standby generators for single family residential only. They apply to both temporary and permanent installations. These guidelines are not all-inclusive.

## SCOPE

Generator installations shall comply with the provisions of NFPA 37, CA Fire Code and any local requirements.

## SUBMITTAL REQUIREMENTS

1. Submittal Requirements
  - 1.1 Northstar Fire Department (NFD) requires the generator installation to be a part of the Placer County Permit process.
  - 1.2 Provide a site plan showing the location of the generator and service/auxiliary power disconnect.
  - 1.3 Provide cut sheets for the generator.
2. Design Requirements
  - 2.1 Engine rooms located within structures shall have interior walls, floors, and ceilings of at least 1-hour fire resistance rating. (NFPA-37)
    - The ceiling of rooms located on the top floor of a structure shall be permitted to be noncombustible or protected with an automatic fire suppression system.
  - 2.2 Engine rooms attached to structures shall have the common wall of at least 1- hour fire resistance rating. (NFPA-37)
  - 2.3 Engines and their weatherproof housings shall be located at least five (5) feet away from openings in walls and at least five (5) feet from structures having combustible walls. However, a minimum separation should not be required where the following conditions exist:
    - The adjacent wall of the structure has a fire resistance rating of at least 1 hour.
    - The weatherproof enclosure is constructed of noncombustible materials and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure. (NFPA-37)
  - 2.4 Engines and their weatherproof housings that are installed outdoors shall be located at least 5ft from openings in walls and at least 5 ft from structures having combustible walls. A minimum separation should not be required where the following conditions exist:
    - The adjacent wall of the structure has a fire resistance rating of at least 1 hour.

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- The weatherproof enclosure is constructed of noncombustible materials and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure. (NFPA-37)
- 2.5 Exhaust pipes and ducts passing directly through combustible roofs should be guarded at the point of passage by ventilated metal thimbles that extend not less than 9 in. on each side of roof construction and are at least 6 in. in diameter larger than the exhaust pipe or duct. (NFPA-37)
- 2.6 Exhaust pipes and ducts passing directly through combustible walls or partitions should be guarded at the point of passage by one of the following methods:
  - Metal ventilated thimbles not less than 12 in. larger in diameter than the exhaust pipe or ducts.
  - Metal or burned fire clay thimbles built in brickwork or other approved fireproofing materials providing not less than 8 in. of insulation between the thimble and combustible material. (NFPA-37)
- 2.7 Electrical wiring and equipment shall be installed in accordance with the Electrical Code . Indicate the type and class of electrical wiring on the plans.
- 2.8 A NFPA 704M diamond placard shall be placed at entrances to locations where tanks are stored.
- 2.9 A sign shall be placed at the main electrical shutoff box identifying type and location of all normal and emergency power sources connected at that location. Indicate the location of the main electrical shutoff and the signage on the plans.
- 2.10 At least one 40:BC portable fire extinguisher shall be provided near and within sight of the equipment. Exterior residential generators are exempt. Indicate the size and location of the fire extinguishers on the plans.
- 2.11 Any new structure or remodel that has electrical power supplied by a secondary or auxiliary power unit with automatic startup and/or automatic power transfer capabilities shall have an auxiliary power disconnect accessible to Fire Department personnel. This auxiliary power disconnect must be mounted within three (3) feet of the exterior's main electrical disconnect or the main power electrical shunt trip/switch. (NCSD 36-19)
- 2.12 A permanently mounted, weatherproof placard. The placard shall be no smaller than 8 inches in width and 12 inches in height with reflective letters no smaller than 1 inch in height marked with "STANDBY POWER AUXILIARY POWER DISCONNECT" and placed on the exterior of the house near the service/auxiliary power disconnect. (NCSD 36-19)