



*Fire Marshal's Office*  
*San Mateo County Fire*  
**CAL FIRE**

320 Paul Scannell Drive, San Mateo, California 94402 (650) 573-3846

Date: Oct. 23, 2009

Revised: New

Number: CFS-0015

Title: *Generators*

Approved: *Clayton Jolley*

**SCOPE:**

These guidelines are applicable to the installation of emergency and standby generators. They apply to both temporary and permanent installations. These guidelines are a supplement to other requirements and/or guidelines and are not all-inclusive.

**GENERAL:**

- An installation permit is required from the Planning/ Building Department to install an emergency or standby generator tank, piping and associated equipment.
- A new or modified Hazardous Materials Business Plan (HMBP) may be required before placing the tank(s) in service.
- Notification of the electric utility is required.
- Permits may also be required from the Bay Area Air Quality Management District.

**Policy:**

**A. Generators:**

Generator installations shall comply with the provisions of NFPA 37, A general set of requirements are listed below but are not all-inclusive.

- ✘ Engine rooms located **within structures** shall have interior walls, floors, and ceilings of at least 1-hour fire resistance rating. (NFPA-37, Section 4.1.2.1.1)
  - 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.
- ✘ Engine rooms **attached to structures** shall have the common wall of at least 1-hour fire resistance rating. (NFPA-37, Section 4.1.2.1.4)
- ✘ Engines and their weatherproof housings that are installed **on roofs of structures** 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.
  - 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, Section 4.1.3.1)

- ✘ 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.
  - 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, Section 4.1.4)
  
- ✘ 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, Section 8.3.2)
  
- ✘ 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, Section 8.3.3)
  
- ✘ Electrical wiring and equipment shall be installed in accordance with the Electrical Code (CFC §2703.9.4).
  - Indicate the type and class of electrical wiring on the plans.*
  
- ✘ A NFPA 704M diamond placard shall be placed at entrances to locations where tanks are stored.
  
- ✘ 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 (CEC §110.22).
  - Indicate the location of the main electrical shutoff and the signage on the plans.*
  
- ✘ At least one 40:BC portable fire extinguisher shall be provided near and within sight of the equipment (CFC §3403.2.1, 906).
  - Indicate the size and location of the fire extinguishers on the plans.*
  
- ✘ The required width of a fire apparatus access road (20') shall not be obstructed in any manner, including the placing of generator/tank assemblies (CFC §503.2.1).