



Fire Marshal's Office
San Mateo County Fire
CAL FIRE

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Number: *CFS-015*

Title: *Generators*

Approved: *Mark Mondragon*

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)
 - 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)
- ⊗ 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)

- ✘ 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)

- ✘ 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)

- ✘ 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)

- ✘ Electrical wiring and equipment shall be installed in accordance with the Electrical Code .
 - 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.
 - 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. Exterior residential generators are exempt.
 - Indicate the size and location of the fire extinguishers on the plans.*