



# San Mateo County Fire Department

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## Standard Detail and Specification Manual

<b>Section:</b> Equipment	<b>Title:</b> Generators
<b>Effective:</b> January 1, 2026	<b>Revised:</b> November 30, 2025
<b>Number:</b> CFS-04	<b>Authorized By:</b> Patrick Griffin, Fire Marshal

**SCOPE:**

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

Generator operations shall comply the with the following code requirements:

- 2025 California Fire Code
- 2025 California Electric Code
- National Fire Protection Association, NFPA 37, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines.
- National Fire Protection Association, NFPA 110, Standard for Emergency and Standby Power
- National Fire Protection Association, NFPA 111, Standard on Stored Electrical Energy

**NOTE:** Where the following Energy Systems are used, the listed code sections shall be applicable:

- Acetylene- 2022 CFC, Section 3508
- Ozone Gas-2022 CFC, Section 6005
- Ethylene- 2022 CFC, Section 2506

**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:

### **Generators:**

Generator installations shall comply with the general set of requirements as listed below, but this list is not all-inclusive.

- Stationary emergency and standby generators shall be listed in accordance with UL 2200, Standard for Stationary Engine Generator Assemblies.
- Portable generators shall be listed in accordance with UL 2201 Carbon Monoxide (CO) Emission Rate of Portable Generators
- Engine rooms located **within structures** shall have interior walls, floors, and ceilings of at least 1-hour fire resistance rating.
  - 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.
- Engines and their weatherproof housings that are installed **outdoors** shall be located at least 5 feet from openings in walls, and at least 5 feet 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.
- 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 inches on each side of roof construction and are at least 6 inches in diameter larger than the exhaust pipe or duct.
- 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 inches 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 inches of insulation between the thimble and combustible material.
- Electrical wiring and equipment shall be installed in accordance with the 2025 California Electrical Code.
- Where extension cords and temporary wiring are used per code, they shall be provided with GFCI Protection.

*Indicate the type and class of electrical wiring on the plans.*
- A NFPA 704 Standard for the Identification of the Hazards of Materials for Emergency Response 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 portable fire extinguisher shall be provided near and within sight of the equipment. Where portable generators are used, a fire extinguisher with a rating of not less than 2A:10BC shall be provided not more than 50 feet from the generator. (2025 CFC, Section 906 Portable Fire Extinguishers)  
*Indicate the size and location of the fire extinguishers on the plans.*