



## **FIRE PREVENTION MANUAL**

### **CODE REQUIREMENTS**

#### **402.003 DIESEL FUEL SUPPLIES FOR EMERGENCY POWER GENERATORS WITH INTEGRAL TANKS**

**EFFECTIVE: JUNE 2008**

### **SCOPE**

Installation of diesel powered emergency generators with integral fuel tanks outside of buildings.

### **PURPOSE**

The purpose of this policy is to clarify the requirements for diesel generator sets (gen-sets) with protected or unprotected base tanks with a capacity of up to 660 gallons of fuel.

### **BACKGROUND**

The *Fresno Municipal Code* (FMC) prohibits the installation of above-ground tanks for Class I and II liquids outside of bulk plants and terminals, refineries, standby generators (per this policy) and tanks at farm and construction sites, except for protected tanks (UL 2085) installed in accordance with *California Fire Code* (CFC).

Increased demand for reliable standby power has resulted in an expansion of options available to the purchaser for the fuel supply. Fuel tanks are available as UL 142 non-fire protected tanks and as UL 2085 fire resistive tanks. The following policy for integral base diesel tank gen-sets shall be followed in order to provide an acceptable level of fire safety, and meeting the intent of the FMC to limit the size of above ground fuel tanks in order to minimize the associated fire risk to the community. Gen-set placement relative to buildings and property lines has been based on CFC requirements for above ground tanks and portable containers of Class II combustible liquids.

### **REQUIREMENTS**

Non-integral base tanks for supplying gen-sets shall be UL 2085 fire resistive tanks or underground tanks installed per the CFC.

Exterior installation of gen-sets requires a revised site plan or conditional use permit entitlement as mandated by the Planning Division of the Development and Resource

Management Department (DARM). This submittal is routed to Fresno Fire Department (FFD or Department) for review for the purposes of site access and fire hydrant protection.

Gen-set installations require a plan submittal and installation permit from the Building and Safety Services Division of DARM. This submittal is routed to the FFD for review; the submittal package needs to include a copy of the entitlement submitted to Planning and the manufacturer's details and UL listing of the fuel tank to be used for the installation.

The fuel tank vent line shall terminate a minimum of 12 feet above grade.

Exterior installations shall be protected from vehicle impact by bollards or other approved protection.

Diesel engines shall comply with the San Joaquin Air Pollution Control District requirements for stationary installations.

A hazardous materials use permit from the FFD is required for all diesel fuel tanks in excess of 60 gallons capacity.

The UL 142 fuel tanks shall have integral secondary containment.

A minimum clear space of 3 feet to walls or other obstructions shall be provided around the gen-set for the purposes of maintenance and inspection.

Other standards regarding gen-set installation include NFPA 37 "Installation and use of Stationary Combustion Engines and Gas Turbines" and NFPA 110 "Emergency and Standby Power Systems".

Exterior gen-set locations shall be as follows:

1. Gen-sets with base tanks of 275 gallons or less must be located a minimum of 5 feet from property lines and the roof drip line of buildings.
2. Gen-sets with base tanks of 276-660 gallons must be located a minimum of 10 feet from property lines, and the roof drip line of a building.
3. The distances specified in No. 1 and No. 2 may be modified in accordance with any of the following exceptions:

Exception 1: Distance from buildings may be reduced to 3 feet for buildings having walls with a minimum one hour rating including protected openings within 10 feet of the gen-set.

Exception 2: Distance from buildings may be reduced to 3 feet from fire sprinklered buildings with non-fire rated exterior walls when exterior exposure fire sprinkler heads are provided and there are no building penetrations within 10 feet of the gen-set.

Exception 3: Distances may be reduced to 3 feet from property lines, when a minimum 6-foot high concrete block screen wall is provided. This wall shall extend 5 feet linearly from the ends of the gen-set.

Exception 4: Distances may be reduced to 5 feet if the base tank is UL 2085 listed.