

NORTH COUNTY FIRE PROTECTION DISTRICT
Policy and Procedure Manual

FIRE PREVENTION
PLANS AND PERMITS

SECTION 340.25
10/18/99
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Aboveground Storage Tanks

PURPOSE: To provide general guidelines for plan review of installations of aboveground tanks for private fueling.

POLICY: Storage and dispensing of motor fuels into the fuel tank of a motor vehicle from protected or multi-hazard aboveground tanks located outside buildings shall be in accordance with these guidelines. Refer to the [Underground Storage Tank](#) policy for removal & installation of underground tanks.

AUTHORITY: Section 5202.4.1 of the 1998 California Fire Code (CFC) prohibits dispensing of Class I and Class II liquids into the fuel tank of a motor vehicle from aboveground tanks unless such tanks are installed inside “special enclosures” as specified in Section 5202.3.6 of the California Fire Code. These guidelines offer an alternate method allowing dispensing of fuel from these tanks outside of buildings or special enclosures. This requirement is further restricted by the [San Diego County Fire Code](#), Section 7904.2.5.1, which stipulates that said tanks shall “have features incorporated into their design which mitigate concerns for exposure to heat, ignition sources, and mechanical damage.” Additionally, tank vehicles may not be used in lieu of approved aboveground storage tanks (Section 7904.2.8.3, San Diego County Fire Code).

DEFINITIONS:

- I. FUEL-DELIVERY SERVICE is a system which consists of a tank vehicle containing a pump, fill hose with appropriate connections, and a person who performs the tank filling operation of transferring fuel from the tank vehicle to an aboveground tank. The two types of fuel-delivery systems for aboveground tanks are as follows:
 - A. PRE-CONNECTED FLEXIBLE HOSE SYSTEM is a fuel-delivery system containing a reel-mounted pre-connected flexible hose having a maximum nominal diameter of 2 inches and a manually controlled fuel-delivery nozzle at the downstream end of the hose.
 - B. RIGID HOSE SYSTEM is a fuel-delivery system utilizing one or more sections of large diameter rigid hose [usually 3 to 4 inches in nominal diameter] which does not contain a nozzle but which contains interlocking connections for manually connecting the hose from the tank vehicle to the tank.
- II. PRIMARY TANK is a listed aboveground atmospheric tank used to store liquid. See definition of PRIMARY CONTAINMENT in CFC Section 217.
- III. PROTECTED OR MULTI-HAZARD ABOVEGROUND TANK is a listed tank system consisting of a primary tank provided with protection from physical damage and fire-

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resistive protection from a high-intensity liquid pool fire exposure. The tank system can provide these protection elements as a unit or as an assembly of components, or a combination thereof.

PROCEDURE:

I. PERMITS:

- A. A [permit](#) is required to install, operate, repair or modify protected or multi-hazard aboveground tanks used for storage and dispensing of flammable or combustible liquid motor fuels. All CFC permits are issued after the installation is completed in accordance with the approved plans and specifications.
- B. Installation plans shall be submitted to the Fire Prevention Bureau for review. The plans shall include the design, details, and specifications of the following:
 - 1. Quantities and types of liquids to be stored.
 - 2. Distances from tanks and dispensers to property lines, buildings, and other exposures.
 - 3. Vehicle access.
 - 4. Fire appliance
 - 5. Vehicle impact protection
 - 6. Protected or multi-hazard aboveground tanks and their supports.
 - 7. Method of storage and dispensing.
 - 8. Vapor recovery dispensers.
 - 9. Seismic design in accordance with the Building Code.
 - 10. Secondary containment.
 - 11. Venting
 - 12. Piping
 - 13. Electrical Systems
 - 14. Emergency Controls

II. TANK DESIGN

- A. General - Protected aboveground tanks shall be listed and shall meet the requirements of UFC Standard 79-7.
- B. Primary Tanks - Primary tanks shall be designed in accordance with CFC Section 7902.1.9
- C. Size - Primary tanks shall not exceed 10,000 gallon individual capacity for

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individual or multi-hazard tanks.

- III. . INSTALLATION OF TANKS: Tank installation shall be in accordance with CFC Appendix II-F, to include separation from buildings & public ways, ballard protection, spill & overfill protection, and [identification of contents](#).
- IV. DISPENSING & PIPING SYSTEMS: Dispensing and piping systems and electrical controls shall be installed in accordance with CFC Section 7901 .11 and Article 52.