



ABOVEGROUND MOTOR VEHICLE FUEL TANK SYSTEM INSTALLATION GUIDELINES

*For Use Within Los Altos Hills, Monte Sereno, Saratoga, and in Unincorporated Areas of Santa Clara County
Authority Cited: Hazardous Materials Storage Ordinance (HMSO); California Fire Code (CFC)*

This document has been prepared to summarize plan submittal requirements for aboveground motor vehicle fuel (MVF) tank systems. Note that other requirements may also apply. If you have any questions regarding this information, please contact the Hazardous Materials Compliance Division (HMCD) at (408) 918-3400 and ask to speak to the Hazardous Materials Program Phone Duty Officer.

A. Permits, Plans and Fees

1. Plans must be submitted to and approved by HMCD prior to installing or modifying any fuel tank system. When the installation/upgrade plans are approved, HMCD will issue a plan check approval letter which serves as the installation/upgrade permit. *(Exception: This requirement does not apply to Propane tanks.)*
2. Refer to HMCD's "Plan Submittal Guidelines for Hazardous Materials Systems" for details regarding plan check fees and specific information that must be submitted prior to installing a fuel tank system. The guidelines are available at www.EHinfo.org.
3. Plans must also be approved by the local Fire Marshal. Fire Marshal jurisdiction and contact information is available at: www.sccgov.org/portal/site/fmo.

B. Equipment Requirements

1. All tanks, piping, valves, and fittings shall be designed and constructed in accordance with nationally recognized standards (i.e., UL 142/2085 or equivalent) for aboveground use, and be compatible with the fuel(s) to be stored. [CFC §§7901.11.1.1 & 7902.1.8.2.6]
2. Secondary containment (i.e., containment external to and separate from primary containment) constructed so as not to be structurally weakened as a result of contact with fuel shall be provided for all tanks and fuel piping. It must be capable of containing 110% of the volume of the primary tank if a single tank is used, or in the case of multiple tanks sharing secondary containment, 150% of the volume of the largest tank or 10% of the aggregate, whichever is larger. In addition, the secondary containment, if open to rainfall, must be capable of accommodating the volume of a 24-hour rainfall from a 100-year storm (i.e., approximately an additional 4.5 inches in depth or height of the secondary containment). [HMSO §B11-286(c)]
3. Leak detection monitoring of all tanks and piping is required. Visual monitoring of both primary and secondary containment is preferable. Secondary containment systems must be sloped to channel leaked fuel to a low point that is monitored. If the low point of any secondary containment system

cannot be visually monitored, or if visual monitoring cannot be performed and documented at least monthly, a continuous electronic monitoring system with audible and visual alarms is required. Electronic monitoring systems at unstaffed facilities visited less than monthly must relay alarms to staffed locations. [HMSO §B11-286(b)]

4. Each tank shall be equipped with a high-level alarm (i.e., audible and visual alarms which activate when the tank is 90% full) and/or other approved overfill protection device (e.g., mechanical overfill prevention valve at the fill opening) to prevent spills when filling the tank. Overfill alarms must be audible and visible at the tank fill point. [HMSO §B11-286(d)]
5. Tanks must be equipped with a spill container at each fill point to collect any hazardous material spilled during product delivery operations. [HMSO §B11-286(g)]
6. Primary piping shall not be constructed of low melting point materials (e.g., fiberglass, plastic). [CFC §7901.11.1.2]
7. Approved anti-siphon devices shall be installed on each external fuel pipe connected to a tank when the pipe extends below the level of the top of the tank. [CFC §7902.1.9.12]
8. Tank vent piping must discharge vertically, to the exterior of structures, with the following minimum distances: 5 feet to any property line or opening into a building; 12 feet above grade and 8 feet above fill pipe opening; 2 feet above roofs or structural elements when run near or through a structure. [CFC §7902.1.11.4]
9. Tank and piping primary and secondary containment shall be tested on-site prior to being placed in service. Testing must be witnessed by HMCD. Tank pressure/vacuum testing must be in accordance with the tank manufacturer's procedures. If the manufacturer does not specify test procedures, testing shall be equivalent to a minimum 3 p.s.i.g. test for 30 minutes. Primary piping tests shall be performed hydrostatically at $\geq 150\%$ of maximum anticipated system pressure or pneumatically at $\geq 110\%$ of maximum anticipated system pressure, but not less than 5 p.s.i.g., for a minimum of 30 minutes. Secondary piping tests shall be performed pneumatically at 3 to 5 p.s.i.g. for a minimum of 1 hour. Any drop in pressure or vacuum shall be considered a failed test. [CFC §§7901.11.10 and 7902.1.8.2.5]

C. Dispensing

1. Dispensing devices shall be sited at least 10 feet from any building or property line and 20 feet from any fixed source of ignition. Dispenser hoses, when fully extended, reach no closer than 5 feet from any building opening. [CFC §5201.4.1.2]
2. Each dispenser hose provided with listed automatic-closing-type nozzle valve with integral latch-open device per BAAQMD requirements. [CFC §5202.4.4.2]
3. Each dispenser hose shall be provided with an approved break-away connector. [CFC §5202.4.3.2]
4. A switch to shut off electrical power used in dispensing operation(s) shall be installed at approved location no less than 25 feet and no more than 75 feet from any dispenser. It must be distinctly marked "EMERGENCY FUEL SHUTDOWN DEVICE" and the switch or sign(s) must be visible from all dispensing locations. [CFC §5201.5.3]