

SCOPE & DEFINITIONS

This chapter contains standards to control and abate pollution resulting from POL products and hazardous materials stored in underground storage tanks (USTs). Standards for USTs containing hazardous wastes are covered in Chapter 6.

POL – Refined petroleum, oils, and lubricants.

Hazardous Material – Any material defined as a hazardous material in Chapter 5. The term does not include:

- Petroleum, including crude POL or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous material above
- Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)

Tank Tightness Testing – A test that must be capable of detecting a 0.38 liter (0.1 gallon) per hour leak from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

Underground Storage Tank (UST) – Any tank including underground piping connected thereto, larger than 416 liters (110 gallons), that is used to contain POL products or hazardous material and the volume of which, including the volume of connected pipes, is 10% or more beneath the surface of the ground, but does not include:

- Tanks containing heating oil used for consumption on the premises where it is stored
- Septic tanks
- Stormwater or wastewater collection systems
- Flow through process tanks
- Surface impoundments, pits, ponds or lagoons
- Field constructed tanks
- Hydrant fueling systems
- Storage tanks located in an accessible underground area (such as a basement or vault) if the storage tank is situated upon or above the surface of the floor
- USTs containing *de minimus* concentrations of regulated substances except where C19.3.3 is applicable
- Emergency spill or overflow containment UST systems that are expeditiously emptied after use

New UST – Any UST installed on or after 1 October 1994.

Hazardous Material UST – An UST that contains a hazardous material (but not including hazardous waste as defined in Chapter 6) or any mixture of such hazardous materials, and petroleum, and which is not a petroleum UST.

CRITERIA

C19.1 RECORD-KEEPING

All installations will maintain a UST inventory. The inventory will be updated whenever a modification occurs (e.g., installation, removal, or relocation of an UST).

C19.2 NEW POL USTS

All new petroleum UST systems will be properly installed, protected from corrosion, provided with spill/overflow prevention, and will incorporate leak detection as described below.

C19.2.1 Corrosion Protection. New tanks and piping must be provided with corrosion protection unless constructed of fiberglass or other non-corrodible materials. The corrosion protection system must be certified by a competent authority.

C19.2.2 Spill/Overflow Protection. New USTs will be provided with spill and overflow prevention equipment, except where transfers are made in the amounts of 95 liters (25 gallons) or less. Where spill and over-fill protection are required, a spill containment box must be installed around the fill pipe. Overflow prevention will be provided by one of the following methods:

- Automatic shut-off device (set at 95% of tank capacity)
- High level alarm (set at 90% of tank capacity)

C19.2.3 Leak Detection. Leak detection systems must be capable of detecting a 0.38 liter (0.1 gallon) per hour leak rate or a release of 568 liter (150 gallons) (or 1% of the tank volume, whichever is greater) within 30 days with a probability of detection of 0.95 and a probability of false alarm of not more than 0.05.

C19.2.3.1 New USTs will use one of the following leak detection methods:

- Automatic tank gauging
- Vapor monitoring
- Groundwater monitoring
- Interstitial monitoring

C19.2.3.2 All new pressurized UST piping must be equipped with automatic line leak detectors and utilize either an annual tightness test or monthly monitoring.

- C19.2.3.3 Suction piping will either have a line tightness test conducted every 3 years or use monthly monitoring.

C19.3 EXISTING POL USTS

Existing POL USTs and piping will be properly closed if not needed or be upgraded or replaced to meet new UST system requirements as indicated in C19.2 by 1 October 2004.

- C19.3.1 Existing USTs and piping not incorporating leak detection will be tightness tested annually in accordance with recognized U.S. or European industry standards and inventoried monthly to determine system tightness.
- C19.3.2 All existing leaking USTs will be immediately removed from service. If the UST is still required, it will be repaired or replaced. If the UST is no longer required it will be removed from the ground. When a leaking UST is removed, exposed free product and/or obviously contaminated soil in the immediate vicinity of the tank will be appropriately removed and managed. Additional action will be governed by DoDI 4715.8 (Environmental Remediation for DoD Activities Overseas). Under extenuating circumstances (e.g., where the UST is located under a building), the UST will be cleaned and filled with an inert substance, and left in place.
- C19.3.3 When a UST has not been used for 1 year, all of the product and sludges must be removed. Subsequently, the tank must be either cleaned and filled with an inert substance, or removed. Tank wastes must be tested in accordance with C9.3.

C19.4 HAZARDOUS MATERIAL USTS

- C19.4.1 General. All hazardous material USTs and piping must meet the same design and construction standards as required for new petroleum USTs and piping, and in addition must be provided with secondary containment for both tank and piping. Secondary containment can be met by using double-walled tanks and piping, liners, or vaults.
- C19.4.2 Leak Detection. The interstitial space (space between the primary and secondary containment) for new tanks and piping must be monitored monthly for liquids or vapors. Existing tanks and piping not incorporating leak detection will be tightness tested annually and inventoried monthly.

ADMINISTRATIVE ITEMS

None identified.