

SCOPE & DEFINITIONS

This chapter contains criteria 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 which must be capable of detecting a 0.1 liter/hour (0.026 gallon/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 percent 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
- UST 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).

Installations will provide the Spanish Base Commander with a copy of their UST inventory (and any subsequent updates or revisions to the inventory) and any other information necessary to seek registration of their USTs.

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. The UST and the associated equipment must be tested and certified as operational by the company installing the system.

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 qualified company. Single-walled USTs and piping must utilize one of the following corrosion protection systems:

- External surface coated with anti-corrosion layer
- Use of materials resistant to corrosion
- Use of anti-corrosion layer plus a cathodic protection system
- Other protection systems offering comparable proven safety

If cathodic protection is utilized, the cathodic protection system must be tested (by a qualified company) at the following frequency:

- Every 5 years for USTs smaller than 10 meters³ (2,642 gallons)
- Every 2 years for USTs or tank farms from 10 to 60 meters³ (2,642 to 15,852 gallons)
- Annually for USTs or tank farms larger than 60 meters³ (15,852 gallons)

If cathodic protection is provided by impressed current, the system also must be checked by installation personnel on a quarterly basis.

C19.2.2 Spill/Overflow Protection. All new USTs will be provided with spill and overflow prevention equipment. 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 0.1 liter/hour (0.026 gallons/hour) leak rate.

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

- Interstitial monitoring (for double-walled USTs)
- Secondary containment with a leak tube indicator (for single-walled USTs)

For USTs with secondary containment and a leak tube indicator, installation personnel must check for the absence of product in the tube every week.

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. A qualified company must be used to upgrade or replace the USTs.

C19.3.1 Existing USTs and piping not incorporating leak detection will be tightness tested annually in accordance with recognized U.S. industry standards or the Spanish UNE 53.968 standard and inventoried monthly to determine system tightness. The method used to perform the tightness test must guarantee the detection of a leak of 0.1 liter/hour (0.026 gallons/hour). A qualified company must perform the tightness testing.

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 by a qualified company. 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 NEW HAZARDOUS MATERIAL USTS

- C19.4.1 Design & Construction Standards. All new 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 tanks and piping must be monitored monthly for liquids or vapors.

C19.5 EXISTING HAZARDOUS MATERIAL USTs

- C19.5.1 Existing hazardous material tanks and piping will be upgraded or replaced to meet the new hazardous material tanks and piping requirements indicated in C19.4.
- C19.5.2 Existing tanks and piping not incorporating leak detection will be tightness tested annually and inventoried monthly.

ADMINISTRATIVE ITEMS

1. Installations will provide the Spanish Base Commander with a copy of their UST inventory (and any subsequent updates to the inventory) and any other information necessary to seek registration of their USTs.