

UNDERGROUND STORAGE TANKS – CLOSURE REQUIREMENTS

Purpose

The purpose of this SOP is to summarize the closure process required under State Fire Marshal (SFM) regulations (Nebraska Title 159), Nebraska Department of Environmental Quality (NDEQ) regulations, and applicable UNL procedures.

Scope

This SOP applies primarily to UST systems that are not exempt or excepted from Nebraska Title 159 requirements. In summary, and as it relates to the topic of this SOP:

- UST systems of less than 110 gallons are exempt from most requirements, including formal closure activities. The only regulatory requirement that applies to this type of UST is notification to Nebraska Department of Environmental Quality (NDEQ) if it is suspected that the UST system leaked contaminants to the surrounding soil. This is determined through visual indication and/or noticeable odor. Closure activities are minimal, either remove or abandon in place. This work can be conducted without the services of a licensed tank contractor. Submittal of a closure assessment/report to the NDEQ is not required.
- Small farm (i.e., less than 1100 gallons), residential, and heating oil USTs are also exempt from most requirements of Title 159 (because they are specifically excluded from the definition of a tank). However, a one-time registration must be filed with the UNL Building Code Official, and notification provided if the tank is permanently abandoned. In addition, as required by Title 126 Chapter 18, NDEQ must be notified if it is suspected that the UST system leaked contaminants to the surrounding soil. This is determined through visual indication and/or noticeable odor. Closure activities can be conducted without the services of a licensed tank contractor and a closure assessment/report is not required.
- A certified tank closure contractor must supervise closure and removal activities of all other non-exempt UST systems. These systems are subject to annual registration, tank installation, operating, and closure permits, as well as other requirements.

Ownership

UNL is responsible for all closure and post-closure activities and costs associated with USTs that were owned or operated by UNL. UNL is not responsible for USTs that were neither owned nor operated by UNL. However, in practice, when an UST that was not owned/operated by UNL is encountered during an excavation/construction project, UNL will generally assume responsibility for those closure activities necessary to continue with the construction/excavation project.

Types of Closures

Closure of an UST may be accomplished by either removal or abandonment in-place. Both methods have multiple requirements, which are discussed later in this SOP. Removal is the preferred method, and usually costs less than abandonment in-place. An UST that has been taken temporarily out-of-service must go through the closure process within 12 months, unless the following conditions are met:

- Corrosion protection systems are continually operated and maintained.
- Leak detection systems are continually operated and maintained, unless the tank has been emptied (no more than 1" of residue or 0.3% by weight of the total capacity of the UST system).
- Vent lines must remain open and functioning.
- Other lines, pumps, manways, and ancillary equipment (e.g., piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of product) must be capped and/or secured, as appropriate.
- An extension has been granted by UNL's Building Code Official. An extension is temporary, usually granted for 12 months.

An UST that meets all current design standards and the conditions outlined above may remain temporarily out-of-service indefinitely.

Closure Permits

Closure permits are required for non-exempt tank or piping removals or closures-in-place. At least 30-days prior, notice of intent to permanently close must be made to the UNL Building Code Official. A closure permit must also be obtained. Copies of the permit should be forwarded to EHS.

Closure Process

The following general activities must be conducted as part of the closure process. In addition, certain American Petroleum Institute practices and standards, including API Recommended Practice 1604, *Removal and Disposal of Used Underground Petroleum Storage Tanks* and API Publication 2015, *Cleaning Petroleum Storage Tanks* have been incorporated by reference in applicable regulations.

- All liquids and accumulated sludge must be removed.
- The tank must be removed from the ground or filled with an inert solid material. Removal is the preferred method.
- Disposal of removed tanks must be in accordance with regulatory requirements and described in the Closure Report.
- Safe work practices must be observed. These include, but are not limited to:
 - No smoking in the tank excavation area.
 - Use of hand tools to expose tank fittings.
 - Securing of the area from pedestrian and vehicular traffic.
 - Locating and marking utility lines.
 - Purging of the tank to create an inert atmosphere.
 - Prompt removal of the excavated tank from the premises, or securing the tank in an inaccessible area during necessary temporary storage.

Contaminated soils removed from UST sites must be managed either as special waste or hazardous waste, depending on analytical test results. Disposal must be accomplished with oversight of EHS to ensure that proper disposal permits and other regulatory requirements are met. In addition, temporary storage of soil after excavation and before disposal must meet certain conditions. Therefore, consult EHS prior to excavating any soil.

Site Assessment Report

Following closure, a closure assessment report and certification of compliance must be completed and submitted to the UNL Building Code Official by the tank contractor within 45 days of the closure. Copies of the assessment report and certification should be maintained on-site in the tank files and forwarded to EHS. At a minimum, the assessment report must contain the following information:

1. Methods used to inspect and verify presence/absence of contamination.
2. If contamination noted, a description of the cause and location of contamination, and notifications made (including agency, contact, date, time, and content of notification).
3. Sample chain of custody records, including name of the lab and analytical reports.
4. Site drawing of the tank system (tanks and product lines) placement and/or excavation and dispenser(s) location. The site drawing shall be to scale, including distances and directions measured. The relationship of the tank system to permanent objects, such as curbs or buildings, must be depicted in order to facilitate location at a later date. The location of the facility shall be placed on a separate map (e.g., 7.5 minute quadrangle, city, county, highway, hand drawn) or described in a narrative. Map or narrative shall provide the exact location of the facility in relation to cross streets or other map benchmarks.
5. Location at which samples were collected.
6. Type of regulated substance last stored in the tank.
7. Description of contaminated soil disposal method and final disposal location.
8. Completed Certificate of Compliance.
9. Completed tank closure checklist.
10. Actual tank dimensions.
11. Documentation of evidence of petroleum contamination in soils or groundwater and corresponding depth of contamination.
12. Boring logs (as an addendum), including predominant soil type of each sample and observations relative to potential contamination.
13. Results of the visual inspection of the tank and piping, as applicable.
14. Capacity of the tank.
15. Final disposal method/location for the tank and piping.