

SECTION 02 65 00  
UNDERGROUND STORAGE TANK REMOVAL

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. Underground Fuel Tank Liquid Removal:
  - 1. Removals and Disposal.
  - 2. Certification of Contents and Disposal.
- B. Underground Fuel Tank Cleaning and Disposal:
  - 1. Excavation of Tank.
  - 2. Removals and Disposal.
  - 3. Evacuation of Combustible Vapors.
  - 4. Tank Cleaning.
  - 5. Certification for Proper Disposal of Tank.
- C. Contamination Assessment:
  - 1. Soil Testing.
  - 2. Contaminated Soil Disposal
  - 3. Certification for Proper Disposal of Contaminated Soil.
- D. Report:
  - 1. Written report describing in detail the procedures used to remove the liquid from the underground storage tank, cleaning and removing of the underground storage tank, and disposal of the liquid residues, the tank, and any contaminated soils.
  - 2. Photographic documentation of the work, including lab and field results, and receipts from the proper authority for the tank and residue disposal.
  - 3. Closure Report; following DEP underground storage tank system closures Technical Guidance Number 263-4500-601 (December 15, 2012)

1.2 RELATED WORK:

- A. Section 01 45 29, TESTING LABORATORY SERVICES
- B. Section 02 41 00, DEMOLITION
- C. Section 31 20 00, EARTH MOVING

~~1.3 QUALITY ASSURANCE:~~

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- A. Underground fuel tank removal and disposal shall comply with the following:
  - 1. United States Environmental Protection Agency (EPA), 40 CFR Part 280 and Part 281.

2. United States Environmental Protection Agency (EPA), Test Methods for Petroleum Hydrocarbons, SW-846 Method 8015.
3. OSHA Standards 29 CFR Part 1910 and 1926.1128.
4. State of Pennsylvania Department of Environmental Management Guidelines 263-4500-601 (December 15, 2012).

**1.4 SUBMITTAL:**

- A. Furnished detailed submittals including:
1. Detailed plan view
  2. Copy of Registration of UST scheduled for removal
  2. Copy of 30 day prior notification
  3. Copy of DEP certified installer/remover with URM certification to conduct tank handling activities
  4. Local Fire Marshal requirement
  5. Piping removal diagrams
  6. Component diagrams including tank removal procedure
  7. Detailed sequence of procedure
  8. Hazardous material/petroleum plan for local VA management.
  9. All disposal and laboratory facility information

**1.5 APPLICABLE PUBLICATIONS:**

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Petroleum Institute (API):
- 1604-96(R2010).....Closure of Underground Petroleum Storage Tanks
- C. American Society of Testing Materials (ASTM):
- E1739-95(R2010).....Guide to Risk-Based Corrective Action (RBCA)  
Applied at Petroleum Release Sites
- E1912-98(R2004).....Guide for Accelerated Site Characterization for  
Confirmed or Suspected Petroleum Releases
- E1943-98(2010).....Guide for Remediation of Ground water by  
Natural Attenuation at Petroleum Release Sites
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D. National Fire Protection Agency (NFPA):

- 30-08.....Flammable and Liquid Combustible Code
- 70B-10.....Recommended Practice for Electrical Equipment  
Maintenance
- 326-10.....Standard for Safeguarding of Tanks and  
Containers for Entry, Cleaning, or Repair
- 329-10.....Recommended Practice for Handling Release of  
Flammable Liquids and Gases

1.6 PROJECT SITE CONDITIONS:

UST location: VAMC - Erie: 135 East 38<sup>th</sup> Street, Erie, PA 16504,  
Building 10, south side of building  
500 Gallon, fiberglass UST and associated piping  
Contents: diesel fuel

At the time of the on-site visual assessment there was no indication of  
spills, the tank was out of compliance, or leaking.

Do not close or obstruct streets, sidewalks or drives without  
permission and approval of the VAMC.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL:

- A. Remove underground storage tank, associated piping, and liquid/sludge  
(diesel), including possible soil removal as specified per DEP 263-  
4500-601 (December 15, 2012).
- B. Restore the excavated area with new materials as specified to match  
adjacent (existing) surfaces.

3.2 UNDERGROUND STORAGE TANK LIQUID (DIESEL FUEL)/SLUDGE REMOVAL:

- A. Remove the liquid (diesel fuel)/sludge from the tank for disposal, re-  
use or recycling prior to removing the tank from the ground.
- B. Dispose or recycle the liquid (diesel fuel)/sludge from the tank with a  
qualified disposal facility that accepts such materials.
- C. Provide documentation of the liquid/sludge removal and its disposal,  
~~re-use or recycling in the final report to the VA.~~

### 3.3 UNDERGROUND STORAGE TANK CLEANING AND DISPOSAL:

- A. Remove the tank from the ground following all applicable DEP 263-4500-601 (December 15, 2012) requirements, place it on the ground adjacent to the removal location (cavity) ensuring no cross contamination to the storage area, and secure it prior to cleaning.
- B. Measure levels of combustible vapors and oxygen, and initiate ventilation of the tank, if needed:
  - 1. Ventilate tank until the vapor concentration is reduced to 10 percent or less of the lower explosive limit.
  - 2. Oxygen content shall range from 19.5 to 23.5 percent.
  - 3. Cut access ports for cleaning into tank after vapor and oxygen concentrations have met the requirements noted above.
- C. Cleaning of the tank shall include both exterior and interior cleaning methods to ensure all DEP 263-4500-601 (December 15, 2012), local Fire Marshall, VAMC and disposal facility requirements are met to certify the UST as clean.
- D. Tank shall be evaluated and certified clean by local Fire Marshal.
- E. Collect, contain and place residuals in a United States Department of Transportation (DOT) approved type 17H, 200 L (55 gallon) capacity drum, for transporting and disposal.
- F. If the Contractor chooses to cut and dismantle the UST for disposal, ensure final vapor and oxygen concentration are within the requirements noted, before proceeding.
- G. Remove tank from the site to an approved disposal facility.
- H. Obtain disposal facility receipts noting proper tank disposal.

### 3.4 REMOVED TANK/PIPE/DISPENSER/REMOTE FILL (IF PRESENT) AREA ASSESSMENT:

- A. Collect DEP required amount of soil samples from the removed underground storage tank area/cavity. At a minimum, take one soil sample below the bottom of the tank directly below the fill connection and one soil sample below the bottom of the tank directly below the product delivery connection. Take one sample from the pipe trench ~~below the product line(s). Take one sample below each product~~ dispenser. Take one sample from the remote fill (if present). Containerize the samples in glass jar(s), seal with Teflon-coated lids, and place the jar(s) on ice. Deliver samples with completed chain-of-custody documentation to the certified laboratory. Laboratory shall

analyze each sample for diesel fuel parameters established by DEP 263-4500-601 (December 15, 2012) for soil.

B. Site Restoration: See Section 31 20 00, EARTH MOVING.

### 3.5 CONTAMINATED SOIL:

- A. When soil assessments reveal evidence of leakage or spillage of **diesel fuel or chemicals of concern** at levels above those established by the Pennsylvania Department of Environmental Management for underground storage tank closures **as defined in the Technical Guidance Number 263-4500-601, section VI (A-G)**, collect additional soil samples beyond the boundaries of the original tank location (Tank boundary is defined as tank enclosure in a right angle that touches the circumference of the tank). Any volume difference between the tank and the enclosure shall not to exceed 100 cubic yards of soil removed. Any work beyond this boundary shall be considered extra and shall be based on unit pricing.
- B. Continue the soil contamination assessment testing around the tank until the contamination level is within acceptable levels, **as defined in the Technical Guidance Number 263-4500-601.**
- C. Remove all contaminated soil from the site and haul it to an approved landfill for proper disposal.

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