

SECTION 02 65 00

UNDERGROUND STORAGE TANK REMOVAL

PART 1 - GENERAL

1.1 DESCRIPTION:

- A. The contractor will be responsible for the removal of the following tank system(s):
1. Tank 4 - 1,000 Gallon Heating Oil UST (Administration Building)
 2. Tank 5 - 1,000 Gallon Heating Oil UST (Building 2 / Lodge)
 3. Tank 6 - 1,000 Gallon Heating Oil UST (Maintenance Shop)
 4. Tank 13 - 8,000 Gallon Gasoline UST (Maintenance Shop)
 5. Tank 14 - 8,000 Gallon Diesel UST (Maintenance Shop)
- B. Contractor shall completely remove and dispose of existing underground storage tank systems as specified. Removal work shall include demolition and removal of underground tanks, concrete pads, concrete and asphalt paving, concrete anchors (deadman), overburden soil, riser pipes, manholes, product and vent piping, wiring/conduits, fuel pumps and dispensers, dispenser islands, fire suppression systems, associated oil and petroleum products, and all other incidentals to complete the work as required. Contractor shall remove oil and petroleum contaminated soils as designated by the County. Contractor shall remove all other associated demolition scrap as debris.
- C. Contractor shall remove tank contents including fuel, residues, sludges, and any other solids or liquids whether flammable or not, and whether existing or generated by Contractor's cleaning activities. Contractor shall provide all labor, material, equipment, and services to empty, clean, and transport all tank contents in accordance with Federal, State and local regulations, and in such a manner that contents are not discharged to the local environment. Contractor shall perform pump-out, recovery,

removal, legal disposal, and clean-up of all fuel residues remaining in the existing tanks and distribution piping.

- D. Contractor shall be responsible for backfilling excavations and restoring tank removal areas to pre-existing conditions or in accordance with project design documents.
- E. The existing 4-foot x 4-foot fuel shack present on the fuel island shall be retained for future use.
- F. Tank 6 is currently located beneath a wooden deck. The Contractor is responsible for removal and disposal of all deck components and for preparing the soil and planting the area with grass seed following the tank removal.
- G. Contractor shall be responsible for securing all necessary permits related to tank closures.
- H. 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.
 - 2. Photographic documentation of the work, including lab and field results, and receipts from the proper authority for the tank and residue disposal.

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
- D. Section 32 90 00, PLANTING

1.3 QUALITY ASSURANCE:

- A. Underground storage tank removal and disposal shall comply with the following:
 - 1. American Petroleum Institute (API) recommended Practice 1604.

2. United States Environmental Protection Agency (EPA), 40 CFR Part 280.
3. United States Environmental Protection Agency (EPA), Test Methods for Petroleum Hydrocarbons, SW-846.
4. OSHA Standards 29 CFR Part 1910 and 1926.
5. Sanitary Code of Suffolk County, Article 12.

1.4 OWNERSHIP AND TITLE:

- A. When waste materials are removed from the project site, ownership and title thereof shall pass from the Department of Veterans Affairs (VA) to the Contractor, who shall at that time assume all incidents of Ownership of said waste materials and bear all liability and responsibility for their safe and lawful transportation, storage, and disposal.

1.5 SUBMITTALS:

- A. In accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES, furnish the following:
 1. Suffolk County Department of Health Services Application for Closure of Underground Storage Tanks.
 2. Documentation of disposal of tank at an approved disposal site.
 3. Documentation of disposal of liquid material to an approved disposal site.
 4. Documentation of disposal of contaminated soil to an approved disposal site.
 5. Certification documents that personnel are qualified for UST closures.
 6. Six copies of Final Closure Report.

1.6 NOTIFICATIONS:

- A. Miss Utility - The Contractor shall call "MISS UTILITY" AT 1-800-272-4480 to obtain utility information at least 48 hours prior to

excavation. The Contractor shall also coordinate location of utilities with the VA. The Contractor is responsible for identifying all underground and aboveground utilities that may be impacted by the tank closures.

- B. The Contractor shall prepare and submit the Suffolk County Department of Health Services (SCDHS) Application for Closure of Underground Storage Tanks Form as well as any necessary supporting documentation no less than thirty (30) days prior to the scheduled tank closures. The Contractor is responsible for all permitting fees.
- C. The Contractor shall verbally notify the SCDHS (631-854-2528) no less than five (5) days prior to the scheduled tank closures. A representative of the SCDHS will be present during tank closures.
- D. If during the tank removal, evidence of a past or ongoing release is discovered, the Contracting Officer must be notified immediately. Additionally, the Suffolk County DHS, and the New York Department of Conservation (DEC) must be notified within 2-hours by calling 631-854-2528 and 800-457-7362, respectively. Appropriate response actions should then be performed in accordance with NYCRR Part 596 and DEC recommendations.

1.7 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-(2010)Closure of Underground Petroleum Storage
Tanks
- C. American Society of Testing Materials (ASTM):
E1739-95(R2010)e1Standard Guide for Risk-Based Corrective
Action Applied at Petroleum Release Sites

- E1912-98(2004)Standard 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

1.8 PROJECT SITE CONDITIONS:

- A. Do not close or obstruct streets, sidewalks or drives without permission and approval of the Contracting Officer.
- B. Tank 4 - 1,000-Gallon Heating Oil UST (Administration Building):
This tank is currently out-of-service and consists of a 1,000-gallon single-walled UST, approximately 4-foot diameter and 10.5-feet in length. This tank is located in a grass covered area under approximately 2-feet of cover. This tank contains approximately 20-inches of liquid (heating oil and water mixture). The orientation of this tank is currently unknown. This tank is suitable for removal assuming there are no underground utilities in the vicinity of the tank field. If underground utilities are discovered within a 13-foot radius of the fill pipe, additional investigation may be required to determine the orientation and exact location of the tank relative to the utilities. The fill pipe associated with this tank is located approximately 8-feet west of the Administration Building and 41-feet south of the sidewalk that parallels the street north of the Administration Building. Tank removal shall include the tank, all piping and appurtenances. Following removal the area shall be restored to its pre-removal condition.
- C. Tank 5 - 1,000-Gallon Heating Oil UST (Building 2 / Lodge): This tank is currently out of service and consists of a 1,000-gallon single-walled UST, approximately 4-foot diameter and 10.5-feet in length. This tank is located in a grass covered area under approximately 26-inches of cover. This tank contains

approximately 4-inches of liquid (heating oil and water mixture). The orientation of this tank is currently unknown. This tank is suitable for removal assuming there are no utilities within the tank field. If underground utilities are discovered within a 13-foot radius of the fill pipe, additional investigation may be required to determine the orientation and exact location of the tank relative to the utilities. The fill pipe associated with this tank is located approximately 18-feet west of the westernmost sidewalk leading to Building #2 and 12-feet north of the sidewalk that parallels the street. Tank removal shall include the tank, all piping and appurtenances; however, if the underground piping cannot be easily removed the piping shall be cut, flushed, filled and capped with the permission of the SCDHS representative and the Contracting Officer. Following removal the area shall be restored to its pre-removal condition. Care should be taken when excavating as a large tree is located in the vicinity of the tank.

- D. Tank 6 - 1,000-Gallon Heating Oil UST (Maintenance Shop): This tank is currently out of service and consists of a 1,000-gallon single-walled UST, approximately 4-foot diameter and 10.5-feet in length. This tank is located beneath a wooden deck situated east of the existing Maintenance Shop, beneath approximately 4-feet of cover. This tank contains approximately 14-inches of liquid (heating oil and water mixture). The orientation of this tank appears to be in an east-west direction. Tank removal shall include the wooden deck, tank, all piping and appurtenances; however, if the underground piping cannot be easily removed the piping shall be cut, flushed, filled and capped with the permission of the SCDHS representative and the Contracting Officer. Following removal, the area shall be covered with top soil and planted with grass seed.
- E. Tank 13 - 8,000-Gallon Gasoline UST / Tank 14 - 8,000-Gallon Diesel UST (Maintenance Shop): These tanks consist of double-

walled fiberglass or fiberglass-clad USTs, situated beneath a concrete tank pad / asphalt parking area with approximate dimensions of 10-feet by 58-feet. Each tank is equipped with one containment sump, which houses the submersible turbine pump and fill port; a second sump on each tank contains the connection port for the vent as well as the interstitial space monitoring port. One 12-inch manhole exists on each tank and houses the probe associated with the Veeder-Root TLS 450 tank monitoring system. Single-walled fiberglass reinforced plastic piping supplies two remote dispensers located on a fuel island, situated approximately 50-feet north of the tank field. The fuel island is approximately 50-feet long and 5-feet wide and is equipped with a fire suppression system. Both tank systems shall be completely removed. Following removal the area shall be restored in accordance with project design documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL:

- A. Verbally, notify the regulating County Agency (SCDHS) at least five days prior to closure of the tanks. Remove tanks only in the presence and/or at the direction of SCDHS representative.
- B. All UST closures shall be conducted in accordance with the latest edition of the American Petroleum Institute (API) Recommended Practice 1604 "*Closure of Underground Petroleum Storage Tanks*".
- C. Whenever possible do not enter the tank. Perform all work from outside the tank using whatever special equipment is required for disconnecting, cleaning, purging, combustible gas monitoring, etc. If the tank must be entered, all OSHA and local regulatory agency procedures for confined space entry shall be followed, including 29 CFR 1910.146.

- D. Whenever possible do not enter the tank excavation. Perform all work from outside the tank excavation using whatever special equipment is required for disconnecting, cleaning, purging, combustible gas monitoring, etc. If the tank excavation must be entered all personnel working in an excavation shall be protected from cave-ins in accordance with 29 CFR 1926.650-652 and applicable local requirements.

3.2 PREPARATION:

- A. Contractor shall locate and identify the tank to be closed; Contractor is responsible for determining exact location of underground work.
- B. The Contractor shall make all practicable attempts to plan the tank system closure in such a manner that reduces or eliminates the need for personnel to enter the interior of the tank and tank excavation.
- C. The Contractor shall disconnect all electrical service going to, under, or through the tank, tank appurtenances, and excavation area. All electrical service must be disconnected at the circuit breaker prior to the initiation of any tank closure activities. Proper lock out/ tag out procedures must be followed. The Contractor shall ensure that any electrical power connected to the tank or its ancillary equipment such as pumps has been deactivated prior to beginning work each day.
- D. All electrical conduits and wiring shall be disconnected prior to excavation.
- E. Contractor shall be fully responsible for sampling, testing, and quantifying existing contents of all tanks prior to excavation, in order to determine safe and lawful methods of handling, transport, and disposal.
- F. At the direction of the Contracting Officer, the Contractor shall remove all useable product from the storage tank system prior to the initiation of tank closure activities. This useable product

shall be transferred to temporary fueling tanks located at the subject site.

- G. The Contractor shall be responsible for the storage, transfer, and/or disposal of any petroleum products, liquids, sludges, or solids remaining within tanks.
- H. The Contractor shall ensure and document that the disposal facilities proposed have all certifications and permits required by State and Federal regulatory agencies to receive and dispose of the liquid and solid wastes resulting from the performance of the work.

3.3 UNDERGROUND STORAGE TANK LIQUID REMOVAL:

- A. The Contractor shall drain all product piping back into the tank. The Contractor may use small amounts of water or nitrogen to flush the piping. If water is used the Contractor shall use no more than 0.5-gallons of water for every 10 feet of 1" diameter piping, 1-gallon of water for every 10 feet of 1.5" diameter pipe, or 2-gallons of water for every 10 feet of 2" diameter pipe.
- B. The Contractor shall remove all flammable or combustible liquids, petroleum-impacted liquids, wash water, and/or sludge remaining in the tank. The Contractor is responsible for the collection, transfer, storage, transportation, and disposal of all materials removed from the tank. During the transfer of any combustible and/or flammable liquids, follow electrical grounding procedures set forth by the National Fire Protection Association (NFPA) to prevent fire or explosion due to static electricity.
- C. All flammable or combustible liquids, petroleum-impacted-liquids, and/or sludge removed from the system by the Contractor shall be disposed of by the Contractor in accordance of all applicable Federal, State, and local codes and regulations.
- D. The Contractor shall avoid spilling any oil during the tank removal process. The Contractor is responsible for the cleanup

and remediation of any and all releases of oil to the environment that occur during that tank removal process.

- E. Provide documentation of the liquid removal and its disposal in a final report to the Contracting Officer.

3.4 UNDERGROUND STORAGE TANK CLEANING AND REMOVAL:

- A. Perform frequent combustible gas meter readings of the tank interior atmosphere during preparation, cleaning, storage, and cutting. Monitor atmosphere as required to ensure that there is never the potential for fire or explosion. Prevent vapors from accumulating at ground level. Keep all tanks properly vented until ready to remove them from the excavation.
- B. Remove overburden, asphalt, and/or concrete above tank only to the extent needed to expose the tank or perform subsequent removal of petroleum-impacted soils. The limits of excavation shall be approved by the Contracting Officer. Care shall be taken to protect existing pavement and concrete adjacent to the excavation.
- C. Excavate to the top of the tank. Remove all tank-top equipment including, riser pipes, fill pipes, drop tubes, supply pipes, vapor recovery pipes, automatic tank gauging equipment, vapor recovery piping and equipment, submersible pump turbine and pump head, wiring and electrical conduits, and all other associated underground piping and appurtenances related to the fuel distribution system. Remove all piping and conduit that is accessible and uncovered, except the vent line. Any remaining piping must either be cut and capped or completely filled with concrete or cement. No piping shall be abandoned in place without the permission of the SCDHS and Contracting Officer.
- D. Handle and treat petroleum contaminated items properly to prevent spread of contamination or release of product. Clean petroleum contamination from items as required before disposal.

- E. The vent line must remain connected until the tank is purged. Cap and plug all bungs on tank as tank-top equipment and risers are removed.
- F. Prior to removal of the tank, the Contractor shall either purge the tank of all explosive vapors or inert the tank by removing or displacing the oxygen within the tank. Purge or inert the tank in place with either method below using safeguards and procedures described in the American Petroleum Institute (API) Recommended Practices 1604. DO NOT USE OXYGEN OR COMBUSTIBLE FLAMMABLE, OR EXPLOSIVE GAS TO PURGE TANK.
1. CO₂ or N₂ Flooding
 2. Solid CO₂ at 1.5 pounds per 100 gallons of tank capacity.
 3. Ventilate tank with a compressed air eductor or diffused air blower.
- G. After purging the tank, test tank and tank excavation with a combustible gas indicator (CGI) to verify vapor concentrations of 10% of lower explosive limit (or less). Purge until tank interior atmosphere remains continuously at this level or below, even when purging is discontinued. If using a CGI, always test the environment for oxygen content first to be sure you can rely on the instrument. CGI's may be misleading if the tank atmosphere contains less than 5% to 10% by volume oxygen.
- H. If the tank was inerted, use an oxygen indicator to determine the oxygen concentration within the tank is at or below 15%. The tank shall be inerted until the interior atmosphere remains continuously at this level or below, even when inerting is discontinued.
- I. Clean tank interior to prevent further off gassing, as required to maintain vapor concentrations at 10% of lower explosive limit or below. Cleaning shall be performed in accordance with American Petroleum Institute (API) Recommended Practices 2015 and 2016.

- J. After successfully purging / inerting the tank, the vent line shall be removed and a cap or plug shall be installed. The cap/plug shall have a 1/4-inch hole in it to allow additional venting and prevent over pressurization of the tank.
- K. Continue to excavate soils around the tank to permit removal. Petroleum-impacted soils (if encountered) and non-impacted soils must be segregated into separate piles. All excavated materials must be kept a minimum of two (2) feet from the edge of the excavation.
- L. Contractor shall be responsible for the condition of the excavation. All slides and cave-ins shall be removed or corrected by the Contractor. The Contractor shall maintain the excavation open, safe, and water free until backfilling is authorized by the regulating agency.
- M. The Contractor shall be responsible for any sheeting, temporary bracing and temporary supports that may be required to protect any structures or utilities outside and inside the limits of excavation and to permit safe entry by personnel to inspect for soil contamination. All excavation, trenching and related sheeting, bracing, and/or supports shall comply with the requirements of OSHA excavation safety standards 29 CFR, Part 1926.650-652.
- N. All excavations shall be shored and drained so that workman may work safely and efficiently. Contractor shall keep all excavations free from water. Dewatering of the excavation will be limited to that necessary to assure adequate access to the USTs and piping and to assure safe excavation. Contractor shall provide for the disposal of the water removed from excavations in accordance with all applicable codes and regulations. Surface water shall be diverted to prevent direct entry into the excavation.
- O. Remove the tank from the tank pit and place in a secure level area on-site. The Contractor must only use equipment capable of

safely lifting the tank. The tank shall not be dragged. The Contractor shall render the tank unfit for reuse by cutting holes in both ends, or by cutting the tank into scrap. If holes are cut into each end of the tank the holes must be either squares or triangles with a minimum length of 24-inches. All cutting shall be done in such a way, and using such tools and equipment as to prevent generation of sparks or flame. The tank shall not be removed for the site until it has been inspected by SCDHS personnel.

- P. Remove dismantled tank to an approved disposal facility.
- Q. Obtain disposal facility receipts noting proper tank disposal and provide copies in the Tank Closure Report.

3.5 REMOVED TANK AREA ASSESSMENT:

- A. SCDHS personnel will provide direction regarding presence of subsurface contamination (if any). Assuming that no subsurface petroleum impacts are identified, no subsurface sampling will be required.

3.6 HANDLING AND DISPOSAL OF EXCAVATED MATERIALS:

- A. The removed tank(s) and associated ancillary equipment shall become the property of the Contractor and transportation and disposal shall be in accordance with all Federal, State, and local requirements.
- B. The Contractor shall be responsible for safe and lawful manifesting, transportation, storage, and disposal of all waste materials and debris generated under this contract.
- C. All concrete and asphalt paving removed during the tank removal activities shall be disposed off-site at an approved facility.
- D. The Contractor shall submit to the Contracting Officer copies of all Hazardous and/or Non-hazardous Waste Manifests for all solids and liquids generated during the tank removal activities that require disposal.

- E. All excavated materials and imported fill materials shall be staged in accordance with proper erosion and sediment control practices.
- F. All excavated materials that will not be backfilled by the end of the workday shall be placed on double layers of 6-mil or thicker polyethylene sheeting, at locations to be designated by the Contracting Officer. Cover and securely anchor with polyethylene sheeting all soils at the end of the work day.
- G. The Contractor shall control the grading so that the ground is pitched to prevent water from running to excavated areas, damaging other structures or adjacent properties. The Contractor shall ensure the protection of catch basins and public access areas from water runoff from the excavation areas of stockpiles, as well as provide erosion control.
- H. Where soil has been softened or eroded by flooding or placement during unfavorable weather, it shall be removed and replaced with suitable material at no cost to the VA.
- I. The Contractor shall provide appropriate dust control measures, as directed by the Contracting Officer.

3.7 BACKFILL:

- A. All excavations shall be backfilled with suitable materials.
- B. Previously contaminated soils that have been recycled or treated are not suitable backfill unless approved by the Contracting Officer.
- C. By importing and placing fill materials, the Contractor is certifying that the backfill material is "clean" and does not contain contaminants including but not limited to petroleum, heavy metals, poly-chlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), solvents, volatile or semi-volatile organic compounds, or any other contaminant above naturally occurring levels. If any material used as backfill is found to be "contaminated", the Contractor shall excavate and dispose of

- the material, import and place new clean backfill material, and restore the site to its original condition, at no cost to the VA.
- D. Ensure that the bottom of the excavation (subgrade) is suitably compacted prior to beginning backfilling activities.
 - E. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
 - F. The backfill shall be placed, uniformly spread, and compacted to maximum possible density. Maintain optimum moisture content of backfill materials to attain maximum compaction density (do not use water to increase density).
 - G. All backfilled materials shall be properly compacted. Place and compact material in continuous layers not exceeding 8-inches compacted depth.
 - H. Employ a placement method that does not disturb or damage building foundations and/or utilities in excavation area.
 - I. The Contractor shall adhere to design requirements in backfill areas subject to other aspects of this project.
 - J. Remove surplus backfill materials from site immediately following completion of backfill activities. All backfill materials staged on-site are subject to erosion and sediment control measures.
 - K. Contractor shall take extreme care with backfill operations to ensure compaction to maximum possible density. At the Contracting Officer's discretion, Contractor shall remove and re-install/replace backfill which is suspected of having less than maximum density. All removal and reinstallation/replacement of backfill shall be done at the Contracting Officer's discretion and at no additional cost to the VA.
 - L. Any settling of concrete, asphalt pavement, or earth shall be corrected by the Contractor at no cost to the VA. All repair work shall be completed within five (5) business days after being notified of the issue.

3.8 SITE RESTORATION:

- A. Restore landscaped areas and grass areas to match adjacent material.
- B. Replace any pavements, sidewalks, and/or curbs to match adjacent material and in accordance with project design documents.
- C. The Contractor is responsible for repairing or replacing items damaged during tank closure activities, at no cost to the VA.

3.9 PETROLEUM-IMPACTED SOIL:

- A. If during the tank closure, evidence of a past or ongoing release is discovered, the Contracting Officer must be notified immediately. Additionally, the Suffolk County DHS, and the New York Department of Conservation (DEC) must be notified within 2-hours by calling 631-854-2528 and 800-457-7362, respectively. Appropriate response actions should then be performed in accordance with NYCRR Part 596 and DEC recommendations.
- B. All petroleum or petroleum saturated soils found in the tank excavation shall be removed and disposed of in accordance with all Federal, State and local regulations and requirements. Contaminated soil or backfill material, as well as any other heavily stained construction rubble, shall be removed off-site for disposal or treatment at an approved facility. Full documentation of thermal treatment or disposal at an approved facility shall be provided to the Contracting Officer.
- C. The extent of contaminated soil removal shall be determined by regulatory agency representatives and the Contracting Officer.
- D. Pending analysis, segregated soils shall be maintained on-site on impermeable plastic sheeting and covered with plastic sheeting so as to prevent run-off or run-on of rainwater. Stockpiled materials shall be inspected daily to assure integrity of the plastic liner and cover.

- E. The Contractor is responsible for the collection, submission, transportation, and analysis of all samples of petroleum-impacted soil. Soils shall be sampled and analyzed as dictated by regulatory officials, the Contracting Officer, and the disposal facility accepting the material. All samples shall be collected in laboratory-supplied containers, immediately placed on ice in a cooler, and delivered promptly to the laboratory for analysis. All chain-of-custody procedures shall be followed. All samples must be delivered to the laboratory within 24-hours of collection.
- F. Contractor shall exercise care to preserve the material below and beyond the limits of excavation. Where excavation is carried out, through error, below indicated grade or beyond the lines of excavation, the Contractor shall backfill to the indicated grade and compact with approved fill at no additional cost to the VA.
- G. The Contractor shall submit copies to the Contracting Officer of the Certification of acceptance recycling and treatment for cleaning of contaminated soils.

3.10 SAFETY AND PRECAUTION:

- A. The Contractor shall determine the appropriate level of personal protection for all workers associated with work performed under this section to ensure health and safety of all personnel, including subcontractors, engaged in the tank removal activities.
- B. The Contractor shall provide Personal Protective Equipment (protective suits, gloves, boots, hard hats, respiratory equipment etc.) for all workers as required for protection against exposure to contamination. Contractor shall determine the required level of personal protective equipment during each phase of the work. Contractor shall ensure his/her personnel are properly trained to use these items. Contractor shall follow all OSHA requirements.

- C. Personnel working inside and in the general vicinity of the USTs shall be trained and thoroughly familiar with the safety precautions, procedures, and equipment required for controlling the potential hazards associated with this work. Personnel shall use proper protection and safety equipment during work in and around oil storage tanks.
- D. The area surrounding the tank and/or tank excavation shall be secured by temporary fence to protect building occupants, visitors and workers. A temporary fence will only be necessary if the Contractor cannot control access by other means. Alternate methods for access control must be approved in writing by the Contracting Officer.
- E. The Contractor shall eliminate all potential sources of ignition from the area, including but not limited smoking materials, non-explosion proof tools, electrical equipment, and internal combustion equipment.
- F. The Contractor shall provide and maintain adequate supply of fire extinguisher and other required safety equipment in close proximity to all demolition and removal activity. A minimum of two (2) portable twenty (20) pound fire extinguishers must be visibly positioned around the tank excavation. The fire extinguishers must be in working condition, fully charged, and immediately available in the event of a fire.
- G. The Contractor shall prevent vapors from accumulating at ground level and keep all tanks vented at least 12-feet above ground surface until they are ready to be removed. The Contractor shall prevent a discharge of static electricity during venting of tanks by ensuring that all equipment used during venting is grounded to both the tank and the Earth.
- H. The Contractor shall prepare confined space entry permits for all activities where personnel enter confined spaces. If confined spaces must be entered all OSHA procedures for confined space entry shall be followed, including 29 CFR 1910.146.

- I. The Contractor shall test interior UST spaces and surrounding excavation areas to detect dangerous vapor levels until the USTs are removed from the project site.
- J. Prior to ending operations on any work day or at any time the Contractor is not on site, the Contractor shall secure all areas of work in a safe manner to the satisfaction of the Contracting Officer.

- - - END - - -