

# City Specification

# No. 418

Reference to HBFC Chapter 34  
& City Specification #431-92

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## Huntington Beach Fire Department

### Removal of Underground Storage Tanks (USTs) & Tank Appurtenances

This City Specification outlines the general requirements for the removal of underground storage tanks (USTs) located within the city of Huntington Beach. Facilities covered by this City Specification include: motor vehicle fueling stations, automotive service or manufacturing facilities with underground storage tanks, and industrial facilities using USTs for storage and transfer of product.

- USTs that are determined to be no longer usable or have not been used for more than one year must be removed. USTs cannot be abandoned in place [*Huntington Beach Fire Code (HBFC) 3404.2.13 Abandonment & Status of Tanks*].
- USTs that are temporarily not in use, up to and including 90 days, are still considered to be in use and must meet all the requirements of an active tank (*HBFC 3404.2.13.1.1 Temporarily Out of Service*).
- USTs that are temporarily out of service (greater than 90 days, less than one year), must be drained of their contents. In addition, all valves, openings, dispensers and piping must be secured against tampering (*HBFC 3404.2.13.1.2 Out of Service for 90 Days*).

#### 1. PERMITS

1.1 Permits for UST removal are required by the following agencies:

- **Orange County Health Care Agency (OCHCA), Environmental Health/Hazardous Materials Division** – OCHCA is the lead agency overseeing UST removal and disposal in Orange County.
- **South Coast Air Quality Management District (AQMD)** – Typically requires permits and inspections for UST removal and degassing activities to minimize the release of volatile organic compounds (VOCs) or hazardous air pollutants to the environment.
- **Huntington Beach Fire Department (HBFD)** – Requires permitting and inspection of all UST removals to ensure standards are in place to reduce the probability of excessive fire and/or life safety conditions at the job site.

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- 2.1 Remediation plans must be approved by OCHCA Environmental Health Division, AQMD and HBFD.
- 2.2 Submit site remediation plans to HBFD. The plans must show the location of the property, the location of structures on the property, the approximate location and orientation of the USTs to be removed, and the approximate locations of piping and any underground appurtenances associated with the USTs (fill lines, distribution lines, valves, pumps, vent lines, etc.).
- 2.3 If available, also submit documentation concerning the UST's construction specifications (single or double wall, materials used in construction, etc.), and the type of materials that are/were stored in the UST.
- 2.4 Plans should include any environmental testing data for the site (soil, groundwater, air, engineering analysis of any leaks, etc.).

**3. INITIAL SITE REQUIREMENTS**

- 3.1 **Safety and Security** – A site safety plan shall be developed and shall include, but not be limited to, site security measures, barricades, monitoring of environmental criteria, measures in place to deal with vapor releases, and contaminated soil collection and segregation. On-site security personnel may be required at the discretion of the HBFD.
- 3.2 **Power Disconnection** – All power to the tank and its associated equipment must be disconnected prior to remediation activities. Power may remain when necessary for the removal project, such as to provide power to monitoring and remediation equipment.
- 3.3 **Signs** – Signs shall be in place designating the site as a hazardous materials area, a no smoking area, prohibiting open flames (welding, torch-cutting, saw-cutting, producing sparks) within the excavation area, and shall list an emergency contact number for the operation.
- 3.4 **Monitoring Equipment** – Monitoring devices shall be available for the analysis of vapors and air contaminants. These should be devices specific to the materials expected to be encountered at the site, but may include devices that are considered equivalent/intrinsically safe to use, such as portable meters for methane monitoring, hydrocarbon detection, oxygen concentration, and any other vapors or concern.
- 3.5 **Fire Extinguishers** – A minimum of two (2) 4-A :60-B :C extinguishers shall be available on site at all times. Additional extinguishers may be required at the discretion of the Fire Department.

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- 3.6 **Remediation Equipment and Supplies for Dealing with Contaminated Materials** – Sufficient remediation and containment equipment shall be available at the site to mitigate foreseeable safety and environmental concerns involving hazardous materials. They include, but are not limited to, tarps, storm water runoff control, absorbent materials, drums or other types of closed containers, sampling devices, pumping systems, containment tanks, arrangements with remediation services, etc.

**4. TANK CLEANING**

- 4.1 Before excavation, the USTs hazardous contents must be removed to the maximum extent possible. This includes all liquids, solids, any residue, all contents of associated piping and pumping systems, and any residues within the interstitial space between the primary tank and secondary containment system.
- 4.2 USTs may be flushed to remove residual contents. All materials used in flushing shall be removed and taken offsite for proper waste disposal.
- 4.3 If pumping and flushing cannot reduce the flammable vapor concentration within the tank to <10% lower explosive limit (LEL), the UST may be inerted and/or purged of all remaining vapors to a level of <10% of the hazardous material's LEL. Inerting may be performed with any type of inert gas or with dry ice.
- 4.4 Records of disposal of the UST's contents and tank cleaning residues shall be available to the Fire Department representative.

**5. EXCAVATION**

- 5.1 A minimum of 24-hours notice shall be given to HBFD prior to the start of tank excavation.
- 5.2 Initial excavation shall uncover only the top surface of the UST, its associated piping and fixtures. When piping and fixtures are disconnected from the tank, the openings must be secured to prevent release of any residual vapors or introduction of foreign materials. Piping should be kept in place for analysis of the surrounding soils and until removal is necessary for disposal.
- 5.3 Combustible gas monitoring must be in place and functioning prior to, and during, the excavation activities. Vapor concentrations of <10% LEL are permissible for excavation. When vapor concentration readings are 10% to 20% of LEL, excavation activities shall be continuously monitored as close as practicable to the point of excavation. When vapor concentration levels at the excavation site exceed 20% LEL, all activities must be stopped and notification made to both HBFD and OCHCA. Excavation shall not continue until gas levels have been reduced below 20% LEL.

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- 5.4 Excavated soil and pavement shall not be removed from the site prior to it being characterized as either hazardous or non-hazardous. Any soil removed must be properly packaged, labeled, manifested (hazardous waste manifest or shipping manifest), and shipped to an approved facility.
- 5.5 USTs and associated appurtenances and piping shall not be torch-cut or welded during excavation activities.

**6. TANK REMOVAL AND DISPOSAL**

- 6.1 A minimum of 24-hours notice must be given to HBFD prior to the start of excavation of the UST from the soil.
- 6.2 The UST shall be inspected to ensure all remaining contents have been removed from within the tank and/or the interstitial space between the primary and secondary tanks. The UST shall be purged of all remaining vapors and degassed to a level of <10% of the hazardous material's LEL and an oxygen content of <5%.
- 6.3 Remove all remaining piping and accessories from the tank. When piping must be cut, only cold cutting is permitted; no open flame torch-cutting or other spark producing methods are allowed.
- 6.4 The UST and all appurtenances shall be removed intact and transported from the site within 24 hours. A record shall be kept showing the tank's serial number, any noticeable damage or degradation on the tank's exterior, and the final destination of the UST. Include the contact information for the destination facility.

**7. SITE TESTING AND REMEDIATION**

- 7.1 The excavation site shall remain secured during the testing and remediation phase of the UST removal project. Sites where ground contamination is present shall be covered to the maximum extent practicable to reduce the release of VOCs or other flammable/hazardous materials into the surrounding environment.
- 7.2 Soils immediately below and around the void space left in the ground after removal of the UST shall be tested for contaminants in accordance with HBFD *City Specification #431-92, Soil Clean-Up Standard*. Sampling and testing shall be overseen by a State Registered Geologist or Professional Engineer.
- 7.3 Approval of soil testing results immediately below and around the void space is for that area only, and should not be construed as representing the complete site. Additional environmental requirements may be applicable for the development of the property. (See Section 9, *Future Site Development, of this City Specification*.)
- 7.4 Soils that will not be reused at the site must be removed and disposed in accordance with the results of lab analysis. Copies of soil analysis and the disposal location of any soils removed for off-site disposal must be sent to HBFD upon completion of the project.

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- 7.5 Disposal records for soils characterized as hazardous can be waste manifests, and non-hazardous soils can be shipping documents of a bill of lading.
- 7.6 The HBFD shall be notified when site restoration has been completed.

**8. SITE CLOSURE (FIRE DEPARTMENT CLOSURE)**

- 8.1 Upon completion of excavation and restoration of the site, the following information shall be forwarded to HBFD. The HBFD keeps this information on file for future reference by all interested parties to show the status of the property at time of site closure:
- **Tank Information** – Include serial number, any visible irregularities, tank specifications (single or double wall, fabrication materials), appurtenances attached/shipped off-site with tank, and the tank's final destination, including copies of waste manifests and/or shipping documents.
  - **Monitoring Data** – Data from air monitoring around the site to determine the extent of VOC and Hazardous Air Pollutants (HAP) released during remediation process.
  - **Lab Analysis** – This should be any preliminary analysis, analysis of soils after tank excavation, and follow-up analysis.
  - Copies of any photographs/images of site and its surroundings.

**9. FUTURE SITE DEVELOPMENT**

- 9.1 It is the responsibility of the property owner or developer to demonstrate that the entire project site is in conformance with *City Specification #431-92 Soil Clean-Up Standards* prior to future site development or project approval.
- 9.2 Soil testing immediately below and around the void space left in the ground after removal of the UST may account for the tank area, but generally does **NOT** account for other features of interest on the site, such as liquid lines, dispensing stations, hydraulic hoists, lubricating or waste oil tanks, transformers, lubrication pits, battery rooms, floor drains, etc., that would be identified in a Phase 1 report.
- 9.3 In order to meet the requirements for demonstrating site conformance to *City Specification #431-92, Soil Clean-Up Standard*, the developer or applicant is strongly encouraged to meet with the Fire Department's Fire Development Specialist and review the site characteristics and discuss the development of the site work plan prior to commencement of work.
- 9.4 Remediation plans must be approved by OCHCA/Environmental Health Division, AQMD and HBFD.

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- Conformance to City Specifications **DOES NOT** relieve the developer's responsibility regarding other concerned agency notification and/or approval (South Coast Regional Water Quality Control Board, South Coast Air Quality Management District, Department of Toxic Substance Control, County of Orange Health Care Agency, etc.).

9.5 Prior to any on site activity, the Huntington Beach Public Works Department must be contacted and any necessary permits must be obtained.

APPROVED: \_\_\_\_\_  
Patrick McIntosh, Fire Chief

DATE: \_\_\_\_\_