



PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
Guidelines For The Removal Of
Underground Storage Tanks

These guidelines apply to the owner of an underground storage tank (UST) subject to the permanent closure requirements of the California Code of Regulations, Title 23, Division 3, Chapter 16, Underground Storage Tank Regulations, Article 7, Closure Requirements, and their agents, who are removing a UST and/or its associated piping.

1. Obtain a Facility Modification Application from Orange County Health Care Agency (OCHCA) Environmental Health. Applications may be obtained in person at the address provided below, or by calling Environmental Health at (714) 433-6000 or downloaded from the following website: <http://occupainfo.com/forms>.
2. At least 30 calendar days prior to the expected UST removal date, submit a completed Facility Modification Application, four sets of plans (drawing size not to exceed 11x17 inches) and a closure fee to Environmental Health at the office address given below. Plans must include:
 - a. A site location map, tank information/details, and
 - b. A plot plan that:
 - i. Identifies site location, inclusive of cross streets and a North arrow,
 - ii. Shows existing structures, utilities, and all existing USTs and associated piping,
 - iii. Identifies the USTs and/or piping to be removed,
 - iv. Clearly identifies the entire length of piping proposed for closure in place, if appropriate, See Section 7 (c) below for a description of piping that may be closed in place, and
 - v. Includes the size of the USTs to be removed and the types of hazardous substances that have been stored in the USTs.
3. Obtain closure and/or excavation permits from the appropriate agencies such as the County Planning and Development Services Department or city building department, the Orange County Fire Authority or local fire department and the South Coast Air Quality Management District (AQMD).
4. Submit a copy of the Hazardous Substance Removal Certification issued to the contractor performing the removal work. Section 7058.7 (e) of the Business and Professions Code states "A contractor may not install or remove a UST unless the contractor has passed the hazardous substance certification examination developed pursuant to this section." A contractor who is not certified may bid on or contract for the removal of a UST, if the work is performed by a contractor who is certified.
5. Schedule a UST removal inspection with Environmental Health's Hazardous Materials Mitigation Section. Environmental Health staff must be onsite to observe the condition of the UST(s) during removal and direct sampling to determine whether a reportable unauthorized release has occurred. Provide at least 48-hour notice to Environmental Health when scheduling an onsite inspection. A concurrent inspection must be scheduled with the Orange County Fire Authority or local fire department, which must also be represented at the UST removal. Alternate accommodations must be made in advance of field activities if Fire personnel decline the opportunity to be onsite during tank removal activities.

6. When removing a UST system and/or its piping, the owner of the UST(s) must comply with applicable provisions of the California Code of Regulations (CCR) Division 3, Chapter 16, Article 7, Closure Requirements. These include provisions of Section 2672 (b) & (c) which including the following:
 - a. All residual liquid, solids, or sludge from the UST and/or its piping shall be removed and handled as hazardous waste or recyclable material;
 - b. If the UST to be removed contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the USTs shall be inerted to levels that shall preclude explosion or to such lower vapor levels as may be required by the Orange County Fire Authority or local fire department. (Note: A representative from the Orange County Fire Authority or local fire department must be present prior to initiating this procedure.); and,
 - c. The UST and/or its associated piping shall be removed and disposed. Where removal of piping might damage structures or other in use piping is contained in a common trench, that piping may be closed in place after being emptied of all contents and capped.

7. Per CCR Section 2651 (d), the owner of a UST must demonstrate upon closure that no unauthorized release has occurred. This demonstration shall be based on sensory observations, monitoring equipment readings, soil sample analysis and/or water sample analysis. Sample collection activities are to be performed by staff provided by the project consultant or the laboratory doing the sample analysis.
 - a. Samples must be obtained from the excavations of any UST and/or piping removed. Regulations require two samples, one at each end of each UST removed and samples for each 20 linear feet of pipe trenching. Where closure in place of piping is necessary and where soil samples cannot otherwise be obtained, soil borings placed near the piping trench may be required. Further, in an effort to obtain data required for evaluation under State Water Board Resolution No. 2012-0062, sidewall samples from depths between 0-10 feet below ground surface may be required.
 - b. Samples are to be collected, handled and analyzed at the owner's expense per CCR Section 2649 and as indicated below:
 - i. The laboratory doing the sample analysis or the project consultant must provide adequate supplies of thin-walled stainless steel or brass cylinder sample holders (for intact soil sample collection) with fitted polyethylene caps, labels, plastic bags and Teflon sheets. Glass jars are not permitted. A cooler or ice chest with ice is also required to be onsite;
 - ii. When a sample is collected, each end of the collection cylinder should first be covered with a Teflon sheet. Caps should then be placed on the ends of the cylinder and an identifying label attached. Next, the cylinder should be placed in a cooler or ice chest to be chilled. The sample should be placed in a sealed plastic bag before chilling where needed to prevent water damage to the label;
 - iii. The samples should be transported, per arrangements made by the tank owner, to a State Certified Laboratory soon after the completion of sampling. A Chain of Custody form, completed by Environmental Health staff directing the sampling, must accompany the samples to the laboratory. The receiving laboratory should indicate in the designated laboratory section of the Chain of Custody form whether the samples were received in a chilled state and whether County seals were intact upon arrival, and;

- iv. Samples collected at diesel or gasoline storage sites must be analyzed by an appropriate method for total petroleum hydrocarbons (TPH). TPH (GC/FID) with carbon chain identification is recommended for diesel sites. Total purgeable petroleum hydrocarbons [TPPH (GC/MS)] as gasoline is recommended for gasoline sites. Samples collected in association with tanks in use prior to 1992 must be analyzed for organic lead if free product is present. In addition, analysis by EPA Method 8260B full scan is required to analyze for volatile organic compounds (VOCs) that include benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2-dichloroethane (EDC [or 1,1-DCA]) and 1,1-dibromoethane (EDB), ethanol, Methyl Tertiary Butyl Ether (MTBE) and all other fuel oxygenates.
 - v. Samples collected at waste oil tank storage sites must be analyzed for TPH with carbon chain identification using EPA Method 8015 or for total recoverable petroleum hydrocarbons using EPA Method 1664, for full scan VOCs including BTEX, EDC, EDB, MTBE and all other fuel oxygenates, and chlorinated solvents by EPA Method 8260B, and for polycyclic aromatic hydrocarbons using EPA Method 8310 or 8270C (SIM Mode)¹. In addition, soil samples must be analyzed for wear metals (cadmium, chromium, nickel, lead, and zinc). Detection limits for all reported constituents must meet appropriate data quality objectives.
8. The detection of a reportable unauthorized release, based on field observations and/or the results of the soil and groundwater sample analysis, shall require compliance with the reporting requirements of CCR Section 2652 and the initial abatement and corrective action requirements of Articles 5 and 11 of Title 23, Division 3, Chapter 16, CCR.
 9. The owner of the UST should provide site security to prevent unauthorized public access into excavated areas. This security may include temporary fencing or a twenty-four (24) hour security guard.
 10. The owner of the UST shall have equipment onsite available to control any vapor emissions. The equipment may include bulldozers to backfill excavations and/or tarps to cover contaminated soil.
 11. Documentation required to be forwarded to this Agency after UST removal includes:
 - a. A copy of the certificate of UST destruction,
 - b. Copies, signed by the receiving State permitted facility, of all Uniform Hazardous Waste Manifests used to transport the residual or rinseate liquid, solids, or sludge waste removed from the tanks, and
 - c. Original (wet) copies of the laboratory analytical report, and the white copy of the OCHCA Chain of Custody form, sent with samples to the laboratory, with all required information completed by the laboratory.

¹ Analytical methods listed above are subject to revision or update by EPA. Suggested test methods may require updating as analytical procedures are promulgated.

- d. Information regarding backfill procedures, including source and volume of backfill material, purchase receipts for imported fill, and laboratory results. Sampling for fill material must follow the Department of Toxic Substances Control's Clean Imported Fill Material Guidance (attached). Note, sampling of quarry material mined directly from natural resources (i.e., previously unused, not recycled and not reclaimed) is not required; however, a supplier verification letter and purchase and delivery receipts must be submitted.

Where the above requirements are successfully completed and an unauthorized release requiring further action is not discovered, a completion of a UST closure letter will be issued to the UST owner by Environmental Health. Should an unauthorized release be discovered, Environmental Health's Land and Water Quality Section will open a UST cleanup case and, upon satisfactory completion of the required corrective action, a letter of remedial action completion will be issued.

If you have any questions or need additional information, please contact the Environmental Health Land and Water Quality Section at (714) 433-6000.

Attachment: Department of Toxic Substances Control's Clean Imported Fill Material Guidance