

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 (CCR), Title 23, Division 3, Chapter 16, UST Regulations, Article 8, Closure Requirements, and their agents, who are removing a UST and/or its associated piping.

1. Obtain a Facility Modification Application (FMA) from OC Health Care Agency (HCA) Environmental Health (EH). Applications may be obtained in person at 1241 E. Dyer Road, Suite 120, Santa Ana, CA 92705 or downloaded from the following website:
<https://www.ochealthinfo.com/sites/hca/files/import/data/files/14600.pdf>
2. At least 30 calendar days prior to the expected UST removal date, submit a completed FMA along with the following attachments:
 - a. A plot plan to scale (not to exceed 11x17") that:
 - i. Identifies site location, inclusive of cross streets, property boundaries, and a North arrow,
 - ii. Shows existing structures (including underground foundations and/or concrete pads), utilities, and all existing USTs, dispensers, and associated piping (i.e. product and vent/vapor piping),
 - iii. Identifies the location of USTs and/or dispensers and piping to be removed,
 - iv. Clearly identifies the entire length of piping (and where they transition from underground to aboveground or terminate) proposed for closure in place, if appropriate, See Section 5(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.
 - b. Per Section 7058.7(e) of the Business and Professions Code, a copy of the Hazardous Substance Removal Certification issued to the contractor performing the removal work. 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. Certification must be provided to the HCA prior to scheduling removal activities.
3. Obtain closure and/or excavation permits from the appropriate agencies such as OC Development Services or city building department, the Orange County Fire Authority (OCFA) or local fire department and the South Coast Air Quality Management District (AQMD).
4. Schedule a UST removal inspection with EH. EH 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 EH when scheduling

an onsite inspection. A concurrent inspection must be scheduled with the OCFA or local fire department, who must also be represented at the UST removal. Alternate arrangements must be made in advance of field activities if Fire personnel decline the opportunity to be onsite during tank removal activities.

5. When removing a UST system and/or its piping, the owner of the UST(s) must comply with applicable provisions of the CCR Division 3, Chapter 16, Article 8, Closure Requirements. These include provisions of Section 2681 (e) which include 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 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 low vapor levels as may be required by the OCFA or local fire department. (Note: A representative from the OCFA, local fire department, or industrial hygienist must be present prior to initiating this procedure.); and,
 - c. The UST and/or its associated piping shall be removed and disposed of. 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.
 - i. When an UST system is disposed of, the owner or operator must provide documentation to EH that proper disposal has been completed by providing the disposal documentation specified in CCR Section 2681 (i) (4).
6. Per CCR Section 2681 (g), 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 the staff provided by the project consultant or the laboratory doing the sample analysis.
 - a. Samples must be obtained from the excavations of any UST, dispenser, and/or piping removed. Regulations require two samples, one at each end of the removed UST, the midpoint of each tank with a capacity greater than 12,000 gallons, each removed dispenser, and for each 20 linear feet of piping. In addition, samples must be collected at each change in direction for rigid piping. 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, 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 are required.
 - b. Soil sample collection must be performed immediately after removal of the tank or hazardous substance piping from the excavation. Grab groundwater sample collection must be done immediately after the water enters the excavation or is otherwise encountered. Please note the presence of groundwater may require submittal of a work plan for subsequent sampling from temporary wells.
 - c. Samples are to be collected, handled and analyzed at the owner's expense per CCR Section 2681 (h) 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 on site;
 - 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 at the ends of the cylinder and an identifying label attached. Next, the sample should be placed in a sealed plastic bag before placement in a pre-chilled cooler or ice chest, packed with ice, 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 EH 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 1,2-DCA]) and 1,2-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). 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.
7. 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 2671. Note, within five days of detecting a reportable quantity of petroleum hydrocarbons in soil or groundwater, an Unauthorized Release Report (URR) that complies with CCR Section 2671 (c) must be submitted to the OCHCA.
8. Upon release discovery, the owner/operator must comply with the initial abatement and corrective action requirements of CCR Section 2671 (b).

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 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 EH within 30 days of removal of the tank or piping, or collection of required soil or groundwater samples must include:
 - a. Site plan showing field sampling locations.
 - b. Copy of the certificate of UST destruction.
 - c. Copy of URR (if applicable).
 - d. 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.
 - e. Completed Hazardous Waste Tank Closure Certification form.
 - f. Original (wet) copies of the laboratory analytical report, and the white copy of the HCA Chain of Custody form, sent with samples to the laboratory, with all required information completed by the laboratory.
 - g. 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. 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/source verification letter and purchase and delivery receipts must be submitted.

Where the above requirements are successfully completed, UST removal completion letter will be issued to the UST owner by EH. Should an actionable unauthorized release be discovered, the EH Land and Water Quality unit 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 EH at (714) 433-6000.

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