



**Public Health**  
Prevent. Promote. Protect.

Kings County Health Department

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## GUIDELINES FOR PERMANENT CLOSURE OF UNDERGROUND STORAGE TANKS

### GENERAL CRITERIA

It is the responsibility of the owner of the underground storage tank (UST) to ensure that the closure process is completed in a lawful manner. Permanent closure requirements can be found in Title 23, California Code of Regulations (CCR), Division 3, Chapter 16, Article 7, and in Title 22, CCR, Division 4.5, Chapter 20, Article 1. In most cases, the owner will retain the services of a qualified and licensed contractor to perform all work at the site.

The State of California Contractors Licensing Board establishes minimum criteria for the removal or repair of UST's. Effective January 1, 1992, all contractors bidding on or performing the removal of UST's must hold the *Hazardous Substance Removal Certification* issued by the Contractors State Licensing Board. Under current State Water Quality Resources Control Board policy, only those contractors holding one of the following classifications are properly licensed to contract for the installation and/or removal of UST's:

- *Plumbing Contractors (C-36)* - Plumbing contractors may install any UST that provides a service to a building. Any other type of UST may only be installed by a General Engineering Contractor (A).
- *Limited Specialty Contractor (C-61 D-40)* - Service Station Equipment contractors may install fuel UST's at service stations or any other site up to a capacity of 20,000 gallons.
- *General Engineering Contractor (A)* - General engineering contractors may install or remove UST's for any purpose whatsoever at any location.
- *General Building Contractor (B)* - General building contractors may install or remove UST's only if such work is performed under contract to construct or remodel a building that houses people, animals or chattels, and the work involves the use of three or more unrelated trades.

All questions on this issue should be directed to the licensing staff of the Contractors State License Board at (800) 321-2752, P.O. Box 26000, Sacramento, CA 95826 or at:  
<https://www2.cslb.ca.gov/OnlineServices/CheckLicense/CheckLicense.aspx>

Site security must be maintained during the removal process. Excavations opened during or after the UST removal operations shall be safeguarded by fencing until backfilled.

It is the responsibility of the contractor to ensure that all work is performed in a safe manner. All contractors must have an established safety program including a site specific safety plan during all work. All contractors performing work must implement all safety standards established by the State of California, Department of Industrial Relations, Occupational Safety and Health Administration (Cal OSHA). For more information and details regarding Specific Safety Orders, contact Cal OSHA Consultation at (800) 963-9424.

## **OBTAINING PERMITS AND NOTIFICATION REQUIREMENTS**

A completed ***Application for Authority to Remove/Close Underground Storage Tanks*** form must be submitted to and approved by the local Certified Unified Program Agency (CUPA) prior to conducting any activity associated with the removal of a UST system. The Kings County Health Department's Division of Environmental Health Services is the local CUPA for the County of Kings.

The permit request form must be accompanied with payment of the listed UST removal permit fee. Once the CUPA has reviewed and approved by the application, a copy of the approved document will be issued to the permit filer and/or the UST owner or his/her representative. The approved form is your permit to begin closure operations.

No less than 48 hours prior to the UST removal, the removal contractor and/or UST owner or operator must schedule a date and time of the UST removal/closure with the CUPA.

Be advised that all UST removal projects require completion of a ***Hazardous Waste Tank Closure Certification*** form. The form must be completed and returned to the CUPA within 30 days of the UST removal/closure process.

## **TANK CLEANING & DISPOSAL**

All UST's which contained hazardous materials are considered hazardous waste. All UST's require decontamination utilizing the identified cleaning process provided below. After removal, the UST's must be transported under a bill of lading to a licensed recycling facility.

It shall be noted that all tank rinseate is hazardous waste and requires transportation by a State licensed hauler to a Department of Toxics Substances Control (DTSC) permitted hazardous waste treatment, storage, or disposal facility (TSDF).

Documentation from the tank recycling facility showing receipt of the UST(s) must be provided to the CUPA along with the hazardous waste manifest within 30 days of the UST removal.

It shall be noted that the State Fire Marshall's office prohibits former UST's to be utilized for aboveground storage tank purposes. Therefore, removed UST's must either be recycled or disposed of as hazardous waste. They cannot be re-used for any type of aboveground storage.

## **OPTION 1 – UST RECYCLING DECONTAMINATION FOR NON-HAZARDOUS WASTE DISPOSAL**

1. All exterior visible parts each UST(s) that will be removed must be inspected by the contractor prior to beginning interior tank cleaning. If it is determined the UST was compromised, any hole(s) on the tank shall be capped or plugged.
2. Any tank associated piping having contents must be drained into the tank if possible prior to removal.

3. The interior of the tank must be triple-rinsed using a high pressure washer and approved detergent.
4. All sludge, residue and rinseate must be removed from the tank for disposal as a hazardous waste and transported under manifest.
5. If the UST(s) require venting, the UST(s) contractor shall ground and implement venting equipment.
6. After UST(s) have been properly cleaned, they are to be inerted utilizing the following procedure prior to ground removal:
  - a. UST's previously used for storage of flammable liquids shall be purged of oxygen using an inert gas such as carbon dioxide (dry ice), nitrogen, or helium.
  - b. If dry ice is utilized, a minimum of 22.2 pounds of dry ice per 1,000 gallons of tank capacity shall be used to inert the tank.
  - c. If a liquid or gas inerting agent is used, the dispensing device must be bonded to the tank.
  - d. After inerting, the **oxygen level** inside the UST(s) must be **below 10%** and a lower explosive limit (LEL) level of **no higher than 5%** must be achieved. The UST contractor must provide a calibrated combustible gas indicator (CGI) meter for monitoring verification.

**OPTION 2 - UST DISPOSAL**  
**HAZARDOUS WASTE TANK DISPOSAL**

1. Prior to removal, the UST(s) exteriors must be inspected for any compromised areas.
2. The UST(s) are to be inerted with oxygen levels of less than 10% being achieved and maintained.
3. The UST(s) must be transported under hazardous waste manifest to a DTSC permitted TSDF. Contact DTSC at 800-728-6942 to obtain information on permitted facilities.

**OPTION 3 - UST CLOSURE IN PLACE**

If the CUPA approves UST closure in place, the following requirements shall be complied with:

1. All former liquid contents, solids, and/or sludge must be removed and disposed of as hazardous waste under manifest.
2. The UST's must be triple-rinsed using an approved detergent. All rinseate is to be disposed of as a hazardous waste under manifest.
3. All piping associated with the UST shall be removed and disposed of unless it is shown that removal may endanger structures or other piping in use in the same trench area. In such cases, piping shall be emptied and capped prior to final closure.
4. If visible observations of the UST(s) and the UST pit area appear free of any soil contamination and soil/groundwater sampling reveal samples are clear of contaminants that may require further assessment, the UST(s) can be abandoned by filling them with an inert material such as a sand or concrete slurry mixture. The exterior tank top surface areas are then to be backfilled to grade level with clean fill dirt.

### **SOIL SAMPLING PROCEDURES**

All samples must be analyzed by a laboratory having State of California Water Resources Control Board Environmental Laboratory Accreditation Program (ELAP) certification.

All sampling analysis required will be determined by the type of hazardous material that was stored in the UST. The CUPA may consult with the laboratory representative for final sampling constituents.

Upon removal of UST(s) and/or associated piping, soil samples must be collected and analyzed by a State certified laboratory for verification that an unauthorized release has not occurred. The number and location of the samples must be approved by the regulatory agency representative onsite.

If groundwater is present in the tank bed excavation, the collection of at least one groundwater sample will also be required for laboratory analysis.

### **GENERAL SOIL SAMPLING PROCEDURES**

1. If site conditions allow, direct access sampling shall be performed utilizing soil boring equipment. If tank pit shoring is not provided, a backhoe bucket shall be utilized for tank pit soil sampling.
2. The individual performing soil sampling shall be prepared to obtain samples using a hand auger or other similar equipment for sampling beneath piping runs and/or fuel dispensers.

3. All samples must be taken a minimum of 2 feet into native soil under tanks, piping and dispensers as directed by the CUPA.
4. All collected samples shall be collected utilizing approved sampling methods and containers for shipment to a State certified laboratory. Samples shall be sealed and labeled for transportation in insulated containers using an approved cooling mechanism capable of maintaining a temperature of no more than 39° F during transportation to the to the laboratory. All samples are to be delivered to a State certified laboratory within 48 hours of sampling.
5. All samples must be accompanied by a chain-of-custody form.

### **Number and Location of Samples**

The minimum number of soil samples required will be based upon the size of the tank being removed and the length of piping associated with each tank. All piping must be exposed and prepared for removal unless otherwise approved by the CUPA.

**The following criteria apply:**

Tank Size	Minimum # of Samples	Location of Samples
Less than 5,000 Gallons	One per Tank	Fill or pump end
5,000 - 12,000 Gallons	Two per Tank	One on each end
Over 12,000 Gallons	Three per Tank	Ends & middle of Tank
Piping	One	Every 20 linear feet
Dispensers	One	Each Dispenser

For permanent closure in place, a minimum of one (1) boring will be taken as close as possible to the midpoint beneath the tank using a slant boring or other appropriate method.

### **PAPERWORK AND CLOSURE DOCUMENTATION**

All of the following must be submitted to the Kings County Health Department, Division of Environmental Health Services **within 30 days** of the UST removal:

1. Copies of laboratory analytical results from all samples collected as part of the UST closure.
2. A copy of the chain-of-custody form which accompanied all collected samples for lab analysis.
3. A copy of any consultant summary reports generated in conjunction with the UST removal process.
4. All copies of hazardous waste manifests generated as a result of transport and disposal of rinseate and/or UST(s).

5. Documentation of the UST final disposal, including a copy of the completed *Hazardous Waste Tank Closure Certification* form

Our Division will verify if the owner/operator has demonstrated to our satisfaction that the tank closure, removal or abandonment in place, and soil sampling complies with statute and regulation, and will notify the owner/operator accordingly with either a final closure letter, or a letter indicating remaining deficiencies that require correction

In addition to the above, any case of a documented release of hazardous materials will result in a referral to the Regional Water Quality Control Board – Fresno Division for follow up and remedial activity coordination.

All closure-related records and documentation will be maintained by Kings County Health Department, Division of Environmental Health Services as required by statute and regulation, in electronic and/or hard copy form.