MONTEREY COUNTY

ENVIRONMENTAL HEALTH BUREAU

Hazardous Materials Management Services



UNDERGROUND STORAGE TANK CLOSURE REQUIREMENTS

May 2023

1270 Natividad Road Salinas, CA 93906 (831) 755-4511 Fax (831) 796-8698

UNDERGROUND STORAGE TANK CLOSURE PERMIT APPLICATION

Site Address:				
Facility Owner:		Phone Number:		
Owner's Mailing Address:		City/State/Zip:		
Contractor Contact Person:		Phone Number:		
Contractor Company Name:		Fax Number:		
Contractor Address:		City/State/Zip:		
Contractor Lic. Class:	Lic. #:	Haz Mat Cert. #:		
Type of Closure:	Close in place	-Temporary		
Total # of tanks:	Contents (include all previous u	ıse):		
Total # of tanks: <u>UST System Description</u> <i>Single Wa</i> size(s), composition and number of tar	<i>all:</i>	ise):		
<u>UST System Description</u> Single Wa size(s), composition and number of tar	<i>all:</i>			

-Triple Rinsed:	Name of Company:		EPA ID #:
Company Addres	s:	Phone	Number:
Name of Tank Sa	lvager:		
Mailing Address	of Salvager:	Phone	Number:
Manifest # of Rin	sate:	DTSC	Number:
-Hauled Offsite	Name of Site:		EPA ID #:
Disposal Site Add	lress:	Phone	Number:

No Application will be accepted without copies of Contractor License, Site Safety Plan including Map to Nearest Hospital, Proof of Hazardous Materials Certification for the contractor, Proof of Hazardous Waste Training for each employee working at the site, and Proof of Workers Compensation Coverage. Please allow 14 business days for completion of permit processing, once all paperwork has been submitted.

Owner:			Date:	
	Signature	Print		
Applicant/Contractor:			Date:	
_	Signature	Print		

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Introduction

California Health & Safety Code (CHSC) Section 25404 delegates authority for implementing and enforcing statewide Underground Storage Tank (UST) requirements to the local Certified Unified Program Agency (CUPA). In Monterey County, the Monterey County Environmental Health Bureau's Hazardous Materials Management Services Program (HMMS), is the CUPA for the entire county.

In Monterey County, no person shall abandon, close, or remove an underground storage tank, except with a permit from the CUPA.

The period between cessation of hazardous substance storage and the application for permanent tank closure <u>shall not exceed ninety (90) calendar days</u>.¹

The UST shall continue to be monitored until all fuel is removed. The UST monitoring panel (e.g., Veeder Root) shall not be disconnected or power to the UST system may not be terminated prior to removal of fuel. The UST continues to be subject to all UST compliance requirements, monthly designated operator inspections, routine testing, and operating fees until the USTs are removed.

UPGRADE REQUIREMENTS

By December 31, 2025, facilities with single-walled USTs must permanently close the UST, and facilities with single-walled product piping must upgrade system to double-walled product piping.²

SAFETY

The contractor shall be responsible for ensuring that conditions at the site provide for workplace safety, protection of the environment, and the integrity of nearby structures. This includes:

- Identifying buried utility lines prior to digging
- Ensuring equipment is appropriately sized for excavation and sampling
- Excavation safety

TANK EXCAVATION AND CLEANING

Work on the site may only begin after a permit for UST removal has been issued. Excavation of underground piping and the soil around the tank, and the removal of tank contents may go unwitnessed by this Section. A 48-hour notification must be sent to the CUPA prior to tank cleaning/rinsing (See below for notification requirements). Excavation and cleaning shall be done according to manufacture and/or industry standards. Other agencies, including the local fire authority, may require additional permits, notifications, or inspections.

¹ CCR 2670(e)

² CHSC 25292.05

TANK INERTING³

Flammable vapor must be purged from the UST to prevent an explosion or fire⁴. Lower Explosive Limit (LEL) readings shall be taken to confirm that the tank has been properly inerted.

SCHEDULING

UST closure inspections are to be scheduled at least 7 days in advance.

ADDITIONAL INSPECTIONS

Additional inspections will be billed on an hourly rate. Inspections extending beyond normal business hours will be charged as an after-hours inspection, with a 3-hour minimum charge.

PERMIT EXPIRATION

A new permit will be required if the project extends beyond the permit expiration date. Contact the HHMS program at (831) 755-4511 Ext. 1 for additional questions.

ADDITIONAL AGENCY REQUIREMENTS

It is the responsibility of the UST owner or duly authorized representative to notify other governmental agencies that may have applicable permit requirements. This includes, but is not limited to, the following: local fire agency, local building department and Air Quality Management District. Failure to meet notification and permit requirements will cause the removal to be cancelled.

³ CCR 67383.5

⁴ CCR 2672(b)(2), CCR 2672(c)(2)

Sampling

The UST owner/operator shall demonstrate to the satisfaction of this CUPA that an unauthorized release has not occurred. Demonstration shall be based on the analytical results of soil and/or water samples obtained following UST removal. Water sampling must occur if there is water in the excavation.⁵ Sampling shall be witnessed by an inspector from this CUPA.

It is the responsibility of the owner or operator to arrange for the samples to be collected and analyzed. A report documenting removal activities and analytical results shall be prepared. It is recommended that owners or operators who are not familiar with the process hire a knowledgeable contractor/consultant. This CUPA is responsible for regulatory oversight only and will not collect samples on the applicant's behalf.

Samples will be taken in the following places (as applicable): ⁶

- One sample at each end of the tank
- One sample every 20 linear feet of piping trench
- One sample below each under dispenser containment (UDC)
- Ground water samples if groundwater is present
- From stockpiled soil that has been removed from the excavation
- From areas where visual staining or discoloration is observed
- From areas where a vapor-monitoring instrument indicates the highest reading.

To sample below the tank invert, collect samples at a minimum of 2 feet vertically into native material.

- For tank volumes less than 12,000 gallons—collect one sample at each end of the removed tank (two samples total)
- For tank volumes equal to or greater than 12,000 gallons—collect one sample at each end of the removed tank and one sample below the center of the removed tank (three samples total)

Soil stockpiled from the excavation shall be sampled and analyzed for the constituents of concern. If the stockpile will be disposed offsite, the disposal/recycling facility may have additional requirements. Typically, 3 discrete or appropriately composited samples will be required per each 50-cubic yards stockpiled.

Soil and/or water samples will be analyzed for constituents of concern based on prior tank contents according to the Leaking Underground Fuel Tank (LUFT) Manual. At minimum, the analytes in the table below must be tested. The inspector may require additional sampling, especially if areas of discoloration or odor are noted.

⁵ CCR 2672(d)

⁶ Leaking Underground Fuel Tank (LUFT) Manual (2015): Refer to: <u>https://www.waterboards.ca.gov/water_issues/programs/ust/luft_manual/manual_dec2015.pdf</u>

MINIMUM CONSTITUENTS TO BE ANALYZED

Gasoline		
Analytes	Analytical Method(s)	
BTEX, Naphthalene, MTBE, TBA	EPA 8260 B/C	
EDC, EDB (for pre-1992 release)	EPA 8260 B/C	
Organic lead (GC-ECD) (Only if Pre-1992 release is detected)	EPA 6010/6020 or EPA 7000/7010	
TPH (gasoline range: C ₅ -C ₁₂)	EPA 8015B GRO	

Diesel #1 or #2

Analytes	Analytical Method(s)
BTEX, naphthalene, MTBE	EPA 8260 B/C
TPH (diesel range: C ₁₀ -C ₂₄)	EPA 8015B DRO (C12-C22)

Analytes	Analytical Method(s)
BTEX, Naphthalene, MTBE, TBA, chlorinated VOCs	EPA 8260 B/C
16 priority pollutant PAHs	EPA 8270 SIM
Wear Metals (cadmium, chromium, nickel, lead, zinc)	EPA 6010/6020 or EPA 7000/7010
TPH (oil-range: C ₂₃ -C ₃₂)	EPA 8015B ORO (C ₂₃ -C ₃₂)

Analytes	Analytical Method(s)
BTEX, naphthalene, MTBE	EPA 8260 B/C
TPH (diesel range: C ₁₀ -C ₂₄)	EPA 8015B ORO (C ₂₃ -C ₃₂)

Analytes	Analytical Method(s)
BTEX, Naphthalene, MTBE	EPA 8260 B/C
16 priority pollutants PAHs	EPA 8270 SIM
TPH (<i>oil-range:</i> C ₂₃ -C ₃₂)	EPA 8015B ORO (C ₂₃ -C ₃₂)

BTEX	Benzene, toluene, ethylbenzene, & xylene	JP8	Jet Propellant 8 - Military Jet Fuel
DRO	Diesel-Range Organics by GC-FID	MTBE	Methyl tertiary butyl ether
EDB	1,2-dibromoethane	ORO	Oil-Range Organics by GC-FID
EDC	1,2-dichloroethane	PAH	Polycyclic aromatic hydrocarbon
GC-FID	Gas Chromatography / Flame Ionization Detector	TBA	t-Butyl alcohol
GRO	Gasoline-Range [or purgeable] organics by GC-FID	TPH	Total Petroleum Hydrocarbon
Jet A	Commercial Jet Fuel	VOC	Volatile organic compound
JP5	Jet Propellant 5 - Military Jet Fuel		

Samples shall be prepared, stored, transported under chain-of-custody, and analyzed by appropriate Environmental Protection Agency (EPA)-approved methods. A California State-Certified Laboratory shall perform the sample analysis.

Detection of any unauthorized release shall be reported to this CUPA within 24 hours. Within five working days of detecting an unauthorized release, the owner or operator shall submit to the local agency through the California Environmental Reporting System (CERS) an Unauthorized Release Report.⁷

SAMPLING FOR TANK CLOSURE IN PLACE

If the underground storage tank or any portion thereof is not removed, at least one boring shall be taken as close as possible to the midpoint beneath the tank using a slant boring (mechanical or manual), or other appropriate method such as vertical borings drilled on each long dimensional side of the tank as approved by our department.

⁷ CCR 2652(b)&(c)

Types of UST Closures

CLOSURE BY REMOVAL

Permanent closure by removal applies to USTs in which the storage of hazardous substances has ceased and there is no planned use of the tanks within the next twelve (12) consecutive months. An inspector from the Section must witness and document the removal and sampling. Sampling and analysis is required to determine if contamination exists and if further assessment of contamination is necessary.

CLOSURE IN PLACE

The Section may allow for a UST to be closed in place if there is a written letter from a certified professional engineer indicating that the removal of the UST would affect the structural integrity of adjacent structures.

If approved, all ancillary UST equipment and piping shall be removed. If any piping cannot be removed without damaging structures or other pipes being used in a common trench, then the pipe shall be emptied of contents and capped.⁸ The UST shall be filled with an inert, solid material.⁹ A soil and/or water sampling workplan shall be submitted by a geologist proposing the location and sampling intervals of proposed borings.¹⁰

If at any time there is a major construction and the reason originally cited for not removing the UST is no longer valid, then the UST shall be removed at that time.

Found Tanks

Found tanks are long-abandoned USTs that are discovered, that were never previously regulated (i.e. operation of UST ceased prior to January 1, 1984).

If there is any liquid in the UST, the liquid shall be removed immediately, and a waste determination shall be conducted to determine proper disposal method. The manifest shall be submitted with the workplan and closure application.

A proposal to close or remove the UST(s) shall be submitted to the CUPA within 30 days of discovery. Failure to submit plans within the allotted timeframe will result in the UST being classified as an Abandoned UST and may result in enforcement action.

Found tanks that do not have any liquid are not entered in CERS¹¹.

⁸ CCR 2672(c)(3)

⁹ CCR 2672(c)(4)

¹⁰ CCR 2672(d)(2)

¹¹ Refer to <u>https://www.waterboards.ca.gov/ust/cers/docs/cers_regulator_fag_abust.pdf</u>; CHSC 25298, CCR 2670(f)

UST Closure Submittal Checklist

The Submittal Packet shall meet the minimum requirements, as listed below. Additional information may be requested. All information must be submitted electronically to <u>montereycupaedt@co.monterey.ca.us</u>. Please allow 14 days for completion of permit processing.

APPLICATION

- □ Facility Permits are Current: Existing facilities applying for a UST construction permit shall have a current Permit to Operate from this CUPA (i.e. all permit fees and any delinquent charges must be brought up to date prior to plan submittal).
- □ **Construction Application**: A complete and accurate Underground Storage Tank Closure Permit Application is submitted.
- **Payment**: Check, Money Order, Cash, or Credit Card Payments are accepted.

CERTIFICATION

A copy of all appropriate, valid certifications for the proposed work shall be submitted for everyone conducting the work, including subcontractors.

- □ Contractor's State License Board (CSLB) with Hazardous Substance Removal Certification¹² (i.e. HAZ Endorsement)
- **Certificate of Liability Insurance** Workers Compensation and Employer's Liability
- **Proof of Hazardous Waste Training** For each employee working at the site.

SITE MAP

The following details must be present on the site map:

- □ The facility name, street address, and city are present.
- North arrow
- Building(s) onsite
- Adjacent streets
- □ All USTs—Specify the USTs that are being closed¹³
- □ All Dispensers connected to USTs that are being closed
- □ All piping locations of UST system (including vent & vapor)

SAMPLING PLAN

- Proposed sampling locations
- □ Constituents being sampled for, and EPA methods being used
- □ Third-party collecting samples

SITE SAFETY PLAN

Our site safety plan template can be found on the UST page of the Monterey County Environmental Health Bureau's website or by clicking <u>here</u>.

¹² Business & Professions Code 7058.7(a) -

https://www2.cslb.ca.gov/About Us/Library/Licensing Classifications/HAZ -Hazardous Substance Removal Certification.aspx

¹³ CCR 67383.3(a)(1)(A)

Additional Submittal Requirements: Closure in Place

If the proposed method of closure is "Closure in Place" for a tank, then the following information must be submitted <u>in addition</u> to the UST Closure Submittal Packet.

LETTER FROM PROFESSIONAL ENGINEER

A letter stamped by a Professional Engineer certifying that removal of the UST will cause undue damage to nearby utilities or building foundations, or it would cause unreasonable risk to life, health or property.

WORK PLAN

Must show the locations and intervals for sampling per the most recent version of the Leaking Underground Fuel Tank (LUFT) Manual.¹⁴

SITE MAP

The following information must be laid out on a site map:

- □ The site map must show the locations of the soil borings (slant boring or one boring on each end of the UST).¹⁵
- Any piping that cannot be removed because it might damage structures or other pipes that are being used (e.g. pipes contained in a common trench) shall be clearly drawn along with the locations at which those pipes will be capped.¹⁶

Additional Submittal Requirements: Found Tanks

If the closure application is for a UST that was discovered and has never been regulated, then the following must be submitted <u>in addition</u> to the UST Closure Submittal Packet.

HAZARDOUS WASTE DISPOSAL RECORDS

Q Records must identify the hazardous waste removed from the tank.

SITE MAP

□ Must have the GPS coordinates (latitude/longitude) of the location of the tanks.

¹⁴ Leaking Underground Fuel Tank (LUFT) Manual (2015): Refer to:

https://www.waterboards.ca.gov/water_issues/programs/ust/luft_manual/manual_dec2015.pdf ¹⁵ CCR 2672(d)(2)

¹⁶ CCR 2672(c)(3)

Prior to Closure Inspection

TANK CLEANING NOTIFICATION

- ❑ Hazardous Waste Tank Closure Notification Form: A complete and accurate form must be submitted to the CUPA no less than 48 hours prior to tank cleaning/rinsing. The form can be found on the UST page of the Monterey County Environmental Health Bureau's website or by clicking <u>here.</u>
- □ **Certification**: If the certifications for the person certifying the Hazardous Waste Tank Closure was not submitted during the initial plan submittal, the certification must be submitted with this form.
- □ Lab Results: If the tank contents are being certified through chemical analysis of the residue, then the lab results must be attached to this form.

UST Closure Inspection Checklist

These are the minimum requirements for the Tank Closure Inspection. Additional requirements may be set by the inspector onsite. Photographs may be taken as part of the inspection process.

TANK CLEANING

- □ All residual liquids, solids, and sludges shall be removed and properly disposed prior to inspection.
- □ The UST system shall be pressure washed/rinsed and rinsate shall be properly disposed.
- □ Rinsate manifest shall be available for review during the inspection.
- □ Flammable vapors shall be removed using a vacuum type pump system by a properly certified contractor.

TANK INERTING

- □ For tanks that previously held flammable materials
- □ The oxygen concentration shall be the same as that of the ambient air (~20.8%).
- A properly calibrated CGI shall be onsite to document the LEL prior to removal or filling with inert material. CGI readings shall be obtained from the top, center, and bottom of the UST (must be done BEFORE inerting).
- The concentration of flammable vapor shall be 0% of the LEL of the material the tank held.
- The UST must be inerted with a minimum of 22.2 lbs. of carbon dioxide, dry ice per 1,000 gallons of UST capacity.
- Cutting On-site: If the tank held a flammable or combustible material and the tank, piping, and/or appurtenances are cut onsite, non-sparking, cold-cutting tools or process shall be used.

TANK REMOVAL AND DISPOSITION

- □ All piping, dispensers, vent lines and Enhanced Vapor Recovery (EVR) Phase II equipment shall be removed prior to inspection.
- □ For USTs larger than 2,000 gallons, removal of the UST from the excavation and loading onto a truck for transport shall be accomplished using a crane. Other equivalent equipment will only be allowed with pre-approval from this CUPA.
- □ The UST shall be appropriately transported and disposed. Shipping papers or work orders shall be available documenting the intended disposition of the USTs.

SAMPLING

- At least (1) sample must have a GPS coordinate noted.
- □ Samples shall be collected from at least 2 feet below native material (not from fill material).
- At least (1) sample taken from each end of the tank.
- □ A sample shall be taken every 20 linear feet of piping and/or at each joint, bend or connection.
- □ One sample taken beneath each under dispenser containment.
- Groundwater samples taken if groundwater is present.
- □ Three (3) discrete or appropriately composited samples taken each 50-cubic yards stockpiled.
- Excavated soil shall not be used as backfill unless it can be demonstrated that soil is not contaminated (i.e., Total Petroleum Hydrocarbons (TPH) must not exceed 100 mg/kg with no volatile organic compounds or MTBE detected).
- Samples shall be prepared, stored, transported under chain-of-custody, and analyzed by appropriate Environmental Protection Agency (EPA) methods. A California State-Certified Laboratory shall perform the sample analysis.
- Additional samples may be required depending on site conditions (inspector discretion will apply). If the stockpile is disposed offsite, documentation of location shall be provided.

*TANK CLOSURE IN PLACE

This will be verified if a tank is closed in place:

- Piping associated with the UST shall be removed and properly disposed of. Any piping that has been approved to remain shall be emptied of all contents and capped.
- □ Soil borings shall be taken as specified in the approved workplan.
- □ The UST shall be filled with an approved inert material and nonhazardous substance.

Tank Closure in California Environmental Reporting System (CERS)

The following changes shall be made in CERS within <u>30 days</u> of the Closure Inspection. If CERS is not updated in a timely manner, then a proxy CERS submission will be conducted by the CUPA to properly report the tank closure. Found tanks are not required to be reported in CERS if there is no liquid in the tanks.

UST ELEMENT

UST Facility Operating Permit Application

□ **Type of Action**: If all USTs are removed or closed in place, then select "Permanent Facility Closure." Otherwise, select "Confirm/Update Information."

UST Tank Information

Must be Updated for EACH Tank Closed

- **Type of Action (UST Tank)**: Select "UST Removal" or "UST Permanent Closure on Site."
- Date UST Installed: This field cannot be blank. If the date of install is unknown, enter 01/01/1900.
- **Date UST Permanently Closed**: Enter UST removal or closure on site date.

Miscellaneous State-Required Documents

□ UST Site-Unauthorized Release / Contamination Report: This form must be uploaded into CERS if contamination is detected.

TANK ELEMENT

□ Hazardous Waste Tank Closure Certification: Complete form must be submitted in CERS.

UST Closure Report Checklist

Detection of any unauthorized release shall be reported to this CUPA within 24 hours. This CUPA will evaluate all data and determine if any further corrective action is required.

A UST Closure Report must be submitted to the CUPA within 60 days of the UST removal/sampling date. Failure to submit all required documentation within the allotted time frame may result in enforcement action.

The job will not be considered complete until all closure documentation is received.

PLOT PLAN

Must contain the following:

- □ The plan shall be to scale.
- North orientation
- □ The locations of the former UST systems including the tanks, dispensers, and piping relative to permanent landmarks/buildings.
- □ The plan shall have the location, depth and sample ID for each sample taken. At least one sample shall have a GPS coordinate attached.

DOCUMENTATION

- □ Copy of the rinsate manifest shall be submitted.
- Copy of the UST disposal/destruction certificate shall be submitted.
- □ Copy of the laboratory analysis with chain of custody.

CLOSURE REPORT

- □ Summary of field activities including sampling.
- □ Summary of sampling results.

When all 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 the CUPA. Should an unauthorized release be discovered, the CUPA will refer the UST cleanup case to the State Water Regional Control Board.

References

- California Code of Regulations (CCR)
 - Title 23, Division 3, Chapter 16, Article 7, (Underground Storage Tank Closure Requirements) Sections 2670-2672 (General Applicability, Temporary Closure Requirements, Permanent Closure Requirements)
 - Title 22, Division 4.5, Chapter 32 (Management of Tanks), Section 67383.1-67383.5
- California Health and Safety Code Section 25298 (Abandonment, Closing, or Temporary Ceasing of Operation of Underground Storage Tank)
- PEI/RP1700-18 Recommended Practices for the Closure of Underground Storage Tanks and Shop-Fabricated Aboveground Storage Tank Systems
- Leaking Underground Fuel Tank Guidance Manual. California State Water Resources Control Board (September 2012). Refer to:

https://www.waterboards.ca.gov/water issues/programs/ust/luft manual/manual dec2015.p

<u>df</u>