

PERMIT APPLICATION GUIDANCE DOCUMENT

**FOR REMOVAL, UPGRADE, REPAIR, MONITORING OF
UNDERGROUND AND ABOVEGROUND STORAGE TANKS.**



Long Beach Fire Department
Bureau of Fire Prevention
3205 Lakewood Blvd.
Long Beach, CA 90808
(562) 570-2560



City of Long Beach Department of Health & Human
Services Department
Hazardous Materials Division
2525 Grand Avenue, Suite 222,
Long Beach, CA 90815
(562) 570-4129

THE LONG BEACH FIRE DEPARTMENT BUREAU OF FIRE PREVENTION AND THE LONG BEACH DEPARTMENT OF HEALTH AND HUMAN SERVICES FORM A CERTIFIED UNIFIED PROGRAM AGENCY (CUPA). AMONG THE RESPONSIBILITIES OF THE LONG BEACH CUPA, IS THE REGULATORY OVERSIGHT OF THE UNDERGROUND AND ABOVEGROUND STORAGE TANK PROGRAMS.

THIS PERMIT APPLICATION GUIDANCE HAS BEEN DESIGNED FOR YOUR USE AS A REFERENCE DOCUMENT. PROVIDE ONLY THOSE PAGES, DOCUMENTS AND FEES APPLICABLE TO YOUR PROJECT TO THE CITY OF LONG BEACH CITY HALL, DEVELOPMENT SERVICES CENTER, 333 W. OCEAN BLVD, 4th FLOOR, LONG BEACH, CA 90802, (562) 570-7086.



INTRODUCTION

Dear Environmental Stakeholder,

As the Fire Marshal for the Long Beach Fire Department, my team and I, look forward to partnering with you and your staff in protecting the environment of the great state of California, as well as the City of Long Beach. It is our goal to protect you as well as those who live, work, and enjoy our great city.

The California State Legislature has declared that it is "In the public interest to establish a continuing program for the purpose of preventing contamination from, improper storage of hazardous substances stored underground."

The goal of the Long Beach Fire Department, Bureau of Fire Prevention, as stated by legislative declaration, is education as well as the protection of public health, safety and the environment. We are committed to attaining and sustaining this goal into the future to enable future generations to enjoy the treasured resources entrusted to the City of Long Beach.

With the advancements of today's technology and providing state-of-the-art underground and above ground tank systems, I believe that we have the tools needed to accomplish this weighty task. Also, couple this with annual testing, preventative maintenance, timely repairs, and we can be assured that future generations will be entrusted with an environment that has been preserved for their enjoyment.

The Long Beach Fire Department is poised to team up with you and your staff as you address these challenges. My team is ready to assist and provide insight, guidance, and direction on issues directly affecting you. My Inspectors and Plan Reviewer's may be reached by calling (562) 570-2560, during normal business hours (7:00 AM to 5:30 PM) Monday thru Friday.

In closing, I would like to personally say "Thank You," to you, for your commitment to the shared goals we have of protecting the environment. I look forward to partnering in this endeavor with you.

Sincerely,
Richard Brandt
Deputy Chief/Fire Marshal
Long Beach Fire Department
Bureau of Fire Prevention

TABLE OF CONTENTS

REQUIRED PERMITS AND LICENSES.....	1-2
PERMIT APPLICATION.....	3-4
FIRE PREVENTION PLAN CHECK APPLICATION.....	5
CONTRACTORS DECLARATION.....	6
GENERAL PROJECT INFORMATION.....	7
SPECIFIC TOPICS.....	8
REMOVAL, UPGRADES, MODIFICATIONS AND REPAIRS.....	9
CONDEMNED SITE.....	10
COMPLIANCE 1998 AND BEYOND.....	11-13
ADDITIONAL LICENSING REQUIREMENTS.....	14
HEALTH AND SAFETY – HAZWOPER TRAINING.....	14
DESIGN REQUIREMENTS.....	15
SITE PLAN/MAP.....	16
HEALTH AND SAFETY PLAN.....	17-18
CONFINED SPACES.....	18
TANK REMOVAL.....	19
PRIOR TO SUBMITTING PERMIT APPLICATION.....	20
INSPECTORS CHECKLIST.....	21
REMOVAL METHOD #1 – HAZARDOUS.....	22
REMOVAL METHOD #2 – CLEAN.....	23-24
CLOSURE IN PLACE.....	25
TANK INSTALLATION.....	26
POLICY.....	27

CERTIFICATION28

OVERVIEW NEW INSTALLATION.....28

AUTOMATIC TANK GAUGE29

DUAL WALL TANKS WITHOUT STRIKER PLATE29

UNDERGROUND STORAGE TANK INSTALLATION REQUIREMENTS 30-36

WRITTEN MONITORING PROCEDURES37

EMERGENCY RESPONSE PLAN.....38

UNDERGROUND STORAGE TANK INSPECTION CHECKLIST 39-42

ABOVEGROUND STORAGE TANKS43

APPENDIX A HEALTH DEPARTMENT REQUIREMENTS 44-59

MONITORING CERTIFICATION SECTION.....60-63

CERTIFIED UNIFIED PROGRAM AGENCY FORMS – A THROUGH E.....64-77

REQUIRED PERMITS, LICENSES AND FEES

Please initial the line to the left of the following checklist to indicate the permits, licenses and other documents that are required for the project. N/A indicates not applicable. Copies of all required forms, licenses, certificates, documents and fees must be submitted with this checklist to:

**City of Long Beach - City Hall Development Services Center
333 W. Ocean Blvd., 4th Floor
Long Beach, CA 90802**

1. ___ State Contractor License
 - A. ICC, MFG and HAZWOPER certificates.
 - B. **(Copies of applicable certificates and photo identifications for each employee).**
2. ___ State of California Worker's Compensation Insurance information.
3. ___ EPA Generator Identification Number which may be obtained from the State of California Department of Toxic Substances Control (DTSC) Health Services, (916) 255-1136 or (800) 61-TOXIC.
4. ___ City of Long Beach Business License.
5. ___ If the Removal/Installation of the underground tank is to be performed in the City of Long Beach Harbor District, an additional permit is required from the Harbor Planning Bureau, 925 Harbor Plaza Drive, Long Beach, CA 90802, (562) 590-4160.
6. ___ South Coast Air Quality Management District – Degassing Permit (Rule 1149) for all underground tanks larger than 500 gallons.
7. ___ Excavation Safety Precautions. (See page 18).
8. ___ State of California – State Water Resources Control Board Form A, B and C, as complete as possible. (Leave blank if you are not sure – do not write "UNKNOWN"). All forms (A thru E) are located at end of booklet.
9. ___ Site Plan. Minimum of 3 sets are required. (See pages 16).
10. ___ Health and Safety Plan (HASP) – (See pages 17-18).
11. ___ **UNDERGROUND OR ABOVEGROUND STORAGE TANK FEES FOR REVIEW OF SOIL SAMPLING, REMOVAL, OR UPGRADE REPORTS** by City of Long Beach Department of Health & Human Services, Bureau of Environmental Health, Division of Hazardous Material.
 - A. For purposes of removal, ASTs, Clarifiers and Hoists shall be considered underground storage tanks, in regard to soil sampling protocol.
Check Payable to: City of Long Beach for **\$ 265.00**. Mail to: Long Beach Department of Health & Human Services, Division of Hazardous Materials, 2525 Grand Avenue, Room #222, Long Beach, CA 90815.

12. FEES: **Check Payable to the City of Long Beach.**

PLAN TYPE	PLAN REVIEW Surcharge: add 6.2%	PLAN PERMIT Surcharge: add 6.2%
Install/Remove/Repair/Sumps/Leak Detection/Slurry Fill	\$508.00 for the first tank \$256.00 for each add'l tank	\$595.00 \$300.00 for each add'l tank
Pipes/VentLines/SB989/Split Boot/Dispensers/Healy/Secondary Containment/CARB/Veeder Root	\$450.00	\$527.00
UST Monitoring Wells/Smart System	\$517.00 for first well \$225.00 for each add'l well	\$607.50 for first well \$263.00 per each add'l well

- 13. ___ Financial Responsibility Documents.
- 14. ___ For all installations, a written routine monitoring procedure. (See pages 71 and 74).
- 15. ___ For all installations, a written emergency response plan. (See pages 75 and 77).
- 16. ___ Completed Application to install storage tanks Permit Application. (See page 3 and 4).
- 17. ___ Completed Plan Check Application. (See page 5).
- 18. ___ Contractors Declaration. (See page 6).
- 19. ___ Completed General Project Information. (See page 7).

NO WORK SHALL BEGIN ON THE PROPOSED PROJECT, OR INSPECTIONS SCHEDULED, UNTIL ALL REQUIREMENTS ARE REVIEWED AND APPROVED.



**LONG BEACH FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION
3205 LAKEWOOD BOULEVARD
LONG BEACH, CA 90808**

APPLICATION AND PERMIT TO INSTALL STORAGE TANK(S)

ANY TANKS USED FOR THE STORAGE OF ANY HAZARDOUS AND/OR FLAMMABLE LIQUID

PROJECT # FTNK _____

PROPERTY OWNER _____ PHONE _____

ADDRESS _____

FACILITY NAME _____ PHONE _____

FACILITY ADDRESS _____

TYPE OF BUSINESS _____ OCC. CLASS _____

OPERATOR/TENANT/SUPERVISOR _____ PHONE _____

ADDRESS (IF DIFFERENT FROM ABOVE) _____

24-HR EMERGENCY CONTACT PERSON/DAYS _____ PHONE _____

NIGHTS _____ PHONE _____

TOTAL NO. OF EXISTING TANKS (ABOVE GROUND) _____ (UNDERGROUND) _____

TOTAL CAP. OF EXISTING TANKS (ABOVE GROUND) _____ (UNDERGROUND) _____

MONITORED: YES _____ NO _____

NEW TANK INSTALLATION INFORMATION

INSTALLATION CONTRACTOR _____ CITY BUS. LIC.# _____

ADDRESS _____ PHONE _____

TANK(S) UL NO. (RECORDED IN FIELD)	#1 _____	#2 _____	#3 _____	#4 _____
TANK CAPACITY	#1 _____	#2 _____	#3 _____	#4 _____
COMMODITY NAME	#1 _____	#2 _____	#3 _____	#4 _____
CAS NO. (CHEMICAL ABSTRACT SERV. #)	#1 _____	#2 _____	#3 _____	#4 _____
TANK MFG.	#1 _____	#2 _____	#3 _____	#4 _____
YEAR OF MFG.	#1 _____	#2 _____	#3 _____	#4 _____
THICKNESS OF PRIMARY TANK	#1 _____	#2 _____	#3 _____	#4 _____
TANK CONST. MATERIAL	#1 _____	#2 _____	#3 _____	#4 _____
TYPE OF TANK LINING	#1 _____	#2 _____	#3 _____	#4 _____
TYPE OF OUTER TANK COATING	#1 _____	#2 _____	#3 _____	#4 _____
ASSOC. PIPING	ABOVE GRND _____	VAULTED _____	PRESSURE _____	SUCTION _____

TYPE OF SECONDARY CONTAINMENT _____

TYPE OF MONITORING SYSTEM _____

TANK(S) _____

PIPING _____

STORED PRODUCT TO BE USED IN CONNECTION WITH _____

I, THE UNDERSIGNED, HAVE READ COMPLETELY AND FULLY UNDERSTAND THE LONG BEACH FIRE DEPARTMENT REQUIREMENTS WHICH APPL TO THIS APPLICATION AND PERMIT. I, THE UNDERSIGNED, ATTEST TO THE BEST OF MY KNOWLEDGE, UNDER THE PENALTY OF PERJURY, THAT THIS INFORMATION IS TRUE AND CORRECT. I, THE UNDERSIGNED, ACCEPT THE CONDITION THAT ANY DEVIATION(S) FROM AND/OR MISINFORMATION ON THIS FORM WILL RENDER THIS APPLICATION AND PERMIT NULL AND VOID.

APPLICANT SIGNATURE _____ DATE _____

PRINTED NAME _____ TITLE _____ PHONE _____

APPLICATION APPROVED _____ DENIED _____ BY _____ DATE _____
(LBFD FIRE PREVENTION OFFICIAL)

INSTALLATION INSPECTIONS

DATE	BY	DATE	BY
TANK(S) _____		PIPING _____	
TANK LEAK DETEC. SYSTEM _____		PIPING LEAK DETEC. SYSTEM _____	
VENTING _____		VAPOR RECOVERY SYSTEM _____	

FIRE JOB CARD _____

LONG BEACH FIRE DEPARTMENT BUREAU OF FIRE PREVENTION

PERMIT REQUIREMENTS

ANY CHANGES TO APPROVED PLANS SHALL BE SUBJECT TO REVIEW AND RE-APPROVAL BY THE BUREAU OF FIRE PREVENTION. INSPECTIONS ARE REQUIRED ON ALL TANKS AND PIPING PRIOR TO COVER OR USE.

A **FINAL INSPECTION** IS REQUIRED AT COMPLETION OF INSTALLATION. WITHOUT FINAL INSPECTION AND FINAL APPROVAL OF INSTALLATION, A PERMIT TO OPERATE AND MAINTAIN THIS STORAGE TANK SYSTEM BY THE OCCUPANT AND/OR OWNER OF SUBJECT PREMISES WILL BE DENIED.

PERMITTEE OR HIS AUTHORIZED AGENT SHALL NOTIFY THE BUREAU OF FIRE PREVENTION, LONG BEACH FIRE DEPARTMENT, PHONE NO. (562) 570-2560, A MINIMUM OF 72 HOURS PRIOR TO ANY INSPECTION(S).

THIS APPLICATION AND PERMIT SHALL ONLY BE VALID AND IN FORCE FOR A MAXIMUM OF THIRTY (30) CALENDAR DAYS FROM DATE OF APPLICATION.

THE INSTALLATION OF ANY STORAGE TANK SYSTEM SHALL BE IN ACCORDANCE WITH LONG BEACH MUNICIPAL CODE, TITLE 18.48; THE CALIFORNIA FIRE CODE, CHAPTERS 22, 27, 34; AND LBFD FIRE PREVENTION REQUIREMENTS.

REVISED 05/12

FIRE PREVENTION PLAN CHECK APPLICATION

OFFICE Project Number _____ Building Number _____ ONLY	<input type="checkbox"/> K. Ayala <input type="checkbox"/> J. Bayudan <input type="checkbox"/> J. Berryman <input type="checkbox"/> T. Buzbee <input type="checkbox"/> W. Goetz <input type="checkbox"/> B. Weidman <input type="checkbox"/> D. Zinnen
---	---

TYPE OF PLAN

PLEASE SELECT ONLY ONE

Date of Application _____

- Bldg/New Construction **Occupancy** _____
CLASS
- Sprinkler/New Construction _____ **Heads**
NUMBER
- Fire Alarm NEW T.I. _____ **Devices**
NUMBER
- Fire Suppression System _____ **Nozzles**
NUMBER
- Above Ground Tanks _____ **Tanks**
NUMBER
- OTHER**

- Bldg/Tenant Improvement **Occupancy** _____
CLASS
- Sprinkler/Tenant Improvement _____ **Heads**
NUMBER
- Fire Hydrant/Fire Access
- Spray Booth
- Underground Tanks _____ **Tanks**
NUMBER
- Vapory Recovery System

PLEASE PRINT

ALL INFORMATION LISTED BELOW MUST BE FILLED OUT COMPLETELY AND SIGNED *

PROJECT NAME			
PROJECT ADDRESS			
DESCRIPTION OF WORK			
CONTRACTOR NAME	CONTACT PERSON	PHONE	
ADDRESS	CITY	STATE	<small>Ext.</small> ZIP
STATE LICENSE	CLASS	EXPIRATION DATE	
CITY BUSINESS LICENSE NUMBER		EXPIRATION DATE	

**All plans are required to include previous and proposed building use, occupancy classification- per UBC, square footage, type of construction, and information regarding whether or not building is sprinklered.*

ANY PLANS SUBMITTED WITHOUT THIS INFORMATION WILL BE DELAYED OR RETURNED

Signature _____ Date _____

FIRE PREVENTION USE ONLY

Plans Submitted By _____ # OF SETS _____

Plan Review Fees _____

Plan Review Checked By _____ Date _____

CONTRACTORS DECLARATION

I declare, I have personally read the Permit Application Guidance for Removal/Installation of Underground and Above Ground Storage Tanks and will follow all the requirements.

I declare that the statements and information provided are true and correct.

I understand that additional information may be needed in order to obtain a permit from the Long Beach Fire Department of Fire Prevention.

I understand that no work is to begin on this project until the permit is issued.

I understand that I must contact the Long Beach Fire Department, Bureau of Fire Prevention at least three working days (72 hours) in advance to schedule each required inspection.

I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is neither shared nor assumed by the City of Long Beach.

I understand that a re-inspection fee will be charged as a result of an inspection not being cancelled in a timely manner or a "not ready for inspection" condition existing upon arrival of a Fire Department Officer or Inspector, Fire Prevention Requirement No. 1.101.

SIGNATURE: _____

PRINT NAME & TITLE: _____

ADDRESS: _____

TELEPHONE: () _____ DATE: _____

E-mail ADDRESS _____

GENERAL PROJECT INFORMATION

A. SITE ADDRESS _____
Address _____ City _____ Zip _____
Assessors Parcel No. _____

B. PROPERTY OWNER:
Company _____ Contact _____
Home Mailing Address _____
Address _____ City _____ Zip _____
Home Phone No. (____) _____
24 Hour Contact _____ Phone No. (____) _____

C. TANK OPERATOR/OWNER:
Company _____ Contact _____
Home Mailing Address _____
Address _____ City _____ Zip _____
Home Phone No. (____) _____
24-Hour Contact _____ Phone No.(____) _____

D. CONTRACTOR:
Primary Contractor _____ Contact _____
Mailing Address _____
Address _____ City _____ Zip _____
Phone No. (____) _____ Email: _____
State Contractor License & Type _____ Exp. Date _____
Workers Comp. Insurance Co. _____ Exp. Date _____
City of L.B. Business License #: _____ Exp. Date _____

E. REMOVAL METHOD: Method #1-Hazardous _____ Method #2-Clean _____

F. SOIL SAMPLING:
Name of California Professional Geologist or a Certified Engineer Geologist _____
Address _____ City _____ Zip _____
Phone No. (____) _____ E-Mail Address _____
Professional Geologist ID # _____ Expiration Date _____
Name of testing laboratory with current California Environmental Laboratory Accreditation Program (ELAP):
_____ Phone No. (____) _____
Address _____ City _____ Zip _____

Specific Topics

- ❖ Removal
- ❖ Upgrades
- ❖ Repairs
- ❖ Confined Spaces
- ❖ Hydraulic Lifts
- ❖ Clarifiers
- ❖ Temporary Closure
- ❖ Electrical Approvals



REMOVAL, UPGRADES, MODIFICATIONS AND REPAIRS

All removals, upgrades, modifications and repairs require approved permits prior to any work being done on site.

CONFINED SPACES

A confined space is a space large enough and so configured that an employee can bodily enter and perform assigned work. In addition, it has limited or restricted means for an entry and is not designed for continuous employee occupancy. Pits, excavations, tanks, vaults, boilers, storage bins, compartments, silos, vats, tubs ducts, pipelines, sewers are typical confined spaces. Where discrepancies exist, we will evaluate on a case by case basis.

An in-depth work plan and Health and Safety Plan must be submitted and approved prior to any work being done on-site. As a guidance document, the Long Beach Fire Department uses:

California Code of Regulations, Title 8 – Industrial Relations Division 1.
Subchapter 7, Group 16. Control of Hazardous Substances Article 108. Confined Spaces, Section 5156 through 5158.

LIFTS

For purposes of removal, the **Permit Application for removal of underground storage tanks shall be followed**, where applicable, for the removal of aboveground tanks, clarifiers and hydraulic lifts. (See page 19-25).

TEMPORARY CLOSURE REQUIREMENTS

In accordance with Title 23, Division 3, Chapter 16, California Code of Regulations, Article 7-Sec. #2671 and California Fire Code, 2010, Chapter 34, underground storage tanks may be temporarily closed. A closure plan in accordance with these sections must be submitted for approval by the Long Beach Fire Department, Bureau of Fire Prevention. You will receive a Permit to Place Temporarily Out-of-Service, once plans are approved and inspections have been completed showing code compliance.

California Fire Code, 2010, Chapter 34

- (e) **Underground Tanks Out-of-Service for One Year.** Underground tanks which have been out-of-service for a period of one year shall be removed from the ground in a manner approved by the Chief and the site shall be restored in an acceptable manner.
- (d) **Aboveground Tanks Out-of-Service for One Year.** Aboveground tanks which, have been out-of-service for a period of one year, shall be removed from the property in a manner approved by the Chief.

CONDEMNED SITE

A site specifically condemned by the Long Beach Fire Department, Bureau of Fire Prevention shall not operate in any manner until such time as violations noted at the site are in complete compliance. A site may be condemned for any of the following reasons:

1. Operating without a permit.
2. Upgrades or repairs without a permit.
3. Illegal abandonment of underground storage tanks and system.
4. Improper monitoring and testing.

Sites condemned having single walled steel tanks shall comply with underground storage tanks regulations as applicable.

PLAN APPROVAL FOR ELECTRICAL – BUILDINGS – CANOPIES

Plan approval by the Bureau of Fire Prevention, Underground Storage Tank Section shall be limited to underground or aboveground storage tanks and the underground or aboveground storage tank system.

An additional plan check submittal and approval is required for electrical, buildings and canopies to the Department of Planning & Building, Development Services Center, 333 W. Ocean Blvd, 4th Floor, City Hall, Long Beach, CA 90802 .

COMPLIANCE 1998 AND BEYOND

1. **OVERFILL PREVENTION SYSTEM** – Alarm activation at 90% and positive shut down at 95% capacity. NOTE: Ball-vent float valve may remain if included – our recommendation is to remove it.
2. **OVERSPILL PREVENTION SYSTEM** – The spill container shall collect any hazardous substances spilled during product delivery operations to prevent the hazardous substance from entering the subsurface environment. The spill container shall meet the following requirements:
 - a. If it is made of metal, the exterior wall shall be protected from galvanic corrosion.
 - b. It shall have a minimum capacity of five gallons (19 liters).
 - c. It shall have a drain valve, which allows drainage of the collected spill into the primary container or provide a means to keep the spill container empty.
 - d. Spill container shall be clean of trash, debris and liquids at all times.
3. **LINE LEAK DETECTORS** – Automatic line leak detectors shall be installed on underground pressurized piping and shall be capable of detecting a 3-gallon per hour leak rate at 10 psi within 1 hour with a probability of detection of at least 95 percent and a probability of false alarm no greater than 5 percent. Compliance with these standards shall be certified in accordance with California Code of Regulations, Title 23, Section #2636(f).
4. **POSITIVE SHUT-DOWN** – A continuous monitoring system is connected to an audible and visual alarm system and the pumping system.

A continuous monitor shuts down the pump and activates the alarm system when a release is detected.

The pumping system shuts down automatically if the continuous monitoring system fails or is disconnected.

The requirements of subdivisions (3) and (4) do not apply to an emergency generator, provided the monitoring system is checked at least daily.

5. **POSITIVE SHUTDOWN** – A continuous monitoring system is connected to an audible and visual alarm system and the pumping system.

COMPLIANCE 1998 AND BEYOND

(Continued)

5. **TOUCH-IT, REMOVE-IT POLICY**

a. Dispenser Without Containment – Currently in Compliance

In the event of the removal or replacement of a dispenser, this will activate our Touch-It Policy. At that time, dispenser containment will be required to include dual-walled piping and sump with electronic monitoring at the turbine.

b. Turbine Without Sump – Currently in Compliance

Turbine is not secondarily contained or monitored.

Turbine replacement would include replacement of all single walled piping, to include the addition of a sump at the Turbine, electronically monitored to include dispenser containment.

6. **SINGLE WALLED FIBERGLASS TANKS – CURRENTLY IN COMPLIANCE**

a. Automatic Tank Gauge

ALL single walled fiberglass underground storage tanks must be equipped with an automatic tank gauge which will generate a hard copy of the calculated leak rate and leak threshold. Tank gauge is included as tank monitoring.

After December 22, 1998, manual inventory reconciliation shall not be used to satisfy underground storage tank monitoring requirements.

7. **DUAL WALLED TANKS WITHOUT STRIKER PLATE**

Section 2662(d) by December 22, 1998, owners shall have installed a wear plate (striker plate) which meets the criteria in Section 2631(c) under all tank openings that could be used for manual dip sticking. A drop tube-mounted bottom protector may fulfill this requirement.

An automatic tank gauge will satisfy the above requirement.

8. **SINGLE WALLED PIPING** – No steel single-walled piping shall be allowed in service after December 22, 1998. All single walled piping with line leak detectors is in compliance until either the turbine or dispenser is repaired or replaced. At that time all single walled piping must be removed and replaced with dual-walled piping. This action would include a sump at the turbine electronically monitored and dispenser containment.

COMPLIANCE 1998 AND BEYOND
(Continued)

9. **SUCTION SYSTEMS**

- a. Suction system without tank sump – currently in compliance.
- b. Suction system with single walled non-corrosive piping – currently in compliance.
- b. Suction systems must be equipped with the following:
 - 1. Positive shutdown drop tube to provide shut-off of flow when the tank is filled to no more than 95%.
 - 2. System has no turbine and monitoring system cannot shut down turbine in positive shutdown.

ADDITIONAL LICENSING REQUIREMENTS

Under current Board policy only those contractors holding one of the license classifications below may contract for the installation or removal of underground storage tanks:

1. **Plumbing Contractors (C-36)** – may install (or remove) any underground storage tank that provides a service to a building. This includes storage tanks for service stations.
2. **Limited Specialty Contractor (C-61-D-40)** – may install (or remove) underground storage tanks at service stations or any other site up to capacity of 20,000 gallons.
3. **General Engineering Contractors (A)** – may install (or remove) underground storage tanks for any purpose or at any location.
4. **General Building (B) Contractor** – may install (or remove) any underground storage tank only if such work is performed under contract to construct or remodel a building that houses people, animals or chattels, the work of which involves the use of three or more unrelated trades.

Senate Bill 2004 (Keene) added a new requirement by amending the provisions of Business & Professions code Section 7058.7. Effective January 1, 1992, all contractors bidding on or performing the installation and/or removal of underground storage tanks must hold the **Hazardous Waste Certification**.

Additional professional review may be required due to special circumstances at a specific site. This may include required review and reports by a structural engineer, health safety specialist, etc.

HEALTH AND SAFETY – HAZWOPER TRAINING

Title 29, Section 1910.120, Code of Federal Regulations
Title 8, Section 5192 – California Code of Regulations

All general site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards, shall receive a minimum of 40 hours of instruction.

Current employees shall receive eight (8) hours of refresher training annually.

All employees of contractors working on sites of underground storage tank removal in the City of Long Beach will be requested to provide proof of said HAZWOPER Training. If proof of required training cannot be provided, the employees will be required to leave the site.

DESIGN REQUIREMENTS – SITE PLAN

Plans submitted shall include, but not be limited to:

1. A minimum of three (3) sets of site specific plans. Generic or “typical” drawings are not acceptable. Nothing in pencil will be considered.
2. A plot drawn to 1/20th scale (1 inch = 20 feet). Tank and other specific details shall be drawn to a scale, which will allow easy identification of all components.
3. Show the following:
 - a. Plot plan.
 - b. Buildings.
 - c. Water supply well or water service lines.
 - d. Sewage disposal system.
 - e. Location of proposed and existing tanks.
 - f. Details of the tank installation and piping system plan cross-section and elevation.
 - g. Elevation of highest groundwater level on record and source of data. Existing finished grades and pertinent inverts.
 - h. A cross-section of a test hole and its location may be required. Test holes should be drilled down at least four feet beyond the bottom elevation of the tank or to groundwater, prior to full depth exploration.
 - i. Manufacturer’s name and material of construction and testing requirements of the tank and piping system.
 - j. All storm water recharge basins and piping on the property or within one hundred (100 feet) of the property line must be shown to scale on the plot plan.
 - k. Any surface waters within two hundred (200) feet of the tank(s).
 - l. Leak detection system.
 - m. Overfill protection provisions.
 - n. Spill containment provisions at fill tubes.
 - o. Under dispenser containment.

The Fire Department may require plans prepared by a registered professional engineer if structural or physical features of the installation are determined to require special consideration.

Review and approval of plans may take up to two weeks, depending on current workload. Schedule for the maximum time when submitting the plans.

Approval of plans will be shown by placement of an approval stamp on the site plan(s). Approved plans will be valid for a period of 180 days. The Bureau of Fire Prevention shall be contacted for circumstances beyond the 180 days. These will be reviewed on a case-by-case basis.

LONG BEACH FIRE DEPARTMENT

SITE PLAN

N ↑

Site plan shall indicate site address, nearest cross streets and property lines.

HEALTH AND SAFETY PLAN

A Health and Safety Plan is required is required for the project as a separate item and may be amended throughout the course of the project. The Health and Safety Plan (HASP) requirements as per Code of Federal Regulations, Title 29, Section 1910.120 are as follows:

1. Signature Required

The Health and Safety Plan should be signed by the person responsible for site safety. For other than hydrocarbon fuel contamination, the Health and Safety Plan shall be signed by an Industrial Hygienist or similarly qualified individual.

2. Site Specific Plan

The Health and Safety Plan will be site specific, but the following are general requirements:

- A. Material Safety Data Sheets for all hazardous contaminants on the site.
- B. Location of an easy-to-see wind direction indicator.
- C. A chemical hazard analysis including, but not limited to:
 - 1. Exposures Limits:
 - a. Threshold Limit Values – Time Weighted Average (TLV-TWA) the average concentration most workers can be exposed to repeatedly during an 8 hour day and a 40 hour week without developing adverse, acute or chronic effects.
 - b. The TLV-STEL (STEL-Short Term Exposure Limit), a 15 minute allowable exposure, repeated no more than 4 times a day, with at least one hour between exposures, if applicable.
 - c. The TLV-C (TLV-Ceiling) concentration not to be exceeded even instantaneously, because of serious health effects, if applicable.
 - 2. The route of exposure.
 - 3. Symptoms and target organs.
- D. Other possible health and safety risks:
 - 1. Electrical lines.
 - 2. Adjacent chemical bulk storage tanks.
 - 3. Moving equipment.
 - 4. Fire and/or explosion risk.
 - 5. Adjacent chemical manufacturing operations.
- E. The type of air monitoring equipment to be used and its calibration and maintenance schedules.

- F. A plan showing site control, if applicable, with exclusion and support zones showing the required level of personal protective equipment, including respirators.
- G. An emergency response plan to include First Aid measures and location of nearest hospital.
- H. Decontamination procedures, if applicable.
- I. The qualifications of the person signing the HASP.

3. **Public Safety**

- a. Secure area from unauthorized entry.
- b. Locate all utilities, including gas and water lines.

4. **Excavation Safety Precautions**

Give details of the safety plan to be followed. The plan must comply with Cal –OSHA regulations and Standard Engineering principles. The plan should include, but is not limited to, the following:

- a. If excavation is five feet or more in depth with side slopes steeper than 45 degrees, the side banks must be supported with sheeting or shoring.
- b. If excavation is in sand, silt loam or clay and is three feet or more in depth, it must have sidewall protection to prevent cave-in.
- c. Excavated material must be placed at least 24 inches back from the edge of the excavation.
- d. For every foot of depth, the edge of the excavation must be an equal distance from the property line and/or adjacent structures (1 to 1 Rule) or the sides must be shored.

CONFINED SPACES

A confined space is a space large enough and so configured that an employee can bodily enter and perform assigned work. In addition, it has limited or restricted means for an entry and is not designed for continuous employee occupancy. Pits, excavations, tanks, vaults, boilers, storage bins, compartments, silos, vats, tubs ducts, pipelines, sewers are typical confined spaces.

An in-depth work plan and Health and Safety Plan must be submitted and approved prior to any work being done on-site. As a guidance document, the Long Beach Fire Department uses:

California Code of Regulations, Title 8 – Industrial Relations Division 1. Subchapter 7, Group 16. Control of Hazardous Substances Article 108. Confined Spaces, Section 5156 through 5158.

If the scope of work changes, a revised HASP may be required before work is allowed to proceed.

TANK REMOVAL



PRIOR TO SUBMITTING PERMIT APPLICATION

- A. Identify the size and location of all tanks. Plot plans or site drawings shall be obtained either from the owners or from Fire Department records. If tank size is unknown, estimate tank by “sticking” with a non-sparking probe.
- B. Identify the contents and/or prior contents. If the contents are unknown, a sample shall be drawn from each tank and subjected to analysis for profiling. The report of this analysis shall be submitted with all other required documentation. All tanks shall be checked for flammability by trained personnel only.
- C. All possible contents of the tank shall be removed. If hazardous, it must be transported to an appropriate reclaiming, recycling or Transfer/Storage/Disposal (TSD) facility by a Licensed Hazardous Waste Transporter subject to all applicable governmental regulations. Documentation showing the proper disposition of the residual liquids must be given to the Fire Department Inspector on-site prior to commencement of work.
- D. Maintain open pathways, be aware of any overhead wiring or other possible obstructions relative to safety of persons and equipment. Contact utility company for the removal of overhead electric or telephone lines, etc.
- E. All electricity, supply lines and like items known to be associated with the tank shall be “locked out” or disconnected.
- F. Dispensers shall be removed.
- G. Remove the fill line “drop tube” and/or sleeve.
- H. Demolition and removal of structures, black top, concrete, curbs, etc. shall not be done without prior approval of the Long Beach Fire Department, Bureau of Fire Prevention Underground Storage Tank Inspector.

NOTE: THE TANK(S) MUST BE “DRY ICED” IN THE PRESENCE OF A LONG BEACH FIRE DEPARTMENT INSPECTOR BEFORE ANY ACTUAL WORK IS DONE ON THE SITE (OTHER THAN THE WORK NOTED ABOVE).



INSPECTORS CHECKLIST

APPOINTMENT DATE AND TIME: _____

Prior to Starting Work and Arrival of Inspector:

1. Fence, barriers, colored tape around work area _____
2. Two (2) fire extinguishers, minimum 2A – 20BC _____
3. Posted “No Smoking” signs _____
4. Draft product _____ Manifest with amount _____
5. DEGAS _____ Removal dispenser(s) _____

Arrival of Inspector:

1. Dry ice tank(s) Method #1-Hazardous (22 lbs per 1000 gallon minimum) _____
2. Dry ice tank(s) Method #2-Clean (22 lbs per 1000 gallon minimum) _____

Two Hours Later – Return of Inspector:

1. LEL and oxygen meters (tag-dated calibration within 90 days) _____
2. Oxygen at 5% or lower _____
3. Permission to break ground _ Time _____

After Ground Breaking:

1. Disconnect all associated underground piping _____
2. Tank(s) cut and triple rinsed (Method #2) _____
3. Marine Chemist or Industrial Hygienist certification (Method #2) _____

Removing Tanks – Witnessed by Inspector:

1. Remove tank(s) as hazardous waste (Method #1) or certified clean (Method #2) _____
2. Inspect tank(s) for holes, cracks, etc. _____
3. Remove all soil from tank(s) – using non-sparking equipment _____
4. Load on truck(s) and strap down _____
5. Collect tank(s) manifest and deliver to Inspector _____ and driver hauling tank(s) _____

Soil Sampling – Witnessed by Inspector:

1. Soil samples taken and location noted on site map _____
2. Brass sleeves or glass jars with a Teflon sealer only _____
3. LBFD seals of custody on soil samples _____
4. Put on ice immediately _____

Before Leaving Site:

1. Place under and cover soils pile(s) with securely anchored heavy-duty plastic sheets _____
2. Six foot (6’) fence around excavation _____ or;
3. Line contaminated excavation with heavy duty plastic sheets _____ and;
4. May backfill immediately with uncontaminated/clean soil (provide receipt) _____

Required Paperwork:

1. Copy of hazardous waste manifest for residual product _____
2. Copy of hazardous waste manifest for rinseate _____
3. Copy of Marine Chemist or Certified Industrial Hygienist Certification _____

REMOVAL METHOD #1 – HAZARDOUS

The tank is removed from the ground and transported without being cleaned. The tank(s) must be “manifested,” transported as a “hazardous waste” and must be removed to a recognized TSD facility by a Licensed Hazardous Waste Transporter, subject to all applicable governmental regulations. Prior to starting work:

1. Barriers, caution tape and “No Smoking” signs shall be posted in order to keep any source of ignition at least 25’ away from the excavation.
2. A Long Beach Fire Department Inspector must be on site to witness the dry ice procedure. Place a minimum of **twenty-two (22) pounds of dry ice per 1000 gallons of capacity** in the tank.
3. Within two hours after dry icing the tank(s), a Long Beach Fire Department Inspector will return to the site and witness the contractor take oxygen content readings.

Oxygen content of the tank atmosphere shall be below 5 percent, at which point the tank shall be considered inerted. (NFPA 306)

It is mandatory that a properly calibrated flammable/combustible gas analyzer and oxygen indicator, certified within 90 days, is on the job site from start to finish.

4. Work may begin only when permission is given by the Fire Inspector. Excavate and expose top of tank. Identify all piping associated and relative to the tank. Disconnect the piping from the tank (including vent lines, associated piping, electrical lines and in-tank pump(s)) making observations for any product leakage. CONTINUOUS SUPERVISION MUST BE MAINTAINED DURING THE OPERATIONS BY A COMPETENT AND RESPONSIBLE ADULT EMPLOYEE OF THE CONTRACTOR NAMED ON THE REMOVAL PERMIT.
5. When more than 24 hours has elapsed since icing of tank, re-inert the tank with a minimum of **twenty-two (22) pounds of dry ice per 1000 gallons of capacity**. Two hour waiting period and/or reduced oxygen level of the tank atmosphere shall apply (see Step #3 above).
6. Plug all tank openings with threaded fittings. One fitting must be reduced and vented to ½”.
7. With a Long Beach Fire Department Inspector on-site, lift each tank from the excavation, remove all external dirt with non-sparking tools and secure it on an appropriate transporting vehicle. The tank(s) must be placed on the vehicle with the opening at the top.
8. Prepare a Uniform Hazardous Waste Manifest and transport the tank(s) to a recognized TSD facility, subject to all applicable governmental regulations. A photocopy of this manifest must be given to the Fire Inspector before the tank leaves the site.
9. Soil samples from beneath the dispensers, pipes, tank(s) and spoil piles will be required and witnessed by a Long Beach Fire Department Inspector. Follow sampling guidelines required by Long Beach Department of Health & Human Services (LBDHHS) under Appendix A.

REMOVAL METHOD #2 – CLEAN

Each tank is cleaned “on-site”, “certified” by a certified Marine Chemist (or certified Industrial Hygienist) as clean, vapor free. The cleaned tank(s) can be transported (with their respective certifications) for material recycling or salvage. Prior to starting work:

1. Barriers, caution tape and “No Smoking” signs shall be installed to keep any source of ignition at least 25’ away from the excavation.
2. A Long Beach Fire Department Inspector must be on-site to witness the dry ice procedure. Place a minimum of **twenty-two (22) pounds of dry ice per 1000 gallons of capacity** into the tank.
3. Within two hours after dry icing the tank(s), a Long Beach Fire Department Inspector will return to the site and witness the contractor take oxygen content readings.

Oxygen content of the tank atmosphere shall be below 5 percent, at which point the tank shall be considered inerted. (NFPA 306)

It is mandatory that a properly calibrated flammable/combustible gas analyzer and oxygen indicator, certified within 90 days, is on the job site from start to finish.

4. Work may begin only when the Fire Inspector gives permission. Excavate and expose top of tank. Identify all piping associated and relative to the tank. Disconnect the piping from the tank (including vent lines, associated piping, electrical lines and in-tank pump(s)) making observations for any product leakage. CONTINUOUS SUPERVISION MUST BE MAINTAINED DURING THE OPERATIONS BY A COMPETENT AND RESPONSIBLE ADULT EMPLOYEE OF THE CONTRACTOR NAMED ON THE REMOVAL PERMIT.
5. Use vacuum truck equipment following bonding procedures. TAKE FREQUENT LEL READINGS).
6. Water blast the tank interior using a minimum of 2000 psi of water and detergent, if necessary (other cleaning methods as per NFPA #327 may be presented with this application). Loose scale, sludge and rinse water are removed by the vacuum truck. The washing may cease when the sludge and debris is removed and the LEL is 0%. Grounding and bonding procedures shall be followed with water blasting equipment.
7. Interior rinse water and sludge shall be manifested and transported to a fully approved and permitted TSD facility by a Licensed Hazardous Waste Transporter, subject to all applicable governmental regulations. A copy of the manifest shall be given to the Long Beach Fire Inspector on-site before tank is removed.

REMOVAL METHOD #2 – CLEAN

(Continued)

8. A certified Marine Chemist or a certified Industrial Hygienist shall inspect the tank and issue a certificate stating that the tank is clean and vapor free. Copies of the certification for each tank must be given to the Long Beach Fire Inspector on the site.

NO HOT WORK IS PERMITTED ON ANY TANK

9. The Marine Chemist or Industrial Hygienist shall apply an identification number that corresponds to the “certification” with a can of spray paint to the tank exterior. A copy of the certification must be kept with the tank.
10. If no manhole is in the tank, a pneumatic cold cutting tool shall be used to cut a 12” x 12” hole (minimum) at an appropriate location to facilitate interior inspection. **Use only beryllium or approved non-sparking tools.** Large tank(s) may require multiple manholes since all interior areas of the tank must be visible for inspection. LEL readings shall be 0% before cutting begins.
11. In the presence of the Long Beach Fire Department Inspector remove the cleaned tank from the excavation. Remove all soil from tank exterior with **non-sparking tools**.
12. Load and secure the tank(s) on appropriate transporting equipment and remove with certificate(s) from premises. The tank(s) may be transported, with certifications, to a material recycling or salvage business.
13. Soil samples from beneath the dispensers, pipes, spoil piles and tank(s) will be required and witnessed by a Long Beach Fire Department Inspector. Soil sampling requirements must be in accordance with the **Long Beach Department of Health and Human Services** guidelines listed in Appendix A. Additional soil sampling may be required at the discretion of the discretion of the Long Beach Fire Department , Bureau of Fire Prevention Inspector.

NOTE: Complying with the requirements of the Long Beach Fire Department does not preclude the necessity to comply with regulations of other authorities and licensing agencies.

CLOSURE IN-PLACE

Closure in-place shall be allowed only under the following conditions:

1. A Licensed Structural Engineer determines that removal of the underground storage tank(s) would affect the integrity of an adjacent structure or would create a significant safety hazard by removing said tank from its current location.
2. Plans are to be submitted to the Long Beach Fire Department/Bureau of Fire Prevention, Underground Storage Tank Section affixed with the seal and signature of the above engineer, and a formal letter requesting closure in place with reasons specified. Letter shall be signed. These plans and documents shall meet Federal, State, and local requirements. Plan submittal shall take place at City Hall Development Services Counter.
3. Formal inspections and soil sampling shall be witnessed by the Long Beach Fire Department/Bureau of Fire Prevention, Underground Storage Tank Section Inspector.
4. A **Soil Sampling Report** should include all applicable information in Appendix A before it is submitted to the Long Beach Department of Health and Human Services (**LBDHHS**), Bureau of Environmental Health, Hazardous materials Division. It must be submitted within 14 days of sampling.

Upon review of the Soil Sampling Report, the LBDHHS will determine if the excavated soil may be placed back into the excavation.

After July 1, 2013, the LBDHHS will refer to the Los Angeles Regional Water Quality Control Board, **underground storage tank cases** upon confirmation that an unauthorized release has impacted the soil at the site, based on the review of the Soil Sampling Report.

Projects related to above ground storage tank, hydraulic lift and clarifier will continue to be handled by the LBDHHS.

TANK INSTALLATION



INSTALLATION OF UNDERGROUND STORAGE TANKS

POLICY

Underground storage tanks regulated by the Long Beach Fire Department shall be installed in accordance with Title 23, Division 3, Chapter 16, Article 3 "New Underground Storage Tank Construction and Monitoring Standards," California Code of Regulations and the currently adopted California Fire Code.

Underground hazardous storage tank(s) and/or systems constructed in the City of Long Beach must conform to standards issued by the Long Beach Fire Department, Bureau of Fire Prevention. Written approval must be obtained from this Department prior to the installation of any underground storage tank(s).

The applicant must show that the proposed site, existing soil and groundwater conditions are suitable for the construction of the proposed storage system.

Prior to commencement of work, the person responsible for the installation of underground tanks must apply for and obtain all necessary permits/licenses. Such additional requirements not otherwise mentioned herein, may include, but are not limited to: State of California, Division of Occupational Safety and Health, Trenching/Excavation Permit; valid Crane Certification; California Fire Code Requirements, Long Beach Municipal Code Requirements, and any plan approvals necessary from the Long Beach Development Services Division.

The Long Beach Fire Department requires a minimum of four on-site construction inspections. Inspections must be scheduled three (3) working days prior to the inspection date.

First Inspection – Setting the Tank(s). Witness holiday, pressure or other appropriate test for field acceptance. Verify U.L. Number(s), etc. See Section Article 3,2631(b) or CCR Title 23, Division 3, Chapter 16.

Second Inspection – Primary Piping. Observe a 30 minute pressure test and soap test of all joints and connections. See page 34 for piping test pressure requirements.

Third Inspection – Secondary Piping. Observe a 30-minute pressure test at no less than 5 psi and soap test of all joints and connections. The 5 psi test may be changed to manufacturers recommended test pressure with proper documentation. See page 34 for piping test pressure requirements.

Fourth Inspection – Final. Full system inspection with product in tanks. Monitoring system test for alarm, leak detection and positive shutdown. All signs and placards in place. All construction, painting, etc. complete and facility ready to open after inspection. California Fire Code service station inspection. (See page 39-42)

CERTIFICATION

Owners or their agents shall use State of California, State Water Resources Control Board and Certificate of Compliance Form C to certify that the underground storage tank(s) and piping were installed property. (See forms section of this document.)

OVERVIEW – NEW INSTALLATION

All new underground storage tank installations are subject, but not limited, to all of the following:

1. New – U.L. approved double wall underground storage tanks. Fiberglass reinforced plastic or steel clad with fiberglass reinforced plastic underground storage tanks are the only approved installations.
2. Tanks shall be double wall and provide primary and secondary levels of containment.
3. Tanks shall have a continuous monitoring system with audible and visual alarm, which will provide **positive turbine shut down** of product when leak is detected.
4. **All piping**, including vents and vapor recovery shall have secondary containment.
5. Piping shall have a continuous monitoring system with audible and visual alarm which will provide **positive turbine shutdown** when leak is detected.
6. Approved fill tubes and spill containment buckets are required at each tank fill point.
7. Approved overfill prevention is required in each tank. The overfill prevention shall provide positive shut-off of flow when the tank is filled to no more than 95 percent.
8. Approved product containment boxes are required under each dispenser and will have floats to shutdown dispenser or sensors, which will provide **positive turbine shutdown**.
9. All dispensing devices shall be protected against physical damage from vehicles by mounting on a concrete island a minimum of 6 inches in height. Long Beach Municipal Code 18.48. **FLUSH MOUNTED DISPENSERS ARE NOT ALLOWED.**
10. Man ways – Manholes – Sumps – All new underground storage tanks shall be equipped with dual sumps.
11. Shut-off Impact Value – An approved emergency shut-off impact valve incorporating a fusible link designed to close automatically and contain liquid on both sides of the shear section.
12. Plan approval for **Electrical Installations** – In the City of Long Beach, all electrical installations shall be approved by the Development Services Division.
13. Crash Posts shall be provided. See Long Beach Municipal code for criteria, (18.48).

AUTOMATIC TANK GAUGE

ALL single walled fiberglass underground storage tanks must be equipped with an automatic tank gauge which will generate a hard copy of the calculated leak rate and leak threshold. Monthly Automatic Tank Gauge (ATG) reports and/or Continuous Statistical Leak Detection (CSLD) must be kept on site for review by Long Beach Fire Department inspector.

DUAL WALL TANKS WITHOUT STRIKER PLATE

Section 2662.(d) by December 22, 1998, owners shall install a wear plate (striker plate) which meets the criteria in Section 2631(c) under all tank openings that could be used for manual dip sticking. A drop tube-mounted bottom protector may fulfill this requirement.

An automatic tank gauge will satisfy the above requirement.

UNDERGROUND STORAGE TANK INSTALLATION REQUIREMENTS

A. CONSTRUCTION STANDARDS

1. Containment

All new underground storage tanks, including all associated piping used for the storage of hazardous substances, shall be U.L. approved and have primary and secondary levels of containment.

2. Identifying Markings

The exterior surface of underground storage tanks shall bear a marking, code stamp or label showing the following minimum information:

- a. Engineering standard used;
- b. Nominal diameter in feet;
- c. Nominal capacity in gallons;
- d. Degree of secondary containment;
- e. Usable capacity in gallons;
- f. Design pressure in PSIG;
- g. Maximum operating temperature in degrees Fahrenheit;
- h. Construction materials;
- i. Year manufactured;
- j. Manufacturer
- k. UL

1. Man ways – Manholes – Sumps

All new underground storage tanks shall be equipped with dual sumps. One sump shall be provided at pump and fill. Each sump shall be equipped with a leak monitor capable of providing positive turbine shutdown.

B. SECONDARY CONTAINMENT

1. The secondary containment system shall be constructed to contain at least 100 percent of the usable capacity of the primary containment system.
2. A vault as a secondary containment system shall be designed and constructed according to an Engineering Specification approved by a State Licensed Engineer or according to a nationally recognized industry code or engineering standard.

C. MONITORING REQUIREMENTS

1. Interstitial space shall utilize one or more of the following monitoring methods:
 - a. Liquid level indicator.
 - b. Hazardous substance sensor.
 - c. Vapor monitor.
 - d. Pressure or vacuum loss detector.
2. The interstitial space of the underground storage tank shall be monitored using continuous monitoring system.
3. The continuous monitoring system shall be connected to an audible and visual alarm system, which will provide positive turbine shut down as approved by the local agency.

DISCRIMINATING SENSORS

Leak sensors, which activate only when in contact with motor vehicle fuels (gasoline or diesel fuels), shall not be used in any areas requiring leak sensors or monitoring.

D. UNDERGROUND PIPING WITH SECONDARY CONTAINMENT

1. All underground piping shall have secondary containment and be equipped and monitored as follows:
 - a. The secondary containment system shall be equipped with a continuous monitoring system which is connected to an audible and visual alarm system capable of providing positive turbine shut down, **and**
 - b. Automatic line leak detectors shall be installed on underground pressurized piping and shall be capable of detecting a three gallon per hour leak rate at 10 psi within 1 hour with a probability of detection of at least 95 percent and a probability of false alarm no greater than 5 percent.

E. ALL MONITORING PROGRAMS (See page 37-38)

All monitoring programs shall include the following:

1. A written routine monitoring procedure, which establishes:
 - a. The frequency of performing the monitoring method;
 - b. The methods and equipment to be used for performing the monitoring;
 - c. The location(s) where the monitoring will be performed;
 - d. The name(s) and title(s) of the person(s) responsible for performing the monitoring and/or maintaining the equipment;
 - e. The reporting format;
 - f. The preventive maintenance schedule for the monitoring equipment. The maintenance schedule shall be in accordance with the manufacturer's instructions; and

- g. A description of the training needed for the operation of both the tank system and the monitoring equipment.
2. A response plan which demonstrates that any unauthorized release will be removed from the secondary containment system within the time consistent with the ability of the secondary containment system to contain the hazardous substance, and shall include, but is not limited to, the following:
 - a. A description of the proposed methods and equipment to be used for removing and properly disposing of any hazardous substances, including the location and availability of the required equipment if not permanently on-site, and an equipment maintenance schedule for the equipment located on-site.
 - b. The name(s) and title(s) of the person(s) responsible for authorizing the work necessary under the response plan.

(Authority: Health and Safety Code 25299.3, 25299.7, Reference: Health and Safety Code 25281, 25291, 40 CFR 280.20)

F. LEAK INTERCEPTION AND DETECTION SYSTEM

1. The leak interception and detection system shall prevent the contact of any leaked hazardous substance with ground water. At a minimum, the leak interception and detection system shall be above the highest anticipated ground water elevation. Proof that the leak interception and detection system will protect ground water must be demonstrated by the owner of the underground storage tank to the satisfaction of the Long Beach Fire Department, Bureau of Fire Prevention. In determining whether the leak interception and detection system will adequately protect ground water, provide at a minimum, the following:
 - a. The containment volume of the leak interception and detection system;
 - b. The maximum leak, which could go undetected under the monitoring method and the maximum period during which the leak could go undetected.
 - c. The frequency and accuracy of the proposed method of monitoring the leak interception and detection system;
 - d. The depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water;
 - e. The nature of the unsaturated soils under the leak interception and detection system and their ability to absorb contaminants or to allow movement of contaminants;
 - f. The effect of any precipitation or subsurface infiltration on the movement of any leak of hazardous substance and the available volume of the leak interception and detection system; and
 - g. The nature and timing of the response plan to clean up any hazardous substances, which have been discharged from the primary container.

(Authority: Health and Safety Code 28299.3, 25299.7, Reference: Health and Safety Code 25281, 25291, 40 CFR 280.20)

G. INSTALLATION AND TESTING REQUIREMENTS FOR NEW UNDERGROUND STORAGE TANKS AND PIPING

Primary and secondary containment systems shall be designed, constructed, tested and certified to comply, as applicable with all of the following requirements:

1. All underground storage tanks shall be tested at the factory before being transported in accordance with the applicable sections of the industry code or engineering standard under which they are built.
2. Before installation, the underground storage tank shall be tested for tightness at the installation site in accordance with the manufacturer's written guidelines.
3. All other secondary containment systems shall pass a post-installation test, which meets the approval of the local agency.
4. Testing Containment Box (Tank Sump and Dispenser Pan).
 - a. After piping installation and prior to backfilling, each containment box shall be water tested.
 - b. This water test shall consist of filling the containment box with water to a level 1" below the top of the containment box. (This test should have a duration of 24 hours minimum) and shall be observed by the Fire Department inspector when testing the secondary containment piping.
5. After installation, but before the underground storage tank is placed in service, a tank integrity test shall be performed to ensure that no damage occurred during installation.
6. All underground storage tanks shall be installed according to a code of practice developed in accordance with voluntary consensus standards and the manufacturer's written installation instructions. The owner or operator shall certify with State Form C, that the underground storage tank has been installed in accordance with the requirements in Section (K).
7. All underground storage tanks 12,000 gallons or larger, or any tank subject to flotation shall be anchored. Confirmation of mean high levels of ground water shall show minimum of 20 feet below tank bottom and high water table. This shall be provided through LA County Hydrology Department.

H. All underground piping shall be UL approved for the proposed fluid(s) and shall be protected against corrosion. Underground piping shall meet all of the following requirements:

1. All underground primary piping in contact with hazardous substances under normal operating conditions shall be installed inside a secondary containment system, which may be a secondary pipe. All secondary containment systems shall be sloped so that all releases will flow to a collection sump located at the low point of the underground piping. Pipe fall shall be field confirmed in presence of LBFD Inspector to be at least 1/8" per foot. Contractor shall provide a calibrated smart digital level for this purpose. Piping shall be bedded with joints exposed for soaping.
2. Primary piping and secondary containment systems shall be installed in accordance with a code of practice developed in accordance with voluntary consensus standards. The owner or operator shall certify that the piping is installed in accordance with the above requirements as required by Section (L).
3. **All new primary piping and secondary containment systems** shall be tested for tightness after the installation in accordance with the manufacturer's guidelines. As a minimum, the primary piping shall be tested for tightness hydrostatically at 150 percent of designed and operating pressure or pneumatically at 110 percent of design pressure. If the calculated test pressure is less than 40 psi, 40 psi shall be used as the test pressure. The pressure shall be maintained for a minimum of 30 minutes and all joints shall be soap tested. A failed test, as evidenced by presence of bubbles shall require appropriate repairs and a retest. To assure accuracy of all gauges used for testing, inspector shall witness gauges zeroed at completion of inspection. All gauges shall zero.

Provide manufacturers cut sheets for piping and pumps with your submittal. Provide certification for pipe installers.

4. **Underground pressurized piping** which meets all of the following requirements satisfies the annual tightness test requirement specified in subsection 2636(g) of the Health and Safety Code:
 - a. The secondary containment system is equipped with a continuous monitoring system. The leak detection device can be located at the pump sump.
 - b. A continuous monitoring system is connected to an audible and visual alarm system and the pumping system.
 - c. The pumping system shuts down automatically if the continuous monitoring system fails or is disconnected. This requirement does not apply to the emergency generator system if the site is manned.
5. **As a Reminder: ALL underground piping shall have secondary containment, including VENTS and VAPOR RECOVERY.**

I. **SHUT-OFF IMPACT VALUE**

An approved emergency shut-off impact valve incorporating a fusible link designed to close automatically and contain liquid on both sides of the shear section in the event of severe impact or fire exposure shall be rigidly mounted and connected by a union in the dispensing supply line at the base of each dispensing device. The shear section of the impact valve shall be mounted flush with or within 1/2 inch of the top of the surface upon which the dispenser is mounted. Vapor recovery shear valves are also required.

J. **SPILL CONTAINER AND OVERFILL PREVENTION**

All underground storage tanks shall be equipped with a spill container and an overfill prevention system as follows:

1. The spill container shall collect any hazardous substances spilled during tank filling operations to prevent the hazardous substance from entering the subsurface environment. The spill container shall meet the following requirements:
 - a. The exterior wall must be protected from galvanic corrosion if made of metal.
 - b. It must have a minimum capacity of five gallons (19 liters).
2. The overfill prevention system shall not allow for manual override and shall provide positive shut-off of flow when the tank is filled to no more than 95 percent. The system may include the following:
 - a. Transfer operator alert when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or
 - b. Restrict delivery of flow to the tank at least 30 minutes prior to tank overfill, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity and provide audible alarm at least five minutes prior to overfill.
3. Owners and operators must use care to prevent releases due to spilling or overfilling. The owner and operator must insure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling or spilling.

K. **FUEL DISPENSER CONTAINMENT BOXES**

Containment boxes must be installed underneath all fuel dispensers. Containment boxes must be anchored to the concrete and must be capable of capturing leaking product under the dispensers.

Containment boxes must meet the following specifications:

1. They must be a solid unit that does not allow any product to escape outside the containment box or unit.
2. They must be capable of activating the shear valve or provide positive shut down and alarm after a maximum of 5 oz. of product has been captured.
3. All metallic flex lines shall terminate inside a secondary containment area; tank sump and dispenser containment shall be electronically monitored. Containment box shall be constructed of a non-metallic non-corrosive material.

L. CERTIFICATION

Owners or their agents shall certify that the installation of underground storage tanks and piping meets all of the following conditions:

1. The installer has been adequately trained and certified by the tank and piping manufacturers.
2. The installer has been certified or licensed by the Contractors State License Board.
3. The underground storage tank and primary piping, and any secondary containment was installed, according to applicable voluntary consensus standards, and any manufacturer's written installation instructions.
4. All work listed in the manufacturer's installation checklist has been completed.
5. The installation has been inspected and approved by the local agency, or, if required by the local agency inspected and certified by a registered professional engineer who has education in, and experience with underground storage tank system installation.

Date _____

**WRITTEN MONITORING PROCEDURES
UNDERGROUND STORAGE TANK MONITORING PROGRAM**

This monitoring program must be kept at the UST location at all times. The information on this monitoring program are conditions of the operating permit. The permit holder must notify the **LONG BEACH FIRE DEPARTMENT** within 30 days of any changes to the monitoring procedures, unless required to obtain approval before making the change. (Required by Sections 2632(d) and 2641(h) CCR)

Facility Name _____

Facility Address _____

A. Describe the frequency of performing the monitoring:

Tank _____

Piping _____

B. What methods and equipment, identified by name and model, will be used for performing the monitoring:

Tank _____

Piping _____

C. Describe the location(s) where the monitoring will be performed (facility plot plan should be attached):

D. List the name(s) and title(s) of the people responsible for performing the monitoring and/or maintaining the equipment:

E. Reporting format for monitoring:

Tank _____

Piping _____

F. Describe the preventive maintenance schedule for the monitoring equipment. **Note: Maintenance must be in accordance with the manufacturer's maintenance schedule, but not less than every 12 months.**

G. Describe the training necessary for the operation of UST system, including piping and the monitoring equipment: _____

Date _____

**EMERGENCY RESPONSE PLAN
UNDERGROUND STORAGE TANK MONITORING PROGRAM**

This monitoring program must be kept at the UST location at all times. The information on this monitoring program are conditions of the operating permit. The permit holder must notify the **LONG BEACH FIRE DEPARTMENT** within 30 days of any changes to the monitoring procedures, unless required to obtain approval before making the change. (Required by Sections 2632(d) and 2641(h) CCR)

Facility Name _____

Facility Address _____

1. If an unauthorized release occurs, how will the hazardous substance be cleaned up?
Note: If released hazardous substances reach the environment, increase the fire or explosion hazard, are not cleaned up from the secondary containment within 8 hours, or deteriorate the secondary containment, then the LONG BEACH FIRE DEPARTMENT must be notified within 24 hours. _____

2. Describe the proposed methods and equipment to be used for removing and properly disposing of any hazardous substances: _____

3. Describe the location and availability of the required cleanup equipment in Item 2 above: _____

4. Describe the maintenance schedule for the cleanup equipment: _____

5. List the name(s) and title(s) of the person(s) responsible for authorizing any work necessary under the response plan: _____



LONG BEACH FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION
3205 LAKEWOOD BLVD.
LONG BEACH, CA 90808
(562) 570-2560

UNDERGROUND STORAGE TANK INSPECTION CHECKLIST

SITE ADDRESS _____ DATE .._____

BUILDING

B-1 Premises Identification (address)

- } Approved numbers contrasting with background.
- } Plainly visible from street or roadway.

B-2 "Emergency Fuel Shutdown Device"

- } Installed at approved location >25' <75' from dispensers.
- } Shall stop fuel to dispensers.
- } Shall close all valves to dispensers.
- } Labeled "Emergency Fuel Shutdown Device" signs in approved locations.

B-3 Attendant

- } Shall be able to observe, supervise and control dispensing of fuels.
- } Shall be able to call Fire Department.

B-4 Fire Protection

- } Minimum 1 rating 2A, 20B:C extinguisher.
- } Mounted less than 75' from dispenser, pump or fill pipe.

B-5 Storage Near Exits

- } Class I, II or III – A liquids shall not be stored near exits.

B-6 Oily Rags

- } Used/dirty shop rags shall be kept in metal container with metal cover.

B-7 Electronic Monitor Panel

- } Shall be in a tamper proof enclosure.
- } Shall be in an approved location.
- } Shall not be blocked by storage.

DISPENSER

D-1 Dispensing Devices

- } Shall be 10' or more from property lines.
- } Shall be 10' or more from building.
- } Shall be mounted on a concrete island 6" or more in height.
- } All portions of the vehicle fueling will be on premises.
- } Nozzles shall not reach to within 5' of building openings.
- } Nozzles must be more than 20' from fixed ignition sources.

D-2 Special Type Dispenser

- { } Remote preset type shall have an attendant on duty.
- { } Shall be in clear view of attendant.
- { } Attendant shall be able to communicate with persons at all times.

D-3 Signs – Conspicuously Posted Within Sight of Each Dispenser

- { } Prohibiting smoking.
- { } Prohibiting dispensing in unapproved containers.
- { } Requiring vehicle engines to be stopped during fueling.

D-4 Dispenser

- { } Shall have current LA County weights and measure sticker on each dispenser.

D-5 Nozzles

- { } Shall be a listed automatic closing type.
- { } Shall be equipped with an integral latch open device.
- { } Shall close automatically if pressure is lost. (Test annually.)
- { } Shall be designed to be retained in the fill pipe during fueling.

D-6 Listed Equipment

- { } Tanks, electrical equipment, dispensers, hoses, nozzles and pumps shall be listed, (i.e. U.L. approved).

D-7 Dispenser Containment Box

- { } Shall be installed under each dispenser.
- { } Shall have an approved leak detection device for 5 oz or more liquid. Sensors shall be sleeved.
- { } Shall be able to hold a minimum of 5 gals **OR**
- { } May be electronically monitored to shut down pumps positively when a leak has been detected.

D-8 Shear Valves

- { } An approved emergency shut-off impact valve with a fusible link shall be mounted flush or within ½ inch of the top of the surface on which the dispenser is mounted.
- { } Multiple shear valves are required on multi-product dispensers.

TANK

T-1 Testing of Leak Detection Devices

- { } Shall be done annually by the owner or operator.
- { } Test results shall be maintained on the premises.

T-2 Leak Detection

- { } Shall be continuous electronic monitoring system.
- { } Shall be automatic line leak detectors.

T-3 Overspill Bucket

- { } Shall be in each fill pipe.
- { } Shall have a capacity of not less than 5 gals.
- { } Shall have a drain valve which drains into primary tank.
- { } Shall be kept clean of all debris.

T-4 Overfill Device

- { } All be an audible and visual device that activates when the tank reaches 90% of capacity. Shall be visible from driver's delivery point.
- { } Shall be a positive shut-down device which automatically shuts off filling at 95% of tank capacity.

T-5 Drop Tubes

- { } Must be installed to within 6" of the bottom of the tank.

T-6 Probes

- { } Shall be placed in the tanks interstitial space.
- { } Shall be in the tank(s) sumps.
- { } Shall be connected to an audible and visual alarm system with positive shut-down.
- { } Shall be non-discriminating sensor.

DOCUMENTS

P-1 "A" Forms

- { } Must be complete for each site – do not use "**UNKNOWN**" – Leave Blank.

P-2 "B" Forms

- { } Must be complete for each tank including split tanks compartment.

P-3 "C" Forms

- { } Must be complete for installations.

P-4 "D" Forms - Written Routine Monitoring Program

- { } Must be completed. Document contained within.

P-5 Emergency Response Plan for Unauthorized Release

- { } Must be completed. Document contained within.

P-6 "E" Forms -Financial Responsibility

- { } Must be complete.

P-7 Business Emergency Plan

- { } Must be complete.

P-8 Tank Integrity Test – Required Before Placing in Service Either:

- { } Tank integrity test **OR**
- { } Interstitial monitor certified to perform a tan integrity test.

P-9 Vapor Return Piping

- { } Dispensing devices incorporating vapor recovery shall be listed and labeled.
- { } Descriptions of parts and method of installation shall be included in the report.

P-10 Inventory Control

- { } Accurate daily records showing by product reconciliation between sales, use, receipts and inventory on hand shall be maintained and kept on the premises.
- { } Any consistent loss shall be reported.

P-12 Permits

{ } Issued by local agency shall be displayed.

P-13 Business License

{ } Must be displayed Sec.3.80.421.5

OWNER/AGENT _____

INSPECTOR _____

DATE _____

ABOVEGROUND STORAGE TANKS



(All installations shall comply with current adopted edition of the California Fire Code)

APPENDIX A





POST TANK REMOVAL GUIDELINES

After July 1, 2013, the LBDHHS will refer to the California State Water Resources Control Board (SWRCB), underground storage tank cases upon confirmation that an unauthorized petroleum* release has impacted the soil or groundwater. The referral is based upon the review of the Soil Sampling Report and confirmation that an unauthorized release has occurred at the subject site

On the other hand, if an unauthorized release has not occurred, the LBDHHS will notify all stake holders that further sampling will not be required.

The criteria use to determine if a release has occurred is specified in the SWRCB's Low Threat Underground Storage Tank Case Closure Policy, adopted by State Water Board Resolution No. 2012-0016 (effective August 17,2012).

Non-UST projects, related to above ground storage tanks, hydraulic lifts and clarifiers, will continue to be managed by the LBDHHS. If the soil or groundwater is determined to become impacted by an unauthorized release of, additional characterization will be necessary.

* **Petroleum** is defined as crude oil, or fraction thereof, which is liquid at standard conditions of temperature and pressure, which means 60 degrees Fahrenheit and 14.7 pounds per square inch absolute, including the following substances: Motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents and used oils, including any additives and blending agents such as oxygenates contained in the formulation of substances.

The location(s) from which soil samples are to be taken are specific to the type of project. They may be taken from beneath the tank(s), dispensers or pipes and always from soils piles. Samples must be taken 2 to 4 feet below the tank invert, the product lines (at 20 foot intervals). A Long Beach Fire Department Inspector witnessed the sampling.

If groundwater is encountered, grab water samples must be obtained from a Hydropunch TM or similar type of system and properly analyzed. Because these sample results are not repeatable, they will be considered qualitative measurements. Also, the results will determine if the water is to be disposed of as hazardous waste.

Accepted sampling methods are: Split-barrel core sampler, modified California sampler, Shelby Tube, or other accepted method. To preserve and minimize organic losses, the EPA Method 5035 specified in USEPA SW- 846, version (April 1998), or subsequent edition is to be used.

Soil sampling must be done under the direct supervision of a California Professional Geologist (PG).

Excavated soil must be handled in compliance with the South Coast Air Quality Management District's Rule 1166 regarding volatile organic compound (VOC) emissions from contaminated soil.

Analytical tests must be performed by a laboratory with certification under the California environmental laboratory Accreditation (ELAP). Analytical tests for the soil samples are indicated on pages 4 and 5 under Laboratory Analyses.

A **Soil Sampling Report** can be found starting on page 46. This report must be submitted to City of Long Beach Department of Health and Human Services (LBDHHS) within 14 days of sampling. Upon review of

the **Soil Sampling Report**, the LBDHHS will determine if the excavated soil may be placed back into the excavation. The excavation may be immediately backfilled with uncontaminated imported soil, even before the Soil Sampling Report is available. Receipts must be available to the LBFD and the LBDHHS as proof that the soil is uncontaminated (clean).

The LBDHHS does not stipulate how long an excavation can remain open as long as precautions have been taken by the responsible party to assure the avoidance of any potential public danger.

All stockpiles shall be on and covered with heavy duty, continuous plastic sheet(s) joined at the seams and securely anchored to prevent any exposure of soil to the atmosphere. The site shall be temporarily fenced to a height of six feet. If an excavation is left in an unsafe condition, the property will be returned to a safe condition by the City of Long Beach and all costs incurred will be charged to the owner/permittee.

Within 30 days of tank removal, a **Final Tank Removal Report** (see page 47 for requirements and format) and a check for the project review fee must be mailed to the **City of Long Beach Department of Health and Human Services, Division of Hazardous Materials: 2525 Grand Avenue, Suite 222, Long Beach, CA 90815**. (Call 562-570-4129 for the current UST Removal Report Review fee)

Sampling Report

The Soil Sampling Report is a preliminary assessment, through documentation, of the subsurface conditions from the open excavation where a tank was removed. It is considered the minimum documentation required before the backfilling of an open excavation, therefore the following must be provided.

1. SITE HYDROGEOLOGY:

a. Indicate depth to groundwater, aquifer system and local use of groundwater.

2. SOIL SAMPLING:

Samples are to be collected using a volumetric sampling system designed to collect, store and deliver a soil sample. To preserve and minimize organic losses, EPA Method 5035 specified in USEPA SW-846, version (April 1998) or subsequent version is to be used. Samples must be tested by a laboratory with certification under the California Environmental Laboratory Accreditation program (ELAP).

3. SITE GEOLOGY:

- a. Submit cross-section of subsurface discovered during tank excavation.
- b. Describe soil lithology.

4. SOIL TEST RESULTS

5. MANIFESTS

- a. Tank disposal. Certification by Marine Chemist or Industrial Hygienist)
- b. Rinseate disposal.
- c. Contaminated soil disposal.

6. CONCLUSIONS

- a. Recommend any additional work (site characterization.).
- b. Recommend no additional work (closure)

7. SIGNATURE/STAMPS REQUIRED FROM ONE OF THE FOLLOWING:

- a. California Professional Civil Engineer (PE).
- b. California Professional Geologist (PG).

FINAL TANK REMOVAL REPORT

1. Tank Information

- a. Date tank(s) removed and contents samples.
- b. Number of tanks removed.
- c. Stored product.
- d. Tank capacity.
- e. Age of tank.
- f. Tank construction material.
- g. Tank disposal documentation: Removal as hazardous waste (manifested), or as scrap metal (Certification by a Marine Chemist or Industrial Hygienist).
- h. Product disposal documentation: manifest if tank is destroyed to be rendered as scrap metal.

2. Tank Removal

- a. Describe removal procedure.
- b. Monitor excavated soil for air emissions to comply with SCAQMD rule 1166.

3. Site Plan

- a. Show location of -tanks, sampling points, building structures, piping and pumps.
- b. Show adjacent streets.
- c. North arrow.
- d. Area of excavation.

4. Soil Sampling Report (laboratory data and chain of custody attached to corresponding reports must be original).

5. Depth to groundwater must be provided and distance to the nearest drinking water well
6. Underground Storage Tank Unauthorized Release Report (Leak) / Contamination Site Report if it is confirmed that the soil has been impacted
7. Names and mailing addresses and phone numbers for the following parties: person/entity who financed the project; property owner; business operator.
8. A **copy** of the Final Tank Removal Report must be mailed to the Long Beach Fire Department at 3205 Lakewood Blvd, Long Beach, CA 90808.

LABORATORY ANALYSES

PRODUCT or CONTAMINANT

TEST METHOD

	SOIL	WATER
Gasoline and MTBE BTXE	TPH= C4-C12 8260B	TPH= C4-C12 602
Diesel fuel	TPH= C13-C22 8260B	TPH= C 13 -C22 602
Jet fuel	TPH= C13 -C22 8260B	TPH= C13 -C22
Waste motor oil	TPH= C23-C32 8260B CAM Metals	TPH= C23-C32 8260B CAM Metals
Solvent	Site Specific	Site Specific
Pesticides	Site Specific	Site Specific
Hydraulic Lift Vaults	TPH= C23-32 8260B CAM Metals	TPH= C23-C3 8260B CAM Metals
Clarifiers	TPH= C13-C32 8260B CAM Metals	TPH= C13-C22 8260B CAM Metals
Above -Ground Petroleum Tanks	TPH= C13-C32 8260B CAM Metals	TPH= C13-C22 8260B CAM Metals
Unknowns	(Tank contents must be analyzed)	(Tank contents must be analyzed)

Refer to Table I for method detection limit (MDL) requirements.

TEST METHODS

602 Aromatic volatile organics (water only)

Cal-LUFT GCIFID C4-C12 C13-C22 C23+

8021B Aromatic and halogenated (up to 3 carbons) volatile organics

8260B Volatile and halogenated organics

TABLE I: ANALYTICAL REQUIREMENTS

REQUIRED MDL

ANALYTE	ANALYTICAL METHOD	SOIL (µg/kg)	WATER (µg/L)
BTEX	EPA Method 8260B (8021B)	1	0.5
MTBE	EPA Method 8260B	2	1
DIPE	EPA Method 8260B	2	1
ETBE	EPA Method 8260B	2	1
TAME	EPA Method 8260B	2	1
TBA	EPA Method 8260B	20	10
TPHg	Cal-LUFT GC/FID or GC/MS	100-200	50-1 00
TPHd	Cal-LUFT GC/FID	1,000	500
Methanol	Cal-LUFT GC/FID	1,000	500
Ethanol	Cal-LUFT GC/FID (EPA8260B)	500	250

Source: California Regional Water Quality Control Board, Los Angeles Region, UST Lab Requirements For Oxygenates (09/06)

Report any concentration detected between the method detection limit (MDL) and estimated quantification limit (EQL) or reporting limit (RL) in a numerical value with a "J" flag indicator. **All "Non-Detect" (ND) shall be reported in a format with "< (numerical MDL)."** Integrate all fuel oxygenate additive concentration into total petroleum hydrocarbons (TPH) and report it as TPH. EPA Method 8260B may be used to substitute EPA Method 8260B at the sites where all fuel oxygenates have not been identified by EPA Method 8260B in soil and/or groundwater.

I. SITE CHARACTERIZATION PERMIT APPLICATION

Documents submitted at time of application

Completed Permit Application (Attachment I), signed by the property owner or operator.

Initial Site Characterization Work Plan.

UST Unauthorized Release (Leak)/Contamination Site Report.

Remittance for Site Characterization Permit/ review fee. (Make checks payable to City of Long Beach DHHS).

Please call (562) 570-4129 for current Site Characterization Permit/ review fee.

II. INITIAL SITE CHARACTERIZATION WORK PLAN

The Initial Site Characterization Work Plan must include but is not limited to the following items: **(Work Plans that do not follow this format will be rejected).**

Site Information

Characterize past and present activities at the site including:

- a. List any previous businesses at the site.
- b. Describe storage, handling, use and disposal procedures for all chemicals and petroleum products.
- c. Provide name, address, and telephone number of the property owner and any landlord/lessor and lessee.
- d. Summarize the site history relative to all contamination in question.

Justify the need for all assessment activities, and indicate any proposed future uses of the area relative to the contamination.

Describe the surrounding community.

Facility Map

Include the following in relation to the subject site:

- a. Site boundaries, including adjacent streets.
- b. Location of all potential sources of contamination, past and present, including:
 - [1] Chemical manufacturing and storage areas
 - [2] Transfer and use areas
 - [3] Underground tanks and associated piping
 - [4] Clarifiers, sumps and pits
- c. Location of surface and subsurface structures.
- d. Proposed boring/sampling locations.
- e. Location of all hand samples taken during any tank excavation.
- f. Location of any previous site assessment work.
- g. Scale.
- h. North arrow.
- i. Index map.
- j. Name and address of facility.
- k. Name and address of person/ firm preparing the map.

3. Hydrogeology

Based on review of existing information, literature and records, describe the regional hydrogeological setting, in reference to the following, for the subject site (list all reference sources):

- a. Site-specific depth to groundwater.
- b. Pressure cells.
- c. Groundwater basins.
- d. Depositional basins and stratigraphy.
- e. Formations and members.
- f. Surficial deposits.
- g. Aquifer systems.
- h. Local search of well records in all jurisdictions.
- i. Local uses of groundwater.
- j. Nearby wells that may be adversely impacted.
- k. Perched water tables.

4. Screening Procedures

One or more of the following screening procedures may be utilized to determine future site assessment boring locations:

- a. Soil gas survey.
- b. Hydropunch.
- d. Piezometer.
- e. Boring soil excavation samples screened with:

[1] GC-PID gas chromatograph with a photoionization detector.

[2] GC-FID flame ionization detector. (This is not sensitive to BTXE, but is the

detector of choice for determination of methane, some hydrocarbons, fuels and solvents such as ethers and glycols).

(Field-meter readings are acceptable as field-screening techniques. However, readings must be supported with soil/core sample analysis in the final report. All calibration of field instruments must be performed in the field).

5. Plume Definition

Provide rationale for the number, location and depth of proposed borings, including reasons for proposed depth of each boring, if less than 40 feet.

6. Encountering Groundwater

If groundwater is encountered during soil borings, document the depth at which it is encountered and any other relevant hydrogeological data or lithological descriptions.

Provide a contingency plan for conversion of borings that encounter saturated zones to groundwater sampling wells in the event that further sampling is required by the Regional Water Quality Control Board. **(If groundwater contamination is discovered, the site will be referred to the Regional Water Quality Control Board for oversight.)** The contingency plan should include permitting and well design, construction, and development specifications.

7. **Soil Boring/Water Well Permits**

The drilling of soil borings/water wells requires a permit from the Long Beach Department of Health and Human Services. (Application for this permit is available via website: www.longbeach.gov/health/eh/forms.asp or by calling (562) 570-4134.

8. **Soil Cuttings and/or Purged Water Disposal**

Contaminated soil cuttings or purged water generated during the drilling of bore holes must be legally transported to an appropriate landfill, treatment facility or stored in a secure manner if they are to be mitigated in conjunction with the site remediation.

9. **Sampling Plan**

Provide a sampling plan that includes the locations and number of samples to be taken and analyzed.

Soil samples should be taken from the borings at consistent intervals of five feet to develop a complete profile of the soil contamination. If a dissimilar layer of soil is found to exist entirely between the five feet sampling intervals, a sample from this layer shall also be taken and analyzed.

a. Underground Storage Tanks (USTs): Samples are to be collected using a volumetric sampling system designed to collect, store and deliver a soil sample as specified in USEPA SW-846 version III 12/1996. Apply EPA Method 5035 for soil sampling and preservation to minimize volatile organic losses. A minimum of three borings must be taken below or adjacent to each tank or the area previously occupied by each underground tank, or below and adjacent to the area otherwise contaminated. These borings shall be used for soil sampling to check for lateral as well as vertical movement of contaminants in the soil. Additional borings may be necessary in some cases. The borings shall extend through the entire depth of contaminated soil. All abandoned boreholes shall be sealed with appropriate grout formulations.

b. Non-UST Related Projects (Phase II Site Mitigation, clarifiers, or hydraulic lifts): Stainless steel or brass sleeves may be used to obtain soil samples. Representative samples are to be taken subject to approval by this Department.

10. Analytical Testing Requirements:

TEST METHODS

PRODUCT or CONTAMINANT

E.P.A. TEST METHOD

SOIL

WATER

Gasoline BTXE and MTBE	8015(M) Carbon chain fingerprint 8260B	8015 Mod GC/FID Carbon chain fingerprint 602
Diesel fuel	8015(M) Carbon chain fingerprint 8260B	8015 Mod GC/FID Carbon chain fingerprint 602
Jet fuel	8015(M) Carbon chain fingerprint 8260B	8015 Carbon chain fingerprint
Waste motor oil	8015(M) Carbon chain fingerprint 8260B CAM Metals	8015 Carbon chain fingerprint 8260B CAM Metals
Solvent	Site Specific	Site Specific
Pesticides	Site Specific	Site Specific
Hydraulic Lift Vaults	8015(M) Carbon chain fingerprint 8260B CAM Metals	8015 Carbon chain fingerprint 8260B CAM Metals
Clarifiers	8015(M) Carbon chain fingerprint 8260B CAM Metals	8015 Carbon chain fingerprint 8260B CAM Metals
Above –Ground Petroleum Tanks	8015(M) Carbon chain fingerprint 8260B CAM Metals	8015 Carbon chain fingerprint 8260B CAM Metals
Unknowns	Site specific	Site specific

602 Aromatic volatile organics (water only)

8015(M) Non-halogenated volatile organics (modified) for fuel analysis using gas chromatography/flame ionization detection in field.

C₄ – C₁₂

C₁₃ -- C₂₂

C₂₃₊

REQUIRED MDL

<u>ANALYTE</u>	<u>ANALYTICAL METHOD</u>	<u>SOIL (µg/kg)</u>	<u>WATER (µg/L)</u>
BTEX	EPA Method 8260B(8021B)	2	1
MTBE	EPA Method 8260B	5	2
DIPE	EPA Method 8260B	5	2
ETBE	EPA Method 8260B	5	2
TAME	EPA Method 8260B	5	2
TBA	EPA Method 8260B	20	10
TPHg	EPA Method 8015(M)(8260B)	250-500	50-100
TPHd	EPA Method 8015(M)	2,500-5,000	500-1,000
Methanol	EPA Method 8015(M)	1,000	1,000
Ethanol	EPA Method 8015(M) (8260B)	1,000	1,000

MDL – minimum detection limits

Source: California Regional Water Quality Control Board, Los Angeles Region,
UST Lab Requirements For Oxygenates (06/24/03)

11. **Sampling Protocol**
Describe sampling protocol. Include procedures to prevent cross contamination.
12. **Testing Laboratory**
Indicate name and address of the laboratory that will analyze samples obtained at the site. The testing laboratory must be certified by the California Department of Health Services' Environmental Laboratory Accreditation Program (ELAP). A list of ELAP certified laboratories are available at: www.dhs.ca.gov/elap.
13. **Provide assurance that all work will be done in accordance with all applicable local, State and Federal Laws and Regulations.**
14. **Health and Safety Plan.**
15. **Site Characterization Permit Application.**
16. **Remittance for Site Characterization Permit/ review fee (Make checks payable to City of Long Beach DHHS). Please call (562) 570-4129 for current permit /review fee.**

<p>Once the Initial Site Characterization Work Plan has been approved, a Site Characterization Permit will be issued.</p>
--

III. FINAL SITE CHARACTERIZATION REPORT

The Final Site Characterization Report must address all divergences from the Initial Site Characterization Work Plan and justify all changes.

The results of the Site Characterization shall be submitted in the Final Report, which will be reviewed in order to determine the completeness of the Characterization and the applicability of local, State and Federal Laws or Regulations that may require Site Remediation.

For non-UST projects, where a voluntary Phase II analysis has found contamination to exist, the Phase II findings may be accepted in lieu of the submittal of an initial Site Characterization Work Plan. Results of the voluntary Phase II findings may be submitted in the Final Site Characterization Report, which must include the information listed below.

Submittal of a Final Site Characterization Report from a voluntary Phase II analysis must be accompanied by a completed Permit Application and remittance for current Site Characterization Permit fee. (Make checks payable to City of Long Beach DHHS).

The following minimum information shall be contained in the Report:
(Reports that do not follow this format will be rejected.)

1. **Facility Map**

Include the following in relation to the subject site:

- a. Site boundaries, including adjacent streets.
- b. Location of leaking underground tanks.
- c. Location of surface and subsurface structures.
- d. Boring/sampling locations.
- e. Locations of all hand samples taken during any tank excavations.
- f. Location of any previous site assessment work.
- g. Scale.
- h. North arrow.
- i. Index map.
- j. Name and address of the facility.
- k. Name of person/firm preparing the map.

2. **Sampling Procedures**

Provide detailed description of the sampling procedures.

3. **Analytical Results**

Provide all original laboratory results. In addition to the laboratory data, results shall be organized into a tabular display indicating sample identification number, laboratory analysis results, depth of samples, detection limits and appropriate action levels.

4. **Chain of Custody**

Provide chain of custody for samples including signatures for relinquishing and receiving of samples, sampling date and time, sample description, analytical methods requested nature of sample, number, size and type of containers and correlation between field ID and laboratory ID Numbers.

5. **Soil Properties**

Determine soil properties that affect contaminant mobility in the vadose zone. Relate the specific residual contaminants with their potential long-term effect on groundwater.

6. **Aquifer Properties**

Determine specific aquifer properties for correct setting of monitoring well(s). Use of piezometer clusters is encouraged to ascertain aquifer properties.

7. **Boring Logs**

Provide complete and legible boring logs which shall include:

- a. Description of earth materials.
- b. Lithographic column with abbreviations and symbols.
- c. Thickness of floating product.
- d. Sample localities at depth.
- e. Depth to the piezometric or groundwater surface.
- f. Depths reported in feet.
- g. Penetration in blows per foot.
- h. Surface elevation in feet.
- i. Project name.
- j. Name of field geologist.
- k. Boring number.
- l. Termination depth in feet.
- m. Scale.
- n. Type of equipment and methods used.
- o. Isolated lenses.

8. **Hydrogeological Data**

This is to be used only as a guideline, and may include, but is not limited to the items listed below:

- a. Address the hydrogeological setting, cite all references, and include the following in reference to the subject site:
 - [1] Pressure cells
 - [2] Groundwater basins
 - [3] Depositional basins and stratigraphy
 - [4] Formation and members
 - [5] Surficial deposits
 - [6] Aquifer system
- b. Address the site-specific hydrogeological setting, cite all references, and include the following in reference to the subject site:
 - [1] Local search of well records in close proximity to the site.
 - [2] Identify local issues of groundwater.
 - [3] Local search of nearby contamination assessment reports.
 - [4] Groundwater features:
 - [a] Vadose zone.
 - [b] Saturated and unsaturated zones.
 - [c] Capillary fringe.
 - [d] Piezometric surface or water table level contours.
 - [e] Aquifers and aquicludes.
 - [f] Recharge and discharge sources.
 - [g] Representative transmissivities.
 - [5] Unique site features -
The physical characteristics of the site that could influence the movement and direction of contaminants through the surface.
 - [a] Earth materials contacts -
Contact lines between the items listed below:
 - (1) Faults, fractures and joints.
 - (2) Soil horizons.
 - (3) Bedrock materials.

- (4) Weathered zones.
 - (5) Isolated lenses.
 - (6) Fill materials.
- [b] Man-made conduit contacts -
Contact lines between the items listed below:
 - (1) Sewer line backfill.
 - (2) Utility trench backfill.
 - (3) Bedding material under footings.
 - (4) Wall backfill.
 - (5) Swales and berms.
 - (6) Surficial obstructions.
- [6] Provide stratigraphic interpretation between well borings
- c.** Provide a plan view
 - [1] Depict the extent of contamination relative to all groundwater features and unique site features.
 - [2] Provide north arrow, scale, elevations, site boundaries, legend, trace of section lines and boring locations with representative contaminant concentrations.
- d.** Provide a cross-section
 - [1] Depict the vertical and horizontal extent of the contamination relative to all groundwater features and unique site features.
 - [2] Show interpolation between well borings.
 - [3] Provide direction of section lines, elevations, scale, legend and boring locations with representative contamination concentrations shown at depth.
- e.** Provide Supplemental Data
 - [1] Establish the site-specific hydraulic gradient, direction of groundwater flow, and the high water table level based on original field data.
 - [2] Resolve discrepancies between regional and local data, and cite all references for regional data.
- f.** Provide a complete index map that is clearly legible (preferably from "Thomas Guide").
- g.** Provide complete and legible boring logs which shall include the following:
 - [1] Description of all materials.
 - [2] Lithographic column with abbreviations and symbols.
 - [3] Thickness of floating product.
 - [4] Sample localities at depth.
 - [5] Depth to the piezometric or groundwater surface.
 - [6] Depths in feet.
 - [7] Penetration in blows per foot.
 - [8] Surface elevation in feet.
 - [9] Project name.
 - [10] Name of field geologist.
 - [11] Boring number.
 - [12] Termination depth in feet.

- [13] Scale.
- [14] Type of equipment and methods used.
- [15] Isolated lenses.
- [16] All borings for volatile and/or semi-volatile organic compounds must show the field meter screening readings, supported by core analysis.
- [17] The termination of the boring depth must be established by non-detectable levels of contamination (by core analysis).
- [18] Where groundwater proximity is close to the bottom of borings, a groundwater well must be installed and developed and the groundwater sampled and analyzed.

h. Provide piezometer and/or monitoring well construction detail(s) and procedure for installation.

9. **Soil and Water**

Provide documentation for proper disposal of soil and water generated during the drilling of Borings and/or purging activities.

10. **Plume Illustration**

Depict the extent of all existing liquid-phase, adsorbed-phase, and vapor-phase and/or dissolved- phase contaminant plumes.

11. **Conclusions and Recommendations**

Discuss and describe the distribution and concentration of hydrocarbon contamination and its relationship to the medium in which it occurs (soil and/ or water in the vadose zone, capillary fringe and saturated zone). Justify why it is believed the plume is defined.

Recommend additional site characterization or site remediation, as needed.

12. **Completed UST Unauthorized Release (Leak)/Contamination Site Report**

This form may be obtained from the Long Beach Department of Health and Human Services.

Note: *For current established Permit / review fees, call (562) 570-4129*

ATTACHMENT I



Department of Health
and Human Services

CITY OF LONG BEACH DEPARTMENT OF HEALTH AND HUMAN SERVICES LONG BEACH UNIFIED PROGRAM AGENCY

SITE CHARACTERIZATION PERMIT APPLICATION

SITE LOCATION: _____

NAME OF BUSINESS: _____

NAME OF OWNER/OPERATOR: _____

TELEPHONE NUMBER:(_____) _____

MAILING ADDRESS: _____

CONTACT NAME IF DIFFERENT
FROM OWNER/OPERATOR: _____

TELEPHONE NUMBER:(_____) _____

MAILING ADDRESS: _____

NAME OF SELECTED ENVIRONMENTAL
CONSULTANT: _____

TELEPHONE:(_____) _____

ADDRESS: _____

Name of Owner/Operator approving
Site Characterization project: _____

Signature: _____ Date: _____

This Section for official use

Assigned Hazardous Materials
Specialist(s) _____

Date when Permit Application was received: _____

Remarks: _____

MONITORING CERTIFICATION SECTION





CITY OF LONG BEACH FIRE DEPARTMENT
CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)
BUREAU OF FIRE PREVENTION
3205 Lakewood Boulevard, Long Beach, CA 90808
Tel: (562) 570-2563 Fax: (562) 570-2566

The Long Beach Fire Department is providing the below information to better assist Station Owners, Designated Operators, Underground Storage Tank Test Companies, Service Technicians and their Assistants in the requirements for Underground Storage Tank testing in the City of Long Beach. The information below, although not inclusive, should be used as a guide and reviewed by all parties involved, to prepare for the periodic testing at your facility.

I. ANNUAL MONITORING CERTIFICATION TEST REQUIREMENTS

II. ANNUAL MONITORING CERTIFICATION TEST REQUIREMENTS

1. Owner/Operator/Dealer Requirements for Certification

- You are required to have the underground storage tanks tested and certified every twelve (12) months on the anniversary date established. The test must be conducted by a licensed 3rd party contractor. All testing shall be conducted according to State Guidance and applicable Industry Standards (i.e. PEI1200 for UST testing) (CHSC Section 25288 & CCR Title 23 Section 2638)
- You are required to perform a Secondary containment test (SB989) per CCR Title 23 Section 2637. Testing must be conducted every three (3) years and all repairs completed as required, within 60 days. All testing shall be conducted according to State Guidance and applicable Industry Standards (i.e. PEI1200 for UST testing). When plans are required for repair, plans shall be submitted to the Fire Counter at City Hall located on the 4th floor at 333 W. Ocean Blvd, Long Beach, CA 90802, Tel: (562) 570-7086.
- Any tank that is not in use/abandoned shall be removed per CCR Title 23, Section 15, Article 7 Underground Storage Tank regulations & CHSC Chapter 6.7 and CA Fire Code (any adoptions), as referenced. A plan submittal shall be required for any tank removal, temporary and/or permanent tank closure.
- Any single-walled tanks with single-wall piping must have: A Line Test performed annually, an Automatic Tank Gauge (ATG) Test, and Tank Integrity Test performed every two (2) years, if not performed monthly (CCR Title 23 Section 2643).
- Any expired forms shall be updated prior to annual inspection. All of the following items shall be provided to LBFD Inspector at the time of the annual inspection for review. Failure to provide proof and copies of the listed documents (at time of test) may result in penalties and fees being assessed.
- Valid and current copies of State Water Resource Control Board (SWRCB) Forms A, B, D and E. Copies must also be signed and dated by responsible party. Form A must also include the Board of Equalization Account Number (BOE #).
- Valid and current plot plan of facility, including location and size of tanks, type of fuel stored, indication of fill and vapor buckets, location of Veeder Root (monitoring panel), vent lines, fire extinguisher locations, etc.

- Valid and current copy of the Financial Responsibility statement for the underground storage tanks. Document shall be signed and dated by responsible party.
- Valid, current, dated and signed copy of the Designated Operator Statement (CCR Title 23 Section 2715).
- Current employee training records must be kept onsite (CCR Title 23 Section 2715).
- All City of Long Beach permits including, but not limited to, CUPA, Business License and Fire (if applicable) must be valid and current (all fees paid in full) and posted onsite.
- Designated Operator monthly report shall have printout attached. Printout shall be time stamped with facility name and address.
- Spill log shall be current and kept on site at all times.
- All maintenance and repair records shall be current and kept onsite at all times.
- Contractors performing annual certification and/or SB989 test must submit a copy of the test report to the local agency within 30 days of the completion of the test.

2. Contractor/Technician Requirements

- Any individual performing the work of a service technician must possess or be employed by a person who possesses one of the following (CCR Title 23 Section 2715(i):
 - Copy of valid State of California Contractor License (Class A, C-10, C-34, C-36 , C-61) and
 - Hazardous Substance Removal Certification

License must be valid and presented to the Long Beach Fire Department (LBFD) inspector at the time of the test.

- All technicians must possess all required certifications including (CCR Title 23 Section 2715), but not limited to:
 - Copy of valid State of California Contractor License (Class A, C-10, C-34, C-36, C-61 or D-40)
 - ICC UST Service Technician
 - ICC UST Installer Retrofitter
 - Veeder Root or Panel Manufacturer Certification
 - VMI or related Leak Detector Manufacturer Certification
 - Hazwoper Certification
 - Photo Identification

All other site personnel shall possess:

- Hazwoper Certification
- Photo Identification

The above certifications must be valid and provided to the inspector at the time of the test. Failure to provide proof of required certifications will result in cancellation of test and possibly fees assessed by CUPA.

Upon arrival of service technician, work site must be sufficiently secured by use of cones and/or caution tape and closed off to fueling operations. Convenience store may remain open during test, unless directed otherwise by LBFD inspector.

3. UST Operator Requirements

- UST Operators shall possess a current California UST System Operator Certificate issued by the International Code Council (ICC).
- The monthly visual inspection shall include, but is not limited to, the following:
 - Copy of the alarm history report or log, along with documentation describing action taken in response to any alarm(s), shall be attached to the monthly visual inspection record.
 - Inspecting for the presence of hazardous substance, water, or debris in spill containers.
 - Inspecting for the presence of hazardous substances, water, or debris in under-dispenser containment areas.
 - Inspecting for the presence of hazardous substances, water, or debris in containment sumps that, in the past month, have had an alarm for which there is no record of a service.
 - Verifying that all facility employees have been trained in accordance with CCR Title 23 Section 2715(f).
 - Owner/operator shall maintain a copy of the monthly inspection record and all attachments for the previous 12 months. The records shall be maintained on-site, if approved by the local agency, off-site at a readily available location.
 - By July 1, 2005, and every 12 months thereafter, the designated UST operator(s) shall train facility employees for which he or she is responsible in the proper operation and maintenance of the underground storage tank system.
- Secondary containment testing shall be performed by either a service technician or a licensed tank tester, both of which must meet the requirements of CCR Title 23 Section 2715(i).
- Underground storage tank owners and operators shall submit a copy of the test report to the local agency within 30 days of the completion of the test per CCR Title 23 Section 2637(e).
- All monitoring equipment used to satisfy the requirements of this article shall be installed, calibrated, operated and maintained in accordance with manufacturer's instructions, and certified every 12 months for operability, proper operating condition and proper calibration per CCR Title 23 Section 2638. Written records shall be maintained as required in CCR Title 23 Section 2712.

4. Additional Information

Every attempt has been made to provide complete and accurate information regarding the topics covered above. It is our recommendation that you review adopted codes prior to contacting the inspector. However, if the inspector needs to be contacted, please call: (562) 570-2560, and ask to speak with the Fire/CUPA Inspector.

CERTIFIED
Unified
PROGRAM
AGENCY
FORMS

UST Operating Permit Application – Facility Information Page 1 Instructions (Formerly SWRCB UST Permit Application Form A and UPCF Form hwfwr-c-a)

Complete this form for all new permits, permit changes, or facility information changes. This form must be submitted within 30 days of permit or facility information changes, unless your local agency requires approval prior to making the changes. For changes, submit only that form that contains the change.

Submit one UST Operating Permit Application – Facility Information form per facility, regardless of the number of USTs located at the facility. If not already on file with the local agency, the tank owner must submit with this form, a current UST Operating Permit Application – Tank Information form for each UST; a UST Monitoring Plan and a UST Response Plan pursuant to 23 CCR 2632, 2634 and 2641; and, for USTs containing petroleum, a certification of financial responsibility pursuant to 23 CCR 2807.

The following documents, at a minimum, are also required, if applicable (check with your local agency to see if they require submittal or if there are other forms/information needed):

- Written agreement between UST Owner and UST Operator per Health and Safety Code §25284(a)(3);
- Letter from the Chief Financial Officer (if using State Cleanup Fund, financial test of self-insurance, guarantee, local government financial test, or Local Government Fund as a financial responsibility mechanism).

Please number all pages of your submittal. (Note: Numbering of these instructions matches the data element numbers on the form.)

400. TYPE OF ACTION – Check the reason this form is being submitted. CHECK ONE ITEM ONLY.
404. TOTAL NUMBER OF USTs AT SITE – Indicate the number of tanks that will remain on the site after the requested action.
1. FACILITY ID NUMBER – This space is for agency use only.
3. BUSINESS NAME – Enter the complete Business Name. (Same as FACILITY NAME or DBA (Doing Business As)).
103. BUSINESS SITE ADDRESS – Enter the street address of the facility, including building number, if applicable. This address must be the physical location of the facility. Post office box numbers are not acceptable.
104. CITY – Enter the city or unincorporated area in which the facility is located.
403. FACILITY TYPE – Indicate the type of facility.
405. INDIAN RESERVATION OR TRUST LANDS – Check whether the facility is located on an Indian reservation or other trust lands.
407. PROPERTY OWNER NAME – Complete items 407 - 412 for the property owner. Include the area code and any extension number.
408. PROPERTY OWNER PHONE –
409. PROPERTY OWNER MAILING ADDRESS –
410. PROPERTY OWNER CITY –
411. PROPERTY OWNER STATE –
412. PROPERTY OWNER ZIP CODE –
- 428-1. TANK OPERATOR NAME – Complete items 428-1 to 428-6 for the UST operator.
- 428-2. TANK OPERATOR PHONE – Include the area code and any extension number.
- 428-3. TANK OPERATOR MAILING ADDRESS –
- 428-4. TANK OPERATOR CITY –
- 428-5. TANK OPERATOR STATE –
- 428-6. TANK OPERATOR ZIP CODE –
414. TANK OWNER NAME – Complete items 414 - 419 for the UST owner.
415. TANK OWNER PHONE – Include the area code and any extension number.
416. TANK OWNER MAILING ADDRESS –
417. TANK OWNER CITY –
418. TANK OWNER STATE –
419. TANK OWNER ZIP CODE –
420. TANK OWNER TYPE – Check the type of tank ownership.
421. BOE NUMBER – Enter your State Board of Equalization (BOE) UST storage fee account number. This fee applies to regulated USTs storing petroleum products and is required before your permit application will be processed. If you do not have an account number with the BOE, or if you have any questions regarding the fee or exemptions, contact the BOE at (916) 322-9669 or by mail at: Board of Equalization, Fuel Taxes Division, PO Box 942879, Sacramento, CA 94279-0030.
423. PERMIT HOLDER INFORMATION – Indicate the party to whom the UST operating permit is to be issued and legal notifications and mailings should be sent.
406. SUPERVISOR OF DIVISION SECTION OR OFFICE SUPERVISOR – If the facility owner is a public agency, enter the name of the supervisor of the division section or office that operates the UST. This person must have access to the UST records.
- APPLICANT SIGNATURE – The application form must be signed, in the space provided, by:
- The UST owner or operator, facility owner or operator, or a duly authorized representative of the owner; or
 - If the UST(s) is/are owned by a corporation, partnership, or public agency:
 - 1.) A principal executive officer at the level of vice-president or by an authorized representative responsible for the overall operation of the facility where the UST(s) is/are located; or
 - 2.) A general partner or proprietor; or
 - 3.) A principal executive officer, ranking elected official, or authorized representative of a public agency.
424. DATE – Enter the date the form was signed.
425. PHONE – Enter the phone number of the applicant (i.e., person signing the form). Include the area code and any extension number.
426. APPLICANT NAME – Print or type the full name of the person signing the form.
427. APPLICANT TITLE – Enter the title of the person signing the form.

**UNIFIED PROGRAM CONSOLIDATED FORM
UNDERGROUND STORAGE TANK
OPERATING PERMIT APPLICATION – TANK INFORMATION** (One form per UST)

TYPE OF ACTION (Check one item only. For an UST permanent closure or removal, complete only this section and Sections I, II, III, IV, and IX below)		430
<input type="checkbox"/> 1. NEW PERMIT	<input checked="" type="checkbox"/> 3. RENEWAL PERMIT	<input type="checkbox"/> 5. CHANGE OF INFORMATION
<input type="checkbox"/> 6. TEMPORARY UST CLOSURE	<input type="checkbox"/> 7. UST PERMANENT CLOSURE ON SITE	<input type="checkbox"/> 8. UST REMOVAL
DATE UST PERMANENTLY CLOSED:	430a	DATE EXISTING UST DISCOVERED:
I. FACILITY INFORMATION		
FACILITY ID # (Agency Use Only)	—	1
BUSINESS NAME (Same as FACILITY NAME or DBA-Doing Business As)		
3		
BUSINESS SITE ADDRESS	103	CITY
104		
II. TANK DESCRIPTION		
TANK ID #	432	TANK MANUFACTURER
		433
TANK CONFIGURATION: THIS TANK IS		434
<input type="checkbox"/> 1. A STAND-ALONE TANK		
<input type="checkbox"/> 2. ONE IN A COMPARTMENTED UNIT .		
<small>Complete one page for each compartment in the unit.</small>		
DATE UST SYSTEM INSTALLED	435	TANK CAPACITY IN GALLONS
		436
NUMBER OF COMPARTMENTS IN THE UNIT		437
III. TANK USE AND CONTENTS		
TANK USE	<input type="checkbox"/> 1a. MOTOR VEHICLE FUELING	<input type="checkbox"/> 1b. MARINA FUELING
	<input type="checkbox"/> 3. CHEMICAL PRODUCT STORAGE	<input type="checkbox"/> 4. HAZARDOUS WASTE (Includes Used Oil)
	<input type="checkbox"/> 6. OTHER GENERATOR FUEL	<input type="checkbox"/> 95. UNKNOWN
	<input type="checkbox"/> 1c. AVIATION FUELING	<input type="checkbox"/> 5. EMERGENCY GENERATOR FUEL [HSC §25281.5(c)]
	<input type="checkbox"/> 99. OTHER (Specify):	439a
CONTENTS	PETROLEUM: <input type="checkbox"/> 1a. REGULAR UNLEADED	<input type="checkbox"/> 1c. MIDGRADE UNLEADED
	<input type="checkbox"/> 3. DIESEL	<input type="checkbox"/> 5. JET FUEL
	<input type="checkbox"/> 8. PETROLEUM BLEND FUEL	<input type="checkbox"/> 9. OTHER PETROLEUM (Specify):
	<input type="checkbox"/> 7. USED OIL	<input type="checkbox"/> 10. ETHANOL
	<input type="checkbox"/> 11. OTHER NON-PETROLEUM (Specify):	440b
	<input type="checkbox"/> 1b. PREMIUM UNLEADED	<input type="checkbox"/> 6. AVIATION GAS
		440a
IV. TANK CONSTRUCTION		
TYPE OF TANK	<input type="checkbox"/> 1. SINGLE WALL	<input type="checkbox"/> 2. DOUBLE WALL
	<input type="checkbox"/> 95. UNKNOWN	443
PRIMARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 3. FIBERGLASS
	<input type="checkbox"/> 7. STEEL + INTERNAL LINING	<input type="checkbox"/> 6. INTERNAL BLADDER
	<input type="checkbox"/> 99. OTHER (Specify):	444a
SECONDARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 3. FIBERGLASS
	<input type="checkbox"/> 90. NONE	<input type="checkbox"/> 95. UNKNOWN
	<input type="checkbox"/> 99. OTHER (Specify):	445a
OVERFILL PREVENTION	<input type="checkbox"/> 1. AUDIBLE & VISUAL ALARMS	<input type="checkbox"/> 2. BALL FLOAT
	<input type="checkbox"/> 4. TANK MEETS REQUIREMENTS FOR EXEMPTION FROM OVERFILL PREVENTION EQUIPMENT	<input type="checkbox"/> 3. FILL TUBE SHUT-OFF VALVE
		452.
V. PRODUCT / WASTE PIPING CONSTRUCTION		
PIPING CONSTRUCTION	<input type="checkbox"/> 1. SINGLE-WALLED	<input type="checkbox"/> 2. DOUBLE-WALLED
	<input type="checkbox"/> 99. OTHER	460
SYSTEM TYPE	<input type="checkbox"/> 1. PRESSURE	<input type="checkbox"/> 2. GRAVITY
	<input type="checkbox"/> 3. CONVENTIONAL SUCTION	<input type="checkbox"/> 4. SAFE SUCTION [23 CCR §2636(a)(3)]
	<input type="checkbox"/> 99. OTHER (Specify):	458
PRIMARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 90. NONE	<input type="checkbox"/> 95. UNKNOWN
	<input type="checkbox"/> 99. OTHER (Specify):	464a
SECONDARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 90. NONE	<input type="checkbox"/> 95. UNKNOWN
	<input type="checkbox"/> 99. OTHER (Specify):	464c
PIPING/TURBINE CONTAINMENT SUMP TYPE	<input type="checkbox"/> 1. SINGLE WALL	<input type="checkbox"/> 2. DOUBLE WALL
	<input type="checkbox"/> 90. NONE	464d
VI. VENT, VAPOR RECOVERY (VR) AND RISER / FILL PIPE PIPING CONSTRUCTION		
VENT PRIMARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464e
VENT SECONDARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464f1
VR PRIMARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464g
VR SECONDARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464h1
VENT PIPING TRANSITION SUMP TYPE	<input type="checkbox"/> 1. SINGLE WALL	<input type="checkbox"/> 2. DOUBLE WALL
	<input type="checkbox"/> 90. NONE	464i.
RISER PRIMARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464j
RISER SECONDARY CONTAINMENT	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 90. NONE
	<input type="checkbox"/> 99. OTHER (Specify)	464k1
FILL COMPONENTS INSTALLED	<input type="checkbox"/> 1. SPILL BUCKET	<input type="checkbox"/> 3. STRIKER PLATE/BOTTOM PROTECTOR
	<input type="checkbox"/> 4. CONTAINMENT SUMP	451a-c
VII. UNDER DISPENSER CONTAINMENT (UDC)		
CONSTRUCTION TYPE	<input type="checkbox"/> 1. SINGLE WALL	<input type="checkbox"/> 2. DOUBLE WALL
	<input type="checkbox"/> 3. NO DISPENSERS	<input type="checkbox"/> 90. NONE
		469a
CONSTRUCTION MATERIAL	<input type="checkbox"/> 1. STEEL	<input type="checkbox"/> 4. FIBERGLASS
	<input type="checkbox"/> 10. RIGID PLASTIC	<input type="checkbox"/> 99. OTHER (Specify)
		469b-c
VIII. CORROSION PROTECTION		
STEEL COMPONENT PROTECTION	<input type="checkbox"/> 2. SACRIFICIAL ANODE(S)	<input type="checkbox"/> 4. IMPRESSED CURRENT
	<input type="checkbox"/> 6. ISOLATION	448.
IX. APPLICANT SIGNATURE		
CERTIFICATION: I certify that this UST system is compatible with the hazardous substance stored and that the information provided herein is true, accurate, and in full compliance with legal requirements.		
APPLICANT SIGNATURE		DATE
		470.
APPLICANT NAME (print)	471.	APPLICANT TITLE
		472.

UST Operating Permit Application – Tank Information Instructions

(Formerly SWRCB Permit Application Form B and UPCF Form hfwfrc-b)

Complete a separate form for each UST for all new permits, permit changes, and any UST system information changes. This form must be submitted within 30 days of permit or UST system information changes, unless your local agency requires approval prior to making changes. For tanks that are part of a compartmentalized unit, each compartment is considered a separate tank and requires completion of a separate Tank Information form. For a UST permanent closure or removal, complete only TYPE OF ACTION and Sections I, II, III, IV, and IX. (Note: Numbering of these instructions matches the data element numbers on the form.)

- 430. TYPE OF ACTION – Check the appropriate box to indicate why this form is being submitted.
 - 430a. DATE UST PERMANENTLY CLOSED – For reporting closure only: enter the date the UST was removed or closed on site.
 - 430b. DATE EXISTING UST DISCOVERED – Enter the date this UST was discovered. Leave blank if installation date is known.
 - 1. FACILITY ID NUMBER – This space is for agency use only.
 - 3. BUSINESS NAME – Enter the complete facility name.
 - 103. BUSINESS SITE ADDRESS – Enter the street address of the facility, including building number, if applicable. This address must be the physical location of the facility. Post office box numbers are not acceptable.
 - 104. CITY – Enter the city or unincorporated area in which the facility is located.
 - 432. TANK ID # – Applicant may enter the owner's tank identification number or leave this space blank. The Local Agency will assign the State tank identification number as the unique identifier for the tank.
 - 433. TANK MANUFACTURER – Enter the name of the company that manufactured the tank.
 - 434. TANK CONFIGURATION. Check the appropriate box to indicate if the tank is a stand-alone tank or one in a compartmented unit. A separate UST Operating Permit Application – Tank Information form must be submitted for each compartment.
 - 435. DATE UST SYSTEM INSTALLED – Enter the date the local agency signed-off on installation of the UST system. This is the date of initial tank system installation, and does not include upgrades or retrofits which may have been performed later. If this is for a new installation, leave blank.
 - 436. TANK CAPACITY IN GALLONS: Enter the tank capacity. For compartmentalized tanks, enter data for the compartment covered by this tank form only.
 - 437. NUMBER OF COMPARTMENTS IN THE UNIT: If the tank is a compartment, enter the total number of compartments in the unit.
 - 439. TANK USE – Check the type of tank usage.
 - 439a. If you checked "Other" specify the type of tank usage in the space provided.
 - 440. TANK CONTENTS – Check the specific petroleum or non-petroleum substance stored.
 - 440a. If you checked "Other Petroleum" specify the common name of the substance in the space provided [i.e., the name used in the facility's Hazardous Materials Business Plan (HMBP) inventory].
 - 440b. If you checked "Other" under Non-petroleum, specify the common name of substance in the space provided (i.e., the name used in the HMBP inventory).
 - 443. TYPE OF TANK – Check the box that identifies the type of tank.
 - 444. TANK PRIMARY CONTAINMENT – Check the construction material of the primary containment (i.e., inner tank wall nearest the hazardous substance stored). If the tank material is not listed, check "Other" and specify the material in the space provided.
 - 444a. If you checked "Other" specify the type of primary containment in the space provided.
 - 445. TANK SECONDARY CONTAINMENT – Check the construction material of the secondary containment that provides containment external to, and separate from, the primary containment described above. If the tank is a single-wall tank, check "None." If the material is not listed, check "Other" and specify the material in the space provided (e.g., HDPE).
 - 445a. If you checked "Other" specify the type of secondary containment in the space provided.
 - 452. OVERFILL PREVENTION – Check the box(es) to describe the type(s) of overflow protection equipment installed.
 - 458. PIPING SYSTEM TYPE – Check the type of product/waste piping installed in this tank system. "Safe suction" refers to piping systems meeting all requirements of 23 CCR §2636(a)(3) (also known as "European Suction" systems) (i.e., sloped suction piping systems with no valves or pumps below grade and only one check valve, located below and as close as practical to the suction pump). Title 23, California Code of Regulations is available online at www.calregs.com.
 - 460. PIPING CONSTRUCTION-Indicate if the piping is single-walled or double-walled, or "other".
 - 464. PIPING PRIMARY CONTAINMENT – Check the material(s) used to construct the primary (i.e., inner) underground product/waste piping.
 - 464a. If you checked "Other" specify the type of primary containment in the space provided.
 - 464b. PIPING SECONDARY CONTAINMENT – Check the material(s) used to construct the secondary containment system(s) (i.e., secondary piping, trench) provided for the product/waste piping. For single-wall piping systems, check "None."
 - 464c. If you checked "Other" specify the type of secondary containment in the space provided.
 - 464d. PIPING/TURBINE CONTAINMENT SUMP TYPE – Indicate the type of piping/turbine containment sump(s). Check "None" if not present.
 - 464e-e1 VENT PRIMARY CONTAINMENT – Check the material(s) used to construct the primary (i.e., inner) vent piping. (Note: Address venting of the tank primary containment only.) Specify Other type of containment in the space provided.
 - 464f-f1 VENT SECONDARY CONTAINMENT – Check the material(s) used to construct the secondary containment system(s) (e.g., secondary piping,) provided for the vent piping. For single-wall piping systems, check "None." (Note: Address venting of the tank primary containment only.) Specify Other type of containment in the space provided.
 - 464g-g1 VR PRIMARY CONTAINMENT – Check the material(s) used to construct the primary (i.e., inner) vapor recovery piping. For tanks without vapor recovery piping (e.g., Diesel tanks), check "None." Specify Other type of containment in the space provided.
 - 464h-h1 VR SECONDARY CONTAINMENT – Check the material(s) used to construct the secondary containment system(s) (e.g., secondary piping) provided for the vapor recovery piping. For single-wall piping systems, check "None." Specify Other type of containment in the space provided.
 - 464i. VENT PIPING TRANSITION SUMP TYPE – Indicate type of transition sump(s). Check "None" if not present.
 - 464j-j1 RISER PRIMARY CONTAINMENT – Check the material(s) used to construct the primary (i.e., inner) piping for all risers (not drop tubes) other than annular space risers (i.e., risers for filling or gauging of the primary tank). Specify Other type of containment in the space provided.
 - 464k-k1 RISER SECONDARY CONTAINMENT – Check the material(s) used to construct secondary containment system(s) (i.e., secondary piping, sumps) provided for the riser piping. For risers without secondary containment, check "None." Specify Other type of containment in the space provided.
 - 451a-c. FILL COMPONENTS INSTALLED – Check the appropriate boxes to show that spill containment, tank bottom protection, and fill containment sumps (if applicable) are installed.
 - 469a. UDC CONSTRUCTION TYPE – Check the box to describe the type of dispenser containment system(s) (i.e., dispenser sumps or pans). If the system has no dispensers (e.g., standby generator tank system), check "No Dispensers." If the system has a dispenser, but no UDC, check "None".
 - 469b. UDC CONSTRUCTION MATERIAL – Check the box to describe the materials used to construct the UDC.
 - 469c. If you checked "Other" specify the construction material in the space provided.
 - 448. STEEL COMPONENT PROTECTION – All systems contain some steel components. Check the appropriate box(es) to describe all corrosion protection methods used. "Isolation" means electrical isolation from soil, backfill, and groundwater. Examples include fiberglass cladding, non-metallic secondary containment systems which isolate steel components from the sub-surface environment, and insulating bushings.
- APPLICANT SIGNATURE – The same person who signs the UST Operating Permit Application – Facility Information Form shall sign in the space provided. This signature certifies that the signer believes that all information submitted is true and accurate, and that the UST system is compatible with the hazardous substance stored.
- 470. DATE – Enter the date the form was signed.
 - 471. APPLICANT NAME – Print or type the name of the person signing the form.
 - 472. APPLICANT TITLE – Enter the title of the person signing the form.

UST Certification of Installation / Modification Form Instructions

This Certification form must be submitted upon the completion of installation or upgrading of tanks and/or piping associated with a UST system. Installation or upgrading of multiple tank systems may be addressed on one form. The UST owner or an authorized representative of the owner must complete this form. (Note: Numbering of these instructions follows the UPCF data element numbers on the Certification form.)

1. FACILITY ID NUMBER – This space is for agency use only.
3. BUSINESS NAME – Enter the complete Facility Name.
103. BUSINESS SITE ADDRESS – Enter the street address of the facility, including building number, if applicable. This address must be the physical location of the facility. Post office box numbers are not acceptable.
104. CITY – Enter the city or unincorporated area in which the facility is located.
- 482a. NAME OF CONTRACTOR WHO PERFORMED INSTALLATION / MODIFICATION – Enter the name of the contractor who performed the work as registered with the Contractors State License Board (CSLB).
- 482b. CONTRACTOR LICENSE # – For the contractor named above, enter the license number assigned by the Contractors State License Board (license information is available online at www.cslb.ca.gov).
- 482c. ICC CERTIFICATION # – Enter the International Code Council (ICC) “UST Installation/Retrofitting” certification number possessed by the contractor.
- 483a. TYPE OF PROJECT – Check the appropriate box(es) to indicate the type of work performed. Address each system component individually (i.e., for installation of a complete motor vehicle fueling UST system, check boxes 1 through 4).
- 483b. WORK AUTHORIZED UNDER PERMIT (Number or Date) – Enter the number of the permit issued by the local agency, or if no permit number, the date the permit or project approval was issued for the work being certified.
- 483c. DESCRIPTION OF WORK BEING CERTIFIED – In the space provided, briefly describe the work performed. Include the number and type of UST systems installed or upgraded and the scope of work (e.g., “Installation of piping sumps and under dispenser containment, and replacement of product and vapor recovery piping associated with one 12,000 gallon regular unleaded and one 8,000 gallon premium unleaded motor vehicle fuel tank.”).

SIGNATURE OF TANK OWNER OR OWNER’S AGENT – The tank owner or an authorized agent of the owner shall sign in the space provided. This signature certifies that the signer believes that all the information submitted is true and accurate.

484. DATE CERTIFIED – Enter the date the form was signed.
485. CERTIFIER’S NAME – Enter the full printed name of the person signing the form.
486. CERTIFIER’S TITLE – Enter the title of the person signing the form.
487. PHONE – Enter the phone number of the person signing the certification. Include the area code and any extension number.
488. NAME OF CERTIFIER’S EMPLOYER – Enter the name (DBA) of the employer of the person signing the form. If the tank owner is an individual, and the owner signs the Certification, note “N/A” (Not Applicable) in this space.
489. CERTIFIER’S RELATIONSHIP TO TANK OWNER – Check the appropriate box to indicate the nature of the relationship between the person signing the form and the tank owner.

**UNIFIED PROGRAM CONSOLIDATED FORM
UNDERGROUND STORAGE TANK
MONITORING PLAN – (Page 1 of 2)**

TYPE OF ACTION	<input type="checkbox"/> 1. NEW PLAN	<input type="checkbox"/> 2. CHANGE OF INFORMATION		490-1
PLAN TYPE	<input type="checkbox"/> 1. MONITORING IS IDENTICAL FOR ALL USTs AT THIS FACILITY.			490-2
(Check one item only)	<input type="checkbox"/> 2. THIS PLAN COVERS ONLY THE FOLLOWING UST SYSTEM(S): _____			
I. FACILITY INFORMATION				
FACILITY ID # (Agency Use Only)				1
BUSINESS NAME (Same as FACILITY NAME)				3.
BUSINESS SITE ADDRESS	103.	CITY		104.
II. EQUIPMENT TESTING AND PREVENTIVE MAINTENANCE				
Testing, preventive maintenance, and calibration of monitoring equipment (e.g., sensors, probes, line leak detectors, etc.) must be performed at the frequency specified by the equipment manufacturers' instructions, or annually, whichever is more frequent, and that such work must be performed by qualified personnel. (23 CCR §2632, 2634, 2638, 2641)				
MONITORING EQUIPMENT IS SERVICED	<input type="checkbox"/> 1. ANNUALLY		<input type="checkbox"/> 99. OTHER (Specify):	490-3a 490-3b
III. MONITORING LOCATIONS				
<input type="checkbox"/> 1. NEW SITE PLOT PLAN/MAP SUBMITTED WITH THIS PLAN. <input type="checkbox"/> 2. SITE PLOT PLAN/MAP PREVIOUSLY SUBMITTED. (23 CCR §2632, 2634) 490-4				
IV. TANK MONITORING IS PERFORMED USING THE FOLLOWING METHOD(S):				
<input type="checkbox"/> 1. CONTINUOUS ELECTRONIC TANK MONITORING OF ANNULAR (INTERSTITIAL) SPACE(S) OR SECONDARY CONTAINMENT VAULT(S) WITH AUDIBLE AND VISUAL ALARMS. (23 CCR §2632, 2634) 490-5				
SECONDARY CONTAINMENT IS: <input type="checkbox"/> a. DRY <input type="checkbox"/> b. LIQUID FILLED <input type="checkbox"/> c. PRESSURIZED <input type="checkbox"/> d. UNDER VACUUM 490-6				
PANEL MANUFACTURER:			490-7	MODEL #: 490-8
LEAK SENSOR MANUFACTURER:			490-9	MODEL #(S): 490-10
<input type="checkbox"/> 2. AUTOMATIC TANK GAUGING (ATG) SYSTEM USED TO MONITOR SINGLE WALL TANK(S). (23 CCR §2643) 490-11				
PANEL MANUFACTURER:			490-12	MODEL #: 490-13
IN-TANK PROBE MANUFACTURER:			490-14	MODEL #(S): 490-15
LEAK TEST FREQUENCY: <input type="checkbox"/> a. CONTINUOUS <input type="checkbox"/> b. DAILY/NIGHTLY <input type="checkbox"/> c. WEEKLY 490-16				
<input type="checkbox"/> d. MONTHLY <input type="checkbox"/> e. OTHER (Specify): _____ 490-17				
PROGRAMMED TESTS: <input type="checkbox"/> a. 0.1 g.p.h. <input type="checkbox"/> b. 0.2 g.p.h. <input type="checkbox"/> c. OTHER (Specify): _____ 490-18 490-19				
<input type="checkbox"/> 3. MONTHLY STATISTICAL INVENTORY RECONCILIATION (23 CCR §2646.1): 490-20				
<input type="checkbox"/> 4. WEEKLY MANUAL TANK GAUGING (MTG) (23 CCR §2645). TESTING PERIOD: <input type="checkbox"/> a. 36 HOURS <input type="checkbox"/> b. 60 HOURS 490-21 490-22				
<input type="checkbox"/> 5. TANK INTEGRITY TESTING (23 CCR §2643.1): 490-23				
TEST FREQUENCY: <input type="checkbox"/> a. ANNUALLY <input type="checkbox"/> b. BIENNIALY <input type="checkbox"/> c. OTHER (Specify): 490-24 490-25				
<input type="checkbox"/> 99. OTHER (Specify): 490-26 490-27				
V. PIPE MONITORING IS PERFORMED USING THE FOLLOWING METHOD(S) (Check all that apply)				
<input type="checkbox"/> 1. CONTINUOUS MONITORING OF PIPE/ PIPING SUMP(S) AND OTHER SECONDARY CONTAINMENT WITH AUDIBLE AND VISUAL ALARMS. (23 CCR §2636) 490-28				
SECONDARY CONTAINMENT IS: <input type="checkbox"/> a. DRY <input type="checkbox"/> b. LIQUID FILLED <input type="checkbox"/> c. PRESSURIZED <input type="checkbox"/> d. UNDER VACUUM 490-29				
PANEL MANUFACTURER:			490-30	MODEL #: 490-31
LEAK SENSOR MANUFACTURER:			490-32	MODEL #(S): 490-33
PIPING LEAK ALARM TRIGGERS AUTOMATIC PUMP (i.e., TURBINE) SHUTDOWN. <input type="checkbox"/> a. YES <input type="checkbox"/> b. NO 490-34				
FAILURE/DISCONNECTION OF THE MONITORING SYSTEM TRIGGERS AUTOMATIC PUMP SHUTDOWN. <input type="checkbox"/> a. YES <input type="checkbox"/> b. NO 490-35				
<input type="checkbox"/> 2. MECHANICAL LINE LEAK DETECTOR (MLLD) THAT ROUTINELY PERFORMS 3.0 g.p.h. LEAK TESTS AND RESTRICTS OR SHUTS OFF PRODUCT FLOW WHEN A LEAK IS DETECTED (23 CCR §2636) 490-36				
MLLD MANUFACTURER(S):			490-37	MODEL #(S): 490-38
<input type="checkbox"/> 3. ELECTRONIC LINE LEAK DETECTOR (ELLD) THAT ROUTINELY PERFORMS 3.0 g.p.h. LEAK TESTS (23 CCR §2636) 490-39				
ELLD MANUFACTURER(S)			490-40	MODEL #(S): 490-41
PROGRAMMED IN LINE LEAK TEST: <input type="checkbox"/> 1. MINIMUM MONTHLY 0.2 g.p.h. <input type="checkbox"/> 2. MINIMUM ANNUAL 0.1 g.p.h. 490-42				
ELLD DETECTION OF A PIPING LEAK TRIGGERS AUTOMATIC PUMP SHUTDOWN. <input type="checkbox"/> a. YES <input type="checkbox"/> b. NO 490-43				
ELLD FAILURE/DISCONNECTION TRIGGERS AUTOMATIC PUMP SHUTDOWN. <input type="checkbox"/> a. YES <input type="checkbox"/> b. NO 490-44				
<input type="checkbox"/> 4. PIPE INTEGRITY TESTING 490-45				
TEST FREQUENCY <input type="checkbox"/> a. ANNUALLY <input type="checkbox"/> b. EVERY 3 YEARS <input type="checkbox"/> c. OTHER (Specify) 490-46 490-47				
<input type="checkbox"/> 5. VISUAL PIPE MONITORING. 490-48				
FREQUENCY <input type="checkbox"/> a. DAILY <input type="checkbox"/> b. WEEKLY <input type="checkbox"/> c. MIN. MONTHLY & EACH TIME SYSTEM OPERATED* 490-49				
* Allowed for monitoring of unburied emergency generator fuel piping only per HSC §25281.5(b)(3)				
<input type="checkbox"/> 6. SUCTION PIPING MEETS EXEMPTION CRITERIA [23 CCR §2636(a)(3)]. 490-50				
<input type="checkbox"/> 7. NO REGULATED PIPING PER HEALTH AND SAFETY CODE, DIVISION 20, CHAPTER 6.7 IS CONNECTED TO THE TANK SYSTEM 490-51				
<input type="checkbox"/> 99. OTHER (Specify) 490-52 490-53				

Complete a separate UST Monitoring Plan for each UST monitoring system at the facility. This form must be submitted with your initial UST Operating Permit Application and within 30 days of changes in the information it contains. Please note that your local agency may require you to obtain approval prior to installing or modifying monitoring equipment. (Note: Numbering of these instructions follows the data element numbers on the form.)

- 490-1. TYPE OF ACTION – Check the appropriate box to indicate why this plan is being submitted.
- 490-2. PLAN TYPE – Check the appropriate box to indicate whether this plan covers all, or merely some, of the USTs at the facility. If the plan covers only some of the tanks, identify those tanks in the space provided [e.g., by using the Tank ID #(s) in item 432 of the UST Operating Permit Application – Tank Information Form(s)].
1. FACILITY ID NUMBER – This space is for agency use only.
 3. BUSINESS NAME – Enter the complete Facility Name.
103. BUSINESS SITE ADDRESS – Enter the street address where the facility is located, including building number, if applicable. Post office box numbers are not acceptable. This information must provide a means to locate the facility geographically.
104. CITY – Enter the city or unincorporated area in which the facility is located.
- 490-3a MONITORING EQUIPMENT IS SERVICED – Check the appropriate box to specify the frequency of monitoring equipment testing/certification.
- 490-3b Specify Other frequency for monitoring equipment servicing.
- 490-4 SITE PLAN - Indicate if a site plan/map is submitted with this monitoring plan or if it was submitted previously and is current for the facility. Monitoring plans must include a Site Plot Plan/Map showing the tank and piping layouts and the locations where monitoring is performed (i.e., location of sensors, probes, line leak detectors, monitoring system control panel, etc.).
- 490-5 IV-1 CONTINUOUS ELECTRONIC MONITORING-Indicate if this monitoring method is being used to monitor the tanks.
- 490-6 SECONDARY CONTAINMENT– If IV-1 is checked, check the appropriate box to describe the environment inside the tank secondary containment.
- 490-7 PANEL MANUFACTURER – If IV-1 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- 490-8 MODEL # – If IV-1 is checked, enter the model number for the monitoring system control panel.
- 490-9 LEAK SENSOR MANUFACTURER – If IV-1 is checked, enter the name of the manufacturer of the sensor(s). If additional space is needed, use Section X.
- 490-10 MODEL #(S) – If IV-1 is checked, enter the model number for each type of sensor installed. If additional space is needed, use Section X.
- 490-11 IV-2 AUTOMATIC TANK GAUGING-Indicate if this method is used for monitoring the UST's.
- 490-12 PANEL MANUFACTURER – If IV-2 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- 490-13 MODEL # – If IV-2 is checked, enter the model number for the monitoring system control panel.
- 490-14 IN-TANK PROBE MANUFACTURER – If IV-2 is checked, enter the name of the manufacturer of the probe(s).
- 490-15 MODEL #(S) – If IV-2 is checked, enter the model number for each type of in-tank probe installed. If additional space is needed, use Section X.
- 490-16 LEAK TEST FREQUENCY – If IV-2 is checked, check the appropriate box to describe the in-tank leak test frequency.
- 490-17. SPECIFY – If 490-16e is checked, enter the frequency of programmed leak tests.
- 490-18. PROGRAMMED TESTS – If IV-2 is checked, check the appropriate box to describe the tests programmed into the ATG system.
- 490-19. SPECIFY – If 490-18c is checked, enter the frequency of in-tank leak testing.
- 490-20. IV-3 INVENTORY RECONCILIATION – Check the box if statistical inventory reconciliation is performed .
- 490-21. IV-4 WEEKLY MANUAL TANK GAUGING. Indicate if this method is used to monitor the tanks.
- 490-22. TESTING PERIOD – If IV-4 is checked, check the appropriate box to describe the MTG testing period.
- 490-23. IV-5 TANK INTEGRITY TESTING: Indicate if this method is used to monitor the tanks.
- 490-24. TEST FREQUENCY – If IV-5 is checked, check the appropriate box to describe the frequency of tank integrity testing.
- 490-25. OTHER: If 490-24c is checked, specify other test frequency.
- 490-26. IV-99 OTHER: Indicate if monitoring of the tanks occurs that is not indicated in any other category.
- 490-27. If IV-99 is checked, enter a brief description of the other tank monitoring method(s) used (e.g., vadose zone monitoring per 23 CCR §2647, groundwater monitoring per 23CCR §2648). Include the monitoring frequency (e.g., Continuous, Weekly). If additional space is needed, use Section X.
- 490-28. V-1 CONTINUOUS MONITORING OF PIPE/PIPING SUMP(S) AND OTHER SECONDARY CONTAINMENT WITH AUDIBLE AND VISUAL ALARMS: Indicate if this is the monitoring method used for the piping.
- 490-29. SECONDARY CONTAINMENT: If V-1 is checked, Check the appropriate box to describe the environment inside piping secondary containment.
- 490-30. PANEL MANUFACTURER – If V-1 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- 490-31. MODEL # – If V-1 is checked, enter the model number for the monitoring system control panel.
- 490-32. LEAK SENSOR MANUFACTURER – If V-1 is checked, enter the name of the manufacturer of the sensor(s).
- 490-33. MODEL #(S) – If V-1 is checked, enter the model number for each type of sensor installed. If additional space is needed, use Section X.
- 490-34. PIPING LEAK ALARM TRIGGERS AUTOMATIC PUMP SHUTDOWN – If V-1 is checked, check Yes or No.
- 490-35. FAILURE/DISCONNECTION OF THE MONITORING SYSTEM TRIGGERS AUTOMATIC PUMP SHUTDOWN – If V-1 is checked, check Yes or No.
- 490-36. V-2 PIPE MECHANICAL LINE LEAK DETECTORS PERFORM 3 GPH LEAK TESTS: Indicate if this monitoring method is used to monitor the pipelines.
- 490-37. MLLD MANUFACTURER(S) – If V-2 is checked, enter the name(s) of the manufacturer(s) of the mechanical line leak detector(s). If additional space is needed, use Section X.
- 490-38. MODEL #(s) - If V-2 is checked, Enter the model number for each type of mechanical line leak detector installed. If additional space is needed, use Section X.
- 490-39. V-3 PIPE ELECTRONIC LINE LEAK DETECTORS: Indicate if this monitoring method is used to monitor the pipelines.
- 490-40. ELLD MANUFACTURER – If V-3 is checked, Enter the name of the manufacturer of the electronic line leak detector(s).
- 490-41. MODEL #(S)n - If V-3 is checked, enter the model number for each type of electronic line leak detector installed. If additional space is needed, use Section X.
- 490-42. PROGRAMMED LINE INTEGRITY TESTS –If V-3 is checked, check the appropriate box to describe the type of tests programmed into the monitoring system.
- 490-43. ELLD DETECTION OF A PIPING LEAK ALARM TRIGGERS PUMP SHUTDOWN – If V-1 is checked, check Yes or No.
- 490-44. ELLD DETECTION OF A PIPING LEAK FAILURE/DISCONNECTION TRIGGERS PUMP SHUTDOWN. – If V-1 is checked, check Yes or No.
- 490-45. V-4 PIPE INTEGRITY TESTING - Indicate if this monitoring method is used to monitor the pipelines.
- 490-46. TEST FREQUENCY – If V-4 is checked, check the appropriate box to describe the frequency of pipe integrity testing.
- 490-47. SPECIFY – If 490-46-99 is checked, enter the frequency of pipe integrity testing.
- 490-48. V-5 VISUAL PIPE MONITORING - Indicate if this monitoring method is used to monitor the pipelines.
- 490-49. If V-5 is checked, check the appropriate box to describe the frequency of visual monitoring.
- 490-50. SUCTION PIPING MEETS EXEMPTION CRITERIA - Indicate if this monitoring method is used to monitor the pipelines.
- 490-51. NO REGULATED PIPING PER HEALTH AND SAFETY CODE, DIVISION 20, CHAPTER 6.7 IS CONNECTED TO THE TANK SYSTEM - Check this box if no piping in the tank system is regulated under the UST law, or there is no piping.
- 490-52. V-99 OTHER - Indicate if another method is used for pipeline monitoring.
- 490-53. SPECIFY – Enter a brief description of the other line monitoring method(s) used. If additional space is needed, see Section X. Be sure to clearly describe monitoring method(s) and frequency.

This monitoring plan must include a Site Plan showing the general tank and piping layouts and the locations where monitoring is performed (i.e., location of each sensor, line leak detector, monitoring system control panel, etc.). If you already have a diagram (e.g., current UST Monitoring Site Plan from a Monitoring System Certification form, Hazardous Materials Business Plan map, etc.) that shows all required information, include it with this plan.

**UNIFIED PROGRAM CONSOLIDATED FORM
UNDERGROUND STORAGE TANK
MONITORING PLAN (Page 2 of 2)**

VI. UNDER DISPENSER CONTAINMENT (UDC) MONITORING

1. UDC MONITORING IS PERFORMED USING THE FOLLOWING METHOD 490-54a
490-54b

1. CONTINUOUS ELECTRONIC MONITORING 2. FLOAT AND CHAIN ASSEMBLY 3. ELECTRONIC STAND-ALONE

4. NO DISPENSERS 99. OTHER (Specify): _____

PANEL MANUFACTURER: 490-55 MODEL #: 490-56

LEAK SENSOR MANUFACTURER: 490-57 MODEL #(S): 490-58

DETECTION OF A LEAK INTO THE UDC TRIGGERS AUDIBLE AND VISUAL ALARMS a. YES b. NO 490-59

UDC LEAK ALARM TRIGGERS AUTOMATIC PUMP SHUTDOWN a. YES b. NO 490-60

FAILURE / DISCONNECTION OF UDC MONITORING SYSTEM TRIGGERS AUTOMATIC PUMP SHUTDOWN. a. YES b. NO 490-61

UDC MONITORING STOPS THE FLOW OF PRODUCT AT THE DISPENSER. a. YES b. NO 490-62

2. UDC CONSTRUCTION IS 1. SINGLE-WALLED 2. DOUBLE-WALLED 490-63

IF DOUBLE WALLED: 490-64a

UDC INTERSTITIAL SPACE IS MONITORED BY: 1. LIQUID 2. PRESSURE 3. VACUUM

A LEAK WITHIN THE SECONDARY CONTAINMENT OF THE UDC TRIGGERS AUDIBLE AND VISUAL ALARMS a. YES b. NO 490-64b

VII. PERIODIC SYSTEM TESTING

1. **ELD TESTING:** THIS FACILITY HAS BEEN NOTIFIED BY THE STATE WATER RESOURCES CONTROL BOARD THAT ENHANCED LEAK DETECTION (ELD) MUST BE PERFORMED. PERIODIC ELD IS PERFORMED EVERY 36 MONTHS AS REQUIRED. (23 CCR §2644.1) 490-65

2. **SECONDARY CONTAINMENT COMPONENTS ARE TESTED EVERY 36 MONTHS.** 490-66

3. **SPILL BUCKETS ARE TESTED ANNUALLY.** 490-67

VIII. RECORDKEEPING

The following monitoring/maintenance records are kept for this facility:

Alarm logs 490-68a Visual Inspection Records 490-68b Tank integrity testing results 490-68c

SIR testing results (and supporting documentation records). 490-68d Tank gauging results (and supporting documentation records). 490-68e

ATG Testing results (and supporting documentation records). 490-68f Corrosion Protection 60-day logs 490-68g

Equipment maintenance and calibration records. 490-68h

IX. TRAINING

Personnel with UST monitoring responsibilities are familiar with all of the following documents relevant to their job duties. 490-69a

REFERENCE DOCUMENTS MAINTAINED AT FACILITY (Check all that apply)

THIS UNDERGROUND STORAGE TANK MONITORING PLAN (Required) 490-69b

OPERATING MANUALS FOR ELECTRONIC MONITORING EQUIPMENT (Required) 490-69c

CALIFORNIA UNDERGROUND STORAGE TANK REGULATIONS 490-69d

CALIFORNIA UNDERGROUND STORAGE TANK LAW 490-69e

STATE WATER RESOURCES CONTROL BOARD (SWRCB) PUBLICATION: "HANDBOOK FOR TANK OWNERS - MANUAL AND STATISTICAL INVENTORY RECONCILIATION" 490-69f

SWRCB PUBLICATION: "UNDERSTANDING AUTOMATIC TANK GAUGING SYSTEMS" 490-69g

OTHER (Specify): M69h, M69i

This facility has a "Designated UST Operator" who has passed the California UST System Operator Exam administered by the International Code Council (ICC). The "Designated UST Operator" will train facility employees in the proper operation and maintenance of the UST systems annually, and within 30 days of hire. This training will include, but is not limited to, the following:

- Operation of the UST systems in a manner consistent with the facility's best management practices
- The facility employee's role with regard to the monitoring equipment as specified in this UST Monitoring Plan
- The facility employee's role with regard to spills and overfills as specified in the UST Response Plan
- Names of contact person(s) for emergencies and monitoring alarms. 490-70

X. COMMENTS/ADDITIONAL INFORMATION

Provide additional comments here or indicate how many pages with additional information on specific monitoring procedures are attached to this plan. 490-71

XI. PERSONNEL RESPONSIBILITIES

The UST Owner/Operator is responsible for ensuring that: 1) the daily/routine UST monitoring activities and maintenance of UST leak detection equipment covered by this plan occurs, 2) all conditions that indicate a possible release are investigated, and 3) all monitoring records are maintained properly.

The following person(s) are responsible for performing the monitoring and equipment maintenance:

NAME	490-72	TITLE	490-73
NAME	490-74	TITLE	490-75

The Designated Operator shall perform a monthly visual inspection of the facility, provide a report to the owner/operator, and inform the owner/operator of any conditions that need follow-up action.

XII. OWNER/OPERATOR SIGNATURE

CERTIFICATION: I certify that the information provided herein is true and accurate to the best of my knowledge. 490-76

APPLICANT SIGNATURE	490-76	DATE:	490-77
---------------------	--------	-------	--------

REPRESENTING: 1. Tank Owner/Operator 2. Facility Owner/Operator 3. Authorized Representative of Owner

APPLICANT NAME (print):	490-78	APPLICANT TITLE:	490-79
-------------------------	--------	------------------	--------

(Agency Use Only)

This plan has been reviewed and:

Approved

Approved With Conditions

Local Agency Signature: _____ Date: _____

Comments or Special Conditions:

UST Monitoring Plan – Page 2 Instructions

Complete a separate UST Monitoring Plan for each UST monitoring system at the facility. This form must be submitted with your initial UST Operating Permit Application and within 30 days of changes in the information it contains. Please note that your local agency may require you to obtain approval prior to installing or modifying monitoring equipment. (Note: Numbering of these instructions follows the data element numbers on the form.)

490-54a. MONITORING OF THE UNDER DISPENSER CONTAINMENT- Indicate the method used for UDC monitoring.

490-54b. SPECIFY-If 99 "Other" is checked, describe other method used.

If VI-1-1, VI-1-2 or VI-1-3 or VI-1-99 is checked, complete 490-55 to 490-64b.

490-55. PANEL MANUFACTURER –Enter the name of the manufacturer of the monitoring system control panel (console). If there is no control panel (e.g., only an electrical relay box is installed) leave this space blank.

490-56. MODEL # - Enter the model number for the monitoring system control panel (console). If there is no control panel (e.g., only an electrical relay box is installed) leave this space blank.

490-57. LEAK SENSOR MANUFACTURER – Enter the name of the manufacturer of the sensor(s).

490-58. MODEL #(S) – Enter the model number of the sensor(s) installed. If additional space is needed, use Section X.

490-59. DETECTION OF A LEAK INTO THE UDC TRIGGERS AUDIBLE AND VISUAL ALARMS. Indicate Yes or No

490-60. UDC LEAK ALARM TRIGGERS PUMP SHUTDOWN - Indicate Yes or No

490-61. FAILURE/DISCONNECTION OF UDC MONITORING SYSTEM TRIGGERS AUTOMATIC PUMP SHUTDOWN - Indicate Yes or No

490-62. UDC MONITORING STOPS THE FLOW OF PRODUCT AT THE DISPENSER - Indicate Yes or No.

490-63. UDC CONSTRUCTION - Indicate if the construction of the UDC is single-walled, or double-walled.

490-64a. DOUBLE-WALLED INTERSTITIAL SPACE MONITORING - Indicate what is used to monitor the interstitial space.

490-64b. LEAK WITHIN THE SECONDARY CONTAINMENT OF UDC TRIGGERS AUDIBLE AND VISUAL ALARMS - Indicate Yes or No

490-65. VII-1 ELD TESTING - Check the box if you have been notified by the State Water Resources Control Board (SWRCB) that the UST(s) covered by this plan is/are subject to Enhanced Leak Detection Requirements (i.e., UST has any single-wall component and is located within 1,000 feet of a public drinking water well).

490-66. TESTING OF SECONDARY CONTAINMENT COMPONENTS EVERY 36 MONTHS - Check the box if you have secondary containment that requires testing.

490-67. SPILL BUCKET TESTING - Check the box if you have spill buckets.

490-68a-h. VIII RECORDKEEPING -Indicate which monitoring and equipment maintenance records are maintained for this facility.

490-69a IX TRAINING STATEMENT - Check the box to verify that the statement is true.

REFERENCE DOCUMENTS MAINTAINED AT FACILITY – Check the appropriate boxes to describe reference documents maintained at the facility. Note that the first two items on the list must be kept at the facility.

490-69b. MONITORING PLAN: Indicate that this plan is kept as a reference document.

490-69c. OPERATING MANUALS FOR ELECTRONIC EQUIPMENT: Indicate that this plan is kept as a reference document.

490-69d. CA UST REGULATIONS - Indicate that this is kept as a reference document.

490-69e. CA UST LAW - Indicate that this is kept as a reference document.

490-69f. STATE WATER RESOURCES CONTROL BOARD (SWRCB) PUBLICATION - "HANDBOOK FOR TANK OWNERS - MANUAL AND STATISTICAL INVENTORY RECONCILIATION - Indicate that this is kept as a reference document.

490-69g. SWRCB PUBLICATION: "UNDERSTANDING AUTOMATIC TANK GAUGING SYSTEMS": Indicate that this is kept as a reference document.

490-69h. OTHER - Indicate that other reference documents are kept.

490-69i. SPECIFY-If "OTHER" is checked, enter a brief description of the other document(s) maintained at the facility. If additional space is needed, see Section X.

490-70. DESIGNATED OPERATOR TRAINING - Check this box to verify that this statement is true.

490-71. COMMENTS/ADDITIONAL INFORMATION – Make additional comments or you may attach and identify the number of additional pages of information to describe any additional UST system monitoring-related information (e.g., additional information required by your local agency). Attach any monitoring logs that you will be using for the monitoring of your tank system.

490-72. NAME – Enter the name of the person who routinely conducts the monitoring and equipment maintenance under this plan.

490-73. TITLE - Enter the title of the person.

490-74. NAME – Enter the name of the second person, if applicable, who routinely conducts the monitoring and equipment maintenance under this plan.

490-75. TITLE - Enter the title of the second person.

OWNER/OPERATOR SIGNATURE – The tank owner/operator, facility owner/operator, or an authorized representative of the owner shall sign in the space provided. This signature certifies that the signer believes that all information submitted is true, accurate, and complete, and that the training program specified in Section IX has been implemented.

490-76. REPRESENTING -- Check the appropriate box to indicate whether the signer is the UST owner/operator, the UST facility owner/operator, or an authorized representative of the owner.

490-77. DATE – Enter the date the plan was signed.

490-78. APPLICANT NAME – Print or type the name of the person signing the plan.

490-79. APPLICANT TITLE – Enter the title of the person signing the plan.

UNDERGROUND STORAGE TANK RESPONSE PLAN – PAGE 1

(One form per facility)

TYPE OF ACTION 1. NEW PLAN 2. CHANGE OF INFORMATION R01.

I. FACILITY INFORMATION

FACILITY ID # (Agency Use Only) 1.

BUSINESS NAME (Same as FACILITY NAME) 3.

BUSINESS SITE ADDRESS 103. BUSINESS SITE CITY 104.

II. SPILL CONTROL AND CLEANUP METHODS

This plan addresses unauthorized releases from UST systems and supplements the emergency response plans and procedures in the facility's Hazardous Materials Business Plan (HMBP).

- If safe to do so, facility personnel will take immediate measures to control or stop any release (e.g., activate pump shut-off, etc.) and, if necessary, safely remove remaining hazardous material from the UST system.
- Any release to secondary containment will be pumped or otherwise removed within a time consistent with the ability of the secondary containment system to contain the hazardous material, but not greater than 30 calendar days, or sooner if required by the local agency. Recovered hazardous materials, unless still suitable for their intended use, will be managed as hazardous waste.
- Absorbent material will be used to contain and clean up manageable spills of hazardous materials. Absorbent material which has become too saturated to be effective or which is no longer intended for use will be managed as hazardous waste unless a waste determination in accordance with 22 CCR §66262.11 finds that it is non-hazardous. Used absorbent material, reusable or waste, will be stored in a properly labeled and sealed container. Waste material shall be disposed of appropriately.
- Facility personnel will determine whether any water removed from secondary containment systems, or from clean-up activity, has been in contact with any hazardous material. If the water is contaminated, it will be managed as hazardous waste unless a hazardous waste determination in accordance with 22 CCR §66262.11 finds that it is non-hazardous. If the water has a petroleum sheen (i.e., rainbow colors), it is contaminated. A thick floating petroleum layer may not necessarily display rainbow colors. Water (hazardous or non-hazardous) from sumps, spill containers, etc. will not be disposed to storm water systems.
- We will review secondary containment systems for possible deterioration if any of the following conditions occur:
 1. Hazardous material in contact with secondary containment is not compatible with the material used for secondary containment;
 2. Secondary containment is prone to damage from any equipment used to remove or clean up hazardous material collected in secondary containment;
 3. Hazardous material, other than the product/waste stored in the primary containment system, is placed inside secondary containment to treat or neutralize released product/waste, and the added material or resulting material from such a combination is not compatible with secondary containment.

III. SPILL CONTROL AND CLEAN-UP EQUIPMENT

PERIODIC MAINTENANCE: Spill control and clean-up equipment kept permanently on-site is listed in the facility's Hazardous Materials Business Plan. This equipment is inspected at least monthly, and after each use, supplies are replenished as needed. Defective equipment is repaired or replaced as necessary.

EQUIPMENT NOT PERMANENTLY ON-SITE, BUT AVAILABLE FOR USE IF NEEDED: (Complete only if applicable)

EQUIPMENT	LOCATION	AVAILABILITY
R10.	R20.	R30.
R11.	R21.	R31.
R12.	R22.	R32.
R13.	R23.	R33.
R14.	R24.	R34.
R15.	R25.	R35.

IV. RESPONSIBLE PERSONS

THE FOLLOWING PERSON(S) IS/ARE RESPONSIBLE FOR AUTHORIZING ANY WORK NECESSARY UNDER THIS RESPONSE PLAN:

NAME	R40.	TITLE	R50.
NAME	R41.	TITLE	R51.
NAME	R42.	TITLE	R52.
NAME	R43.	TITLE	R53.

V. MONITORING INDICATORS

IF MONITORING INDICATES A POSSIBLE UNAUTHORIZED RELEASE, STEPS TO VERIFY THE RELEASE WILL BE MADE AS FOLLOWS:

1. ADDITIONAL SYSTEM TESTING OR DATA COLLECTION
 2. INSPECTION BY QUALIFIED PERSONS
 3. RECALIBRATION OF EQUIPMENT R60.
 99. OTHER (Specify): R61.

UST Response Plan – Instructions

Complete one UST Response Plan for each UST facility. This form must be submitted with your initial UST Operating Permit Application and within 30 days of changes in the information it contains. It supplements the Emergency Response Plans and Procedures in the facility's Hazardous Materials Business Plan. (Note: Numbering of these instructions follows the data element numbers on the form.)

- R01. TYPE OF ACTION – Check the appropriate box to indicate why this plan is being submitted.
FACILITY ID NUMBER – This space is for agency use only.
- R02. BUSINESS NAME – Enter the complete Facility Name.
- R03. BUSINESS SITE ADDRESS – Enter the street address where the facility is located, including building number, if applicable. Post office box numbers are not acceptable. This information must provide a means to locate the facility geographically.
- R04. CITY – Enter the city or unincorporated area in which the facility is located.
- R10. EQUIPMENT – If you have spill control or clean-up equipment kept off-site, list that equipment in sections R10 through R15. If no equipment is kept off-site, leave this section blank.
- R20. LOCATION – If you have spill control or clean-up equipment kept off-site, list the equipment location(s) sections R20 through R25. If no equipment is kept off-site, leave this section blank.
- R30. AVAILABILITY – If you have spill control or clean-up equipment kept off-site, list the equipment availability in sections R30 through R35. If no equipment is kept off-site, leave this section blank.
- R40. NAME – At least one person responsible for authorizing any work necessary under this UST Response Plan must be identified. Use sections R40 through R43 to list the name(s) of the responsible person(s).
- R50. TITLE – At least one person responsible for authorizing any work necessary under this UST Response Plan must be identified. Use sections R50 through R53 to list the job title(s) of the responsible person(s).
- R60. MONITORING INDICATORS – Briefly describe the steps that will be taken to verify the presence or absence of a release if the tank monitoring system indicates the possibility of a release.
- OWNER/OPERATOR SIGNATURE – The owner/operator shall sign in the space provided. This signature certifies that the signer believes that all information submitted is true, accurate, and complete.
- R70. DATE – Enter the date the plan was signed.
- R71. OWNER/OPERATOR NAME – Print or type the name of the person signing the plan.
- R72. OWNER/OPERATOR TITLE – Enter the title of the person signing the plan.

UNDERGROUND STORAGE TANK RESPONSE PLAN – PAGE 2

VI. REPORTING AND RECORD KEEPING

We will report/record any overflow, spill, or unauthorized release from a UST system as indicated in this plan.

Recordable Releases: Any unauthorized release from primary containment which the UST operator is able to clean up within eight (8) hours after the release was detected or should reasonably have been detected, and which does not escape from secondary containment, does not increase the hazard of fire or explosion, and does not cause any deterioration of secondary containment, must be recorded in the facility's monitoring records. Monitoring records must include:

- The UST operator's name and telephone number;
- A list of the types, quantities, and concentrations of hazardous substances released;
- A description of the actions taken to control and clean up the release;
- The method and location of disposal of the released hazardous substances, and whether a hazardous waste manifest was or will be used;
- A description of actions taken to repair the UST and to prevent future releases;
- A description of the method used to reactivate interstitial monitoring after replacement or repair of primary containment.

Reportable Releases: Any overflow, spill, or unauthorized release which escapes from secondary containment (or primary containment if no secondary containment exists), increases the hazard of fire or explosion, or causes any deterioration of secondary containment, is a reportable release. Reportable releases are also recordable.

Within 24 hours after a reportable release has been detected, or should have been detected, we will notify the local agency administering the UST program of the release, investigate the release, and take immediate measures to stop the release. If necessary, or if required by the local agency, remaining stored product/waste will be removed from the UST to prevent further releases or facilitate corrective action. If an emergency exists, we will notify the California Emergency Management Agency at (800) 852-7550.

Within five (5) working days of a reportable release, we will submit to the local agency a full written report containing all of the following information to the extent that the information is known at the time of filing the report:

- The UST owner's or operator's name and telephone number;
- A list of the types, quantities, and concentrations of hazardous materials released;
- The approximate date of the release;
- The date on which the release was discovered;
- The date on which the release was stopped;
- A description of actions taken to control and/or stop the release;
- A description of corrective and remedial actions, including investigations which were undertaken and will be conducted to determine the nature and extent of soil, ground water or surface water contamination due to the release;
- The method(s) of cleanup implemented to date, proposed cleanup actions, and a schedule for implementing the proposed actions;
- The method(s) and location(s) of disposal of released hazardous materials and any contaminated soils, groundwater, or surface water.
- Copies of any hazardous waste manifests used for off-site transport of hazardous wastes associated with clean-up activity;
- A description of proposed methods for any repair or replacement of UST system primary/secondary containment systems;
- A description of additional actions taken to prevent future releases.

We will follow the reporting procedures described above if any of the following conditions occur:

- A recordable unauthorized release can not be cleaned up or is still under investigation within eight (8) hours of detection;
- Released hazardous substances are discovered at the UST site or in the surrounding area;
- Unusual operating conditions are observed, including erratic behavior of product dispensing equipment, sudden loss of product, or the unexplained presence of water in the tank, unless system equipment is found to be defective and is immediately repaired or replaced, and no leak has occurred;
- Monitoring results from UST system monitoring equipment/methods indicate that a release may have occurred, unless the monitoring equipment is found to be defective and is immediately repaired, recalibrated, or replaced, and additional monitoring does not confirm the initial results.

Record Retention: Monitoring records and written reports of unauthorized releases must be maintained on-site (or off-site at a readily available location, if approved by the local agency) for at least 3 years. Hazardous waste shipping/disposal records (e.g., manifests) must be maintained for at least 3 years from the date of shipment.

VII. OWNER/OPERATOR SIGNATURE

CERTIFICATION: I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR SIGNATURE	DATE R70.
OWNER/OPERATOR NAME (print) R71.	OWNER/OPERATOR TITLE R72.

(Agency Use Only) This plan has been reviewed and: Approved Approved With Conditions Disapproved

Local Agency Signature: _____ Date: _____