UNDERGROUND STORAGE TANK MONITORING PLAN

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH CUPA

Authority Cited: Title 23 CCR, Sections 2632(d)(1), 2634(d)(2), and 2641(h)

TYPE OF ACTION 1. NEW PLAN 2. CHANGE OF INFORMATION	M01.
PLAN TYPE MONITORING IS IDENTICAL FOR ALL USTs AT THIS FACILITY.	M02.
(Check one item only) THIS PLAN COVERS ONLY THE FOLLOWING UST SYSTEM(S):	
I. FACILITY INFORMATION	
	M03.
FACILITY NAME	MUS.
FACILITY SITE ADDRESS M04. CITY	M05.
II. EQUIPMENT TESTING AND PREVENTIVE MAINTENANCE	
State law requires that testing, preventive maintenance, and calibration of monitoring equipment (e.g., sensors, probes, line leak detectors, etc.) be performed in	M06.
accordance with the equipment manufacturers' instructions, or annually, whichever is more frequent. Such work must be performed by qualified personnel.	M07.
MONITORING EQUIPMENT IS SERVICED 1. ANNUALLY 99. OTHER (Specify):	
III. MONITORING LOCATIONS	
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 so	
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 Certific form, Hazardous Materials Business Plan map, etc.) which shows all required information, include it with this plan.	ation
IV. TANK MONITORING	
	M10.
MONITORING IS PERFORMED USING THE FOLLOWING METHOD(S): (Check all that apply)	
1. CONTINUOUS ELECTRONIC MONITORING OF TANK ANNULAR (INTERSTITIAL) SPACE(S) OR SECONDARY CONTAINMENT VAULT(S)	M11.
SECONDARY CONTAINMENT IS: a. DRY b. LIQUID FILLED c. UNDER PRESSURE d. UNDER VACUUM	M13.
TANLE MANUTACTURER. MODEL #.	M15.
LEAK SENSOR MANUFACTURER: M14. MODEL #(S): ODEL #(S): 2. AUTOMATIC TANK GAUGING (ATG) SYSTEM USED TO MONITOR SINGLE WALL TANK(S)	
PANEL MANUFACTURER: M16. MODEL #:	M17.
IN-TANK PROBE MANUFACTURER: Mil8. MODEL #(S):	M19.
LEAK TEST FREQUENCY: a. CONTINUOUS b. DAILY/NIGHTLY c. WEEKLY	M20.
d. MONTHLY e. OTHER (Specify):	
PROGRAMMED TESTS: a. 0.1 g.p.h. b. 0.2 g.p.h. c. OTHER (Specify): M22.	. M23.
□ 3. INVENTORY RECONCILIATION □ a. MANUAL PER 23 CCR §2646 □ b. STATISTICAL PER 23 CCR §2646.1	M24.
☐ 4. WEEKLY MANUAL TANK GAUGING (MTG) PER 23 CCR §2645	
TESTING PERIOD: a. 36 HOURS b. 60 HOURS	M25.
5. INTEGRITY TESTING PER 23 CCR §2643.1	
TEST FREQUENCY: a. ANNUALLY b. BIENNIALLY c. OTHER (Specify):	. M27.
☐ 6.VISUAL MONITORING DONE: ☐ a. DAILY ☐ b. WEEKLY (Requires agency approval)	
99. OTHER (Specify):	M28.
V. PIPE MONITORING	
MONITORING IS PERFORMED USING THE FOLLOWING METHOD(S) (Check all that apply)	M30.
□ 1. CONTINUOUS ELECTRONIC MONITORING OF PIPING SUMP(S)/TRENCH(ES) AND OTHER SECONDARY CONTAINMENT	
SECONDARY CONTAINMENT IS: a. DRY b. LIQUID FILLED c. UNDER PRESSURE d. UNDER VACUUM	M31.
PANEL MANUFACTURER: M32. MODEL #:	M33.
LEAK SENSOR MANUFACTURER:	M35.
WILL A PIPING LEAK ALARM TRIGGER AUTOMATIC PUMP (i.e., TURBINE) SHUTDOWN?	M36.
WILL FAILURE/DISCONNECTION OF THE MONITORING SYSTEM TRIGGER AUTOMATIC PUMP SHUTDOWN? ☐ a. YES ☐ b. NO	M37.
□ 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 MILE MANUFACTURE PRODUCT M38. MODEL #(5)	M39.
MLLD MANUFACTURER(S): MIODEL #(S):	
3. ELECTRONIC LINE LEAK DETECTOR (ELLD) THAT ROUTINELY PERFORMS 3.0 g.p.h. LEAK TESTS M40. MODEL #	M41.
ELLD MANUFACTURER MIODEL #	M42.
PROGRAMMED LINE INTEGRITY TESTS: a. MINIMUM MONTHLY 0.2 g.p.h. b. MINIMUM ANNUAL 0.1 g.p.h.	M43.
WILL ELLD DETECTION OF A PIPING LEAK TRIGGER AUTOMATIC PUMP SHUTDOWN?	M44.
WILL ELLD FAILURE/DISCONNECTION TRIGGER AUTOMATIC PUMP SHUTDOWN? a. YES b. NO	.,
4. INTEGRITY TESTING TEST EDECLIENCY:	. M46.
S.VISUAL MONITORING DONE: a. DAILY b. EVERY 3 YEARS c. OTHER (Specify)	M47.
☐ 6. PIPING IS SUCTION PIPING MEETING ALL REQUIREMENTS FOR EXEMPTION FROM MONITORING PER 23 CCR §2636(a)(3)	
☐ 7. NO PRODUCT OR REMOTE FILL PIPING IS CONNECTED TO THE UST(s)	
O OTHER (Specific)	M48.

UST Monitoring Plan – Page 1 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 <u>prior</u> to installing or modifying monitoring equipment. (Note: Numbering of these instructions follows the data element numbers on the form.)

- M01. TYPE OF ACTION Check the appropriate box to indicate why this plan is being submitted.
- M02. 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 Form(s)].
 - FACILITY ID NUMBER This space is for agency use only.
- M03. FACILITY NAME Enter the complete Facility Name.
- M04. FACILITY 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.
- M05. CITY Enter the city or unincorporated area in which the facility is located.
- M06. MONITORING EQUIPMENT IS SERVICED Checked the appropriate box to specify the frequency of monitoring equipment testing/certification.
- M07. SPECIFY If item II-99 is checked, enter the frequency of monitoring equipment testing/certification.
- M10. TANK MONITORING METHOD(S) Check the appropriate box(es) in Section IV to identify all required methods used for monitoring UST(s) covered by this plan.
- M11. SECONDARY CONTAINMENT IS Check the appropriate box to describe the environment inside tank secondary containment.
- M12. PANEL MANUFACTURER If item IV-1 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- M13. MODEL # If item IV-1 is checked, enter the model number for the monitoring system control panel.
- M14. LEAK SENSOR MANUFACTURER If item IV-1 is checked, enter the name of the manufacturer of the sensor(s). If additional space is needed, use Section IX.
- M15. MODEL #(S) If item IV-1 is checked, enter the model number for each type of sensor installed. If additional space is needed, use Section IX.
- M16. PANEL MANUFACTURER If item IV-2 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- M17. MODEL # If item IV-2 is checked, enter the model number for the monitoring system control panel.
- M18. IN-TANK PROBE MANUFACTURER If item IV-2 is checked, enter the name of the manufacturer of the probe(s).
- M19. MODEL #(S) If item IV-2 is checked, enter the model number for each type of in-tank probe installed. If additional space is needed, use Section IX.
- M20. LEAK TEST FREQUENCY If item IV-2 is checked, check the appropriate box to describe the in-tank leak test frequency.
- M21. SPECIFY If item M20-e is checked, enter the frequency of programmed leak tests.
- M22. PROGRAMMED TESTS If item IV-2 is checked, check the appropriate box to describe the tests programmed into the ATG system.
- M23. SPECIFY If item M22-c is checked, enter the frequency of in-tank leak testing.
- M24. INVENTORY RECONCILIATION If item IV-3 is checked, check the appropriate box to describe the type of inventory reconciliation performed (i.e., Manual or Statistical).
- M25. TESTING PERIOD If item IV-4 is checked, check the appropriate box to describe the MTG testing period.
- M26. TEST FREQUENCY If item IV-5 is checked, check the appropriate box to describe the frequency of tank integrity testing.
- M27. SPECIFY If item IV-5-c is checked, enter the frequency of tank integrity testing.
- M28. SPECIFY If item 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 23 CCR §2648). Include the monitoring frequency (e.g., Continuous, Weekly). If additional space is needed, use Section IX
- M30. PIPE MONITORING METHOD(S) Check the appropriate box(es) in Section V to identify all required methods used for monitoring piping in the UST system(s) covered by this plan.
- M31. SECONDARY CONTAINMENT IS Check the appropriate box to describe the environment inside piping secondary containment.
- M32. PANEL MANUFACTURER If item V-1 is checked, enter the name of the manufacturer of the monitoring system control panel (console).
- M33. MODEL # If item V-1 is checked, enter the model number for the monitoring system control panel.
- M34. LEAK SENSOR MANUFACTURER If item V-1 is checked, enter the name of the manufacturer of the sensor(s).
- M35. MODEL #(S) If item V-1 is checked, enter the model number for each type of sensor installed. If additional space is needed, use Section IX.
- M36. WILL PIPING LEAK ALARM TRIGGER PUMP SHUTDOWN? If item V-1 is checked, check Yes or No.
- M37. WILL FAILURE/DISCONNECTION OF MONITORING SYSTEM TRIGGER SHUTDOWN? If item V-1 is checked, check Yes or No.
- M38. MLLD MANUFACTURER(S) If item 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 IX.
- M39. MODEL #(s) If item V-2 is checked, enter the model number for each type of mechanical line leak detector installed. If additional space is needed, use Section IX.
- M40. ELLD MANUFACTURER If item V-3 is checked, enter the name of the manufacturer of the electronic line leak detector(s).
- M41. MODEL #(S) If item V-3 is checked, enter the model number for each type of electronic line leak detector installed. If additional space is needed, use Section IX
- M42. PROGRAMMED LINE INTEGRITY TESTS If item V-3 is checked, check the appropriate box to describe the type of tests programmed into the monitoring system.
- M43. WILL ELLD DETECTION OF A PIPING LEAK ALARM TRIGGER PUMP SHUTDOWN? If item V-3 is checked, check Yes or No.
- M44. WILL ELLD FAILURE/DISCONNECTION TRIGGER PUMP SHUTDOWN? If item V-1 is checked, check Yes or No.
- M45. TEST FREQUENCY If item V-4 is checked, check the appropriate box to describe the frequency of pipe integrity testing.
- M46. SPECIFY If item V-4-c is checked, enter the frequency of pipe integrity testing.
- M47. VISUAL MONITORING DONE If item V-5 is checked, check the appropriate box to describe the frequency of visual monitoring.
- M48. SPECIFY If item V-99 is checked, enter a brief description of the other line monitoring method(s) used. If additional space is needed, use Section IX. 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.) which shows all required information, include it with this plan.

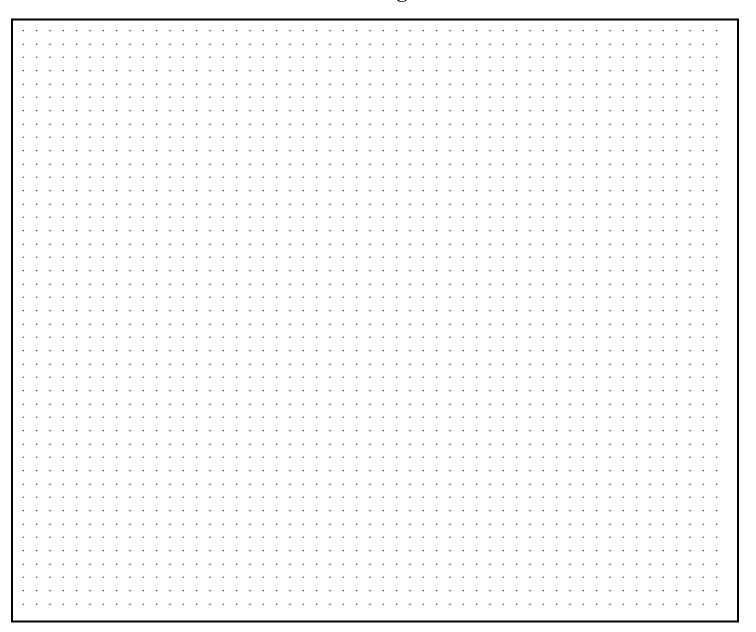
VI. DISPENSER MONITORING	
MONITORING OF AREAS BENEATH DISPENSER(S) IS PERFORMED USING THE FOLLOWING METHOD(S) (Check all that apply)	M50.
1. CONTINUOUS ELECTRONIC MONITORING OF UNDER DISPENSER CONTAINMENT (UDC) PANIEL MANUEL CTUBER. M51. MODEL #4.	M52.
PANEL MANUFACTURER: MODEL #:	M54.
LEAK SENSOR MANUFACTURER: M53. MODEL #(S): a. YES b. N	
WILL A UDC LEAK ALARM TRIGGER AUTOMATIC PUMP SHUTDOWN?	3.000
WILL FAILURE/DISCONNECTION OF UDC MONITORING SYSTEM TRIGGER AUTOMATIC PUMP SHUTDOWN? a. YES b. N	
☐ 2. MECHANICAL ASSEMBLY (e.g., FLOAT AND CHAIN ASSEMBLY) IN UDC TRIPS SHEAR VALVE IN CASE OF LEAK	
ASSEMBLY MANUFACTURER: M58. MODEL #(S):	M59.
☐ 3.VISUAL MONITORING DONE: ☐ a. DAILY ☐ b. WEEKLY (Requires agency approval)	M60.
4. NO DISPENSERS	M61.
99. OTHER (Specify)	19101.
VII. ENHANCED LEAK DETECTION	M70.
☐ 1. WE HAVE BEEN NOTIFIED BY THE STATE WATER RESOURCES CONTROL BOARD THAT WE MUST IMPLEMENT ENHANCED LEAK DETECTION (ELD) FOR THE UST(S) COVERED BY THIS PLAN. PER 23 CCR §2644.1, ELD IS PERFORMED EVERY 36 MONTHS AS REQU	
VIII. TRAINING	
REFERENCE DOCUMENTS MAINTAINED AT FACILITY (Check all that apply)	M80.
 THIS UNDERGROUND STORAGE TANK MONITORING PLAN (Required) OPERATING MANUALS FOR ELECTRONIC MONITORING EQUIPMENT (Required) 	
3. THE FACILITY'S BEST MANAGEMENT PRACTICES (Required as of January 1, 2005)	
4. CALIFORNIA UNDERGROUND STORAGE TANK REGULATIONS 5. CALIFORNIA UNDERGROUND STORAGE TANK LAW	
6. STATE WATER RESOURCES CONTROL BOARD (SWRCB) PUBLICATION: "HANDBOOK FOR TANK OWNERS - MANUAL AND)
STATISTICAL INVENTORY RECONCILIATION" 7. SWRCB PUBLICATION: "WEEKLY MANUAL TANK GAUGING FOR SMALL UNDERGROUND STORAGE TANKS"	
7. SWRCB PUBLICATION: "WEEKLY MANUAL TANK GAUGING FOR SMALL UNDERGROUND STORAGE TANKS" 99. OTHER (Specify):	M81.
Personnel with UST monitoring responsibilities are familiar with all of the above documents relevant to their job duties and can access those documents when i	
By January 1, 2005, this facility will have a "Designated UST Operator" who has passed the California UST System Operator Exam administered by the Inte	rnational
Code Council (ICC). By July 1, 2005, and annually thereafter, the "Designated UST Operator" will train facility employees in the proper operation and mai of the UST systems. This training will include, but is not limited to, the following:	ntenance
> 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 leak detection equipment. The facility employee's role with regard to spills and overfills. 	
Whom to contact for emergencies and leak detection alarms.	
For facility employees hired on or after July 1, 2005, the initial training will be conducted within 30 days of the date of hire.	
IX. COMMENTS/ADDITIONAL INFORMATION Please use this section to include any additional UST system monitoring-related information (e.g., additional information required by your local agency):	M85.
Note regarding Section X. Pending certification of a Designated UST Operator, the following person has authority for performing the monitoring	*
activities and maintaining leak detection equipment covered by this plan. NAME: JOB TITLE:	
X. PERSONNEL RESPONSIBILITIES AS OF JANUARY 1, 2005, THE "DESIGNATED UST OPERATOR" WILL PERFORM AND DOCUMENT MINIMUM MONTHLY VISUAL INSPECTI	ONG OF
AS OF JANUARY 1, 2005, THE "DESIGNATED UST OPERATOR" WILL PERFORM AND DOCUMENT MINIMUM MONTHLY VISUAL INSPECTI THE FACILITY'S UST SYSTEMS IN ACCORDANCE WITH 23 CCR § 2715(b).	ONS OF
XI. OWNER/OPERATOR SIGNATURE	
CERTIFICATION: I certify that the information provided herein is true and accurate to the best of my knowledge.	MOI
OWNER/OPERATOR SIGNATURE REPRESENTING Owner M90. DATE:	M91.
Operator	
OWNER/OPERATOR NAME (print): M92. OWNER/OPERATOR TITLE:	M93.
(Agency Use Only) This plan has been reviewed and: Approved Approved With Conditions Disapproved	
Local Agency Signature: Date:	
Comments/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 <u>prior</u> to installing or modifying monitoring equipment. (Note: Numbering of these instructions follows the data element numbers on the form.)

- M50. DISPENSER MONITORING METHOD(S) Check the appropriate box(es) in Section IV to identify all required methods used for monitoring the area(s) beneath the dispenser(s). If no dispensers are installed (e.g., USTs supplying standby generators), check item VI-5.
- M51. PANEL MANUFACTURER If item VI-1 is checked, 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.
- M52. MODEL # If item VI-1 is checked; enter the model number for the monitoring system control panel. If there is no control panel (e.g., only an electrical relay box is installed) leave this space blank.
- M53. LEAK SENSOR MANUFACTURER If item VI-1 is checked, enter the name of the manufacturer of the sensor(s).
- M54. MODEL #(S) If item VI-1 is checked; enter the model number for each type of sensor installed. If additional space is needed, use Section IX.
- M55. WILL DETECTION OF A LEAK INTO UDC TRIGGER AUDIBLE AND VISUAL ALARMS? If item VI-1 is checked, check Yes or No.
- M56. WILL A UDC LEAK ALARM TRIGGER PUMP SHUTDOWN? If item VI-1 is checked, check Yes or No.
- M57. WILL FAILURE/DISCONNECTION OF UDC MONITORING TRIGGER SHUTDOWN? If item VI-1 is checked, check Yes or No.
- M58. ASSEMBLY MANUFACTURER If item VI-2 is checked, enter the name of the manufacturer of the mechanical leak detection assembly.
- M59. MODEL #(S) If item VI-2 is checked; enter the model number for each type of mechanical leak detection assembly installed. If additional space is needed, use Section IX.
- M60. VISUAL MONITORING DONE If item VI-3 is checked, check the appropriate box to describe the frequency of visual monitoring.
- M61. SPECIFY If item VI-99 is checked, enter a brief description of the other method(s) used to monitor the UDC. If additional space is needed, use Section IX.
- M70. ENHANCED LEAK DETECTION 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).
- M80. REFERENCE DOCUMENTS MAINTAINED AT FACILITY Check the appropriate boxes to describe reference documents maintained at the facility. Note that items 1, 2, and 3 <u>must</u> be kept at the facility.
- M81. SPECIFY If item VIII-99 is checked, enter a brief description of the other document(s) maintained at the facility. If additional space is needed, use Section IX.
- M85. COMMENTS/ADDITIONAL INFORMATION You may use this section to describe any additional UST system monitoring-related information (e.g., additional information required by your local agency). If using Section IX as additional space for items required elsewhere in this plan, reference the item number (e.g., "Item M35 Model 2468 and 3579 Leak Sensors").
 - 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, and that the training program specified in Section VIII has been implemented.
- M90. REPRESENTING Check the appropriate box to indicate whether the signer is representing the UST owner or UST operator.
- M91. DATE Enter the date the plan was signed.
- M92. OWNER/OPERATOR NAME Print or type the name of the person signing the plan.
- M93. OWNER/OPERATOR TITLE Enter the title of the person signing the plan.

UST Monitoring Site Plan



Date map was drawn or revised:

Instructions

If you already have a diagram (e.g. your Hazardous Materials Business Plan Site Plan/Storage Map) which shows all required information, you may include it, rather than this page, with this monitoring plan. On your site plan, show the general layout of tanks and piping in relation to nearby buildings or other structures. Clearly identify locations of the following equipment, if installed: monitoring system control panels; mechanical or electronic line leak detectors; sensors monitoring tank annular spaces, sumps, trench systems, under-dispenser containment, or other secondary containment areas; and, if ATG is required, in-tank liquid level probes. In the space provided, note the date the drawing was prepared.