COMMON UST FIELD ISSUES THAT WE THOUGHT WOULD NOT BE COMMON ANYMORE

- Juan Fernandez, UST Inspector
- San Diego County
- Hazardous Materials Division, Underground Storage Tank Program

- April 26, 2012

SECONDARY BOOTS/JUMPER CABLES OBSTRUCTED/BLOCKED

UST owners doing this or???

Chuck Norris always pulls his boots back

but what does Title 23 say?

2630 (d) All monitoring equipment used to satisfy the requirements of this article shall meet the requirements of section 2643(f) and shall be installed and maintained such that the equipment is capable of detecting a **leak at the earliest possible opportunity.** Additionally, all monitoring equipment used to satisfy the requirements of this article shall be installed, calibrated, operated, and maintained in accordance with section 2638.

" I have a significant amount of sites that have Test Boots secured and blocking the flow of product to the sensors after SB989 testing. Today a site had at least 17 pipes that were incapable of being monitored due to the SB989 testing. Of course,. There does seem to be a disconnect between monitoring certification techs and secondary containment testing techs when they do their job "

So what does the testers approved protocol state ????

Here is an example of an approved secondary containment testing protocol:

16. When test is completed, remove all water from sump
17. Retain as test liquid or dispose of in hazardous waste labeled 55-gallon drum.
18. Depressurize secondary product lines.
19. Pull back secondary piping boots, re-install sensor to correct location and confirm / document that monitor is working correctly.
20. Repeat for all sumps.

#19. Indicates that testing company will be removing boots after testing is complete.

Who is responsible?
Owners/Operators

Boots on during hydrostatic test and not removed after test

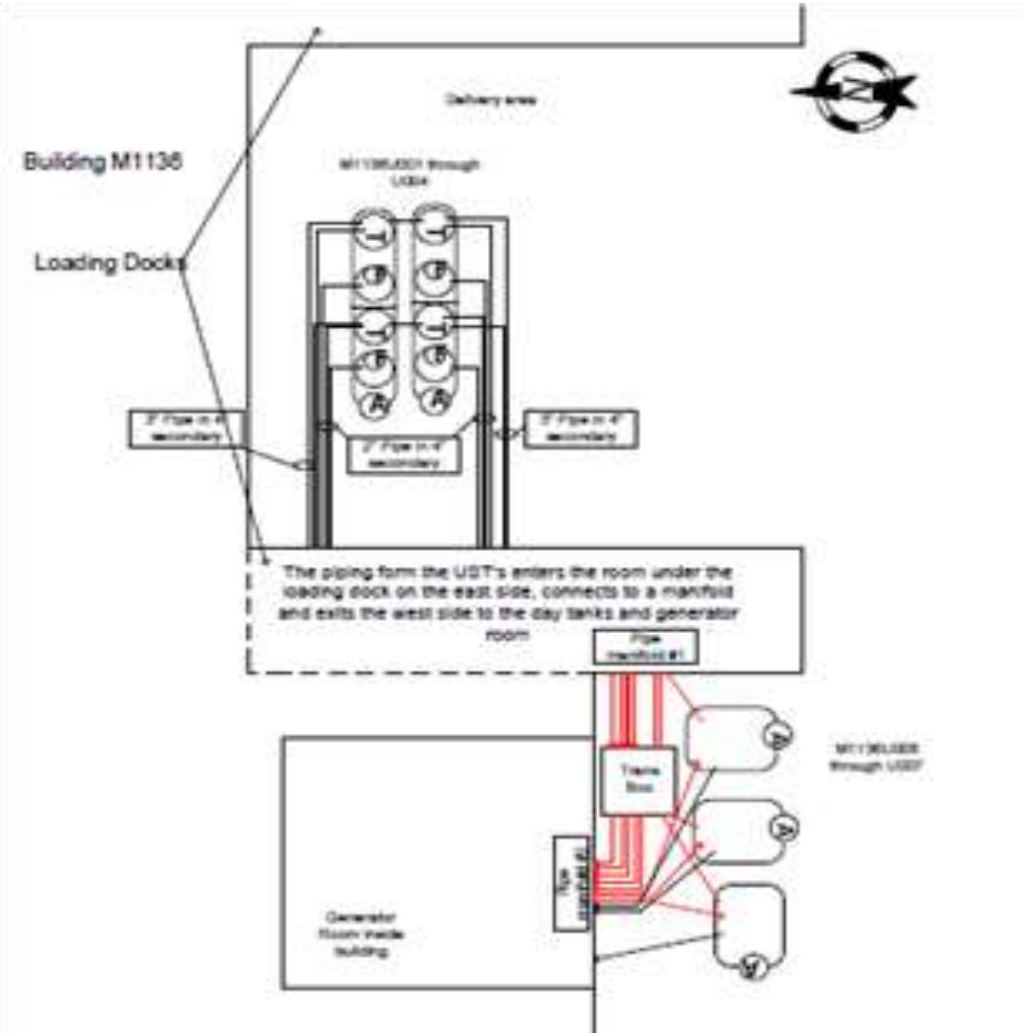
SECONDARY CONTAINMENT TESTING AT "OUT OF THE NORM" SITES AND SOME RECOMMENDATIONS

WHAT CAN TECHS DO TO MAKE SURE ALL SECONDARIES ARE TESTED AT THESE “OUT OF THE NORM” SITES?

1. RECOMMEND SUBMITTAL OF SITE MAPS DETAILING PIPING LAYOUTS AND LOCATION OF SECONDARY COMPONENTS TO INSURE ALL COMPONENTS ARE TESTED

2. HAVE BETTER COMMUNICATION WITH INSPECTORS AND FACILITY STAFF TO MAKE SURE THAT ALL SECONDARIES ARE TESTED AS REQUIRED

FACILITY MAP OF UST SYSTEM LAYOUT



CERTIFICATIONS MISSING REQUIRED ATTACHMENTS

NO/WRONG ALARM HISTORY/SET UP
DO SUMP CHECKS NOT PERFORMED
SCT TAPES/GRAPHS MISSING
SCT REPAIR COMMENTS LEFT EMPTY

Still???

County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH-HAZARDOUS MATERIALS DIVISION
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UNDERGROUND STORAGE TANK MONITORING SYSTEM CERTIFICATION

Authority Cited: Chapter 6.7, Health and Safety Code; Chapter 16, Division 3, Title 23, California Code of Regulations

This form must be used to document installation, testing and servicing of monitoring equipment. A separate certification or report must be prepared for each monitoring system control panel by the technician who performs the work. A copy of this form must be provided to the tank system owner/operator. The owner/operator must submit a copy of this form to the local agency regulating UST systems within 30 days of test date.

Plan Check Number: _____ **Permit Number:** _____

A. General Information

Facility Name: _____ Bldg. No.: _____

Site Address: _____ City: _____ Zip: _____

Facility Contact Person: _____ Contact Phone No.: (____) _____

Make/Model of Monitoring System: _____ Date of Testing/Servicing: ____/____/____

B. Inventory of Equipment Tested/Certified: Check the appropriate boxes to indicate specific equipment installed/ inspected/serviced:

Tank ID: _____ ☐ In-Tank Gauging Probe. Model: _____ ☐ Annular Space or Vault Sensor. Model: _____ ☐ Piping Sump / Trench Sensor(s). Model: _____ ☐ Fill Sump Sensor(s). Model: _____ ☐ Mechanical Line Leak Detector. Model: _____ ☐ Electronic Line Leak Detector. Model: _____ ☐ Tank Overfill / High-Level Sensor. Model: _____ ☐ Other (specify equipment type and model in Section E on Page 2).	**Tank ID:** _____ ☐ In-Tank Gauging Probe. Model: _____ ☐ Annular Space or Vault Sensor. Model: _____ ☐ Piping Sump / Trench Sensor(s). Model: _____ ☐ Fill Sump Sensor(s). Model: _____ ☐ Mechanical Line Leak Detector. Model: _____ ☐ Electronic Line Leak Detector. Model: _____ ☐ Tank Overfill / High-Level Sensor. Model: _____ ☐ Other (specify equipment type and model in Section E on Page 2).
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Dispenser ID: _____ ☐ Dispenser Containment Sensor(s). Model: _____ ☐ Shear Valve(s). ☐ Dispenser Containment Float(s) and Chain(s).	**Dispenser ID:** _____ ☐ Dispenser Containment Sensor(s). Model: _____ ☐ Shear Valve(s). ☐ Dispenser Containment Float(s) and Chain(s).
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*If the facility contains more tanks or dispensers, copy this form. Include information for every tank and dispenser at the facility.

C. Certification - I certify that the equipment identified in this document was installed/inspected/serviced in accordance with the manufacturers' guidelines. Attached to this Certification is information (e.g. manufacturers' checklists) necessary to verify that this information is correct and a Plot Plan showing the layout of monitoring equipment. For any equipment capable of generating such reports, I have also attached a copy of the report *(check all that apply)*: ☐ System set-up ☐ Alarm history report

Technician Name (print): _____ Signature: _____

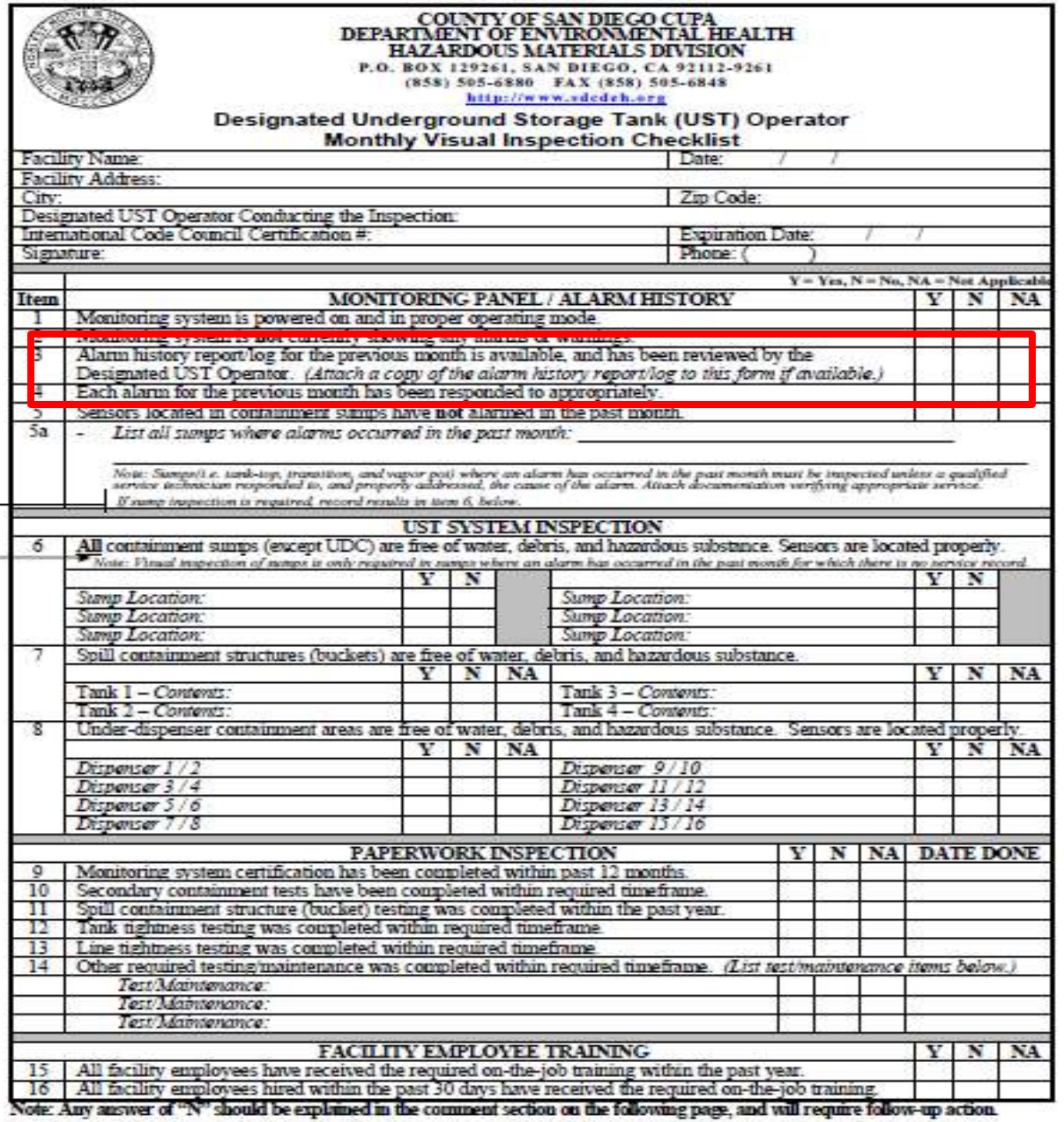
Certification No.: _____ License No.: _____

Testing Company Name: _____ Phone No.: (____) _____

Testing Company Address: _____ Date of Testing/Servicing: ____/____/____

C. Certification - I certify that the equipment identified in this document was installed/inspected/serviced in accordance with the manufacturers' guidelines. Attached to this Certification is information (e.g. manufacturers' checklists) necessary to verify that this information is correct and a Plot Plan showing the layout of monitoring equipment. For any equipment capable of generating such reports, I have also attached a copy of the report *(check all that apply):* *System set-up* *Alarm history report*

Note: Alarm history attached to certification must have same date as certification form



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Designated Underground Storage Tank (UST) Operator
Monthly Visual Inspection Checklist

Facility Name:	Date: / /
Facility Address:	
City:	Zip Code:
Designated UST Operator Conducting the Inspection:	
International Code Council Certification #:	Expiration Date: / /
Signature:	Phone: ( )

Y = Yes, N = No, NA = Not Applicable

Item	MONITORING PANEL / ALARM HISTORY	Y	N	NA
1	Monitoring system is powered on and in proper operating mode.			
2	Monitoring system is not currently showing any alarms or warnings.			
3	Alarm history report/log for the previous month is available, and has been reviewed by the Designated UST Operator. *(Attach a copy of the alarm history report/log to this form if available.)*			
4	Each alarm for the previous month has been responded to appropriately.			
5	Sensors located in containment sumps have **not** alarmed in the past month.			
5a	- *List all sumps where alarms occurred in the past month:* _____			

Note: Sump(i.e. tank-top, transition, and vapor pot) where an alarm has occurred in the past month must be inspected unless a qualified service technician responded to, and properly addressed, the cause of the alarm. Attach documentation verifying appropriate service.

If sump inspection is required, record results in item 6, below.

UST SYSTEM INSPECTION

6 **All** containment sumps (except UDC) are free of water, debris, and hazardous substance. Sensors are located properly.

Note: Visual inspection of sumps is only required in sumps where an alarm has occurred in the past month for which there is no service record.

	Y	N		Y	N
Sump Location:			*Sump Location:*		
Sump Location:			*Sump Location:*		
Sump Location:			*Sump Location:*		

7 Spill containment structures (buckets) are free of water, debris, and hazardous substance.

	Y	N	NA		Y	N	NA
Tank 1 – *Contents:*				Tank 3 – *Contents:*			
Tank 2 – *Contents:*				Tank 4 – *Contents:*			

8 Under-dispenser containment areas are free of water, debris, and hazardous substance. Sensors are located properly.

	Y	N	NA		Y	N	NA
Dispenser 1 / 2				*Dispenser 9 / 10*			
Dispenser 3 / 4				*Dispenser 11 / 12*			
Dispenser 5 / 6				*Dispenser 13 / 14*			
Dispenser 7 / 8				*Dispenser 15 / 16*			

	PAPERWORK INSPECTION	Y	N	NA	DATE DONE
9	Monitoring system certification has been completed within past 12 months.				
10	Secondary containment tests have been completed within required timeframe.				
11	Spill containment structure (bucket) testing was completed within the past year.				
12	Tank tightness testing was completed within required timeframe.				
13	Line tightness testing was completed within required timeframe.				
14	Other required testing/maintenance was completed within required timeframe. *(List test/maintenance items below.)*				
	Test/Maintenance:				
	Test/Maintenance:				
	Test/Maintenance:				

	FACILITY EMPLOYEE TRAINING	Y	N	NA
15	All facility employees have received the required on-the-job training within the past year.			
16	All facility employees hired within the past 30 days have received the required on-the-job training.			

Note: Any answer of "N" should be explained in the comment section on the following page, and will require follow-up action.

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#3 Attach a copy of the alarm history report/log to this form if available

	Y = Yes, N = No, NA = Not Applicable			
Item	**MONITORING PANEL / ALARM HISTORY**	**Y**	**N**	**NA**
1	Monitoring system is powered on and in proper operating mode.			
2	Monitoring system is **not** currently showing any alarms or warnings.			
3	Alarm history report/log for the previous month is available, and has been reviewed by the Designated UST Operator. *(Attach a copy of the alarm history report/log to this form if available.)*			
4	Each alarm for the previous month has been responded to appropriately.			
5	Sensors located in containment sumps have **not** alarmed in the past month.			
5a	- *List all sumps where alarms occurred in the past month:* _____ _____ *Note: Sumps(i.e. tank-top, transition, and vapor pot) where an alarm has occurred in the past month must be inspected unless a qualified service technician responded to, and properly addressed, the cause of the alarm. Attach documentation verifying appropriate service. If sump inspection is required, record results in item 6, below.*			

SECONDARY CONTAINMENT TEST RESULTS. NOW WHAT????????

1. SCT results missing test tape results or tape results are altered.

2. SCT cover page indicates repairs on a certain component made but no comments to indicate what was done (we do not have super human guessing powers!!!!).

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UNDERGROUND STORAGE TANK SECONDARY CONTAINMENT & SPILL CONTAINMENT TESTING REPORT FORM

This form is intended for use by contractors performing initial & periodic testing of UST secondary containment systems. Use the appropriate pages of this form to report results for all components tested. The completed form, written test procedures, and printouts from tests (if applicable), must be provided to the facility owner/operator for submittal to the County of San Diego Department of Environmental Health Hazardous Materials Division UST Group.

Permit Number: **Plan Check Number:**

1. FACILITY INFORMATION

Facility Name:	Date of Testing:	
Facility Address:		**Test Type:**
Facility Contact:	Phone:	☐ Initial ☐ Repair Test
Date Local Agency Was Notified of Testing:		☐ 6 month ☐ Other:
Name of Local Agency Inspector *(if present during testing)*:		☐ 36 month

2. TESTING CONTRACTOR INFORMATION

Company Name:	
Technician Conducting Test:	
Credentials: ☐ CSLB Licensed Contractor	☐ SWRCB Licensed Tank Tester
License Type:	License Number:

Manufacturer Training

Manufacturer	Component(s)	Date Training Expires

3. SUMMARY OF TEST RESULTS

Component	Pass	Fail	Not Tested	Repairs Made	Component	Pass	Fail	Not Tested	Repairs Made
	☐	☐	☐	☐		☐	☐	☐	☐
	☐	☐	☐	☐		☐	☐	☐	☐
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	☐	☐	☐	☐		☐	☐	☐	☐

If hydrostatic testing was performed, describe what was done with the water after completion of tests:

For any equipment capable of generating a print out of test results, you must attach a copy of the test report to this certification ☐ **System printout attached.**

CERTIFICATION OF TECHNICIAN RESPONSIBLE FOR CONDUCTING THIS TESTING

To the best of my knowledge, the facts stated in this document are accurate and in full compliance with legal requirements

Technician's Signature: Date:

HM-9169 (02/11)

5. SECONDARY PIPE TESTING

Test Method Developed By:	☐ Piping Manufacturer ☐ Other *(Specify)*	☐ Industry Standard	☐ Professional Engineer
Test Method Used:	☐ Pressure ☐ Other *(Specify)*	☐ Vacuum	☐ Hydrostatic
Test Equipment Used:		Equipment Resolution:	

	Piping Run #	Piping Run #	Piping Run #	Piping Run #
Piping Material:				
Piping Manufacturer:				
Piping Diameter:				
Length of Piping Run:				
Product Stored:				
Method and location of piping-run isolation:				
Wait time between applying pressure/vacuum/water and starting test:				
Test Start Time:				
Initial Reading (R_I):				
Test End Time:				
Final Reading (R_F):				
Test Duration:				
Change in Reading (R_F-R_I):				
Pass/Fail Threshold or Criteria:				
Test Result:	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail

Comments: – *(include information on repairs made prior to testing, and recommended follow-up for failed tests)*

Comments – *(include information on repairs made prior to testing, & recommended follow-up for failed tests)*

Comments – *(include information on repairs made prior to testing, and recommended follow-up for failed tests)*

T-4 OIL/WATER SEPERATOR ANNULAR IS NOT HOLDING VACUUM, VACUUMED ANNULAR SPACE SEVERAL TIMES & LET SETTLE, STILL DROPPING, NEED TROUBLE SHOOTING TO FIND CAUSE OF LEAKAGE, REPAIR, AND RETESTING.

Comments – *(include information on repairs made prior to testing, and recommended follow-up for failed tests)*

SCRAPED AND CLEANED OUT ANNULAR OF RUST IN RISER AND AT BOTTOM OF ANNULAR. ALL RUST WAS VACUUMED PRIOR TO TESTING TODAY. RUST APPEARS TO BE DUE TO CONDENSATION. NO LIQUID WAS FOUND IN ANNULAR ORIGINAL TESTING WAS DONE FOR 1 HOUR AT 10"HG AND DROPPED TO 4"HG.

TESTING CONDUCTED TODAY PASSED 1 HOUR TEST AT 10"HG WITH NO DROP IN VACUUM.

If the entire depth of the sump is not tested, specify how much was tested. If the answer to <u>any</u> of the questions indicated with an asterisk (*) is "NO" or "NA", the entire sump must be tested. (See SWRCB LG-160)

Where can we find this statement??????

6. PIPING SUMP TESTING

Test Method Developed By:	☐ Sump Manufacturer ☐ Industry Standard ☐ Professional Engineer ☐ Other *(Specify)*			
Test Method Used:	☐ Pressure ☐ Vacuum ☐ Hydrostatic ☐ Other *(Specify)*			
Test Equipment Used:			Equipment Resolution:	
	Sump #	Sump #	Sump #	Sump #
Sump Diameter:				
Sump Depth:				
Sump Material:				
Height from Tank Top to Top of Highest Piping Penetration:				
Height from Tank Top to Lowest Electrical Penetration:				
Condition of sump prior to testing:				
Portion of Sump Tested[2]				
Does turbine shut down when sump sensor detects liquid (both product and water)?*	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Turbine shutdown response time				
Is system programmed for fail-safe shutdown?*	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Was fail-safe verified to be operational?*	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Wait time between applying pressure/vacuum/water and starting test:				
Test Start Time:				
Initial Reading (R_I):				
Test End Time:				
Final Reading (R_F):				
Test Duration:				
Change in Reading (R_F-R_I):				
Pass/Fail Threshold or Criteria:				
Test Result:	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail	☐ Pass ☐ Fail
Was sensor removed for testing?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Was sensor properly replaced and verified functional after testing?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA

Comments – *(include information on repairs made prior to testing, and recommended follow-up for failed tests)*

If the entire depth of the sump is not tested, specify how much was tested. If the answer to <u>any</u> of the questions indicated with an asterisk (*) is "NO" or "NA", the entire sump must be tested. (See SWRCB LG-160)

REMINDER: DOUBLE-WALL UST'S EQUAL TO OR GREATER THAN 20K GALLONS MUST HAVE INTERSTIAL VACUUM TEST FOR A MINIMUM OF 2 HRS EVERY 3 YEARS

NOTIFICATIONS AND REPORT SUBMITTAL

2637 (F) Owners and operators of underground storage tanks must notify the local agency at least 48 hours prior to conducting the test, unless this notification requirement is waived by the local agency

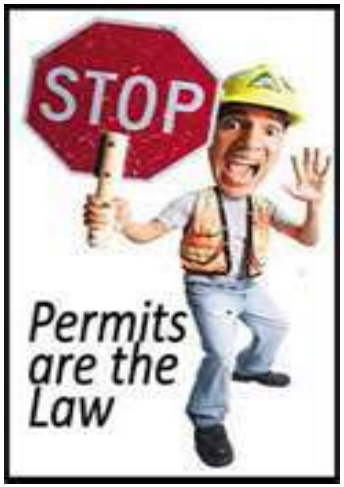
communication with area inspector is priceless

- Test must be completed on date of notification or results can be rejected. We need the opportunity to witness these test.

2637 (e) 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

REPAIRS THAT REQUIRE A PERMIT BUT SEEM TO GET OVERLOOKED ON OCCASION

1. Replacement of flex lines in sumps and UDC's
2. Replacement of shear valves
3. Upgrades to Veeder Root software/ECPU boards/cold starts
4. Replacement of electrical penetrations within testable zones



Examples of repairs that need repair permits and other photos

POSSIBLE SOLUTION FOR OPENING JUMPERS IN UNDER DISPENSER CONTAINMENT???

BOOTS ON DURING TESTING

ELECTRICAL PENETRATION REPAIRS

SHEAR VALVE REPLACEMENT

WE SEE SOME REALLY GOOD CLEAN REPAIRS ALSO!!!!! THANK YOU

Juan Fernandez
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San Diego County
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Juan.fernandez@sdcounty.ca.gov

QUESTIONS!!!!!!

Thank you very much for your time!!!