

PMMIC 2014 INSPECTION FINDINGS

BRIAN POTTEBAUM

ROUNDS & ASSOCIATES/PMMIC



THE

TOP
TEN

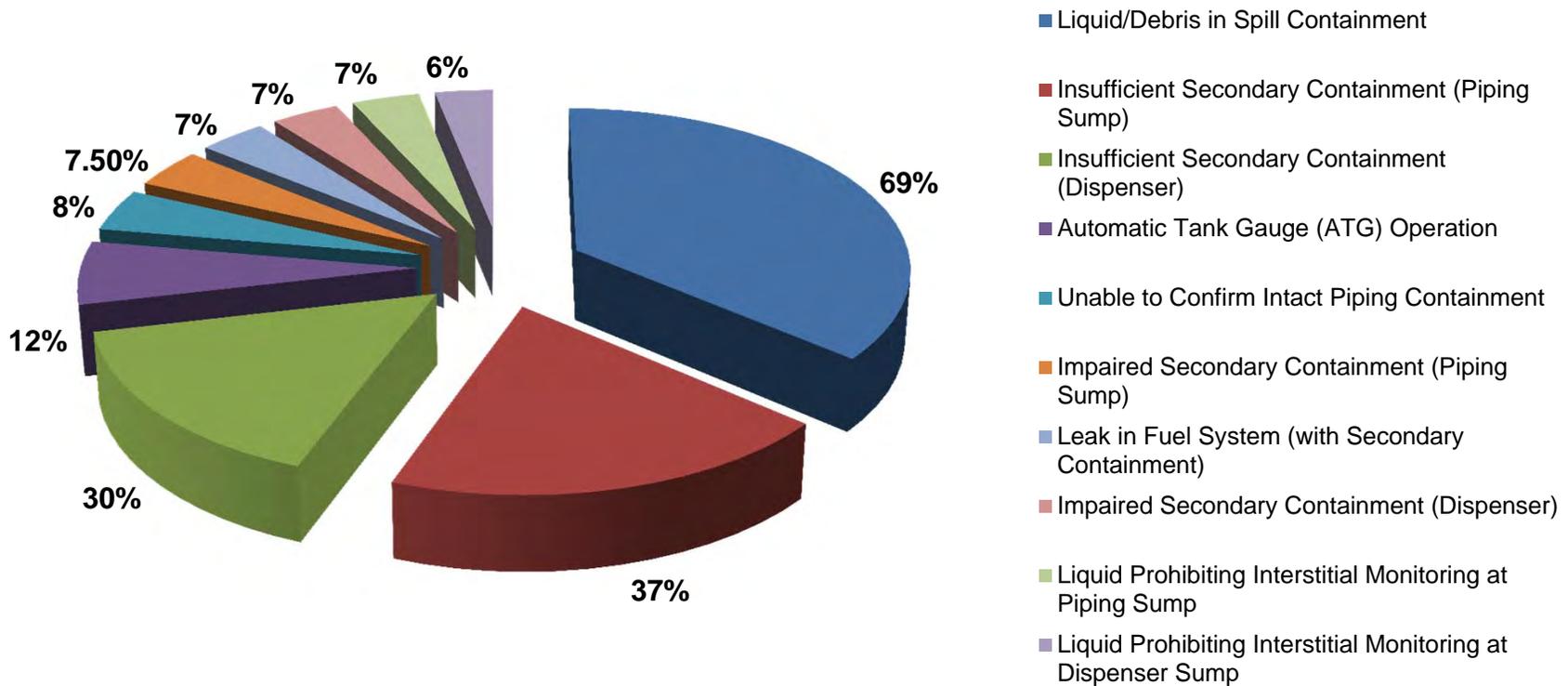
LIST

2014 "TOP TEN" DEFICIENCIES CITED

- 1. Liquid/Debris in Spill Containment**
- 2. Insufficient Secondary Containment (Piping Sump)**
- 3. Insufficient Secondary Containment (Dispenser)**
- 4. Automatic Tank Gauge (ATG) Operation**
- 5. Unable to Confirm Intact Piping Containment**
- 6. Impaired Secondary Containment (Piping Sump)**
- 7. Leak in Fuel System (with Secondary Containment)**
- 8. Impaired Secondary Containment (Dispenser)**
- 9. Liquid Prohibiting Interstitial Monitoring at Piping Sump**
- 10. Liquid Prohibiting Interstitial Monitoring at Dispenser Sump**

NOTE: Results based on non-compliance year deficiencies; 1635 sites inspected

2014 "TOP TEN" DEFICIENCIES CITED



Note: Top 3 are same order as last year (68%, 34%, and 30%).

1. LIQUID/DEBRIS IN SPILL CONTAINMENT

69% of sites cited for deficiency



2. INSUFFICIENT SECONDARY CONTAINMENT (PIPING SUMP)

37% of sites cited for deficiency



3. INSUFFICIENT SECONDARY CONTAINMENT (DISPENSER SUMP)

30% of sites cited for deficiency



4. AUTOMATIC TANK GAUGE (ATG) OPERATION

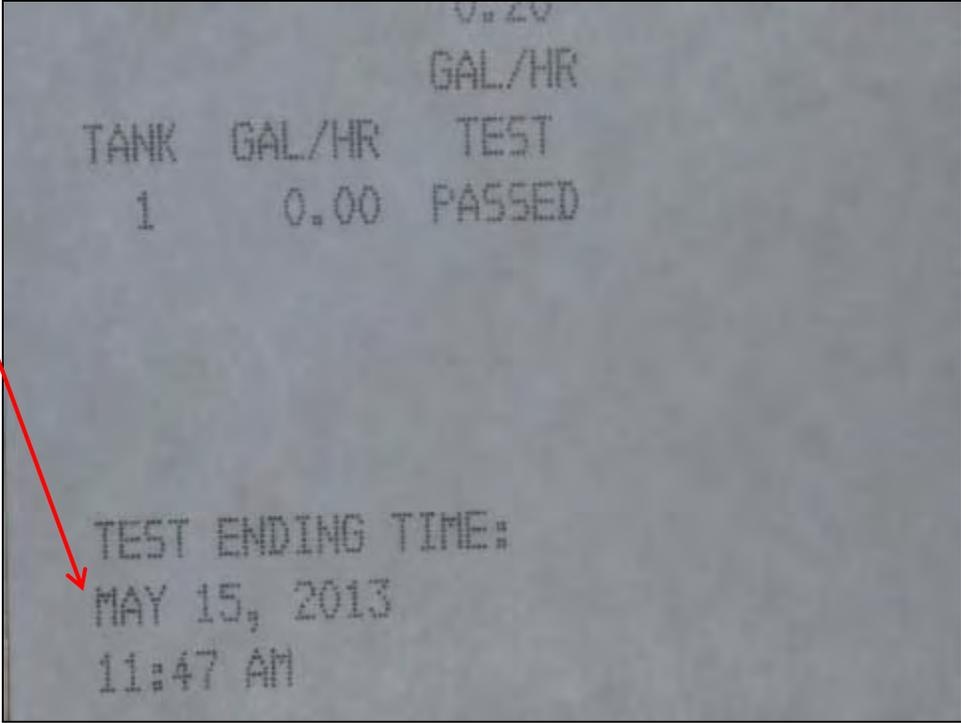
12% of sites cited for deficiency

- **Alarms – Leak alarm, High Water, Sudden Loss, etc.**
- **Properly testing UST system**
- **Correct time and date**



AUTOMATIC TANK GAUGE (ATG) OPERATION

Properly Testing Tank (Inspected 7/16/13) 2 months old



TANK	GAL/HR	TEST
1	0.00	PASSED

TEST ENDING TIME:
MAY 15, 2013
11:47 AM

AUTOMATIC TANK GAUGE (ATG) OPERATION

High Water

```
SYSTEM STATUS REPORT
-----
ALL FUNCTIONS NORMAL
INVENTORY REPORT

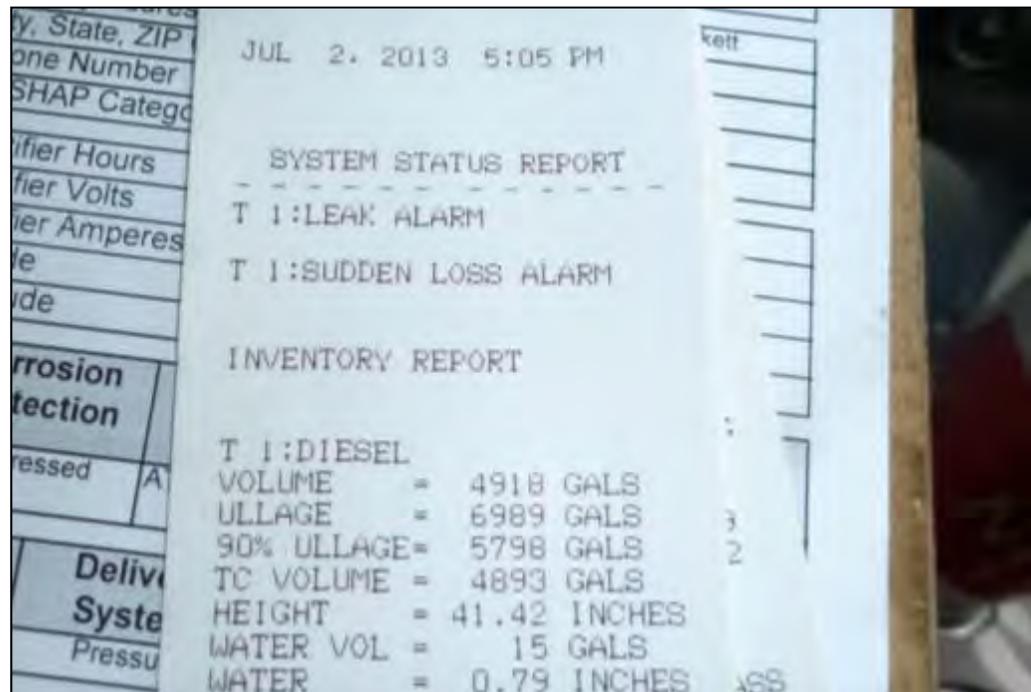
T 1:DIESEL
VOLUME = 7410 GALS
ULLAGE = 2590 GALS
90% ULLAGE= 1590 GALS
TC VOLUME = 7384 GALS
HEIGHT = 66.65 INCHES
WATER VOL = 68 GALS
WATER = 2.43 INCHES
TEMP = 67.6 DEG F

T 2:DIESEL
VOLUME = 1707 GALS
ULLAGE = 293 GALS
90% ULLAGE= 93 GALS
TC VOLUME = 1700 GALS
HEIGHT = 59.95 INCHES
WATER VOL = 6 GALS
WATER = 1.00 INCHES
TEMP = 68.2 DEG F
```



AUTOMATIC TANK GAUGE (ATG) OPERATION

“Leak Alarm” and “Sudden Loss Alarm”



AUTOMATIC TANK GAUGE (ATG) OPERATION

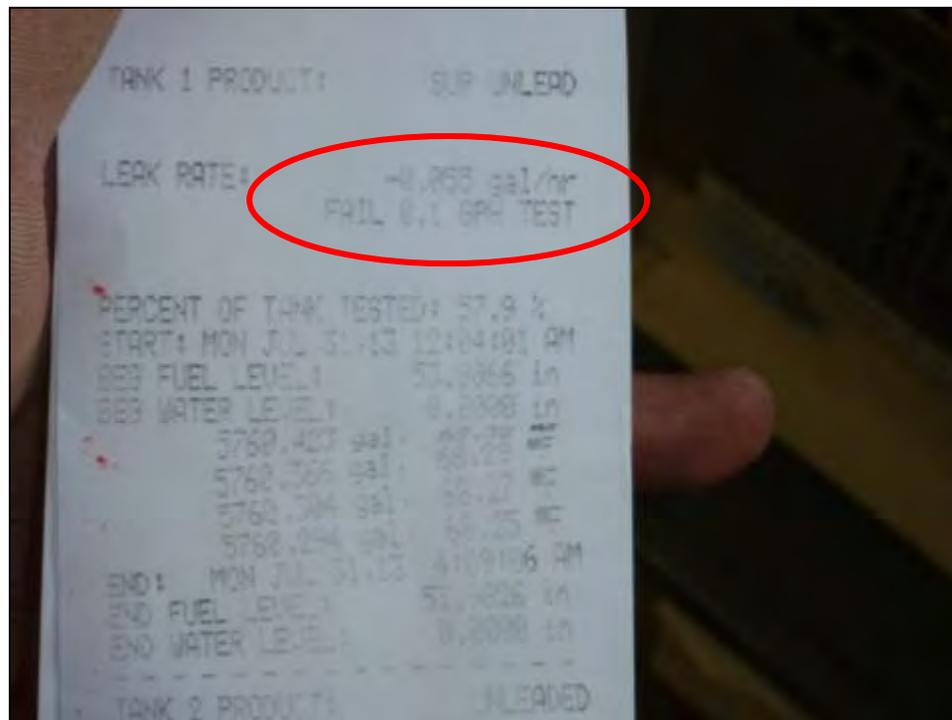
“Fuel Alarm”

SYSTEM STATUS REPORT	
L 5:	FUEL ALARM
L 6:	FUEL ALARM
L 7:	FUEL ALARM
L 8:	FUEL ALARM
L 10:	FUEL ALARM



AUTOMATIC TANK GAUGE (ATG) OPERATION

Test Fail

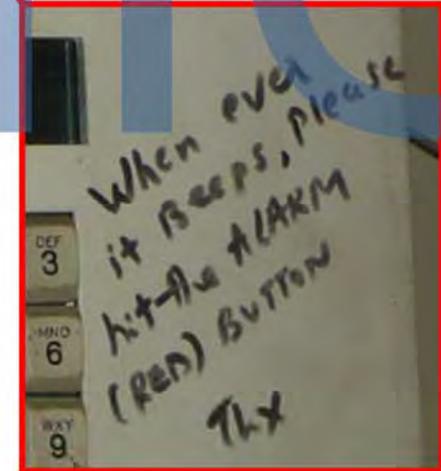


WHAT WAS GOING ON INSIDE



A photograph of a printed test log. The log shows test results for three different flow rates: 3.0 GAL/HR, 0.20 GAL/HR, and 0.10 GAL/HR. A red circle highlights a failure entry in the 0.20 GAL/HR section.

Flow Rate	Date	Time	Result
3.0 GAL/HR	OCT 13, 2014	6:34PM	PASS
0.20 GAL/HR	OCT 13, 2014	12:22AM	FAIL
0.20 GAL/HR	OCT 12, 2014	8:08AM	FAIL
0.20 GAL/HR	OCT 12, 2014	7:09AM	FAIL
0.20 GAL/HR	OCT 12, 2014	6:27AM	FAIL
0.20 GAL/HR	OCT 12, 2014	4:38AM	FAIL
0.20 GAL/HR	OCT 12, 2014	3:42AM	FAIL
0.20 GAL/HR	OCT 10, 2014	1:58AM	FAIL
0.20 GAL/HR	OCT 8, 2014	12:01AM	FAIL
0.20 GAL/HR	OCT 8, 2014	6:56AM	FAIL
0.20 GAL/HR	OCT 8, 2014	1:51AM	FAIL
0.10 GAL/HR	JAN 27, 2014	5:17AM	PASS
0.10 GAL/HR	AUG 13, 2012	3:51AM	PASS
0.10 GAL/HR	NOV 17, 2011	4:10AM	PASS
0.10 GAL/HR	MAY 3, 2011	1:26AM	PASS
0.10 GAL/HR	SEP 27, 2010	3:54AM	PASS
0.10 GAL/HR	SEP 30, 2009	5:37AM	PASS
0.10 GAL/HR	NOV 4, 2008	4:06AM	PASS
0.10 GAL/HR	OCT 28, 2008	3:23AM	PASS



WHAT WAS GOING ON OUTSIDE

Leak at the meter outlet (solid stream)



5. UNABLE TO CONFIRM INTACT PIPING CONTAINMENT

8% of sites cited for deficiency



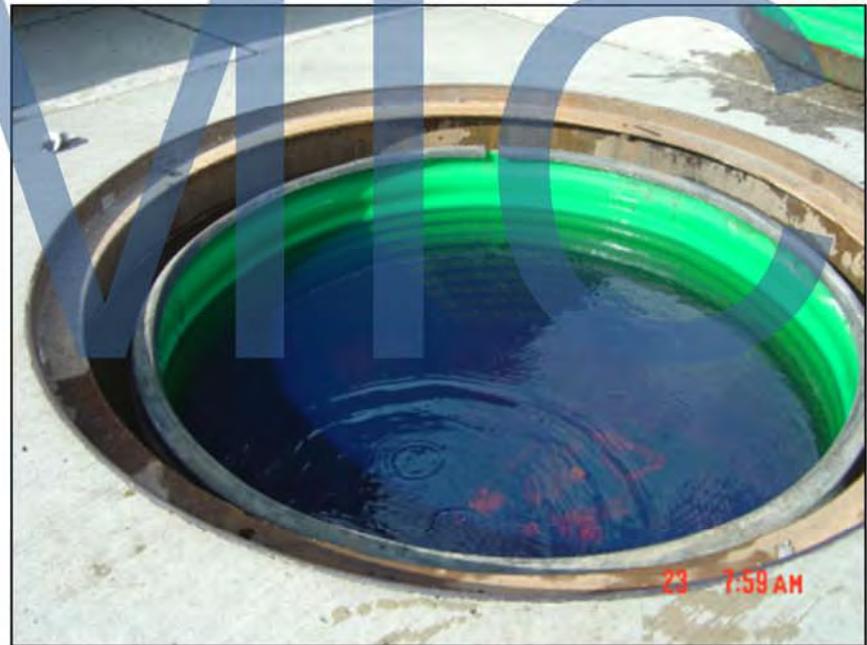
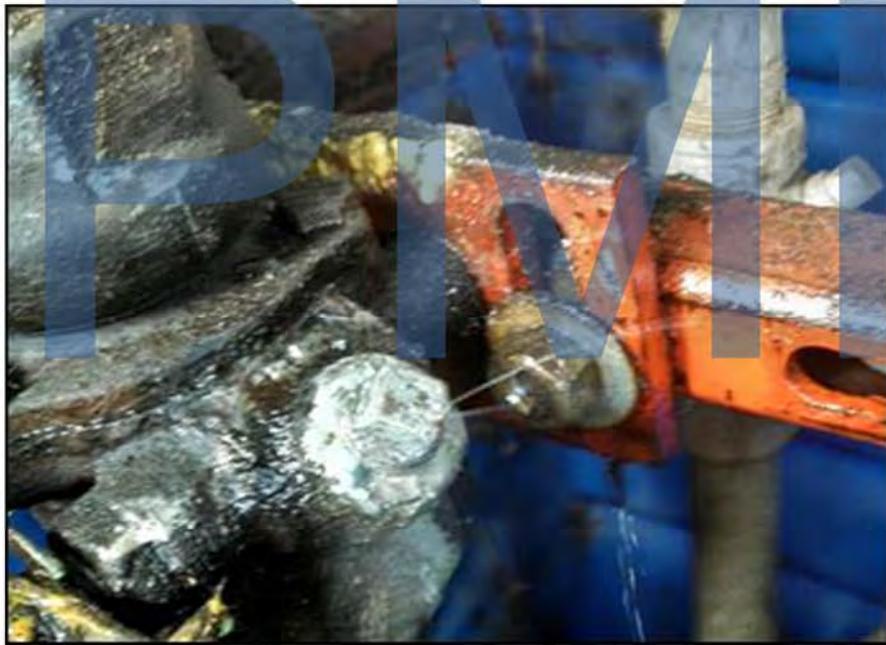
6. IMPAIRED SECONDARY CONTAINMENT (PIPING SUMP)

7.5% of sites cited for deficiency

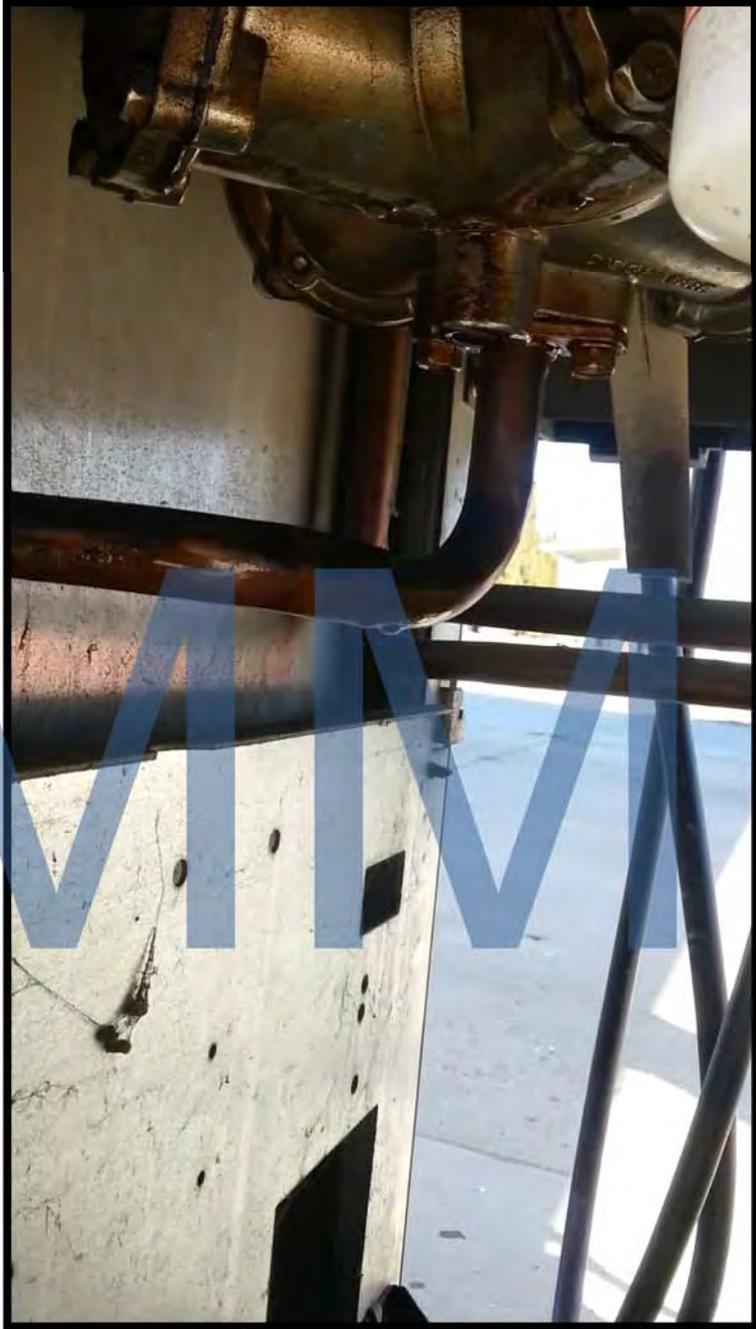


7. LEAK IN FUEL SYSTEM (WITH SECONDARY CONTAINMENT)

**Approximately 7% of sites cited for deficiency
(down from 20% last year) New protocol?**

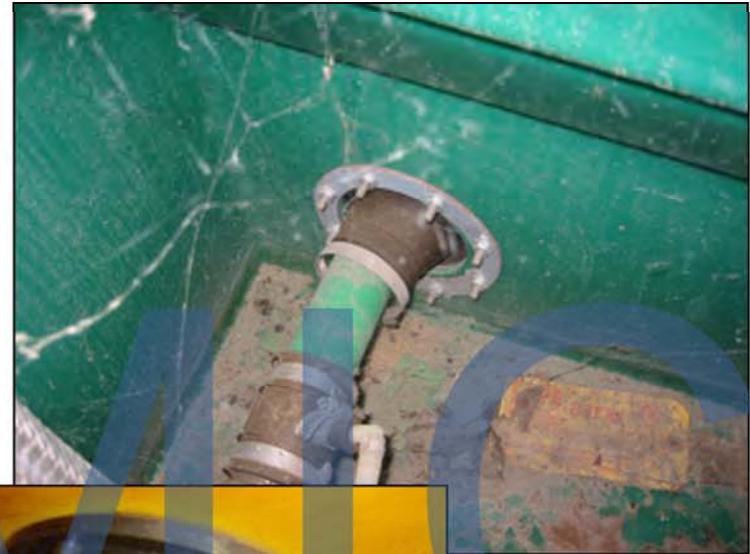


PMMAIC



8. IMPAIRED SECONDARY CONTAINMENT (DISPENSER)

7% of sites cited for deficiency



9. LIQUID PROHIBITING INTERSTITIAL MONITORING AT PIPING SUMP

7% of sites cited for deficiency



10. LIQUID PROHIBITING INTERSTITIAL MONITORING AT DISPENSER SUMP

6% of sites cited for deficiency



NEAR MISSES

Those that just missed the Top 10:

- **5% - Deteriorated Dispenser Hoses**
- **5% - Inadequate Spill Containment (i.e. damaged)**
- **5% - Leak in Fuel System (without containment)**
- **4% - ATG Probe Cap Not Sealed**



Remember that all exceptions from REPLACEMENT must be approved by DNR. No, patches are not acceptable....

ALTHOUGH NOT IN THE TOP 10 LIST

Improper Notification of UST System Upgrades = **7 Facilities**



DNR UST Forms

www.iowadnr.gov/InsideDNR/RegulatoryLand/UndergroundStorageTanks/USTForms.aspx

Notification of Intent to Install (2 pages)

- Applies to all installations, upgrades, and changes to UST system
- Responsibility of owner; however usually completed by licensed installer doing work
- File with DNR and insurance company
- No later than 30 days prior to installation
- Updated in 2012

Installer Inspection Checklist (7 pages)

- Applies to all new installations, and some upgrades and repairs
- Completed by licensed inspector
- File with DNR and insurance company
 - Accompanies DNR Form 148
- May require multiple visits (different phases of installation)
- Updated in 2012

DNR	Iowa DNR – UST Section	CARRIER USE ONLY	
	Registration Form #148	0050-542-0300-0561	Registration #
		Facility Name	
Tanks and piping must be registered within 30 days of installation. Installation is considered complete when the tanks and piping have been covered and tightness tested. There is an additional registration fee of \$250 per tank when not registered within 30 days of installation.			
		REGISTRATION #	
1. LOCATION OF TANKS			
Facility Name		County and County #	
Street Address		Phone	
City	ZIP	FAX	
Type of Owner <input type="checkbox"/> Private or Corp <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> School <input type="checkbox"/> Indian Trust Land			
2. OWNERSHIP OF TANKS			
Owner Name (Corp, Individual, Agency)		e-mail	
Street Address		Phone	
City	State	ZIP	FAX
3. AUTHORIZED REPRESENTATIVE (PERSON TO RECEIVE ALL CORRESPONDENCE)			
Name		e-mail	
Street Address		Phone	
State	Zip Code	Phone Number	FAX
4. LESSEE (OPERATOR/LEASING SITE, NOT TANK OWNER)			
Name (Corp, Individual, Agency)		e-mail	
Street Address		Phone	
City	State	ZIP	FAX
5. PREVIOUS TANK OWNERS			
Individual or Company Name		Phone	
Mailing Address		Phone	
City	State	ZIP	FAX
6. NEW TANK REGISTRATION FEES			
*Enter the number of NEW tanks being registered in the boxes below. For tanks with compartments, each compartment is considered a separate tank and must be included in the tank total.			
*There is a one-time \$10 registration fee per tank. For tanks over 1,100 gallons, an annual tank management fee of \$65 per tank must also be paid. Multiply the tank number by the fee for the amount due for each line below.			
*Total the columns for the total fee due.			
DO NOT SEND FEES FOR TECHNICAL UPDATES			
Number of tanks/compartments (\$10 each)	#Of Tanks	Fee	Fee Due
Number of tanks/compartments over 1,100 gallons (\$65 each)		X \$10 =	
30 day late fee (if applicable)		X \$65 =	
		X \$250 =	
			TOTAL FEE DUE \$
7. TYPE OF REGISTRATION (DO NOT USE FOR OWNERSHIP CHANGE – SEE "CHANGE OF OWNERSHIP FORM")			
<input type="checkbox"/> NEW TANK SYSTEM installed at NEW SITE	<input type="checkbox"/> Soil Containment/Overfill Prevention Equipment		
<input type="checkbox"/> NEW TANKS installed at site ALREADY REGISTERED	<input type="checkbox"/> Replacing Leak Detection Equipment		
<input type="checkbox"/> Replacing Product Lines	<input type="checkbox"/> Stage 1 Vapor Recovery Equipment		
<input type="checkbox"/> Combustion Sumps	<input type="checkbox"/> Other (specify):		
11/05/14 rev		DNR Form 542-0300	

UST Registration Form #148 (8 pages)

- Applies to all installations, upgrades, and changes to UST system
- Responsibility of owner; however usually completed by licensed installer doing work
- Signed by both owner and licensed installer
- File with DNR and insurance company
- Within 30 days of tanks being installed!
- \$250 fee for not complying
- Updated 11/2014

You Are Here > Inside DNR > Regulatory - Land > Underground Storage Tanks > UST Forms

- About DNR
- DNR Staff & Offices
- Social Media / Press Room
- Boards & Commissions
- Regulatory - Air
- Regulatory - Land
- Emergency Planning (EPCRA)
- Solid Waste
- Underground Storage Tanks
 - UST / LUST Staff Roster
 - UST / LUST Regulations
 - UST / LUST News & Events
 - UST / LUST Resources
 - UST Owners & Operators
 - UST Enforcement
 - UST Forms**
 - Licensed UST Professionals
 - Leaking Underground Tanks
 - Groundwater Professionals
 - UST Fund & Board
- Flood Plain Management
- Dam Safety
- Sovereign Lands Permits
- Contaminated Sites
- Regulatory - Water
- RFP & Bid Lettings

UST Forms / Technical Resources / Manuals General Information & Applications

- [Analytical Methods OA-1 and OA-2](#)
- [Certified Labs](#)
- [Real Estate Professionals & Underground Storage Tanks](#) **pdf**
- [UST Fact Sheet](#) **pdf**

Emergency Policy Flood Guidance

- [EPA Flood Guide](#) **pdf**
- [EPA Flood Website](#)
- [UST Emergency Policy Flood Guidance](#) **doc**

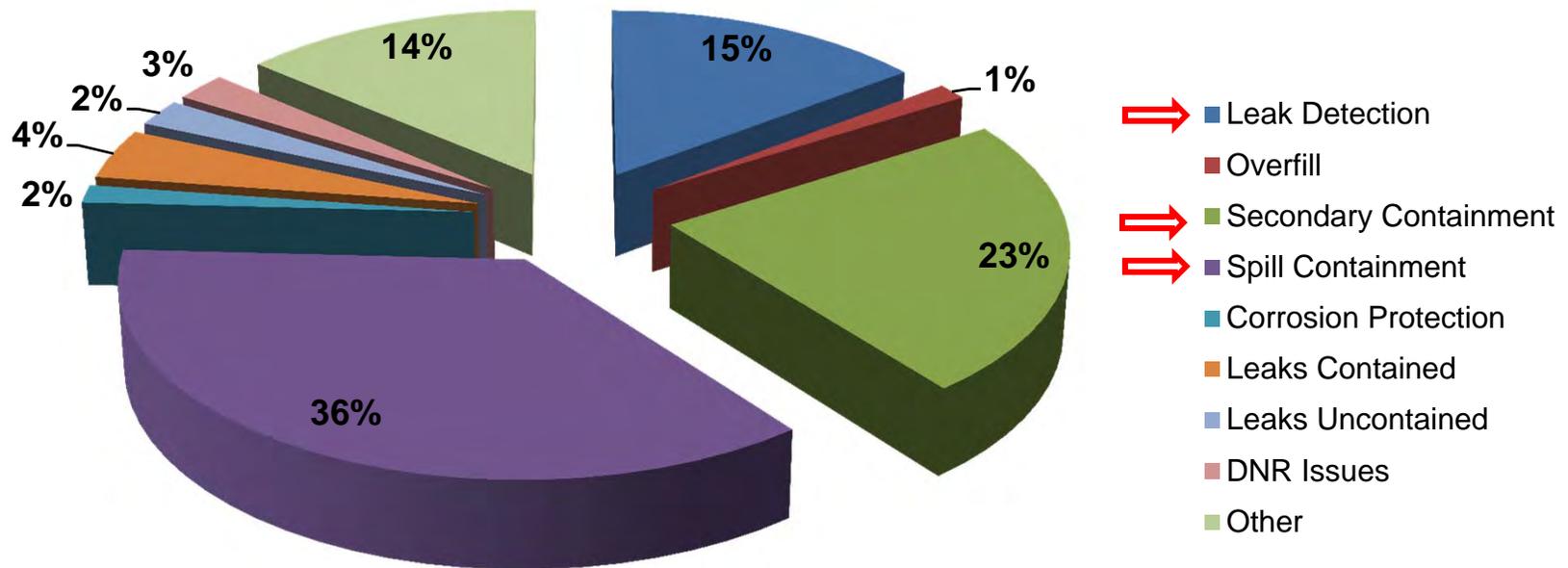
Guidance Documents

- [The Basics - A Resource for UST System Owners and Operators in Iowa](#)
- [Compliance Inspection](#)
- [Release Reporting](#)
- [Returning an UST System to Service](#) **pdf**
- [UST Closure](#)

Forms	*.doc	*.pdf
Ampere and Voltage Meter Rectifier Readings Form		
Cathodic Protection (CP) System Form		
Installer Inspection Checklist		
Notification of Temporary Closure Form		
542-0011 Change in Ownership		
542-0016 Stage 1 Vapor Recovery Survey Form		
542-0095 UST Inspection Response Form		



DEFICIENCIES BY CATEGORY



INSPECTION DEFICIENCY SUMMARY

Spill Containment Issues – 36%

- Liquid/Debris in Spill Containment
- Inadequate Spill Containment

Secondary Containment – 23%

- Insufficient Secondary Containment (Piping Sump)
- Insufficient Secondary Containment (Dispenser)
- Unable to Confirm Intact Piping Containment

Leak Detection – 15%

- Automatic Tank Gauge (ATG) Operation
- Liquid Prohibiting Interstitial Monitoring at Piping Sump/Dispenser

“Other” – 14%

- Missing/Damaged Spill Containment Lid
- Missing/Damaged Drive Plate Lid at Tank
- ATG Probe Cap Not Sealed
- Deteriorated Dispenser Hoses

WHAT DOES NEXT YEAR BRING?

2015 = Compliance Inspection Year

- **Operator training requirements reported**
 - Posting Emergency Contact Information (inside/outside)
 - Trained Operator present during operation
 - Documentation of training at the location
- **Vapor recovery compliance**
- **Unattended Facility posting/positive shutdown**

UNATTENDED LOCATIONS

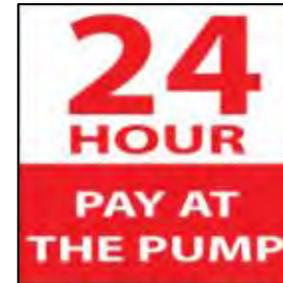
567 IAC 135.5(1)“e”

Effective July 1, 2014

**All unattended sites, including
overnight pay at the pump**

Pressurized systems

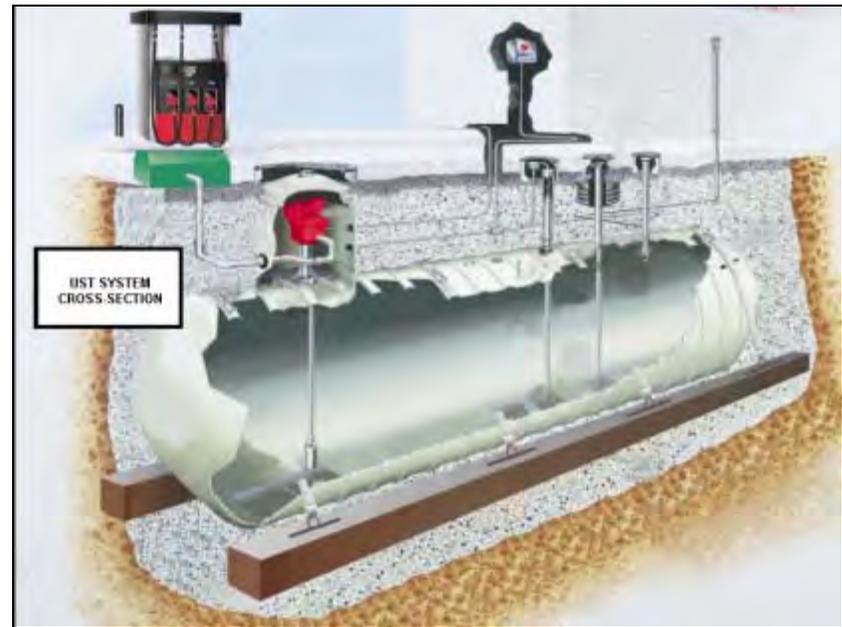
**Must be reported by compliance
inspectors in 2015!**



PRESSURIZED SYSTEM

(1) Employ automatic line leak detectors that do one or more of the following:

- 1. Shut down the submersible pump when a leak is detected.**
- 2. Restrict the flow of product when a leak is detected.**
- 3. Trigger an audible or visual alarm when a leak is detected.**



HOW DO THEY COMPLY?

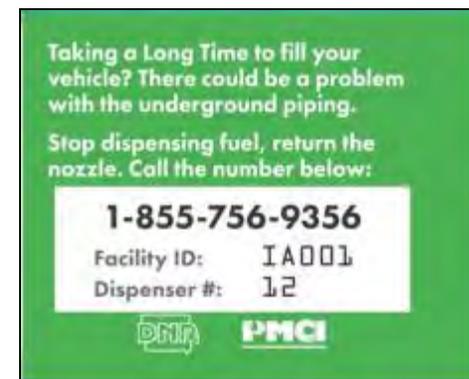
(2) At facilities implementing 135.5(1)“e”(1)“2” or “3,” the facility’s operator shall be notified or shall conduct a visit through one of the following methods:

1. Notification of the Class B operator by immediate electronic communication.

or

2. Signage directing the customer to contact the Class B operator or a designated contact person.

The sign must be immediately visible to the customer and state that slow flow or an audible or visual alarm is an indication of a possible release. The sign must provide a 24-hour telephone number of the Class B operator or designee and direct the customer to stop dispensing product.



HOW DO THEY COMPLY?

3. Daily visit to the site by a Class A, B, or C operator or designee. Visits shall include observation of every automatic line leak detector for shutdown, alarm, or restricted flow conditions. Methods of observing for restricted flow conditions may include dispensing product into a proper container or personal vehicle, observing a customer dispense product into a vehicle, or another method approved by the department. Owners and operators shall maintain an onsite log of site visits to demonstrate compliance with this provision. The log shall include the name of the observer and method used to observe the status of the automatic line leak detectors.

Does this apply to Convenience Stores that leave pumps on at night?

Month/Year _____ / _____



**Line Leak Detection with a Mechanical Line Leak Detector
Iowa DNR Daily Log for Unattended UST Site Visit**

Facility Name: _____
 Facility Address: _____
 Registration No.: _____

Unattended facilities with pressurized piping using restricted flow (mechanical line leak detectors) must in addition implement one of the following methods: 1) immediate electronic communication to the Class B operator; 2) signage directing the patron to the phone number of a contact person available 24/7 or 3) a daily visit to the site.

Daily visit to the site may be conducted by a Class A, B, or C operator or designee. Visits shall include observation of every automatic line leak detector for restricted flow conditions. Methods of observing for restricted flow conditions may include dispensing product into a proper container or personal vehicle, observing a patron dispense product into a vehicle, or another method approved by the department.

Owners and operators shall maintain an onsite log of site visits to demonstrate compliance with this provision. The log shall include the name of the observer and method used to observe the status of the automatic line leak detectors. *If there is a problem (e.g., slow flow observed), shut down the line, contact the Class B operator, the DNR, and investigate.*

Day	Observer Name	Observation Methods	Slow Flow?	If Slow Flow Observed, Identify Product Line / Other Notes	If Slow Flow, Product Line Shut Down?
1		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
2		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
3		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
4		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
5		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
6		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
7		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
8		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
9		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
10		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
11		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No
12		<input type="checkbox"/> Dispensed Fuel <input type="checkbox"/> Observed Patron	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No

58/2014 rev. 249 Form 542-0217

UST INSTALLER TRAINING

February 17-18th, 2015

- **Save the Date** - Details still forthcoming
- Meets IAC 134.19(6) – Presented by IPECA/DNR/R&A
- Intended for those needing *installer* license in State of IA
- Adventureland Inn, Altoona, IA



UST COMPLIANCE INSPECTOR TRAINING

February 19-20th, 2015

- Presented by R&A/DNR
- Intended for those needing *Compliance* Inspector license in State of IA
- Must take Installer Course first
- Adventureland Inn
- Contact us





Questions?

