NJDEP UST Compliance & Enforcement

Underground Storage Tank Inspection Program

NJDEP UST Program

4180 Federally Regulated UST Facilities

11 State Inspectors

6 County Inspectors

1600 Inspections FY15

209 Delivery Bans in FY 15

UST Inspection

- Registration
- Insurance
- Release Detection Monitoring
- Cathodic Protection
- Spill Prevention
- Overfill Prevention
- Air Permitting/Compliance

Other Items

- PID Readings
- Cathodic Protection Testing
- Investigating Interstitial Spaces
- Open all Dispenser Cabinets
- Line Testing
- Delivery Prohibition


NJ DEP
ENFORCEMENT
GMC
NJ DEP


THIS LICENSE IS NOT TRANSFERABLE
DIVISION OF STATE LOTTERY
LOTTERY RETAILER
Township of Warren
Fire Prevention Bureau
INSPECTION CERTIFICATE
for
SATISFACTORY COMPLIANCE
NOTICE
WARREN TOWNSHIP BOARD OF HEALTH
SOMERSET COUNTY
NEW JERSEY
LICENSE
STATE OF NEW JERSEY
OFFICE OF WEIGHTS & MEASURES
2013
State of New Jersey
DIVISION OF TAXATION
Retail Dealer of Motor Fuels
NEW JERSEY STATE DEPARTMENT OF HEALTH
SANITARY INSPECTION REPORT
SATISFACTORY
DETAILED SUPPORTING DATA SHEETS ARE AVAILABLE UPON REQUEST
ON THESE PREMISES AND AT THE LOCAL DEPARTMENT OF HEALTH
NEW JERSEY STATE DEPARTMENT OF HEALTH
CONSUMER HEALTH SERVICES
CN 364
TRENTON, NEW JERSEY 08625
LOCAL BOARD OF HEALTH
WARREN TOWNSHIP BOARD OF HEALTH
46 Mountain Boulevard
Warren, NJ 07059
908 753-8000
5-14-13
NOTE: In accordance with the State Sanitary Code, this "report shall be posted in a conspicuous place near the public entrance of the establishment." Specific references to the Detail Data Sheets are to Chapter 13 of the State Sanitary Code, and/or Title 24, N.J.S.A.
NEW JERSEY DEPARTMENT OF HEALTH
SENIOR SERVICES
2006
For Not selling tobacco products to minors and adolescents
Tobacco Age of Sale Enforcement by:
TASE
CTCP
Health Department
Tobacco Inspector
Date
8/16/06

DIVISION OF REMEDIATION SUPPORT
UNDERGROUND STORAGE TANK PROGRAM
P.O. BOX 028
TRENTON, NEW JERSEY 08625-0028
Phone: (609) 633-1464

UNDERGROUND STORAGE TANK SYSTEMS
REGISTRATION CERTIFICATE

The Department of Environmental Protection hereby grants this registration to operate and maintain the Underground Storage Tank System(s) described below in accordance with the laws and regulations of the State of New Jersey. This registration is revocable with due cause and is subject to the limitations, terms and conditions pursuant to N.J.A.C. 7:14B.

Approval Date:
01/24/2008

Expiration Date:
12/31/2010

Facility ID:
012345

Registration Activity ID:
UST070001

Facility Contact (Operator):
Joseph Smith
(201) 555-1234

Total Number of Tanks:
3

Total Capacity (Gallons):
26000

Facility Address:

JOE'S GARAGE
444 MAIN ST
ANYWHERE, NJ 02854

Owner:

JOSEPH SMITH
444 MAIN ST
ANYWHERE NJ, 02854

Approved Tanks and Products Stored:

TANK No.	TANK CAPACITY	TANK CONTENTS
5175	8000	Unleaded Gasoline
5176	8000	Light Diesel Fuel (No. 1-D)
5177	10000	Unleaded Gasoline

This Registration Must Be Available for Inspection at the Facility AT ALL TIMES

- Facility must have a Current and Accurate Registration

We don’t need no stinkin’ registration!

2/ TANK INSURANCE (FA)

All REGULATED TANKS must have insurance for "the purpose of remediation and for compensating third parties for bodily injury and property damage".

Coverage Amounts:

< 10,000 gallons throughput per month: $250,000
> 10,000 gallons throughput per month: $1,000,000
Hazardous substances other than motor fuel:$1,000,000

- Facility must have a Current and Accurate Insurance Policy

Release Detection Monitoring (tanks)


HELP!

Summary of Options

Common

- Automatic Tank Gauging
- Interstitial Monitoring

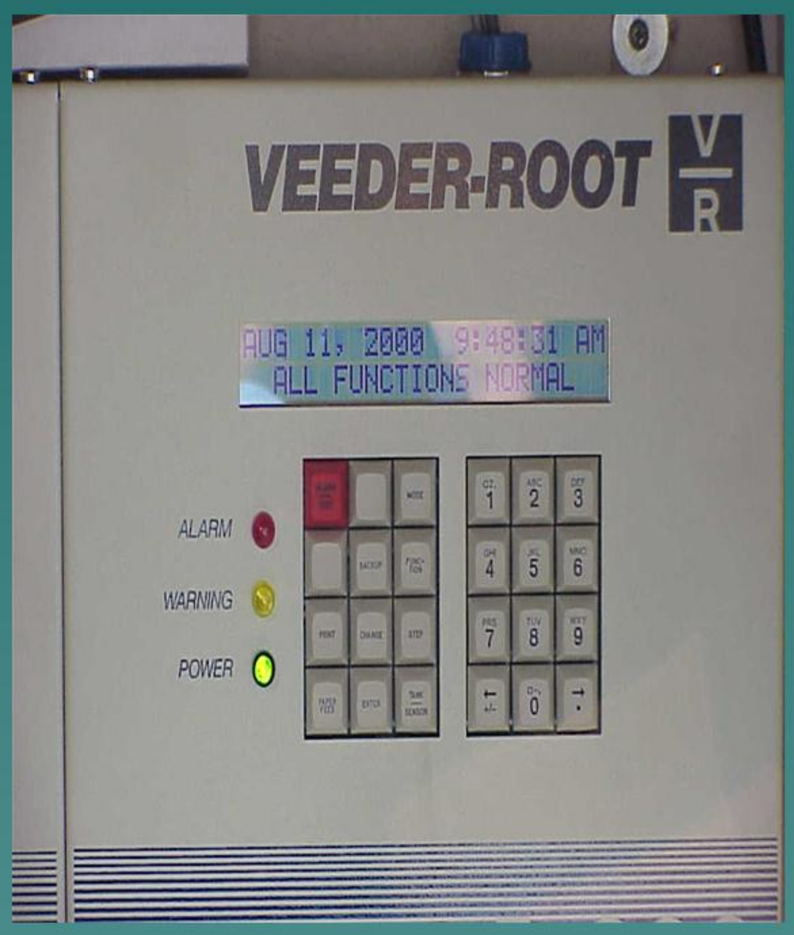
Less Common

- Inventory Control and Tightness Testing
- Statistical Inventory Reconciliation

Uncommon

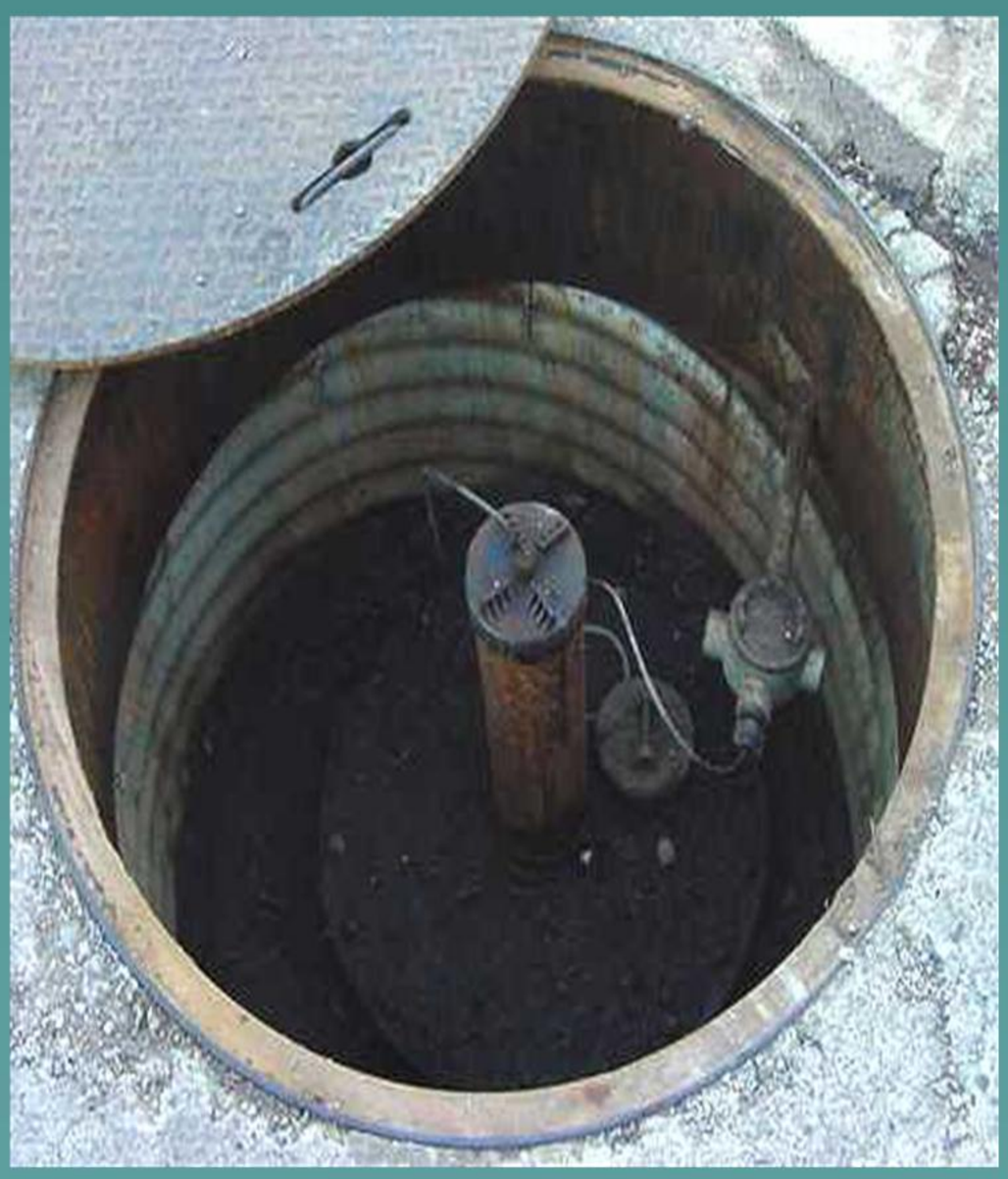
- Manual Tank Gauging
- Soil Vapor Monitoring
- Groundwater Monitoring

Automatic Tank Gauging



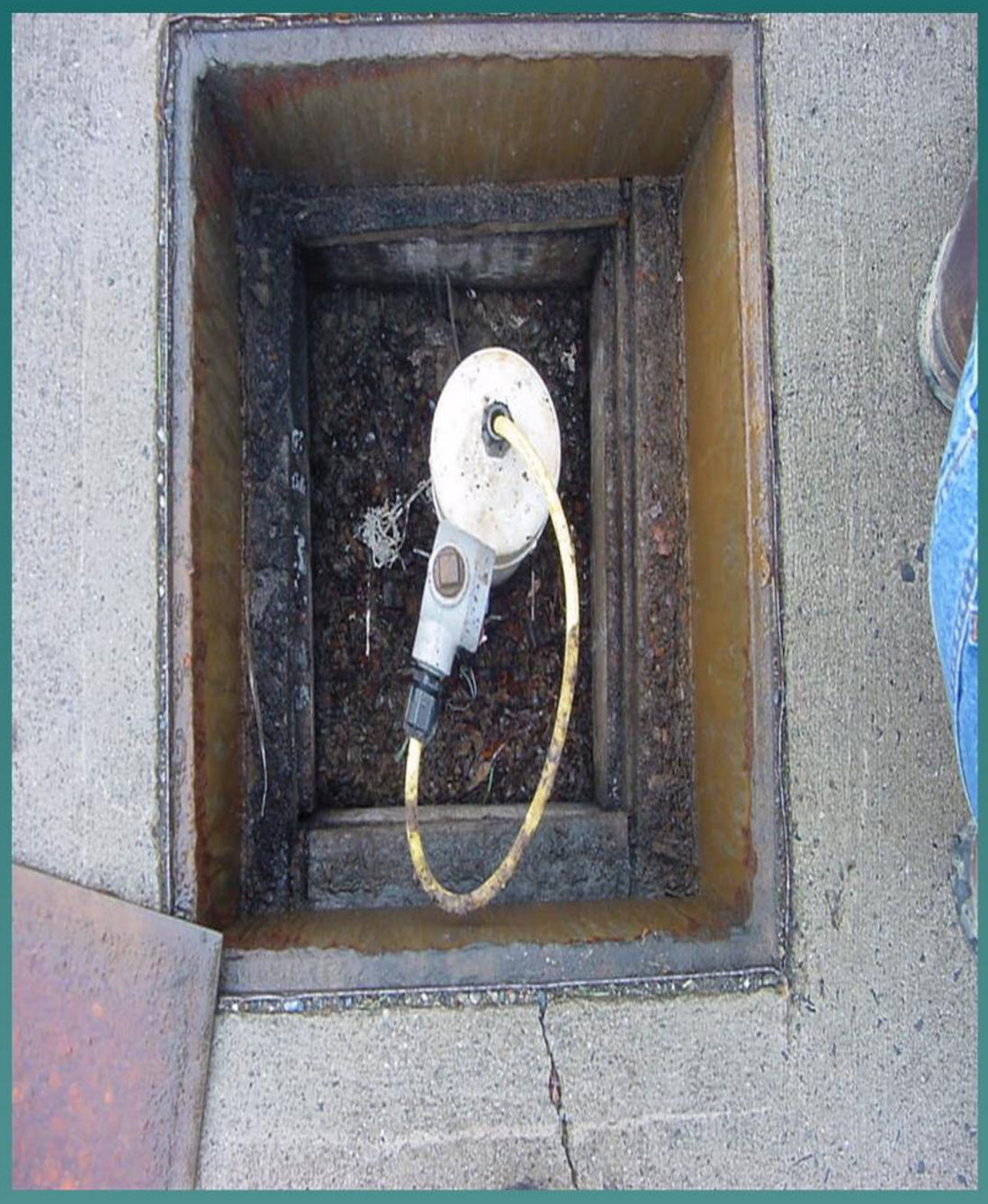
Find the Tank Gauge

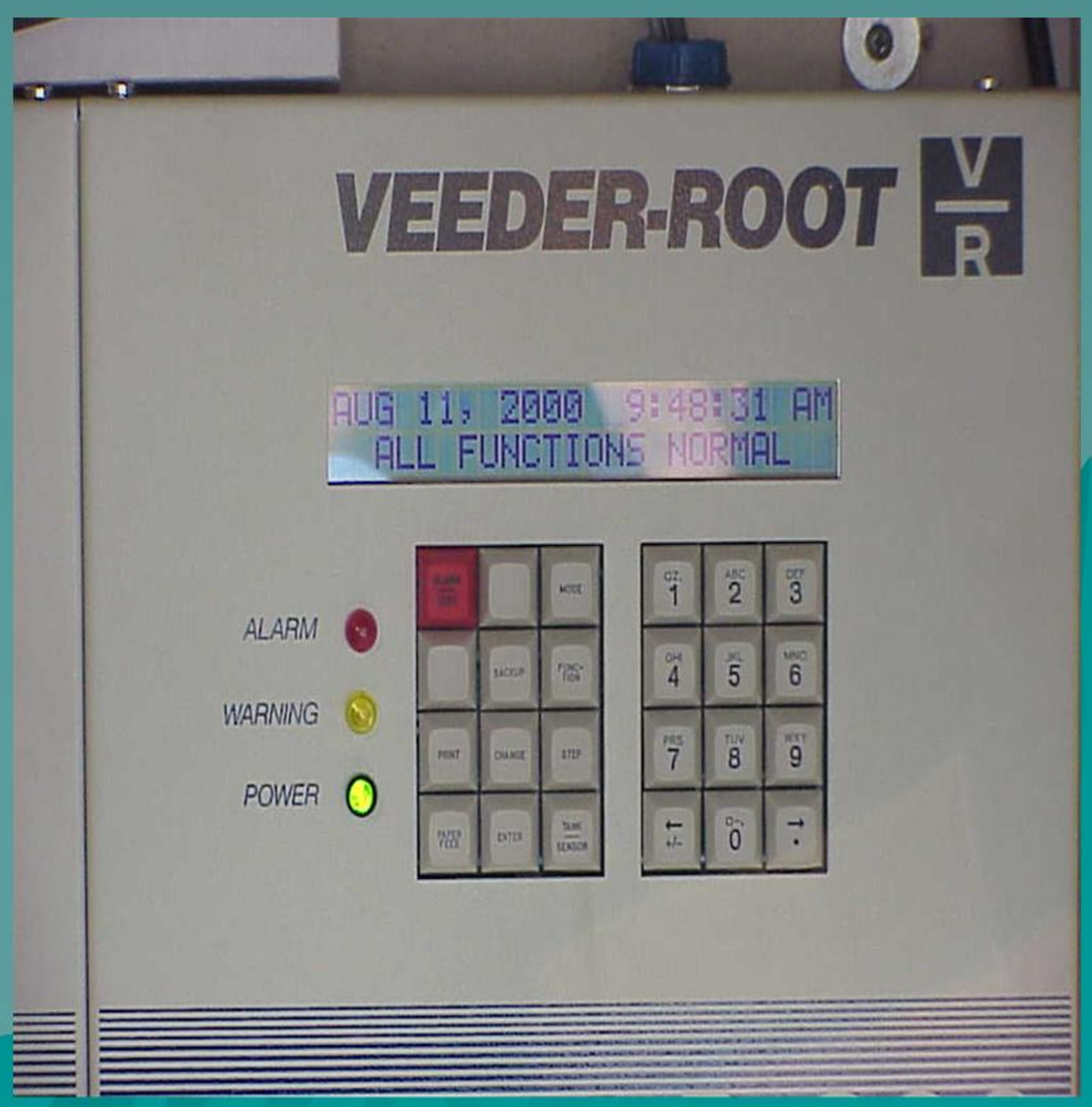
ATG Probes



Interstitial Monitoring

- Double walled tanks only
- Can be continuous or every thirty days
- Annular Sensors (liquid only) or sticking
- Location commonly depends on construction of the tank
- Sensors connect to an ATG panel
- Liquid Status (hit function button until you see that)





- Facility must have Sensors Normal
- No Alarms

Pressurized Piping

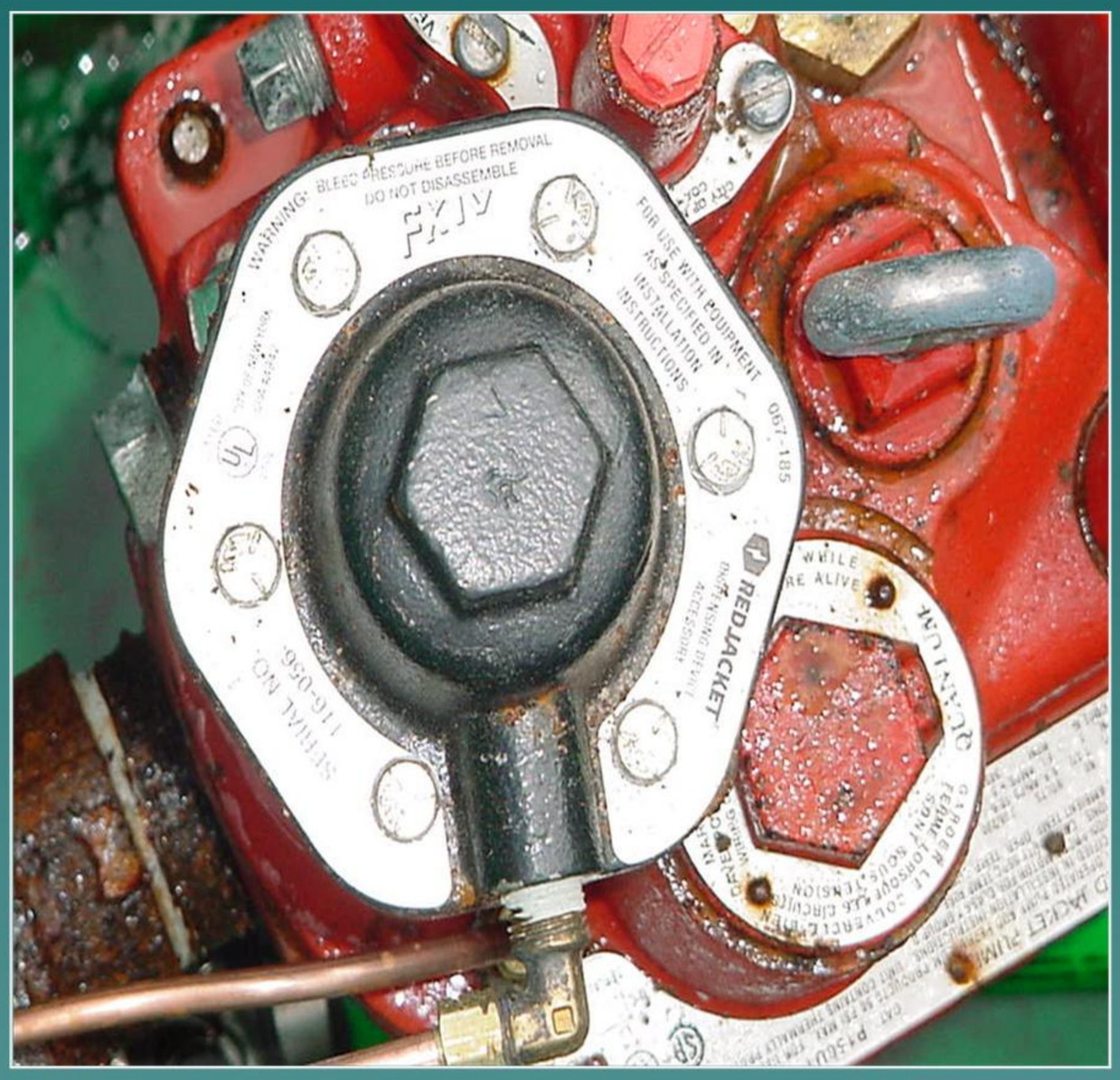
- Greater/faster dispensing ability (more dispensers, more customer volume)
- Piping is always product bearing and is always pressurized (greater pressure when turbine turns on).
- Monitoring requirements: some form of monthly monitoring or an ANNUAL test.
- Also, a Line Leak Detector is required to be installed and tested annually.
- Mostly commercial facilities

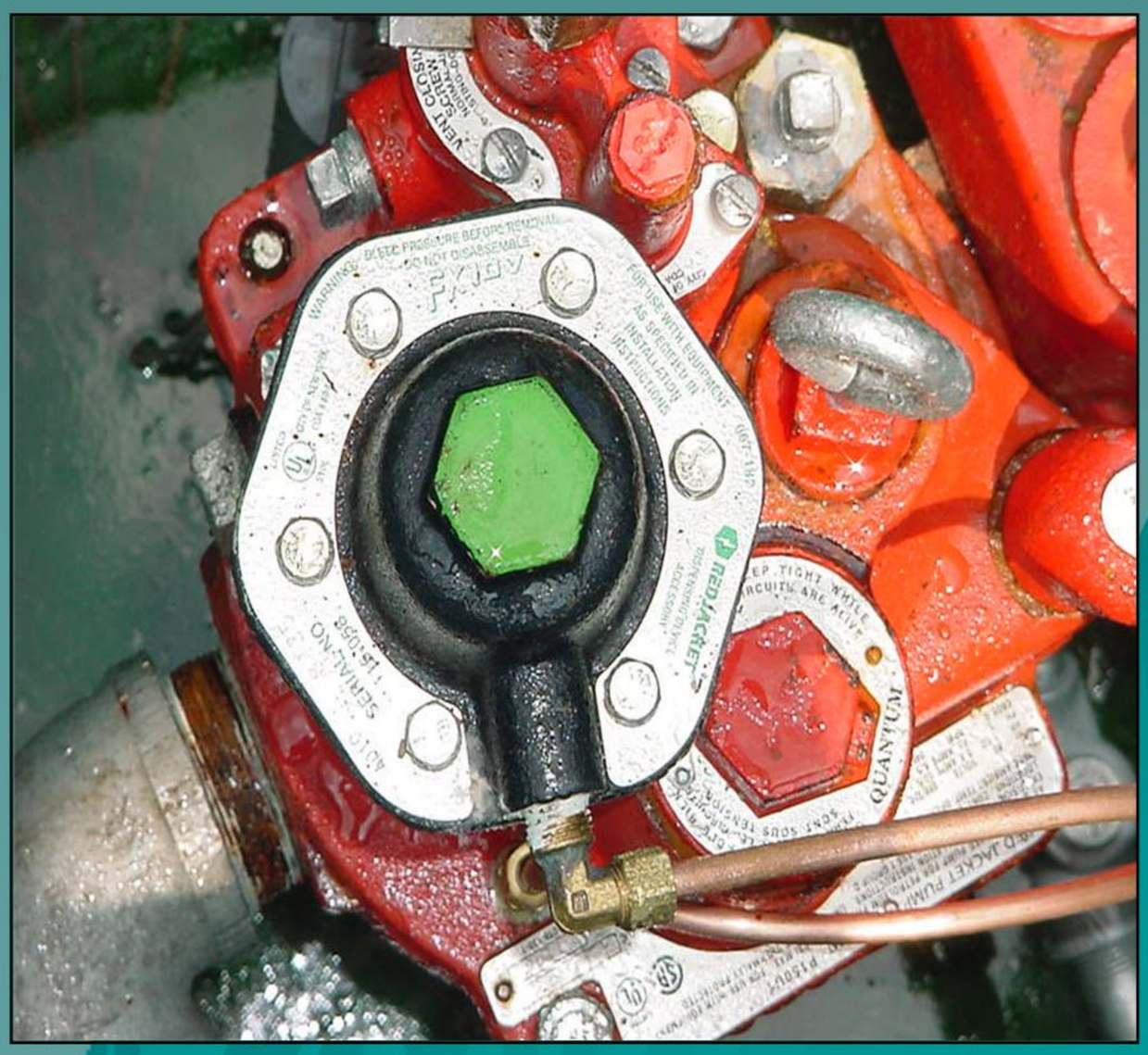

03/15/2007 11:40


01/10/2007 11:45

Automatic Line Leak Detectors

- Must be tested annually per manufacturer's specifications
- Plugged into the Submersible Turbine Pump (STP)
- Test for 3gph leak
- Required for ALL pressurized piping





Petro Tite Line Testing


KLOTH

Interstitial

- Product tight secondary containment
- Double wall piping only
- Any test boots MUST be loose or open
- Liquid or discriminating sensors fixed to the bottom of the sump

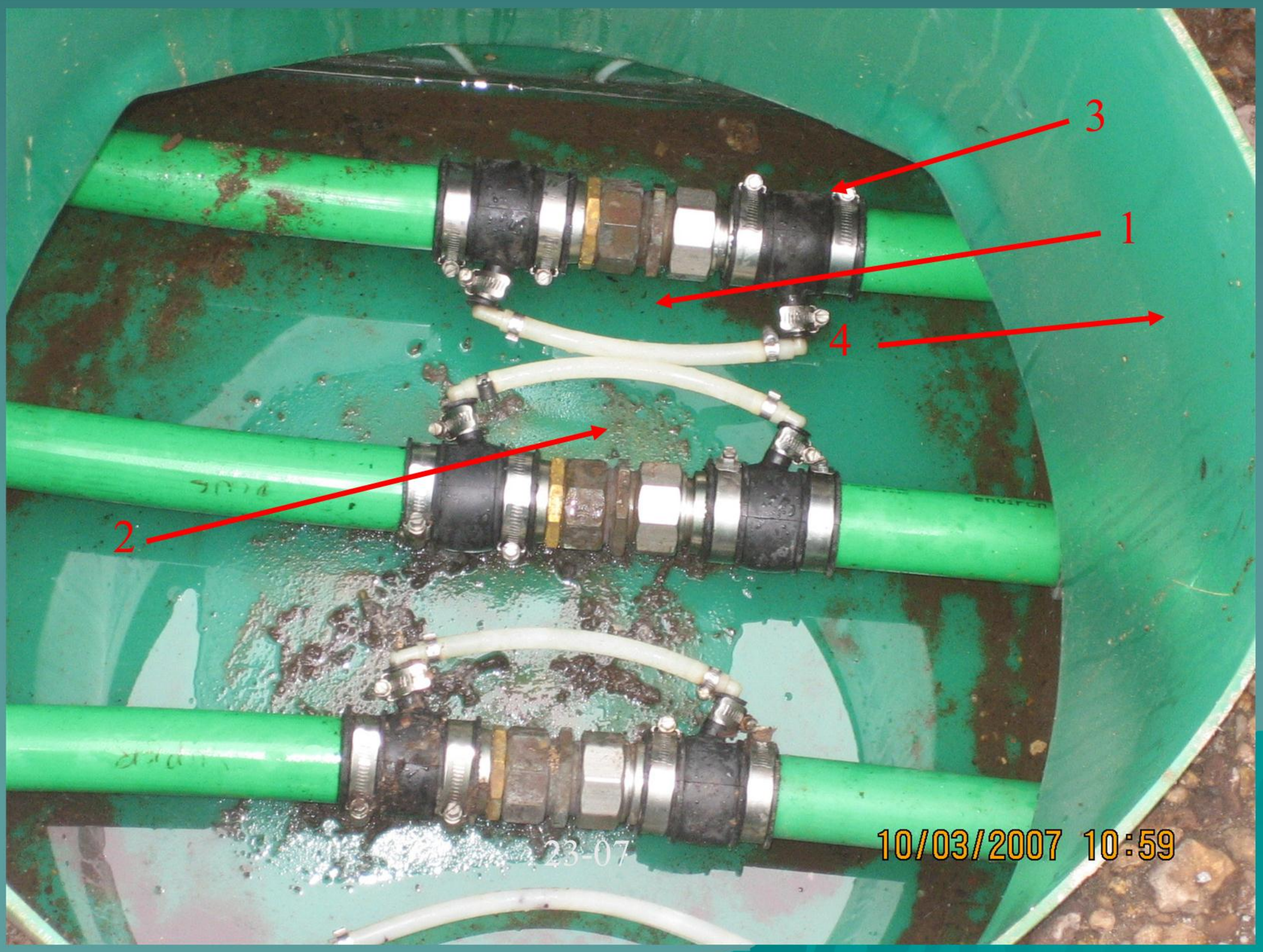
Interstitial Monitoring

This STP sump is located at a marina in Cape May. The purpose of the twin turbine installation is to service multiple dispensers at the dock area. The lines are double-wall Geoflex®. Also note that the tank system is manifolded to another diesel UST located adjacent to the photographed UST. This is evidenced by the manifold line (1). **Inspection Significance: The method of line-leak detection can not be determined since no sump sensors are present. The owner or operator must document what monthly method of line-leak detection is being used. Also note that neither turbine has the required automatic line-leak detectors [plugged LLD port (2)] to meet the 3 gph leak rate for large releases. An NOV was issued for failure to perform required line-leak detection.**

Huh?

It Ain’t Kool-Aid!

The jumpers (1) are used to connect the interstitial spaces of double wall flex piping. The connectors (2) are single wall which prevent interstitial monitoring of the entire piping run (product can not transfer from one piping section to the next). The test boots (3) are tight, but fluid can transfer to the interstitial space by means of the jumpers (Remember: the product is under at least 10 - 12 psi). In this picture, interstitial monitoring could be performed without the jumpers if a liquid sensor was located in the transition sump (4), however the test boots must be loose to allow product to enter the containment sump if liquid sensors are used.



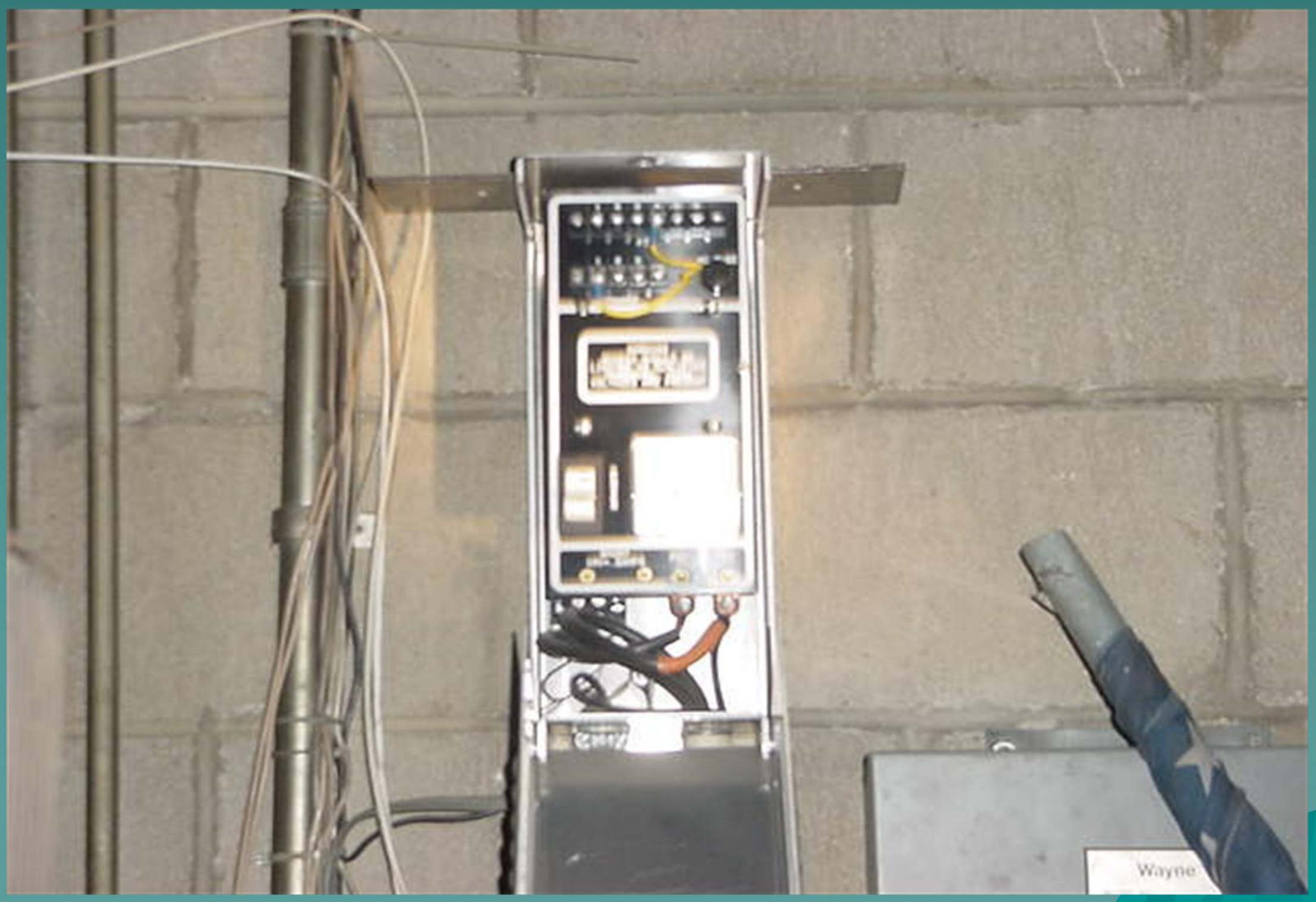
This is a picture of double wall flex piping (1) in a dispenser sump (2). The stainless steel riser (3) connects to the dispenser. Since the interstitial does not carry across the single wall metal fittings (4), jumpers (5) are required to allow monitoring of the interstitial space of the entire piping run. If jumpers are not used, then there must be a liquid sensor present in each dispenser sump to be in compliance with **interstitial monitoring**. **Remember: if a liquid sensor is present, the test boots must be loose.**

Cathodic Protection

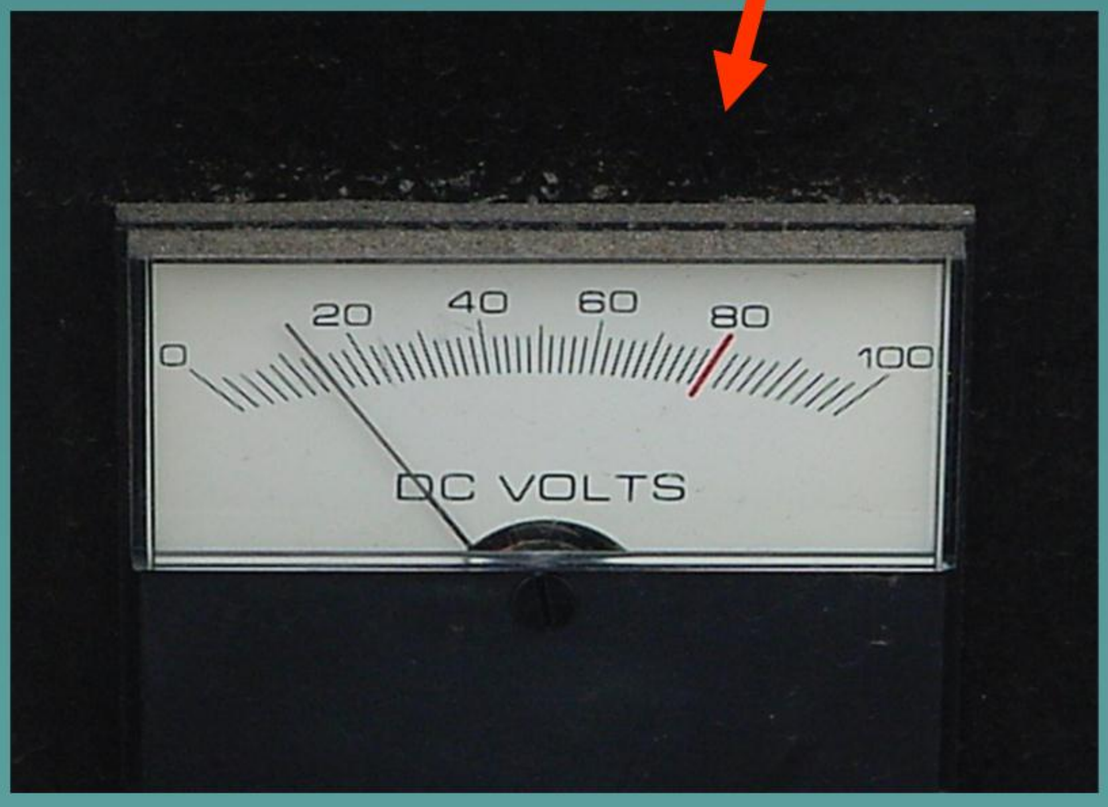
An **sti-P$_3$** tank (sti = Steel Tank Institute). All sti-P$_3$ tanks of 10,000 gallons or less are shipped with anodes (1) attached to each end. The anodes, in part, protect the tank from corrosion. In addition, the 2-inch riser (2) indicates that this UST is double-wall and the riser is connected to the interstitial space.The riser provides an access point for monitoring of the interstitial space by either electronic sensors or by manual checks. Not as apparent are the two additional methods of corrosion protection which are the outer coating and the dielectric bushings (3) where the system piping will be connected to the UST. When the UST is installed, a cathodic protection test port (PP4) with a test wire should be installed at ground surface to be able to conduct a corrosion test of the UST every 3 years. *See definitions: dielectric, sti-P$_3$, interstitial, PP4 test port.*

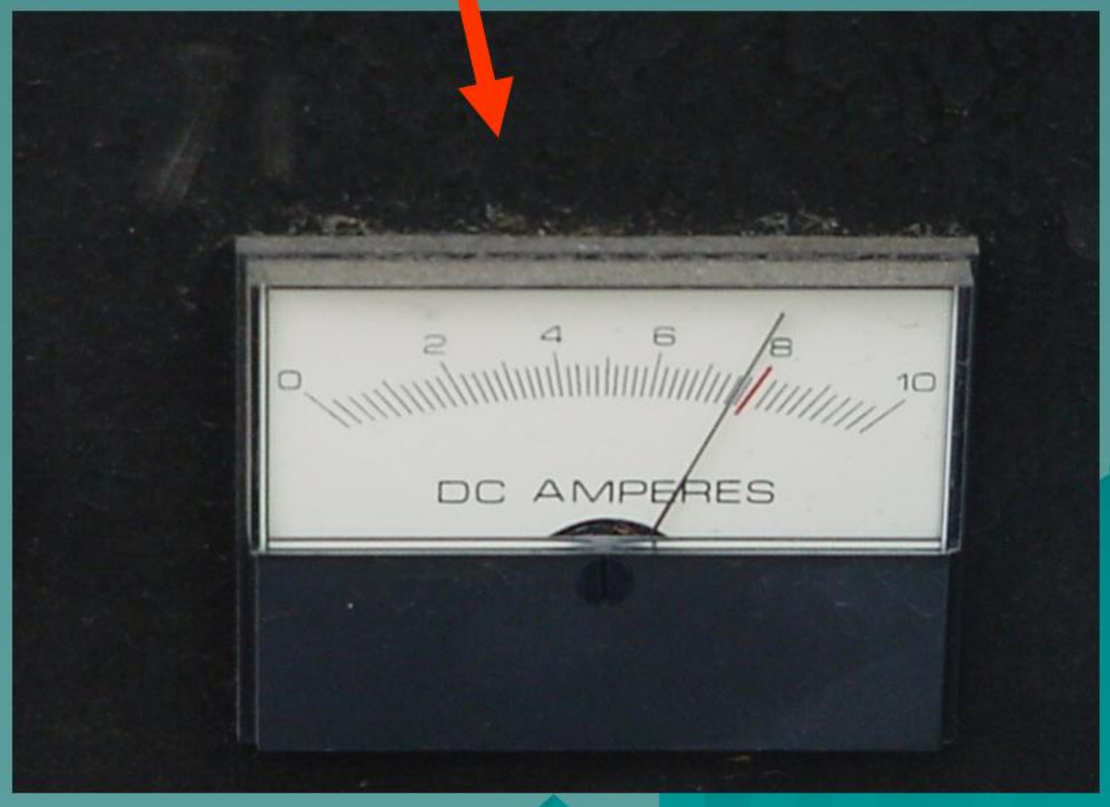
A rectifier for an impressed cathodic system. The rectifier converts alternating current (AC) to direct current (DC) which, through buried wires and cathodes, is introduced to the soil around the tank field and/or product lines. This current protects the steel tanks and lines from corrosion. Please refer to the section concerning cathodic testing. **Inspection Significance: Open the cover and determine if the system is running. Ask the owner or operator to verify that the rectifier is operating and to present documentation that its operation has been checked every 60 days.** *See definitions: impressed system, corrosion and rectifier.*

The cover on this rectifier has been opened for inspection. Be careful when opening a panel because 120 volt lines are present. The unit should be opened to confirm that it is turned on. This can be verified by an illuminated pilot light or readings above zero on the gauges (if present). **Inspection Significance: The panel must be inspected and verified that it is operating by the owner or operator every 60 days. In addition, the system (cathodes and wiring) are required to be tested every three years (a cathodic test). The owner or operator should have records of the 60-day check as well as the results of the 3-year cathodic test. Please refer to the section concerning cathodic testing.** *See definitions: impressed system, corrosion and rectifier.*



This rectifier contains both an ampmeter and voltmeter. To verify that the rectifier panel is on, these gauges should have values above zero. The readings do not tell you that the system is protecting the tanks and lines, it only indicates that the unit is operating. *See definitions: impressed system, corrosion and rectifier.*



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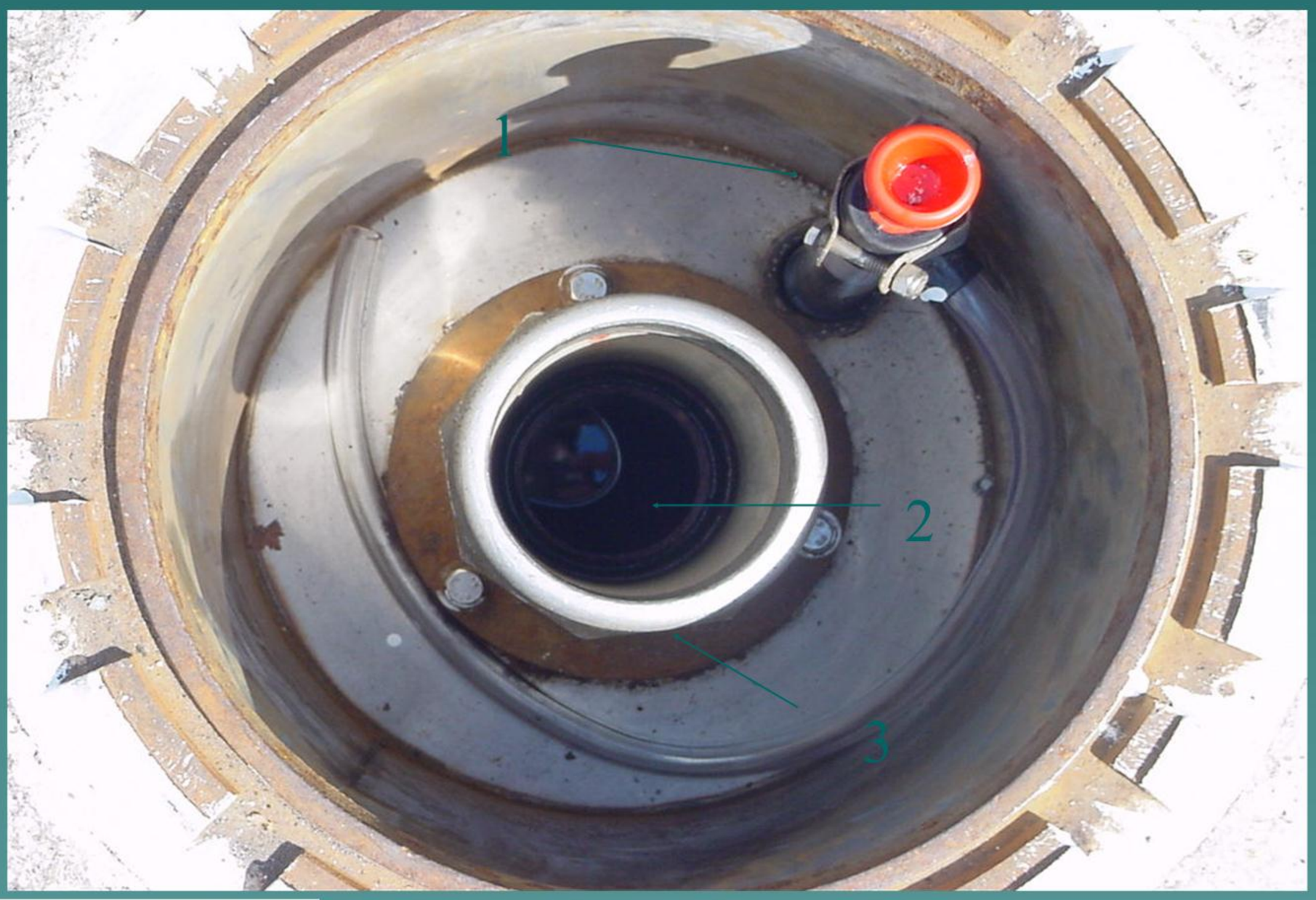
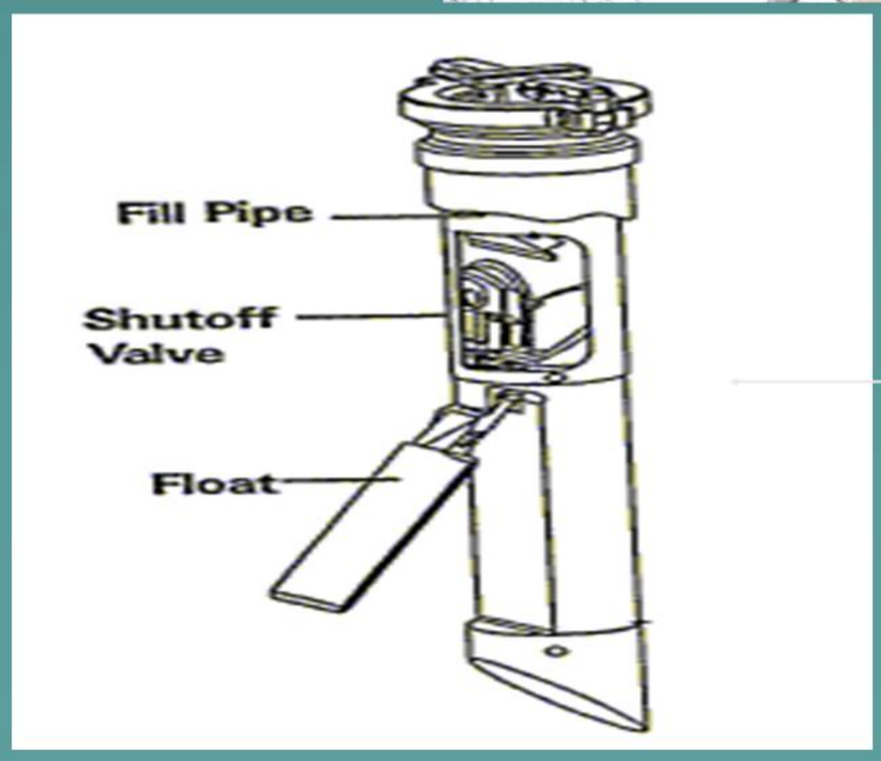
MODEL 6-B

Spill and Overfill

A product tight spill bucket. A manual pump (1) is used to pump water or product out of the spill bucket. An in-tank float (2) is present in the drop tube (3). The float (2) closes the drop tube when the tank is filled to 95% of its capacity. Item (4) is a diagram and photograph of the in-tank float valve contained within the drop tube. **Inspection Significance: This UST is equipped with the required spill prevention (spill bucket) and has a method of overfill prevention (float valve).** *See definitions: spill bucket, overfill protection.*





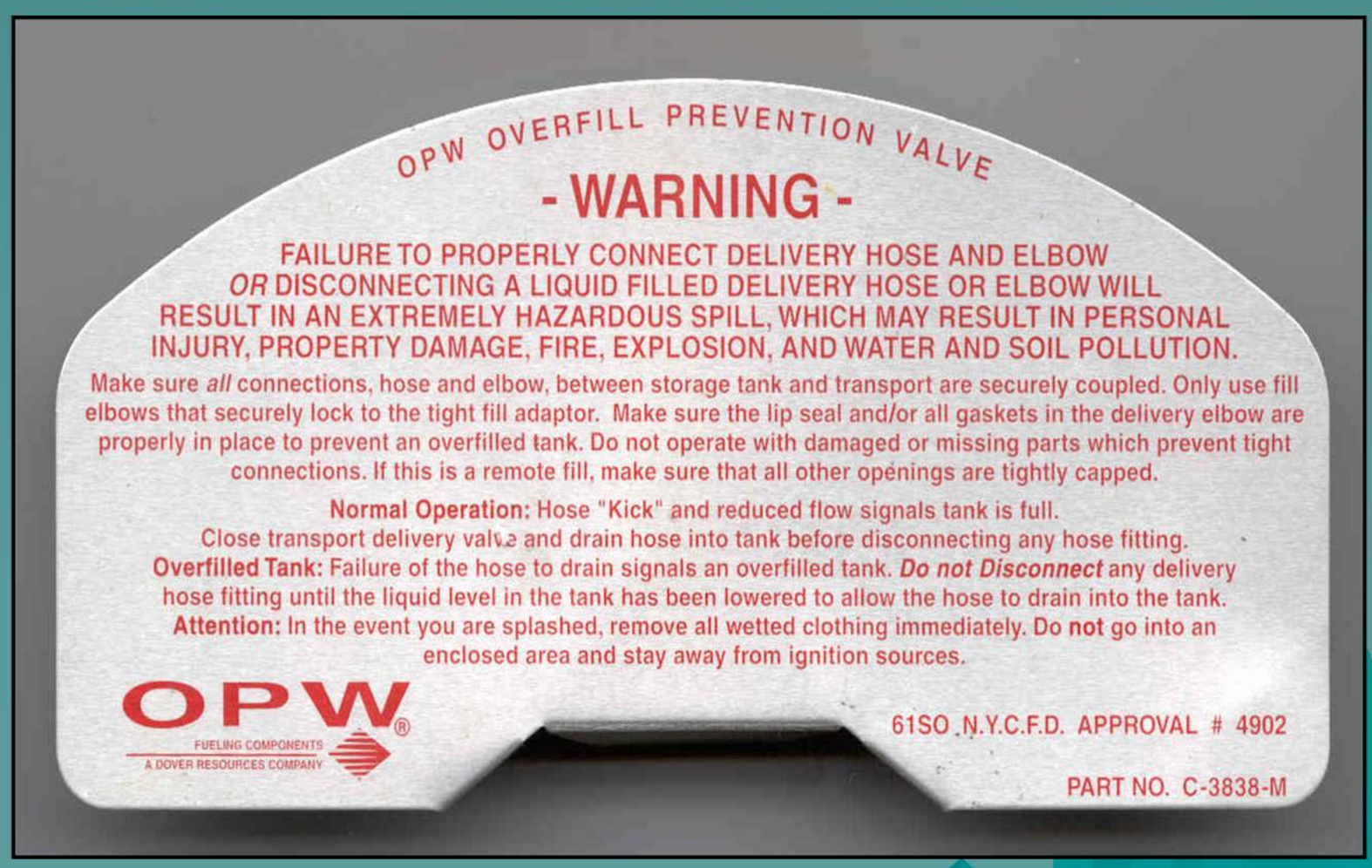
4

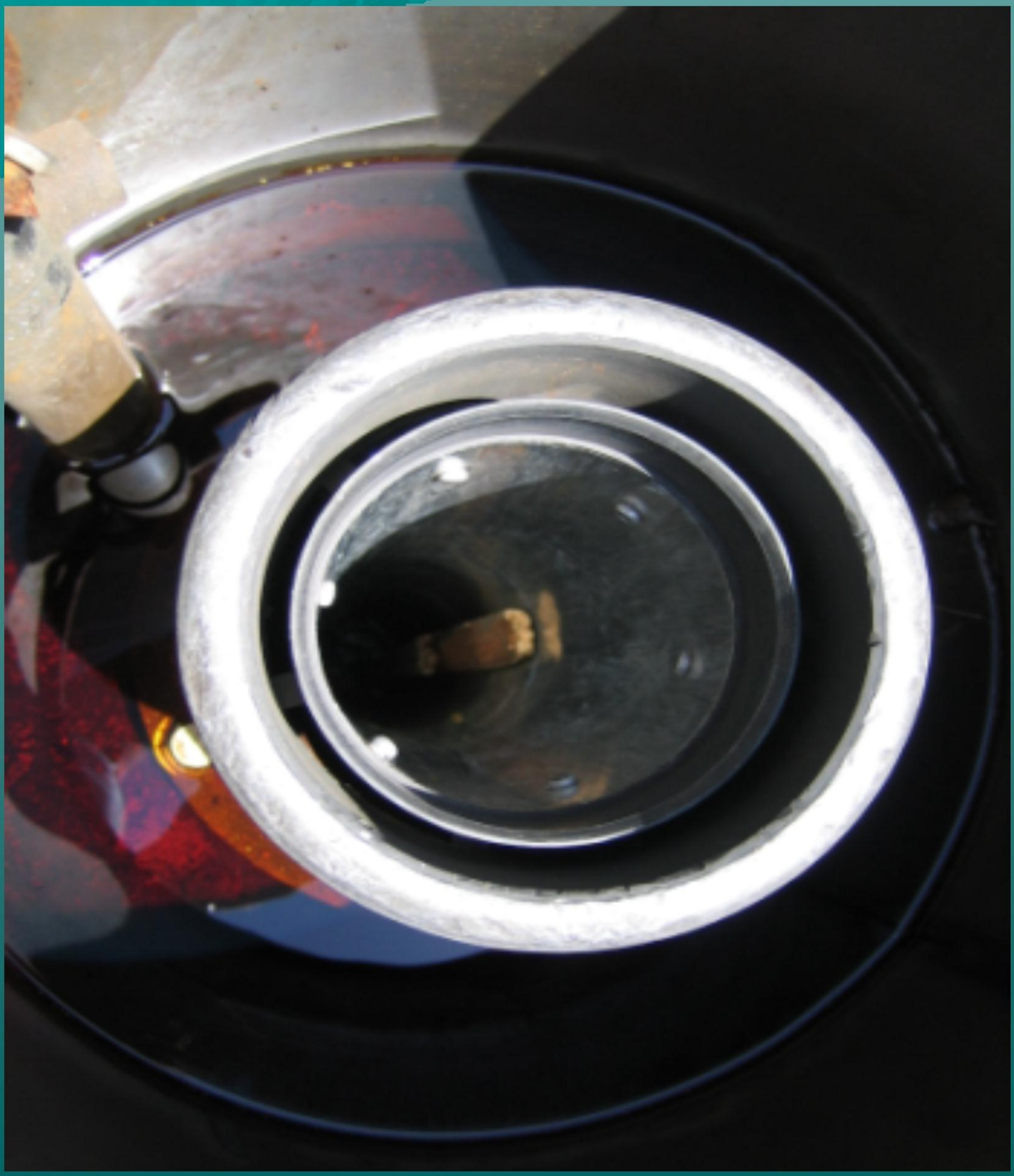
This unit, which should be located outside the building and near the tank field, contains a red light (1) and a horn (2). The unit is connected to the ATG panel and should give a visual and audible warning when the UST if filled to 95% of its capacity. The bell (3) in the inset photograph is another form of an alarm that can be used for overfill compliance. **Inspection significance: An alarm must be located in view or hearing of the delivery driver to serve as a warning to prevent overfill of the UST. If this is the method that the owner or operator is using for overfill protection, it must be located within view of the driver. If it is not within sight or hearing of the tank field, the owner or operator should be cited for a lack of overfill protection.** *See definitions: ATG and overfill prevention*

This is a coaxial drop tube that also includes a method of overfill protection as well as being one of two methods of Stage I vapor recovery. The inner pipe (1) conducts fuel from the tanker to the UST. The vapors return to the truck through the space between the inner and outer pipe (2). The warning labels (3) indicate that the coaxial is made by OPW and also contains an in-tank float valve that prevents over filling the tank. Item (4) is a photograph of the in tank float valve contained within the drop tube.
Inspection Significance: Verify the presence of the float valve by looking down the drop tube with an intrinsically safe flashlight. The presence of the coaxial drop tube and the warning label do not guarantee that an in-tank float (overfill protection) is present. If no float is present, verify what method of overfill is used for the UST. *See definitions: Stage I, co-axial and overfill protection.*

4

3





Overfill ball float commonly referred to as a 90% flow restrictor. This device is located in the UST and is connected to the vent line which is located just above the top of the UST. As product is introduced into the UST and it reaches the ball (1) at the bottom of the device, the ball floats on top of the product. When the ball reaches the end of the sub (2), it restricts the air flow out of the UST through the vent line. At this point, the UST is 90% full. This restriction causes a significant slowdown of product delivery into the UST signaling to the delivery person to shut off the valves on the delivery truck to avoid an overfill. Because the UST is only 90% full, this allows the product remaining in the delivery hose to drain into the UST without overfilling the tank. The cap (3) is typically what is seen under a small cover at the tank field for this type of overfill protection. **Inspection Significance: This type of overfill protection should not be used for suction systems, systems with remote fills or systems that receive deliveries under pressure. Since the ball and sub are located within the tank, the cap (3) must be located along the center line of the tank to indicate the presence of a 90% flow restrictor.** *See definitions: Overfill prevention.*

TANK CONSTRUCTION


XERXES

UL 1746?

Interstitial Space Investigations

VEEDER-ROO

AUG 29, 2013 09:48:49 AM
ALL FUNCTIONS NORMAL

ALARM

NING

ALARM TEST
MUTE
BACKUP
FUNCTION
QZ. 1
ABC 2
DEF 3
GHI 4
JKL 5
MNO 6
PRS
TUV
WXY

Conditions

- Double Wall Tank
- Construction - Steel or Fiberglass Coated Steel or other composite construction
- Riser must be straight
- No Fiberglass Tanks (Round Risers)


4
160
3
159
2
158
1
157
13
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152


2
2


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MUSTARD YELLOW PASTE TURNS RED UPON CONTACT WITH WATER
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