



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

Welcome to the 2014 IUM Inspector Seminar



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Comments?



Let's start with:

Administrative Information



RECEIVING CREDIT FOR TRAINING

- ✓ **Sign in upon arrival in the classroom**
- ✓ **If asked please present credentials**
 - **Certification Card**
 - **Photo ID**
- ✓ **Remain for the entire training session**
- ✓ **Obtain your training certificate**

Staffing Updates in Central Office

- **Kris Shiffer** - Environmental Group Manager - Supervisor of the Compliance and Enforcement Section (AST and UST Units)
- **Tim Slack** - Environmental Protection Compliance Specialist - Compliance and Enforcement Section (AST and UST Units)
- **Randy Martin** - Supervisor of the UST Unit
- **Vacant** - Environmental Protection Compliance Specialist – UST Unit

Staffing Updates in Central Office

- **Ben Sakmar** - Solid Waste Specialist -
Responsible for Region 1 (SE)
- **Kyle Wylezik** – Solid Waste Specialist- Responsible for
Regions 3 & 5 (SC & SW)
- **Joshua Blanco** - Environmental Trainee-
Responsible for Region 2, 4, 6 (NE, NC, NW)

▶ Department Contact Information

PA DEP

Rachel Carson State Office Building

400 Market Street

P.O. Box 8763

Harrisburg, PA 17105-8763

Phone: 1-800-42-TANKS (in PA)

717-772-5599

FAX: 717-772-5598

Web address: www.dep.state.pa.us

Keyword: “Storage Tanks”

Why are we here?

- **§ 245.114(c) An applicant shall meet the following minimum training requirements...for renewal of tank handling certification.**

➤ Why are we here?

For tank handlers:

One (1) of the training requirements is attendance at any DEP-provided administrative training session. You must attend within the 24 month period preceding your submission of an application requesting renewal of tank handling certification.

2007 REGULATION CHANGES

§ 245.1 – Definitions

- **Re-regulates large aboveground heating oil tanks greater than 30,000 gallons capacity where the product is consumed on the premises where stored**
- **Registration of existing tanks was to have been accomplished by January 9, 2008**
- **Requires most combination of tanks (manifold systems) to be registered separately**

2007 REGULATION CHANGES

§ 245.1 – Definitions

Regulated substances now include:

- **Biodiesel**
- **Synthetic fuels and fluids (motor oil)**
- **Ethanol intended for blending with motor fuel**
- **Several non-petroleum oils**

New Alternative Fuels Factsheet



UNDERGROUND STORAGE TANK (UST) EQUIPMENT COMPATIBILITY & STORAGE OF BIOFUELS AND BIOFUEL BLENDS

Federal and Pennsylvania release prevention laws require that regulated underground storage tank (UST) systems be constructed or lined with material that is compatible with the substance stored. Compatibility, in this sense, refers to the ability of both the storage tank system components and the stored substance to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system.

Because the physical and chemical properties inherent to biofuels, such as ethanol and biodiesel, differ from their conventional petroleum fuel counterparts, some UST equipment and components that are compatible with conventional petroleum fuels are not compatible with biofuels or biofuel blends. Higher biofuel blends – such as gasoline-ethanol blends containing greater than 10 percent ethanol, and biodiesel-blended fuel containing greater than five percent biodiesel – can degrade many non-metallic materials, such as natural rubber, polyurethane, older adhesives, certain elastomers and polymers used in flex piping, bushings, gaskets, meters and filters. They can also degrade soft metals, such as zinc, brass, aluminum, lead and copper.

Whether a newly installed UST system or an existing UST system that has been converted to store a different substance, the components of the UST system must satisfy the compatibility requirement before receiving delivery of product into the UST. The following UST system components should be compatible with the substance stored:

- Tank or internal tank lining
- Spill buckets and containment sumps
- Overfill prevention equipment
- Drop tube
- Fill and riser caps
- Line leak detector
- Release detection floats, sensors and probes
- Piping and flexible connectors
- Sealants (including pipe dope and thread sealant)
- Fittings, gaskets, o-rings, bushings, couplings and boots
- Suction pump and components
- Submersible turbine pump and components
- Product shear valve
- Dispensers and hanging hardware

Owners and operators of USTs storing ethanol blends may use the following code to comply with the compatibility requirement:

- American Petroleum Institute Publication 1626 (API RP 1626), "Storing and Handling Ethanol and Gasoline-Ethanol blends at Distribution Terminals and Service Stations."

There are a number of resources available to assist UST owners and operators with determining equipment compatibility with biofuels and biofuel blends, including:

- The Environmental Protection Agency's Office of Underground Storage Tanks maintains information about biofuels and links to resources relevant to storing ethanol and biodiesel in USTs: www.epa.gov/oust/altfuels/biofuels.htm.
- The Petroleum Equipment Institute maintains an online database that contains information on equipment compatibility with ethanol-blended and biodiesel-blended fuels. Listings include product specifications and links to manufacturers: <http://resource.pei.org/altfuels/guide.asp>.
- The Steel Tank Institute maintains information about biofuels storage and links to tank manufacturers' statements of compatibility: www.steeletank.com.

In addition to the material compatibility of UST equipment with the substance stored, the functional capability of equipment used to meet the UST system operating requirements – such as overfill prevention and release detection equipment – may be dependent on the substance stored; as documented by equipment manufacturers' product literature and performance claims, or by third-party evaluations.

The Department of Environmental Protection (DEP) recommends that UST owners and operators follow the below checklist when installing a new UST system, or converting an existing UST system, for storage of gasoline-ethanol blends containing greater than 10 percent ethanol, or biodiesel-blended fuel containing greater than five percent biodiesel.

New Alternative Fuels Factsheet

Before Biofuel is Transferred to the Tank

- Determine storage tank system equipment compatibility with the product to be stored. Complete DEP form 2630-FM-BECB0608, *Alternative Fuel Storage Tank Installation/Conversion Form*.
- Check for water in the tank. No level of water is acceptable for gasoline-ethanol blends due to the possibility of phase separation.
- All visible fittings and connections at the top of the tank are tight (no vapors escape and no water enters).
- The appropriate vent top (pressure vacuum/updraft) is present for the type of product being stored.
- Stage I Vapor Recovery is installed and operational, if required.
- Sump and spill containment covers prevent water from entering.
- Water infiltration problems fixed if necessary.
- The tank has been cleaned of all water and sediment.
- Fill Labeling: identify the fill port and paint access covers according to API RP 1637.
- Dispenser Labeling: label dispenser in compliance with Federal and State regulations.
- New UST installation:** Within 30 days after installation, and prior to product delivery, submit to DEP a completed permit application 2630-PM-BECB0514, *Storage Tank Registration/Permit Application Form*, to register the UST and apply for an operating permit. Include the completed *Alternative Fuel Storage Tank Installation/Conversion Form*.

First Delivery

- Tank filled to 80 percent capacity as recommended by the Renewable Fuels Association (RFA) and kept as full as possible for seven to 10 days.
- Have dispenser calibrated prior to any retail sales.
- Conduct a precision test of the tank system (0.1 gph leak rate) with automatic tank gauge (ATG) system within seven days after tank is filled to make sure the UST system is tight and the leak detection equipment is operating properly. Investigate any "Fail" results according to the suspected release investigation requirements.
- Test for water (use alcohol compatible paste if gauging a UST storing an ethanol blend) at the beginning of each shift for the first 48 hours after delivery (RFA). If there is water in the tank – remove it, find out how it got there, and fix it so it does not occur again.
- Existing UST conversion:** Within 30 days of changing the substance stored in the UST, submit to DEP a completed form 2630-FM-BECB0607, *Storage Tank Registration Amendment Form*, to amend the UST registration information. Include the completed *Alternative Fuel Storage Tank Installation/Conversion Form*.

Ongoing Maintenance

- Check regularly for water. No level of water is acceptable for gasoline-ethanol blends.
- If product seems to pump slowly, check and replace filters.
- Calibrate the dispenser meter at the time of conversion and two weeks after conversion to verify meter accuracy. Particulate materials may cause excessive wear of the meter, which would require more frequent calibration (API RP 1626).
- Conduct daily, visual inspections of the dispenser and dispenser sump (secondary containment) beneath the dispenser (if one is installed) and perform periodic walkthrough inspections.

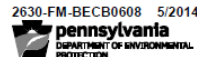
For additional information on Pennsylvania's Storage Tank Program or to obtain forms, contact:

Central Office, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762, 717-772-5599, 800-42-TANKS (in PA only)

For more information, visit www.dep.state.pa.us, keyword: Storage Tanks.

Alternative Fuel Storage Tank Installation / Conversion Form

- All USTs, and ASTs used for motor vehicle fueling, storing:
 - Gasoline/alcohol blends greater than 10% alcohol (E15, E85)
 - Biodiesel blends greater than 5% biodiesel (B10, B20)
- Ensures compatibility of all system components



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

ALTERNATIVE FUEL STORAGE TANK INSTALLATION/CONVERSION FORM

FOR DEP USE ONLY
Reviewer: _____
Date: _____

This form is to be completed and signed by the storage tank owner (or owner's representative) and DEP certified tank installer when installing a new storage tank system, or when converting an existing storage tank system, for storage of alternative fuel blends, such as gasoline-ethanol blends containing greater than 10% alternative fuel, or biodiesel or biodiesel blended fuel containing greater than 5% biodiesel. For aboveground storage tank systems, this form only applies to tank systems used for motor vehicle fueling. See the bottom of page 2 for the form submittal and recordkeeping requirements.

DEP recommends that UST owners and operators follow the procedural checklist provided in the Storage Tank Program Fact Sheet 2630-FS-DEP447 *Underground Storage Tank (UST) Equipment Compatibility & Storage of Biofuels and Biofuel Blends*.

I. FACILITY INFORMATION – Type or print (in ink) all items. When completing this form for a new facility, omit the Facility ID.			
Facility ID#:		Facility Name:	
Facility Street Address:			
Facility Telephone:		County:	Municipality:
II (a). STORAGE TANK & PIPING INFORMATION – Sections II(a) and II(b) should be completed in full by the storage tank system owner and DEP certified tank installer. Type or print (in ink) all items. Provide the model/brand and equipment manufacturer for each storage tank system component. Write "NA" and check the corresponding box if the tank/piping/dispenser system does not have the component. Write "UNK" if the model/brand or equipment manufacturer cannot be determined. Check the appropriate box(es) to indicate whether or not the component has been confirmed by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratories (UL), and/or has been verified by the component manufacturer for use with the substance stored. Only check "No" if the component is neither NRTL listed nor manufacturer verified. Only one storage tank system per form may be listed. DEP will not approve an operating permit for an alternative fuel storage tank system with "unknown" components, or components that are neither NRTL listed nor manufacturer verified for use with the substance stored, unless a PA licensed professional engineer (P.E.) who has knowledge, experience, and training in materials science determines in his/her professional judgment that those components satisfy the compatibility requirements listed in the Storage Tank Regulations in 25 Pa Code, Chapter 245. The P.E. must sign the certifying statement in Section IV. DEP may request documentation supporting the P.E. determination.			
Tank Orientation: <input type="checkbox"/> Underground <input type="checkbox"/> Aboveground		Alternative Fuel Blend (>10%) Stored	
Capacity (gallons): _____ Date Installed: _____		<input type="checkbox"/> E15 <input type="checkbox"/> E85 <input type="checkbox"/> Other _____	
<input type="checkbox"/> New Tank <input type="checkbox"/> Existing Tank → DEP Tank #: _____		Biodiesel Blend (>5% biodiesel) Stored	
		<input type="checkbox"/> B10 <input type="checkbox"/> B20 <input type="checkbox"/> Other _____	
Component	Model / Brand	Equipment Manufacturer	NRTL Listed or Manufacturer Verified for the Stored Fuel
Storage Tank			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Internal Tank Lining			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
ATG Probe, Float / Sensor			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Tank Interstitial Sensor			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Spill Bucket			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Drop Tube			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Overfill Auto Shut-off Valve			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Ball Float Valve			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Product Pipe Information: <input type="checkbox"/> New <input type="checkbox"/> Existing <input type="checkbox"/> Mixed (New & Existing)			
Product Pipe Configuration: <input type="checkbox"/> Single wall <input type="checkbox"/> Double wall			
Product Pipe			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA
Pipe Fitting / Valve Material			<input type="checkbox"/> Listed <input type="checkbox"/> Verified <input type="checkbox"/> No <input type="checkbox"/> NA



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subchapter A – General Provisions

§ 245.21 – Tank Handling Activities

- Tank handling activities shall be conducted by a certified installer

§ 245.31 – Tightness Testing

- Shall be conducted by a Department-certified UTT
- As of November 10, 2008 line testing requires UTT certification
- Testing method must be a current DEP-approved training course

▶ Subchapter A – General Provisions

UTT must provide written test results to the owner within 20 days of performing the test

The UTT performing the test must record individual and company certification numbers on the test results report given to the owner

- *If a tightness test fails CALL the DEP regional office serving the County where the facility is located.***
- *Mail the Notice of Contamination or Suspected Release to the regional office within 48 hours of performing the test AND attach a copy of the tightness test report.***

Subchapter B – Certification Program

§ 245.102 – Requirement for Certification

- (a) A person may not conduct tank handling or tightness testing activities unless that person holds a current installer certification issued by the Department for the applicable certification category as indicated in subsection 245.110 (relating to certification of installers)
- An inspector is not classified as a tank handler

Subchapter B – Certification Program

§ 245.104 – Application for *Initial* Installer or Inspector Certification

- ✓ Use current forms as provided by the Department
- ✓ Evidence that the applicant has met the prerequisites for certification – Experience, Training, Activities
- ✓ Initial training requirement met through the vendor list, out-of-state certification, industry certification/training
- ✓ A complete application shall be submitted no later than 60 days prior to the announced date of the certification examination

Subchapter B – Certification Program

STORAGE TANK INSTALLER AND INSPECTOR CERTIFICATION APPLICATION (Read the instructions before completing this application)

DATE		OFFICIAL USE ONLY	
Appl. Appr.	Appl. Denied	Application # _____	
_____	_____	Client ID # _____	
_____	_____	Employer ID # _____	
		Master Auth. # _____	
		Auth. ID# _____	
		Date Rec'd _____	

SECTION I – APPLICANT INFORMATION

Name _____ Last _____ First _____ MI _____ SSN _____

Home Address _____

City _____ State _____ Zip +4 _____

Municipality _____ County _____
(City, Boro, Twp)

Home Telephone (_____) _____ Cell Phone (_____) _____

Email Address _____



Subchapter B – Certification Program

File Edit Application Client Site Facility Compliance Fee Collection Bonding Views Reports Admin Complaints Help Window

Record / Verify Client - Role : APPL

Clients

Client Id 125107 Client Type INDIV Individual

Organization

Individual SMITH JOHN A

Search Name SMITH JOHN A

Browse by Name

Browse by AKA

General HQ Address Add'l Addresses AKAs Names

SSN XXX-XX-1234 EIN DUN DOB

Status ACTIN Active, Indiv Status Date

Resp Program WMHW WM Hazardous Waste

Created 02/18/1999 RCRIS BATCH 1

Updated

Verified No

Comment

Back Go To

Individual's Social Security Number.

Record: 1/1 <OSC>

Subchapter B – Certification Program

	Initial	Renewal		Delete
		Retest	Training	
INSTALLER CATEGORIES				
Underground				
UMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UMR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UTT _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Aboveground				
AMMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMNX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AFMX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AFR _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMEX _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACVL _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underground/Aboveground				
TL _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
INSPECTOR CATEGORIES				
Underground				
IUM _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Aboveground				
IAM _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
IAF _____	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Subchapter B – Certification Program

Aboveground

IAM _____ _____
IAF _____ _____

_____ <input type="checkbox"/> _____
_____ <input type="checkbox"/> _____

SECTION VI – APPLICANT’S CERTIFYING STATEMENT

I certify under penalty of law as provided in 18 PA C.S.A. §4904 (relating to unsworn falsification to authorities), that I am the applicant herein named, that I have received the safety training as provided for under §245.111(h) of the regulations, and that the information I have provided on this Application for Certification is true, accurate, and complete to the best of my knowledge and belief.

Signature of the Applicant (In Ink)

_____/_____/_____
Date

SECTION VII – EMPLOYER’S CERTIFYING STATEMENT

I certify under penalty of law as provided in 18 PA C.S.A. §4904 (relating to unsworn falsification to authorities), that I am an officer of the applicant’s employer. The applicant herein named has been provided with adequate safety training as provided for under §245.111(h) of the regulations. I further certify that the information provided on this Application for Certification is true, accurate, and complete to the best of my knowledge and belief.

Signature & Title of Company Officer (In Ink)

_____/_____/_____
Date

Subchapter B – Certification Program

Certification Amendment Form

Change or add
employer?

SECTION II – CURRENT EMPLOYER INFORMATION:

Federal Employer Tax Number (EIN) _____
Employment Start Date _____ Company Certification Number: _____
Employer Client ID _____ Company Type Code _____
Employer Name _____
Address _____
City _____ State _____ Zip+4 _____
County _____ Municipality _____
(City, Township, Borough)
Company Contact _____
Phone: (_____) _____ - _____ Ext _____ Fax: (_____) _____ - _____
Email _____

Are you Adding an Employer? Changing Employers? Deleting an Employer?

Previous Employer's Name _____ Date of change _____

SECTION III – MAILING INFORMATION:

Send correspondence to (Choose One) Applicant's Home Address Employer's Address

If more than one employer, specify employer _____

Signature _____ Date _____

► Certification Examinations

§ 245.105 – Certification Examinations

- **Separate administrative and technical content for examinations**
- **Passing score 80 for administrative and each technical section**
- **Applicants have up to 1 year from the date of authorization to take the examination**
- **An applicant failing an examination is eligible to retake the examination for up to 1 year from the failed examination test date, but no later than 18 months from date of authorization.**

➤ Certification Examinations

The Certification Exam Process

- **Application reviewed (Experience, Education, Training, Attachments)**
- **Authorization letter and study materials sent to applicant at address designated on application (Home or Employer)**
- **DEP provides Plut Examination Service (PES) with names, addresses, list of authorized categories, & eligibility dates.**
- **PES notifies applicant of test dates and locations; provides registration forms & instructions. Exam fee \$75 per module.**

➤ Certification Examinations

The Certification Exam Process, continued...

- **Two weeks before the exam, PES provides DEP with a list of individuals who registered for the exam.**
- **The Certification Unit cross references the list with applicant names & authorizations; verifies accuracy; notifies PES it is ok to proceed.**
- **Plut Examination Service prints the examination forms.**
 - **At this point it is too late to schedule this examination.**
 - **PES refund and credit policy is in effect, and is clearly defined in the registration materials mailed by PES to all individuals authorized by DEP to sit for the exams.**

▶ Notable Changes to Certifications

- ***AFMX*** – Now permits the *modification of tank components* of an aboveground manufactured storage tank system. (ex: nozzle, manway, etc.)
- ***AMR*** – Individuals holding UMR certification may apply for AMR certification, and will have the choice of taking the AR or UR module.
 - If the individual holding UMR certification has passed the UMR exam within most recent 2 years, AMR will be granted upon application.
- ***TL*** - For purposes of corrosion protection, installation or repair of internal UST lining no longer permitted. A certified TL may evaluate the integrity of an internal UST lining or supervise the evaluation of the lining.

Inspector Qualifications

§ 245.113 – Certified Inspector Experience & Qualifications

- **IAM - API 653 Certification or STI inspector certification**
- **IAF - API 653 Certification**
- **IUM – UMX Certification, UTT familiarization, Corrosion Protection Training**

➤ Certification Renewal

§ 245.114 – Renewal and Amendment of Certification

- **Certification categories renewed since January 9, 2008 have a uniform expiration date of 3 years from the issuance date of the first category renewed or added.**
- **(b) Upon conversion to the uniform expiration date...the issued certification will be valid for 3 years...**
- **(d) An applicant shall meet the following requirements in the appropriate category for renewal of inspector certification**
 - **The Department has reestablished a training program for those inspectors renewing IUM, IAM, and IAF certification.**
 - **The inspector training required under this subsection is provided free of charge by the technical staff of the UST and AST storage tank sections.**

➤ Certification Renewal

§ 245.114 – Renewal and Amendment of Certification

- **As of November 10, 2009, *tank handlers*:**
 - **Attend category-specific training**
 - The training course must be a Department-approved training course. The list of approved training courses is available on the Storage Tanks web page. The list is updated as additional training courses are approved.
 - **or Retest**

Company Certification

§ 245.121 – Certification of Companies

- **Primary consideration: the company applying for certification must employ at least one (1) DEP certified tank handler or inspector.**
 - **Note: An employee is an individual who has completed a IRS Form W-4 and to whom a company issues a IRS Form W-2 (Wage and Earnings Statement) at the end of the year.**
 - **A company may contract with a certified individual to whom the company will issue an IRS Form 1099.**
 - **The non-certified company may contract with a certified company for the performance of tank handling, tightness testing or inspection activities.**
 - **The certified individual and certified company is responsible for submitting all forms or reports, and provides DEP with all applicable certification ID numbers.**

Company Certification

2570-PM-BWM0510 Rev. 12/2009

Federal Employer Tax ID # (EIN) _____

SECTION VII – CERTIFIED EMPLOYEES

Please list all certified installers and/or inspectors employed by this company. Also, if applicable list the names and termination dates of any previously employed and certified individuals who have terminated. If you have no PA Certified Installers or Inspectors write "None". If you have an employee who has applied for their first certification write "Pending". Note that an "employee" has a IRS Form W-4 (Tax withholding) on file and receives a Form W-2 (Wage and Earnings Statement) from the company. At least one certified individual must be employed in order for the company to receive DEP certification.

**If more space is needed copy this page before listing the certified individuals.*

Installer/Inspector Name	Certification Number	A=Active	P=Pending	T=Terminated
		Status (A, P, T)	Hire Date	Termination Date
Brown, John L.	0101	A	07/22/05	
Smith, Edward P.	0202	T		03/21/09
Jones, Roger B.	NA	P	02/19/08	



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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Standards of Performance

- **§ 245.132 – Standards of Performance**

(a) Certified companies, certified installers and certified inspectors shall...

(1) Maintain current technical and administrative specifications and manuals...

(2) Submit, within 60 days of the inspection activity or 30 days of the tank handling activity, a Department-approved form certifying that the activity... meets the requirements of the act and this chapter...

... (for projects requiring multiple certification activities and individuals the tank handling and inspection reports may be submitted within 30 days of the conclusion of all activities).

Standards of Performance

- (3) Maintain complete records...for a minimum of 10 years.**
- (4) Report a release...or suspected contamination...observed while performing certified activities. Submit a written report within 48 hours. If notification is being submitted as a result of a failed tightness test, a copy of the test should accompany the written notification to the Region.**
- (5) Installers or inspectors should not sign documentation unless personally performed or supervised.**
- (6) Not certify... that the storage tank system project or component thereof is complete unless it complies with the act or this chapter. Project certification applies to both certified activities and non-tank handling activities performed as part of the project.**

Standards of Performance

Pennsylvania Department of Environmental Protection
Division of Storage Tanks
March 28, 2014

IMPORTANT NOTICE **Signatures**

The Department has recently investigated numerous occurrences in which signatures affixed to Department documents were not signed by the individuals themselves. These documents include, but are not limited to, the Registration/Permitting Application Form, UST and AST modification report forms, tank inspection report forms, and Installer/Inspector and Company Certification Applications. Documentation submitted to the Department must be reviewed and signed by the proper individual(s), acknowledging the legal statements preceding the signature field(s) in the document.

Under no circumstances should any other person sign the name of a certified individual, tank owner, or company officer.

The Department takes this issue seriously. The submittal of fraudulent signatures to the Department can result in enforcement, such as suspension or revocation of Installer/Inspector or Company Certification. Criminal penalties can be considered under the guidelines set forth in 1. Pa. C.S. §4904, relating to unsworn falsification to authorities.

If you have questions or desire clarification of the above, please contact Eric Lingle with the Division of Storage Tanks at (717) 772-5599.

Standards of Performance

(b) Certified installer or certified inspector shall display a certification identification card or certificate upon request.



➤ Renewal Notification Letters

- **Individuals and companies are notified by mail 4-5 months prior to expiration of each certification.**
 - ✓ This is a courtesy only
 - ✓ Requires the department to maintain accurate certification records
 - ✓ DEP notification of changes to **Addresses, phone numbers, employer/employee relationships** are extremely important
- **Failure to notify the Department of changes in certification information is a violation of the regulations.**

Expired over 60 days!

An individual's failure to renew certification within the *60 day period immediately following* an expiration date requires applicant to meet the *initial certification requirements* for that category. §245.114 (g)(1)

Renewal requests submitted more than 60 days beyond the expiration date require:

- Application
- Attachment A – listing verifiable activities
- Pass Category-specific Examination Module
- Note – Technical Training requirement specified at §245.111(a) is met by individuals who previously held certification in the category

Technical Training Courses

§ 245.142 – Training Courses (tank handlers)

(a) Technical training for initial category-specific certification must be based on Nationally-recognized codes and standards in conjunction with manufacturers specifications

(b) Technical training for renewal of category-specific certification must at a minimum review the technical and regulatory material appropriate for the certification category

Storage Tanks Website

www.dep.state.pa.us

**Environmental Cleanup & Brownfields
Storage Tanks**



Storage Tank Permitting

§ 245.203 – General Requirement for Permits

(f) The Department will automatically withhold or withdraw the operating permit for a storage tank that is reported... in temporary closure or temporary removal from service (out-of-service) status...

(g) A storage tank system may not be operated if the Department suspends, revokes or denies the tank operating permit. A person may not deliver or place a regulated substance in a tank if the Department suspends, revokes or denies the tank operating permit

Storage Tank Permitting

§ 245.222 – Application Requirements

- **Application for a General Operating Permit shall be submitted on a Department form...**
 - **Storage Tank Registration / Permitting Application Form**
 - **A one-page Storage Tank Registration Amendment Form is now available for use in making some changes.**

Storage Tank Closure

- **Closure Notification**
 - **Submit to Department regional office 30 days before scheduled date of removal – serves notice of intent to close or remove tank (USTs or Large ASTs)**
 - **This is a dual purpose form, also used to notify DEP of intent to install (USTs)**
- **Closure Report (USTs or Large ASTs)**
 - **When required the report is sent to the applicable Department regional office**
- **Registration/Permitting Application**
 - **The only way to remove tanks from system inventory**

▶ Delivery Prohibition

- **Lists are available on Storage Tank Web Site**
 - **Active tank list – no large ASTs or highly hazardous tanks**
 - **Suspended or revoked as a result of enforcement action**
 - **Tanks without operating permits**
- **Tanks in “T” (temporarily out of service) status**
 - **Tank must be empty**
 - **Operating permit withdrawn or withheld**

Storage Tank Listings

**Storage Tanks Website → Registration →
Regulated Tank List**

**Excel spreadsheets (updated monthly)
or live search**

***Excludes large ASTs and
highly hazardous tanks**

Storage Tank Listings

Report Viewer - Windows Internet Explorer provided by DEP

http://www.depreportingsvcs.state.pa.us/ReportServer/Pages/ReportViewer.aspx?%2ftanks%2ftanks

File Edit View Favorites Tools Help


Report Viewer

Facility ID (99-99999) Zip Code 17003 View Report

County and Permit Status Approved, Denied, Revoked, Si

Municipality (Null)

1 of 8 100% Find | Next Select a format Export

 **Storage Tanks Search Results**

1/3/2011 3:03:43 PM


Site ID: 453633 Client: 13067
Other ID: 38-39466 Client Name: PA DEPT OF MILITARY & VETERANS AFFAIRS
Name: AAFES FORT INDIANTOWN GAP Address: 1 FORT INDIANTOWN GAP
Address: FISHER AVE BLDG 9-120 Address2:
Address2: City: ANNVILLE State: PA
City: ANNVILLE State: PA
State: PA Zip: 17003 Zip: 17003-5099
County: Lebanon Municipality Name: Union Twp

SEQ NUMBER	TANK CODE	DATE INSTALLED	CAPACITY	SUB CODE	TANK STATUS	PERMIT TYPE	PERMIT STATUS	DATE LAST INSPECTION	INSPECTION CODE
934708 - 001	UST	10/19/2008	12,000	GAS	C	PBR	APPR	11/20/2007	FOI
934709 - 002	UST	10/19/2008	8,000	GAS	C	PBR	APPR	11/20/2007	FOI

Site ID: 579185 Client: 87584
Other ID: 38-17324 Client Name: ANNVILLE CLEONA SCH DIST

ReportViewer.aspx?%2ftanks%2ftanks Local intranet 100%

start Oracle Applic... Report Viewe... Microsoft Po... My Documents Blank letter fo... 3:04



Query parameters:

- Facility ID
- County
- Municipality
- Zip Code
- Permit Status

New Registration Certificate

- More inspection information
- Easily track inspection due dates
- Shows overdue inspections
- “TBD” indicates the next inspection due date will be determined once tank repairs are made (AST only)

VERIFY PRESENCE OF WATERMARKED HOLD TO LIGHT TO VIEW

Commonwealth of Pennsylvania
Department of Environmental Protection
Bureau of Environmental Cleanup and Brownfields

STORAGE TANK REGISTRATION/PERMIT CERTIFICATE
EXPIRATION: JUN-04-2015

SEQ#	CAPACITY	SUBST	PERMIT TYPE	PERMIT STATUS	AST IN-SVC INSP DUE	AST OUT-OF-SVC INSP DUE	UST OPERATIONS INSP DUE	LINING INSP DUE
003	7,000	DIESL	PBR	Approved	*****	*****	07/10/2016	*****
004	3,000	GAS	PBR	Approved	*****	*****	07/10/2016	*****
005	3,000	DIESL	PBR	Approved	*****	*****	07/10/2016	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****
****	****	****	****	***	***	****	*****	*****

Client ID: 164666 Site ID: 572708
Owner: VERNON L GESSNER Facility Kind: TRANS
Id: 22-61557 Facility Id: 22-61557
GESSNER LOGGING GESSNER LOGGING
496 LUXEMBURG RD LUXEMBURG RD
LYKENS PA 17048 RR 1 BOX 391
LYKENS PA 17048

WARNING: THIS DOCUMENT IS PRINTED ON SECURITY WATERMARK PAPER AND CONTAINS SECURITY FIBERS. DO NOT ACCEPT WITHOUT VERIFYING THE PRESENCE OF THE WATERMARK.

➤ Certified Companies List

Storage Tanks Website →
Underground Storage Tanks →
Storage Tank Certified Companies
Search

***Updated Real Time**



Certified Companies List

Certified_ST_Companies - Report Viewer - Windows Internet Explorer

http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Tanks/Certified_ST_Companies


Method Index Certified_ST_Co... Google

REGION: Out of State PA COUNTY: All

CERTIFICATION CATEGORY: IUM - Inspector - UST - System

View Report

1 of 1 100% Find | Next

 Bureau of Environmental Cleanup and Brownfields
Certified Storage Tank Companies
9/5/2013 11:55:41 AM

Region: Out of State
County: All
Certification Category: IUM - Inspector - UST - System/Facility

Company Name	CHRISTOPHER CONST CO INC	County	
Address	25 WELLS RD HAMMONTON, NJ 08037-8608 (609)561-1607	Region	Out Of State

<u>CERTIFICATION CATEGORY</u>	<u>DESCRIPTION</u>
IUM	Inspector - UST - System/Facility
UMR	UST - Tank/System - Removal
UMX	UST - Tank/System - Installation/Modification

Company Name	ELDRETH ENV SVC INC	County	
Address	654 COLORA RD COLORA, MD 21917-1122 (610)842-2418	Region	Out Of State

Done

Local intranet | Protected Mode: On 125%

Site Specific Installation Permits

§ 245.231 – Scope

Site-specific installation permits are required *prior to* construction, reconstruction or installation...

- When adding an aboveground tank with a capacity greater than 21,000 gallons at an existing facility
- When installing tanks with an aggregate capacity greater than 21,000 gallons at a new AST facility
- New highly-hazardous storage tank systems
 - An AST or UST with a capacity greater than 1,100 gallons storing a highly hazardous substance
- New underground field constructed storage tank systems

Site Specific Installation Permits

Major Elements:

- Part I / Part II SSIP Application
- General Information Form
- Municipal & County Notification Letters (and Proof of Receipt)
- Siting – Floodplain, Wetlands
- Geology – if karst, deep-mined, or other geological issues, requires geotechnical analysis
- Mapping – plot plan, topographic map, wells within 2500' plotted
- Environmental Assessment – when required
- 30-day public notice in PA Bulletin required for new facilities (DEP handles this)



Administrative Summary

- **Submit documents, reports, applications on current forms**
 - **Tank handling activities within 30 days of completion**
 - **Inspection activities 60 days from date of inspection**
 - **Inspections as part of a project involving multiple certified individuals and certification categories should be submitted 30 days from completion of the project. Signature dates should never precede an install date!**
- **New Alternative Fuel Storage Tank Installation / Conversion Form**
- **Renew certification 60-120 days prior to expiration date**
 - **Exceptions made for those applicants renewing by retest**
- **You may not use activities to renew certification**
- **Requests for renewal of certification submitted more than 60 days beyond expiration date requires applicant to meet initial requirement for certification (see handout – Qualifications for Initial Applicants)**

Administrative Summary

- **Uniform expiration date**
- **Certified companies and certified individuals share responsibility for all activities, and for the timely submission of all reports or project-related forms**
- **Certify safety training and application accuracy**
- **All tank handling or inspection activities involving non-certified employees or personnel are to be supervised by a certified installer or certified inspector with the applicable certification**
- **Do not sign tank handling or inspection documents unless you performed or supervised the certified activity**
- **Please don't refer tank owners to the Pollution Prevention Reimbursement Grant Program (pump & plug) without confirming eligibility**
- **Companies, pay TIIP fees!**
- **Labor & Industry – F&C permits when needed**

Where do Pennsylvania facilities stand?

- As of March 2014, Pennsylvania DEP's - Significant Operational Compliance (SOC) rate was 82.0%, easily exceeded the national average of 72.1%, and EPA Region 3 state average of 76.0%.
- Pennsylvania ranks tied for 13th of the 56 states and territories in terms of highest SOC rate.



Where do Pennsylvania facilities stand?

- Of the 23 states that regulate more than 10,000 USTs, Pennsylvania's SOC rate ranks 4th.
- Of the 9 states that regulate more than 20,000 USTs, Pennsylvania's SOC rate ranks 2nd (Texas ranks 1st).



Let's take a quick break!





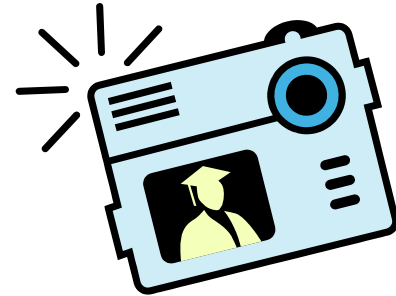
IUM Technical Information

Presented by:

UST Technical Unit Staff

Inspection Tools of the Trade

- **Digital Camera**



- Take pictures of everything
- Many unseen problems are found when reviewing pictures back in the office
- 95% of non-compliant pictures used in this presentation are problems that IUM's missed on their FOI Inspections
- These issues could have been found earlier if proper digital pictures were taken during the FOI

Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Piping Deterioration

- If the facility has Total Containment generation 1 or 2 piping (or any other brand of piping that is deteriorating) it needs to be noted in the comment section of the FOI
- Include a note as to the condition of the piping even if it is in good condition
- Is there noticeable cracking, flaking, “alligatoring”, or microbial growth
- If piping is deteriorating in any way DEP Technical Staff can assess it

Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Facility Address on the FOI

- Make sure the proper address for a facility is on the FOI
- Check to see the physical address of facility
- No P.O. Boxes for address
- No Rural Route addresses if possible
- If a proper address cannot be found note a GPS coordinate in the comment section of the FOI



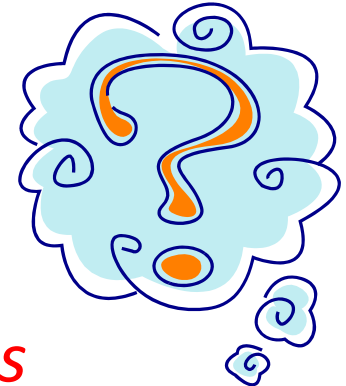
Facility Address

- Changes to any address information requires an amended registration



Modification or Maintenance?

- Not sure if the work to be performed is considered a Modification or Maintenance activity?
- DEP has an updated guidance document to assist in determining Modification versus Maintenance activities
- www.dep.state.pa.us
- Use the search bar and search for:
Modification and Maintenance issues
- If still unsure, call DEP Technical Staff to clarify



➤ Minor/Major mods and Maintenance

- **Major Modifications**

- Activity to upgrade, repair, refurbish or restore an existing tank which:

- Alters design
 - May affect integrity
 - Excavation required



- E.g.: Installation of CP system, piping replacement, sump replacement, breaking concrete

Minor/Major mods and Maintenance

- Minor Modifications

- Activity to upgrade, repair, refurbish or restore an existing tank which:

- Does not alter design
- May affect integrity
- No excavation required



- E.g.: Installation of a different kind of LLD, overflow prevention replacement, shear valves replacement, installation of a spike anode on flex connector, entry boots replacement, pulling new piping through chase

▶ Minor/Major mods and Maintenance

- Maintenance
 - Normal operational upkeep
 - Does not alter design
 - Does not affect integrity
 - No excavation required
- E.g.: Replacing filters, CP testing, empty spill buckets/sumps, replacing dispenser parts above shear valve, replacing LLD with like devices when accessible from aboveground



Modification & Maintenance Changes

- **Major Modifications**
 - Complete dispenser replacement with excavation, also requires under dispenser containment
- **Minor Modifications**
 - Replacement of Dispenser with no excavation (bolt off, bolt on)
 - Cathodic Protection repairs that only involved rectifier replacement, reconnecting wires with no excavation (except when done by hand)
 - Repairs to primary or secondary containment, including installation/repair of sump entry fittings (no excavation)
- **Maintenance**
 - Adjustments to ICCP rectifiers (adjustments need to be evaluated/determined by a Corrosion Expert)

Stage II Update

At locations that currently require Stage II Vapor Recovery:

- Must be maintained and kept operational
- Must be added to tanks being installed at site with existing Stage II in use
- Must be reinstalled at tank top upgrade locations
- NOT required at COMPLETELY new installs
- Will be a minor modification to decommission once PA DEP Air Quality allows
 - PEI RP 300: Installation and Testing of Vapor Recovery Systems

Release Reporting

Release Reporting Requirements for Department Certified Individuals



➤ Release Reporting

If a Department certified individual **suspects** a release of regulated substance, while performing services as a certified individual, he must submit a “Notification of Contamination” form, within **48 hours**, to the appropriate regional office of the Department.

On the form, he should indicate a suspected release along with completing all of the certified individual’s sections of the form.

Release Reporting

If a Department certified individual confirms that a reportable release has occurred while performing services as a certified individual, there are 2 options:

1. Submit a “Notification of Contamination” form to the appropriate regional office of the Department within **48 hours**. On the form, indicate a confirmed release along with completing all of the certified individual’s sections of the form; or
2. Submit the “Notification of Contamination” form jointly with the owner/operator of the facility within **15 days** of the owner/operator’s telephone notification to the appropriate regional office of the Department.

Release Reporting

If the “Notice of Contamination” form is being submitted to the Department because of a failed tightness test, a copy of the failed test results must be submitted with the form.

ESTABROOK'S Systems & Training for the Petroleum Industry		PRESSURE CALCULATION & WATER SENSOR CALIBRATION	
FINAL REPORT		Test Date	3/11/2013
MANUFACTURED BY: ESTABROOK'S INC. 1-877-368-7215		Location	
		Address	
TOTAL TANK VOL.	10000	City/State/Zip	
PRODUCT VOL.	0	Location Contact	
ULLAGE VOL.	10000	Location Phone	
PRODUCT TYPE	Diesel	Depth of Groundwater Determined	
PBS # (NEW YORK)	PA FID	By:	Ezy Stick
TANK #	3	Where:	In tank excavation
THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:			
TIGHT TANK			
THIS UNDERGROUND STORAGE TANK <u>PASSES</u> THE CRITERIA SET FORTH BY THE U.S. EPA.			
ULLAGE (DRY) PORTION OF LEAK			
THIS UNDERGROUND STORAGE TANK <u>FAILS</u> THE CRITERIA SET FORTH BY THE U.S. EPA.			
<input checked="" type="checkbox"/> BELOW PRODUCT LEVEL (WET) PORTION LEAK			
THIS UNDERGROUND STORAGE TANK <u>FAILS</u> THE CRITERIA SET FORTH BY THE U.S. EPA.			
WATER SENSOR INDICATES: (CHECK ONLY ONE)			
No Water Intrusion <input type="checkbox"/>			
Water Intrusion <input checked="" type="checkbox"/>			
Not Applicable <input type="checkbox"/>			
Operator Information			
Print Name		Certification #	
Sign Name		Expiration Date:	08/2013
Testing Firm		Telephone #	
Address			
NEW YORK STATE REQUIREMENT: A DIAGRAM OF THE TANK SYSTEM MUST BE SUBMITTED TO THE STATE WITH THIS REPORT			
EQUIPMENT SERIAL NUMBERS AND CALIBRATION EXPIRATION DATES:			
	Serial Number	Calibration Expiration Date	
IN-TANK MICROPHONE	M1006006	08/2013	
ACOUSTIC SIGNAL PROCESSOR	E1041010	08/2013	
PRESSURE SENSOR	403540511	08/2013	
WATER SENSOR DISPLAY	N/A		
WATER SENSOR PROBE	N/A		

Release Reporting

Reporting Requirements for:

	Certified Personnel	Owners/Operators
Confirmed Release	NOC within 48 hrs.	Telephone call within 24 hours and NOC within 15 Days.
Suspected Release	NOC within 48 hrs.	

Dispenser Removals and Replacements



Dispenser Removal Summary

	30 day notice	UMR	UMX	Major Mod	Minor Mod	Sampling /Closure report	Meet New Regs
Removal no replacement	X	X			X	X	
Removal/replace (bolt off/on)			X		X		
Removal/ Replace (excavation)	X	X	X	X		X	X
Removal for TOS (no excavation)			X		X		

Pressurized / Pumped Delivery Issues



➤ Pressurized / Pumped Deliveries

In order to comply with 37 PA Code, Chapter 13, all deliveries of flammable or combustible liquids must be done through liquid tight and vapor tight fills.



➤ Pressurized / Pump Deliveries

Ball floats cannot be installed in storage tanks that receive pressurized or pumped product deliveries.



Pressurized / Pump Deliveries

Most small USTs receive pressurized or pumped product deliveries (tank capacity less than 2,500 gallons).

Regardless of tank capacity, tanks that receive pressurized/pumped deliveries are non-compliant for overfill prevention if the only installed equipment is not compatible with that delivery method.

➤ Pressurized / Pump Deliveries

Solutions –

1. Have an overflow alarm installed.
2. Have a drop tube shut-off device that is designed for use with pressurized deliveries installed.
3. Have an “official contract” signed by both the tank owner and delivery company that states the storage tank will only be filled via gravity drop. (...if the delivery company changes, a new contract must be signed...).

Pressurized / Pump Deliveries

Real World Example:

August/September 2012 in Bucks County, PA

An underground storage tank was getting a pressurized delivery with a loose fill connection. Because it was raining, the delivery driver decided to sit in his truck during the delivery to the tank. The tank was overflowing for well over a minute before he realized what was occurring. The fuel went off the property, down a storm drain, went into a retention basin on another property and threatened the Neshaminy Creek. The underground storage tank had a standard flapper and no overflow alarm was present.

Kerosene Fills



Combustible and Flammable Liquids Act

Act 1998-15



Section 7(a): Retail Service stations.

“At a retail service station, the intake or receiving pipe opening for a kerosene storage tank shall be smaller than the nozzle on the hose used to deliver gasoline or diesel fuel into the storage tank.”

➤ Kerosene Fills

Labor & Industry requirement

Fire hazard safety measure that is intended to prevent the delivery of other fuels into kerosene tanks.

Applies to kerosene tanks at retail facilities.

Most retail gasoline and diesel fills are 4 inches; therefore, the kerosene fill must be smaller than 4 inches and also must be a tight fill.

Be mindful of the delivery method and the overfill prevention device!

Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant

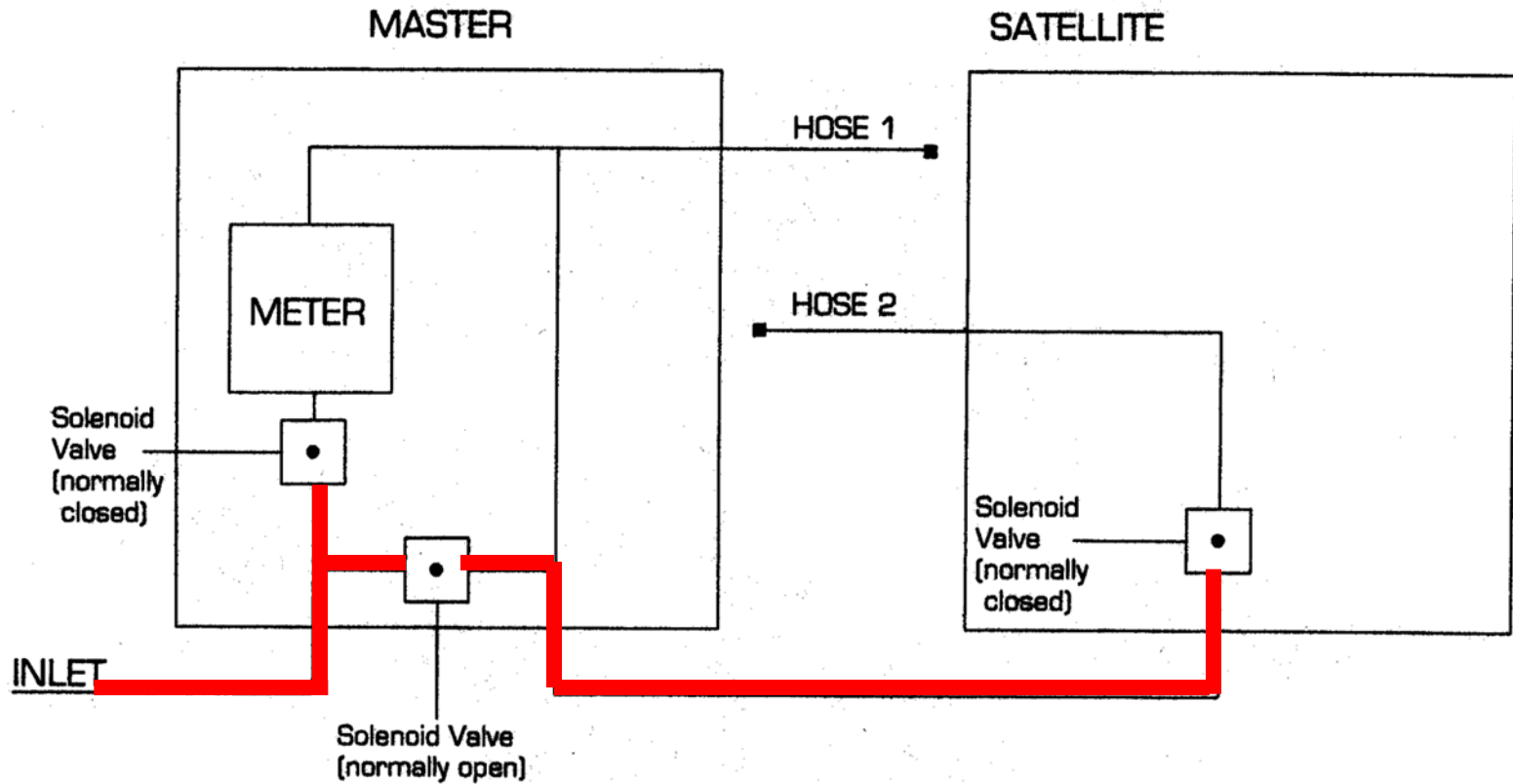


Satellite Dispenser Issue

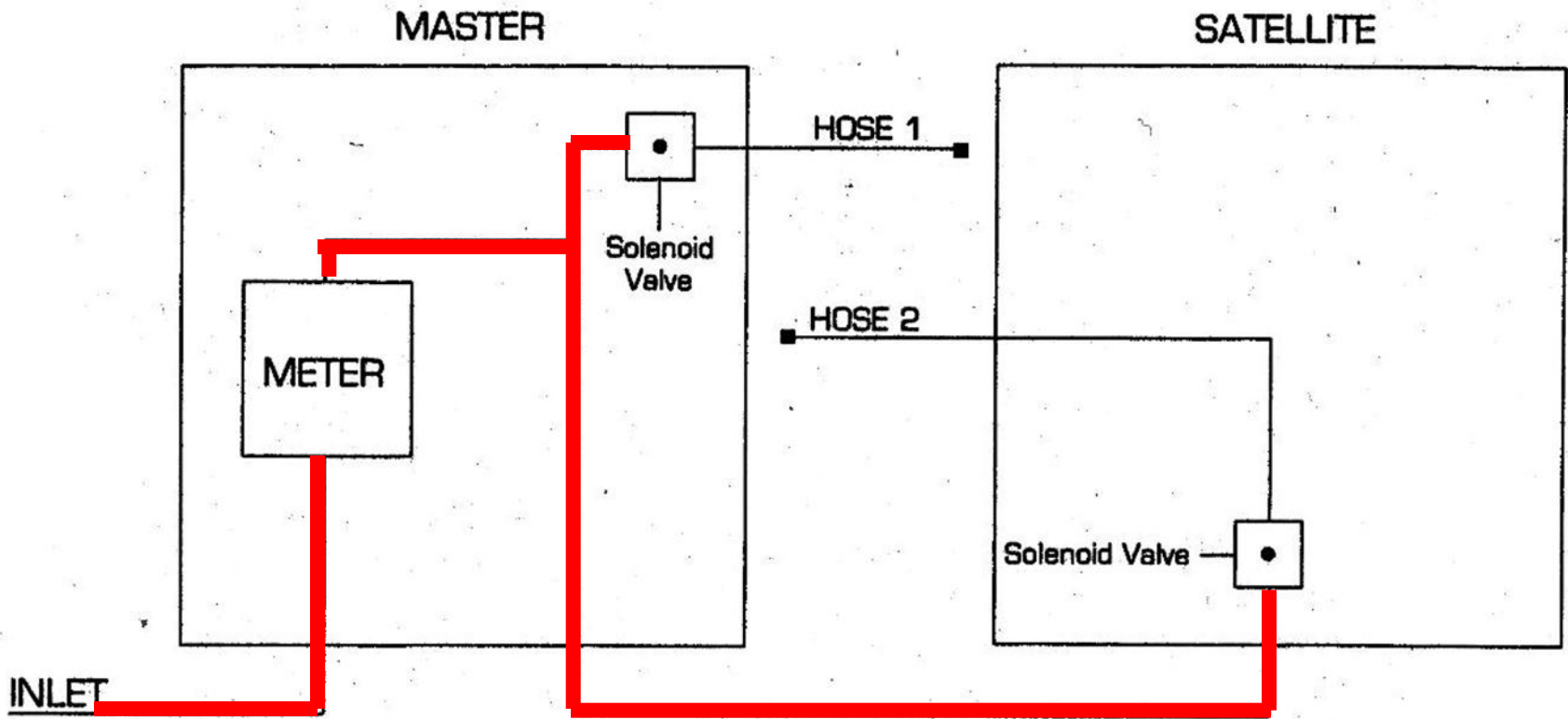
Large Piping Release Detection



Satellite Dispenser Issues



Satellite Dispenser Issues



Satellite Dispenser Issue

Small Piping Release Detection



Satellite Dispenser Issues

Problem:

A satellite dispenser is typically connected to a master dispenser via a short length of underground piping. Inventory-based methods of leak detection (e.g. Statistical Inventory Reconciliation – “SIR”) do not see any leakage that may occur after the fuel has passed through the metering mechanism (totalizer) in the master dispenser.

Satellite Dispenser Issues

Solutions:

1. If the piping system is double-walled, with containment sumps under the master dispenser and under the satellite dispenser, then sensors or visual interstitial monitoring can be used for small leak detection.
2. Use annual line tightness testing on the satellite line.
3. Install a satellite dispenser with a metering mechanism (totalizer).

Let's take a quick break!



Facility Operations Inspection Report Completion



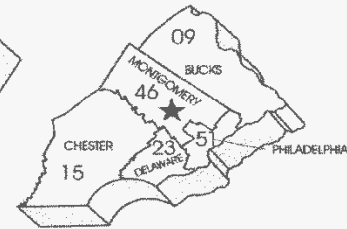
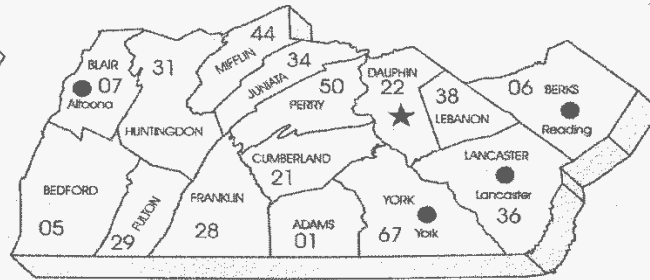
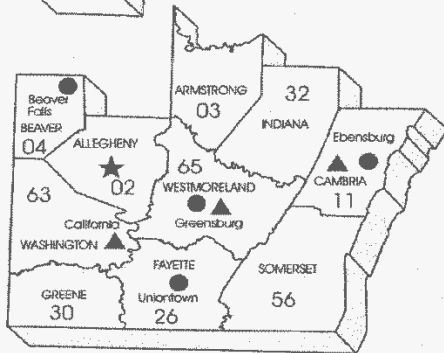
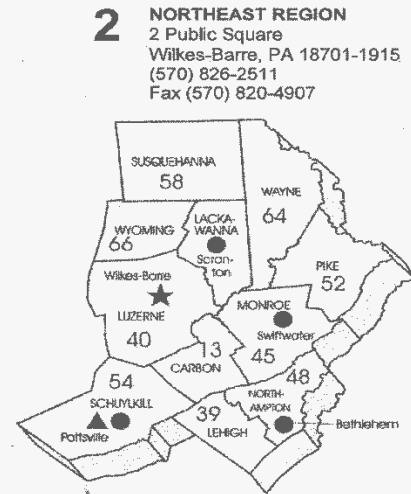
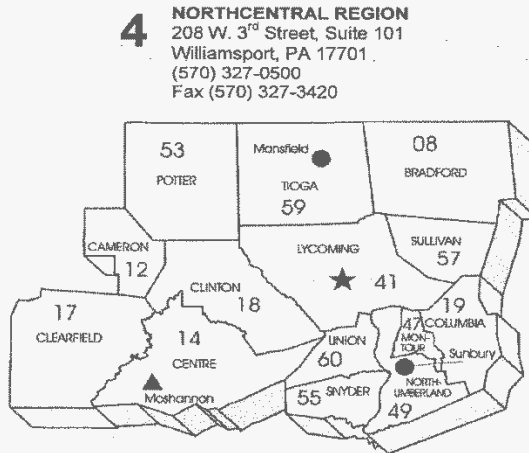
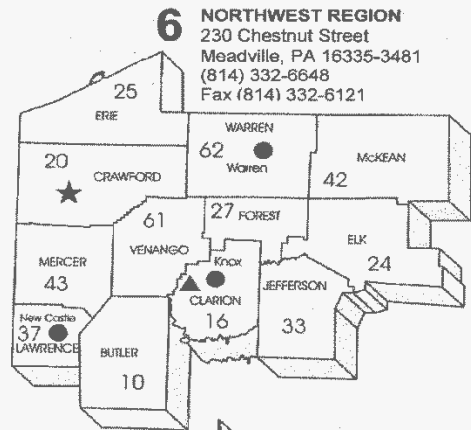
▶ Inspection Report Submittal Emails

- Central Office: tanks@pa.gov
- Region 1 (SE): ra-serotanks@pa.gov
- Region 2 (NE): ra-nero-tanks@pa.gov
- Region 3 (SC): ra-ep-scro-tanks@pa.gov
- Region 4 (NC): ra-nc-tanks@pa.gov
- Region 5 (SW): ra-pghtanks@pa.gov
- Region 6 (NW): ra-nwro-tanks@pa.gov

***Individual emails must be < 10 MB total**

Inspection Report Submittal Emails

DEPARTMENT OF ENVIRONMENTAL PROTECTION REGIONAL STORAGE TANK OFFICES



LEGEND: ★ REGIONAL OFFICES ● DISTRICT OFFICES ▲ MINING OFFICES

▶ Reports: Compliance Determinations

- Be careful when making compliance determinations
- Be sure your inspection reports are complete
 - All applicable spaces filled
 - All applicable boxes checked

FOI Reports, Page 1

1. “Financial Responsibility discussed with owner.”
 2. “Suspected or confirmed contamination observed.”
 3. “Improperly closed or unregistered tanks present.”
 4. “Written instructions/notification procedures are available/posted.”
- ✓ **All of these boxes should be checked either Yes or No**

Emergency Procedures

- There is a check box related to emergency procedures on both pages 1 and 6.



Site Drawings/Schematic

- Good site drawings are appreciated.
- Drawings can be simple, but should be neat.
- Please indicate which sumps and pans have sensors installed (if not described in the comments).



Compliant or Non-Compliant



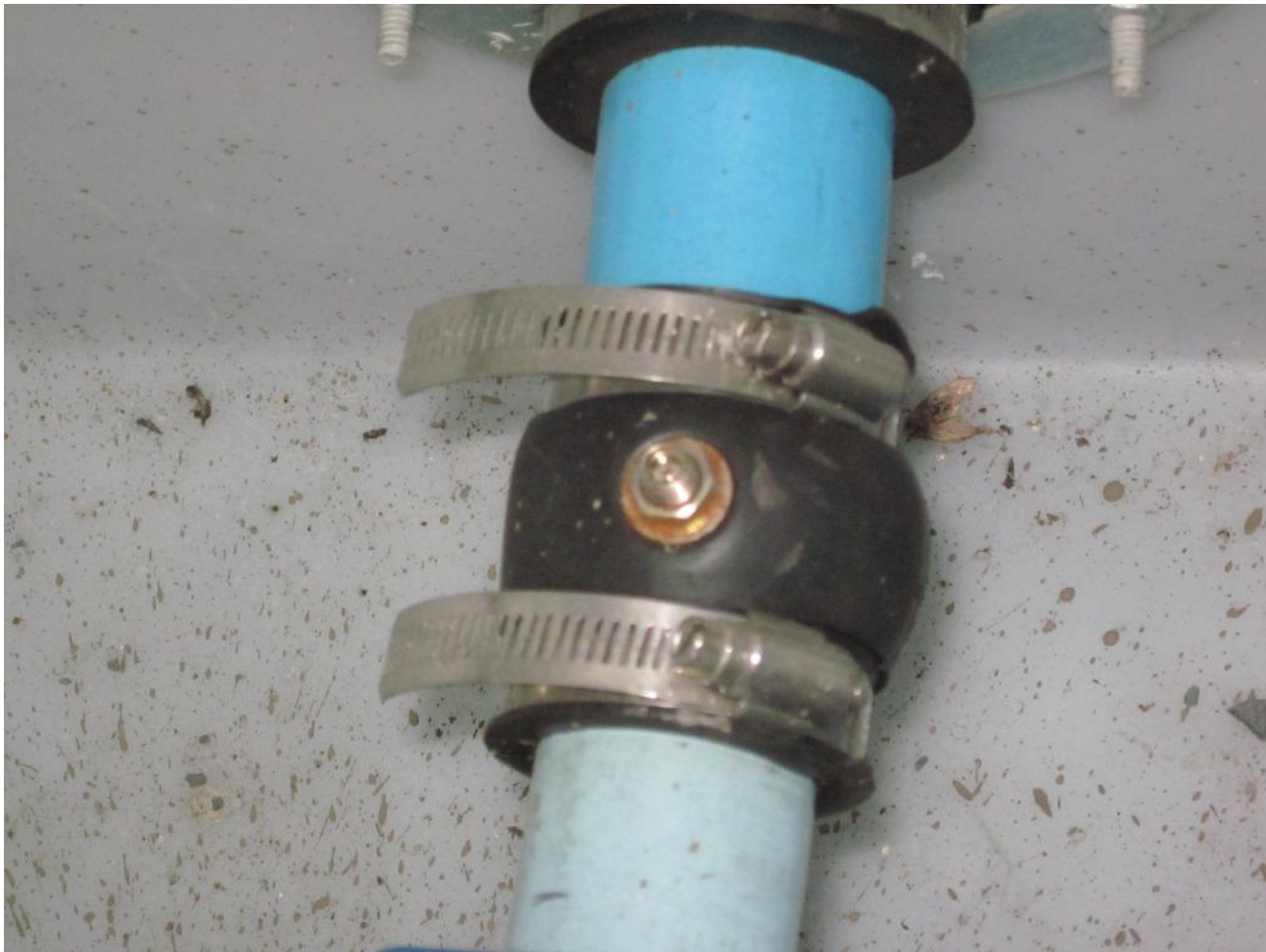
Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



▶ Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Piping Connections

- Piping connectors can be flexible or rigid, and metallic or non-metallic.
- Code X, No Connector, should only be used when no piping connectors are present. E.g. lollipop systems
- Code 99, Other, must be explained in detail in the comments section on pg. 7.

➤ Drone and Manifold Tanks

- Dispenser piping connectors for drone tanks are the connectors located at the master tank.
- Piping construction on page 2
 - Based on construction of the siphon bar
- Be mindful of ATG capabilities & certifications



▶ Drone and Manifold Tanks

- **Drone Tank** - no STP, piped directly into master tank
- **Manifold tank** - both tanks can work separately or as one
- **Manifold lines** - multiple lines are converted into one
- Describe system in comments section of FOI

Piping Construction/Protection

- If there is more than one kind of product piping at a facility:
 - Indicate all types of piping that are present at the facility in the attributes section on pg. 2.
 - Describe the piping set-up in the comments section on pg. 7.

Piping Construction/Protection

- **Water in sumps:**
 - Piping Construction and Corrosion Protection should be marked Non-compliant if water is in contact with any piping connections.
 - Any amount of water in sumps should be removed immediately and disposed of properly.
 - COMMENTS!

▶ TRD, PRD and Sump Check Records

- Monthly release detection records, if applicable, should be reviewed.
- If a facility does not have required monthly records for some of the previous twelve months:
 - Site is noncompliant
 - Please indicate in the comments section of page 7 the specific months that have no piping release detection, tank release detection or sump check records.

Compliant or Non-Compliant



Release Detection

- **Include all requested information**

- **ATG**

- Manufacturer, model, CSLD/SCALD

- **Tank Tightness Testing**

- Method, date last tested, result

- **SIR**

- Vendor, version

- **Line Testing**

- Vendor, version, date last tested, result

- **MLLD**

- Manufacturer, model, date last tested, result

- **ELLD**

- Manufacturer; model; date of last 3gph and (.2gph or 0.1gph) test

▶ Release Detection: Compliance

- **For Release Detection Compliance**
 - What was done before the inspection?
 - 1) Required records are available (may be provided by the owner/operator after initial site visit).
 - 2) Testing & Monitoring was done on time.
 - 3) Valid & Passing results.

Tank Release Detection Records

- Last 12 months of records
- Failed/missing tests
 - Why was it missing or failing ?
 - Note any missing months or failures in the comment section of the FOI
 - Was the failure properly investigated?
- To use the monitoring console history report the O/O must show they can retrieve data
- IUMs **cannot** print out a history report and accept it as passing release detection records for the past 12 months

Tank Release Detection: Compliance

- **ATGs are only certified to test between certain fuel levels**
 - Not all will read fail or invalid if testing is conducted below required fuel volume
 - Review the certifications (NWGLDE)

<http://www.nwglde.org/>

ATG Testing and Product Levels

- Minimum product level percentages are required for valid ATG testing
- Minimum product level percentages are determined by tank diameter for certain ATGs/probes
- CSLD software allows valid testing at lower product levels
- ATG test print outs can indicate a passing test, even though the test is invalid due to low product level



▶ ATG Leak Rate Settings

- ATG Tank Release Detection Method requires a valid, passing 0.2 gph leak test at least once a month
- Check leak rate settings, 0.1gph or 0.2gph?



▶ ATG Functionality Testing

- Interval of ATG functionality tests is specified by manufacturer's recommendations
- Records of ATG maintenance that occurred within one year of Facility Operations Inspection should be available



ATG Leak Rate Settings

MMM DD, YYYY HH:MM XM

LEAK TEST REPORT

T 1: REGULAR UNLEADED
PROBE SERIAL NUM 105792

TEST STARTING TIME:
MM DD, YYYY HH:MM XM

TEST LENGTH = 4.3 HRS
STRT VOLUME = 3725 GALS

LEAK TEST RESULTS
0.2 GAL/HR TEST PASS

Veeder Root TLS-350 Leak Test Report

CSLD TEST RESULTS

DD-MM-YY HH:MM XM

T 2: SUPER UNLEADED

PROBE SERIAL NUM 123002
0.2 GAL/HR TEST
PER: DD-MM-YY PASS

Veeder Root CSLD Leak Test Report

▶ Piping Release Detection: Compliance

- Piping interstitial monitoring sensors must be tested annually.
 - When used for the continuous 3.0 gph release detection (LLD) method.
 - When used to meet the positive pump shutoff requirement for new pressurized piping.



Sump Sensors

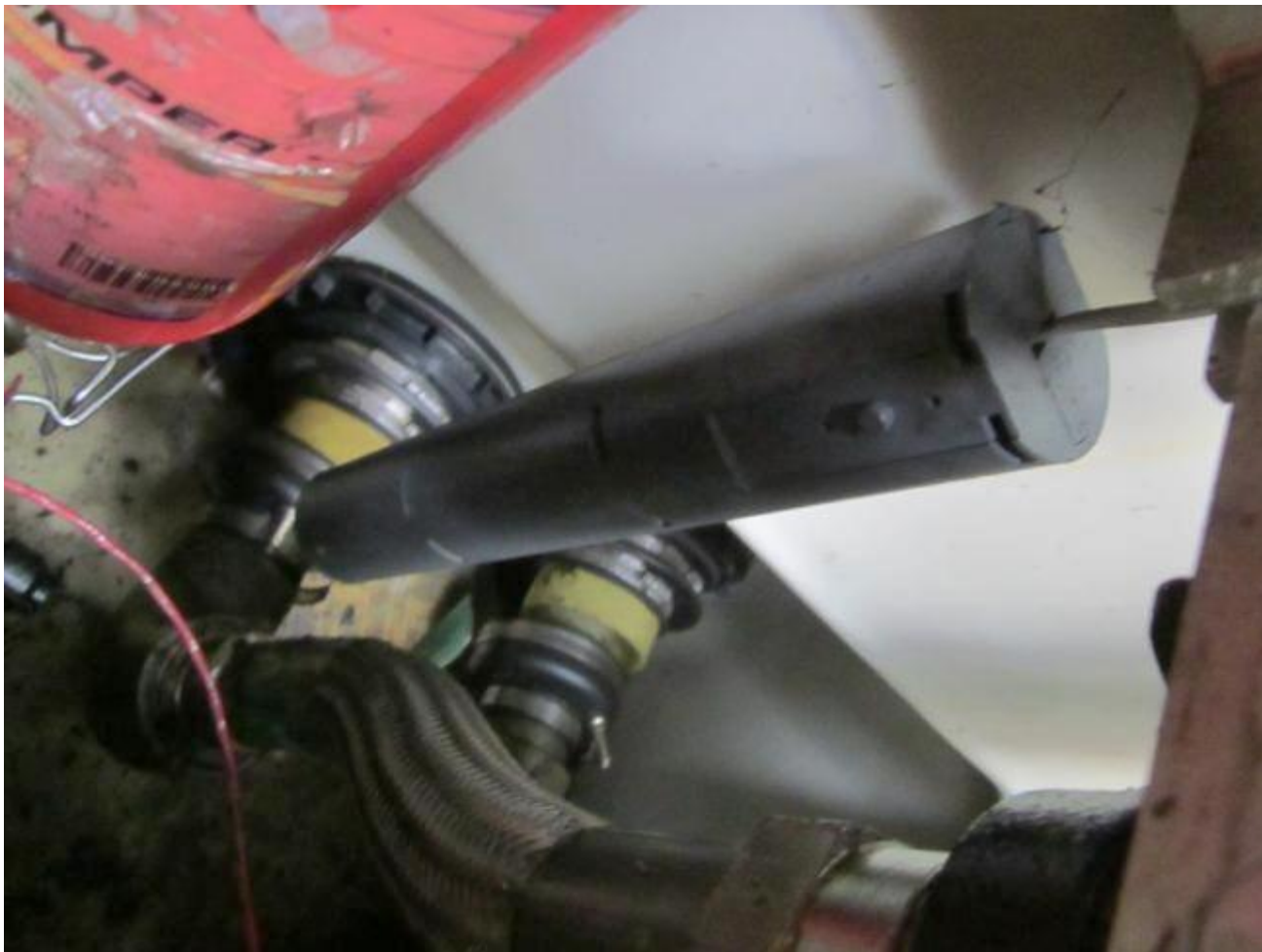
- Sump sensors should be placed at the lowest point of containment per PEI/RP 1200/12
- Sensors must be vertical



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



▶ Electronic Line Leak Detectors

- Continuous 3 gph test

AND



- 0.1 gph test annually
- OR
- 0.2 gph test monthly

Sump Check Requirements

- When are monthly sump checks required?
- Tank systems
 - Installed prior to 11/10/07
 - Double-walled piping runs
 - Product is dispensed via pressurized method (STP)
 - Containment sumps at the STP and Dispenser

Sump Check Requirements

- All tank systems installed after 11/10/07 must do interstitial monitoring at least once every 30 days. (tanks and piping)
 - This includes suction piping and siphon bars.

Sump Check Requirements

- If sump checks are required:
 - All sumps must be checked at least once every 30 days.
 - Checks may be visual or by the use of sensors.



Dispenser Sumps vs. Bravo Boxes

- Shallow bravo boxes typically do not contain the entire flexible connector.
- Deep dispenser pans normally isolate the entire flexible connector.
- Corrosion protection compliance considerations?
Sump check requirements?

Water in Tanks

- Tanks must be manually stuck with a gauging stick and water finding paste to determine water levels during a FOI.
- Water levels should be listed on pg. 7 in the comments section.



Water in Tanks

- **Recording the water level from the ATG monitor is not acceptable.**
 - Many ATG water floats do not detect phase separation layers.
 - Some ATGs do not indicate any presence of water in the tank until more than 1” is present.
 - Dirt and residue in the bottom of tank can lead to false water level readings.

“New” Piping Runs

- Any piping run installed after November 10, 2007



Cathodic Protection Issues and Reminders



Corrosion Protection Compliance

- For Corrosion Protection Compliance –
What was done before the inspection?
 - 1) Required records are available (may be provided by the owner/operator after initial site visit).
 - 2) Testing & Monitoring was done on time.
 - 3) Valid & Passing results were obtained.

▶ Cathodic Protection Survey Records

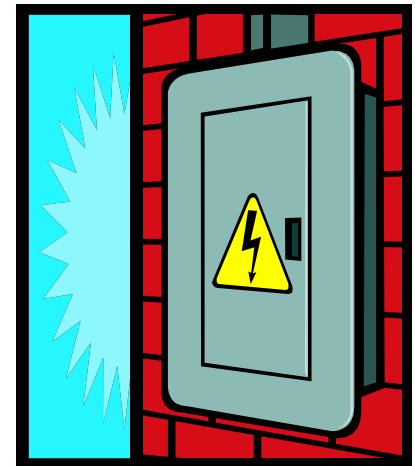
- A record of the two most recent Cathodic Protection Surveys should be available for cathodically protected tanks and piping.
- Cathodic Protection Surveys must be performed at least once every three years.

➤ Cathodic Protection Survey Records

- Voltage readings are needed for the two most recent Cathodic Protection surveys, the date of the survey(s) alone is not acceptable.
- For Impressed Current Systems, a record of the last three 60 day checks must also be available (volts, amps, runtime).

➤ Cathodic Protection Survey Records

- If you can not fit all the voltage readings on pg. 6 of the FOI Report, then attach the CP survey to the FOI Report or write all voltage readings in the comments section.



Cathodic Protection Survey Records

- The lowest local voltage reading must be used to determine compliance.
 - An average of the local voltage readings can not be used to determine compliance.
 - The highest local voltage reading can not be used to determine compliance.

▶ Bonding Tanks?

- Multiple Cathodically Protected Tanks cannot be bonded together to obtain passing CP results
- Each Tank is considered a separate Tank system and must be tested individually



Galvanic CP Voltage Readings

- Maximum, valid voltage readings for sacrificial anodes using a CuSO_4 reference cell:
 - Magnesium: max -1.7 V (-1700 mV)
 - Zinc: max -1.1 V (-1100 mV)



CP Testing Criteria – 100 mV Shift

- If unable to meet the -850 mV instant off criteria. Meeting the 100 mV (at minimum) depolarization shift criteria may demonstrate adequate CP, but it must be observed during the survey.
- The use of historic native readings is not a valid means of demonstrating that a 100 mV shift exists currently.

Impressed Current Rectifiers

- The 60-day rectifier log readings
 - Monitor for significant monthly changes.
 - Ensure the Amp and Volt readings remain within the limits specified by the system design.



Sump Testing (Hydrostatic or Vacuum)



Sump Testing

- Hydrostatic or vacuum testing of newly installed or repaired (after 11/10/07) spill buckets & containment sumps is required to be done with oversight by PA DEP certified tank installer
- This testing must be done & documented in accordance with the manufacturer's procedure or an acceptable industry standard
- Test results must be maintained by both the installer and the facility owner.

▶ Sump and Spill Bucket Tightness Testing

- Indicate number of tank top sumps, spill buckets, transition sumps and dispenser sumps with tightness testing documentation on pg. 2 of Facility Operations Inspection Form
- If installation appears sub-standard, describe in comment section.

Sump and Spill Bucket Tightness Testing

9a.	Number of tank top sumps †	
9b.	Number of tank top sumps tested tight †	
9c.	Spill containment tested tight	
10a.	Number of transition sumps	
10b.	Number of transition sumps tested tight	
11a.	Number of connected dispensers	
11b.	Number of connected dispensers with pans	
11c.	Number of dispenser pans tested tight	

-Pg. 2 of Facility Operations Inspection Form

▶ Sump and Spill Bucket Tightness Testing



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



Compliant or Non-Compliant



What Goes Where?

	Regional	Central
FOI	X	X
Lining Inspection	X	X
Mod Report	X	X
30 day Closure Notice	X	
Closure Report	X	
Contamination / Release Reporting	X	
Amended Registration	X	X
Registration		X
TOS Extension Request Letters		X



Tank Repairs

- **§245.422 (b)(1) *Interior lining.*** A tank may only be upgraded by internal lining prior to November 10, 2007.
- **§245.434 (2) *Repairs allowed.*** Repairs to underground storage tank systems shall be properly conducted in accordance with a code of practice developed by a Nationally-recognized association or an independent testing laboratory.

Tank Repairs

- It appears that during past repairs on these types of tanks, manufacturers have followed API 1631 and NLPA 631 standards.
- Those standards are written to apply to single walled, bare steel tanks.
- STI just released: SP 131: Standard for Inspection, Repair and Modification of Shop-fabricated Underground Tanks
- This standard includes Double-wall and Jacketed Tank Guidelines



Bureau of Environmental Cleanup & Brownfields

DEP Regional Emergency Response Phone Numbers

North West Region – 1-800-373-3398

South West Region – 412-442-4000

North Central Region – 570-327-3636

South Central Region – 1-866-825-0208 **

North East Region – 570-826-2511

South East Region – 484-250-5900

****Please note that South Central's ER Phone number is NEW**



Bureau of Environmental Cleanup & Brownfields

Any Questions?

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