


Welcome to the 2013 IUM Inspector Seminar

Let’s start with:

Administrative Information

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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**

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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 - UST Unit - Environmental Protection Compliance Specialist

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Staffing Updates in Central Office

- Ben Sakmar - Solid Waste Specialist -

  Responsible for Regions 1 & 2 & 4 (SE & NE & NC)

- Kyle Wylezik - Environmental Trainee -

  Responsible for Regions 3 & 5 & 6 (SC & SW & NW)

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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”

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Why are we here?

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

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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.

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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**

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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**

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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**

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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.***

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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 sub-section 245.110 (relating to certification of installers)**

- **An inspector is not classified as a tank handler**

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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**

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Subchapter B – Certification Program

STORAGE TANK INSTALLER AND INSPECTOR CERTIFICATION APPLICATION

(Read the instructions before completing this application)

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

SECTION I – APPLICANT INFORMATION

Name _____ SSN _____
Last First MI

Home Address _____

City _____ State _____ Zip +4 _____

Municipality _____ County _____
(City, Boro, Twp)

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

Email Address _____

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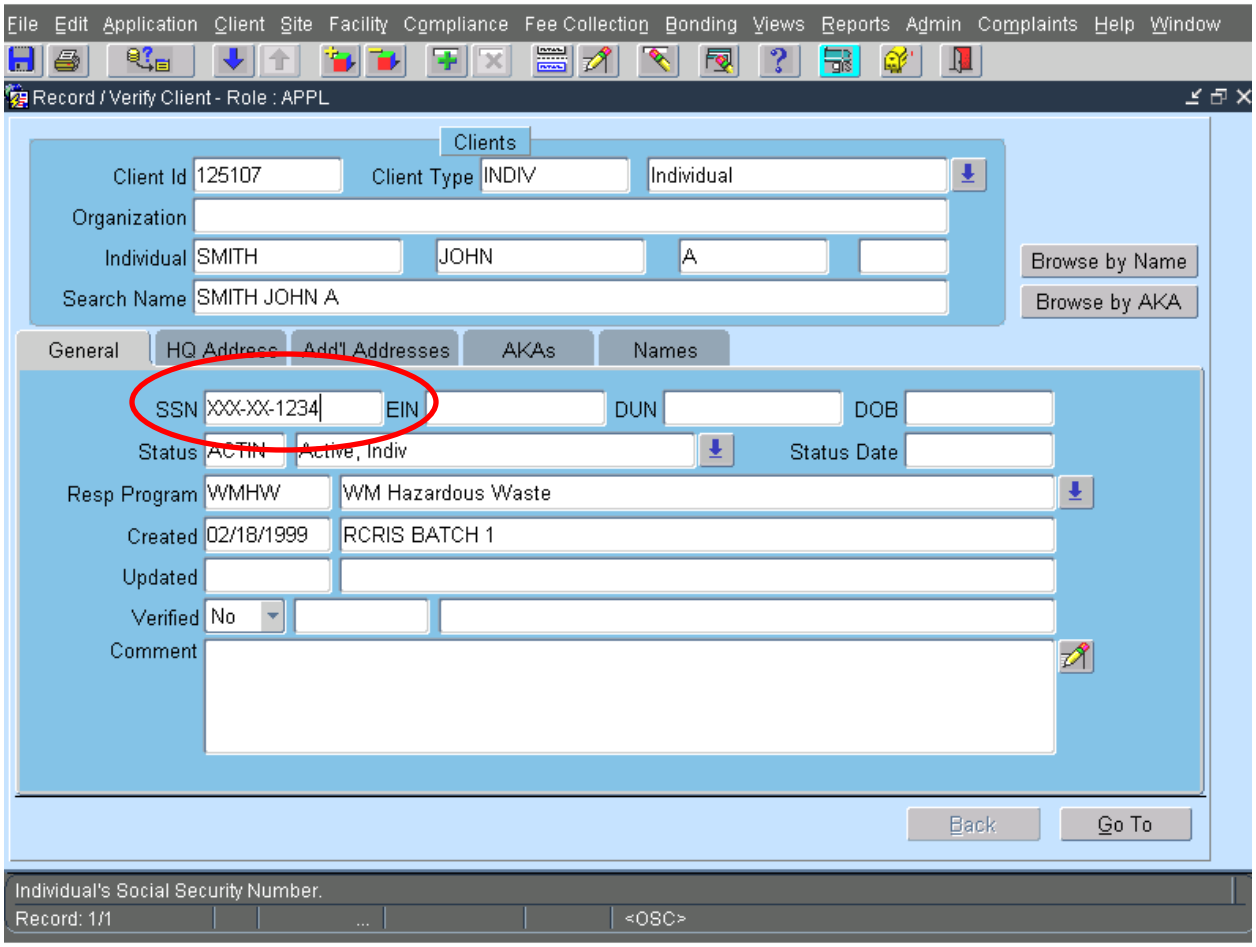
Subchapter B – Certification Program



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Subchapter B – Certification Program

	Initial	Renewal		Delete
		Retest	Training	
INSTALLER CATEGORIES				
Underground				
UMX	☐	☐	☐	☐
UMR	☐	☐	☐	☐
UTT	☐		☐	☐
Aboveground				
AMMX	☐	☐	☐	☐
AMNX	☐	☐	☐	☐
AMR	☐	☐	☐	☐
AFMX	☐	☐	☐	☐
AFR	☐	☐	☐	☐
AMEX	☐	☐	☐	☐
ACVL	☐	☐	☐	☐
Underground/Aboveground				
TL	☐		☐	☐
INSPECTOR CATEGORIES				
Underground				
IUM	☐		☐	☐
Aboveground				
IAM	☐		☐	☐
IAF	☐		☐	☐

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Subchapter B – Certification Program

Aboveground			
IAM_____	___☐___	_____ ___☐___	___☐___
IAF_____	___☐___	_____ ___☐___	___☐___

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

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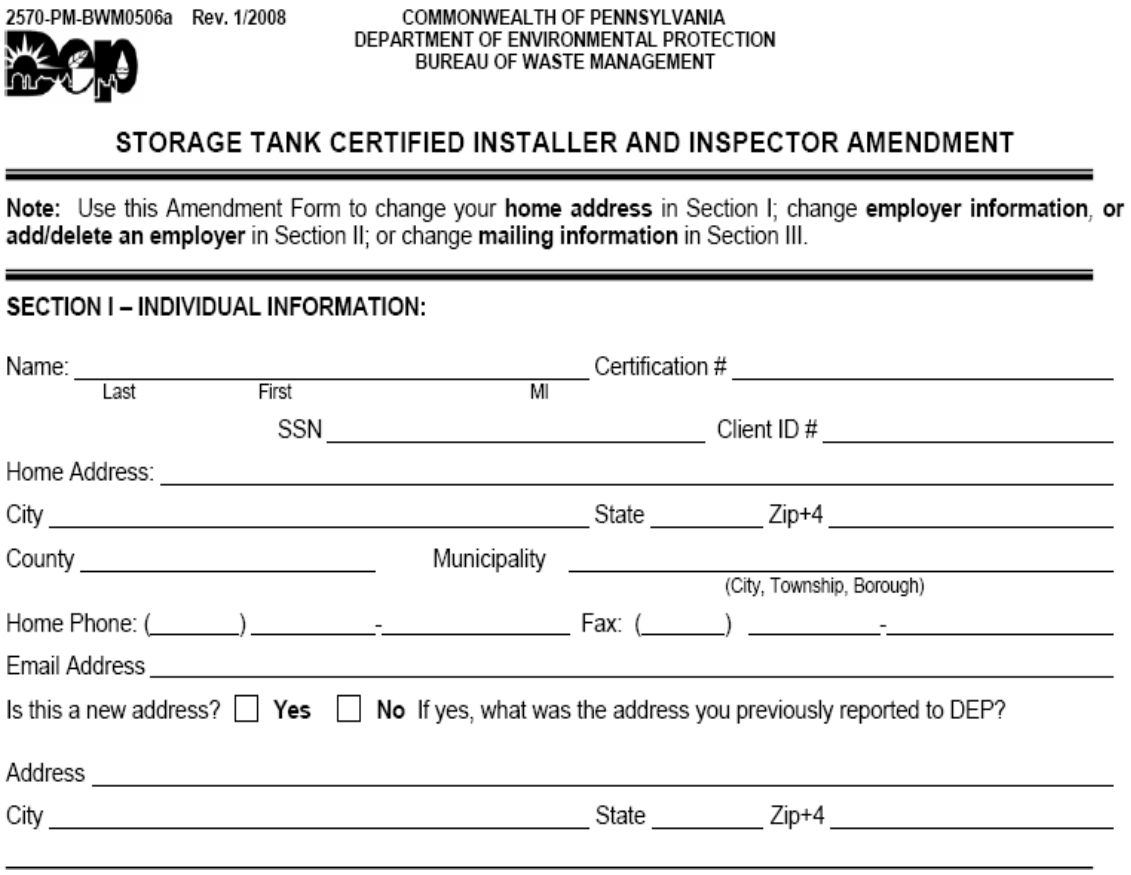
Subchapter B – Certification Program

Certification Amendment Form

Very Important!



2570-PM-BWM0506a Rev. 1/2008

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

STORAGE TANK CERTIFIED INSTALLER AND INSPECTOR AMENDMENT

Note: Use this Amendment Form to change your **home address** in Section I; change **employer information**, **or add/delete an employer** in Section II; or change **mailing information** in Section III.

SECTION I – INDIVIDUAL INFORMATION:

Name: _____ Certification # _____
Last First MI

SSN _____ Client ID # _____

Home Address: _____

City _____ State _____ Zip+4 _____

County _____ Municipality _____
(City, Township, Borough)

Home Phone: (_____) _____-_____ Fax: (_____) _____-_____

Email Address _____

Is this a new address? ☐ **Yes** ☐ **No** If yes, what was the address you previously reported to DEP?

Address _____

City _____ State _____ Zip+4 _____

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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 _____

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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.**

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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.**

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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.**

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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.**

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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**

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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.**

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Certification Renewal

§ 245.114 – Renewal and Amendment of Certification

- **As of November 10, 2009, *tank handlers*:**
  - **Attend category-specific <u>training</u>**
    - **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 <u>Retest</u>**

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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.**

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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.*

		A=Active	P=Pending	T=Terminated
Installer/Inspector Name	Certification Number	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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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).

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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.

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Standards of Performance

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

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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.**

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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**

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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

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Storage Tanks Website

www.dep.state.pa.us

Environmental Cleanup & Brownfields →

Storage Tanks

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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

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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.**

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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**

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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**

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Delivery Prohibition

September 28, 2011

1172 letters mailed regarding regulated tanks:

- ✓ **Product Distributors**
- ✓ **PPMCSA**
- ✓ **PA Farm Bureau**

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Storage Tank Listings

Storage Tanks Website → Registration → Regulated Tank List

Excel spreadsheets (updated monthly)

or live search

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

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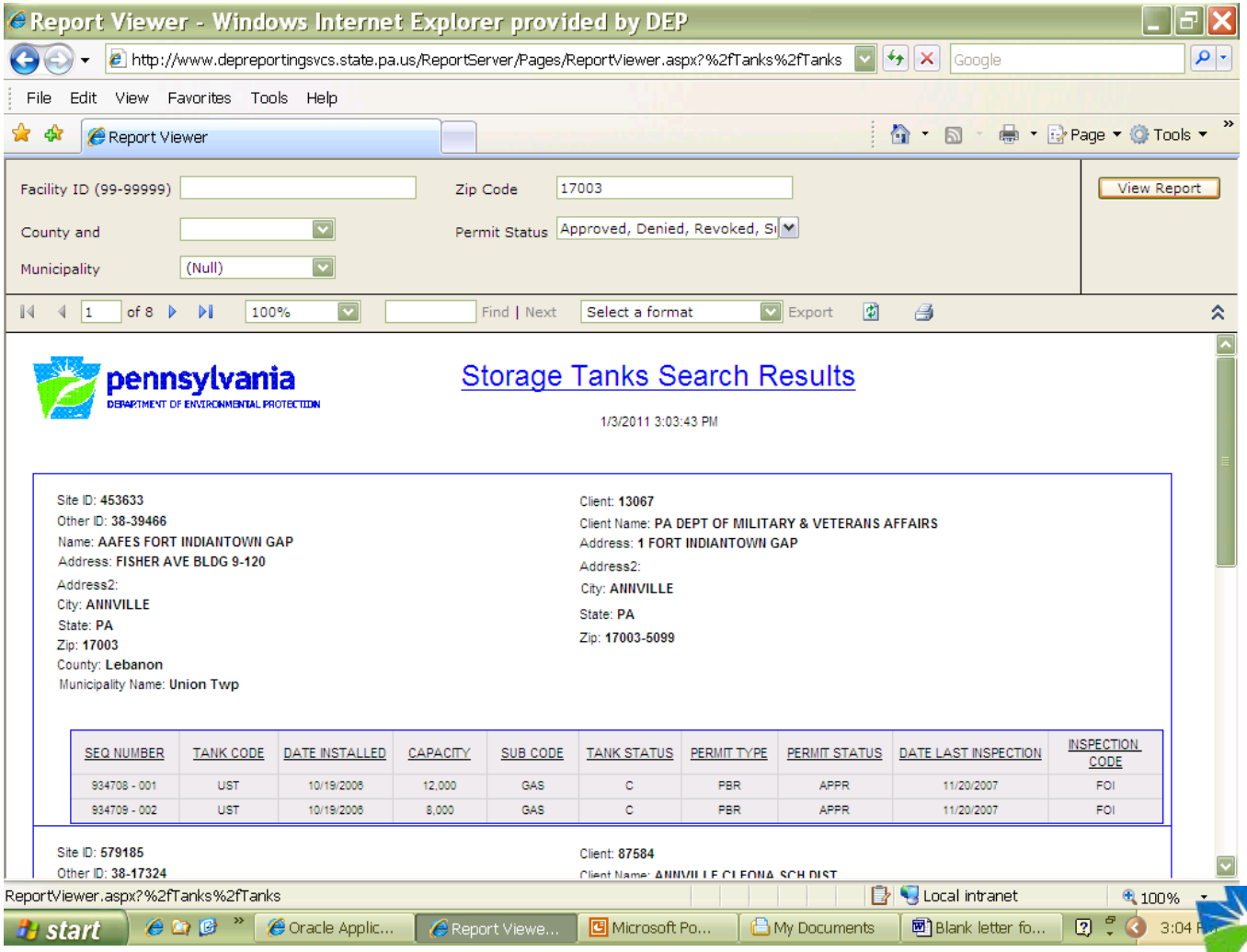
Storage Tank Listings



Query parameters:

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

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Certified Companies List

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

***Updated Real Time**

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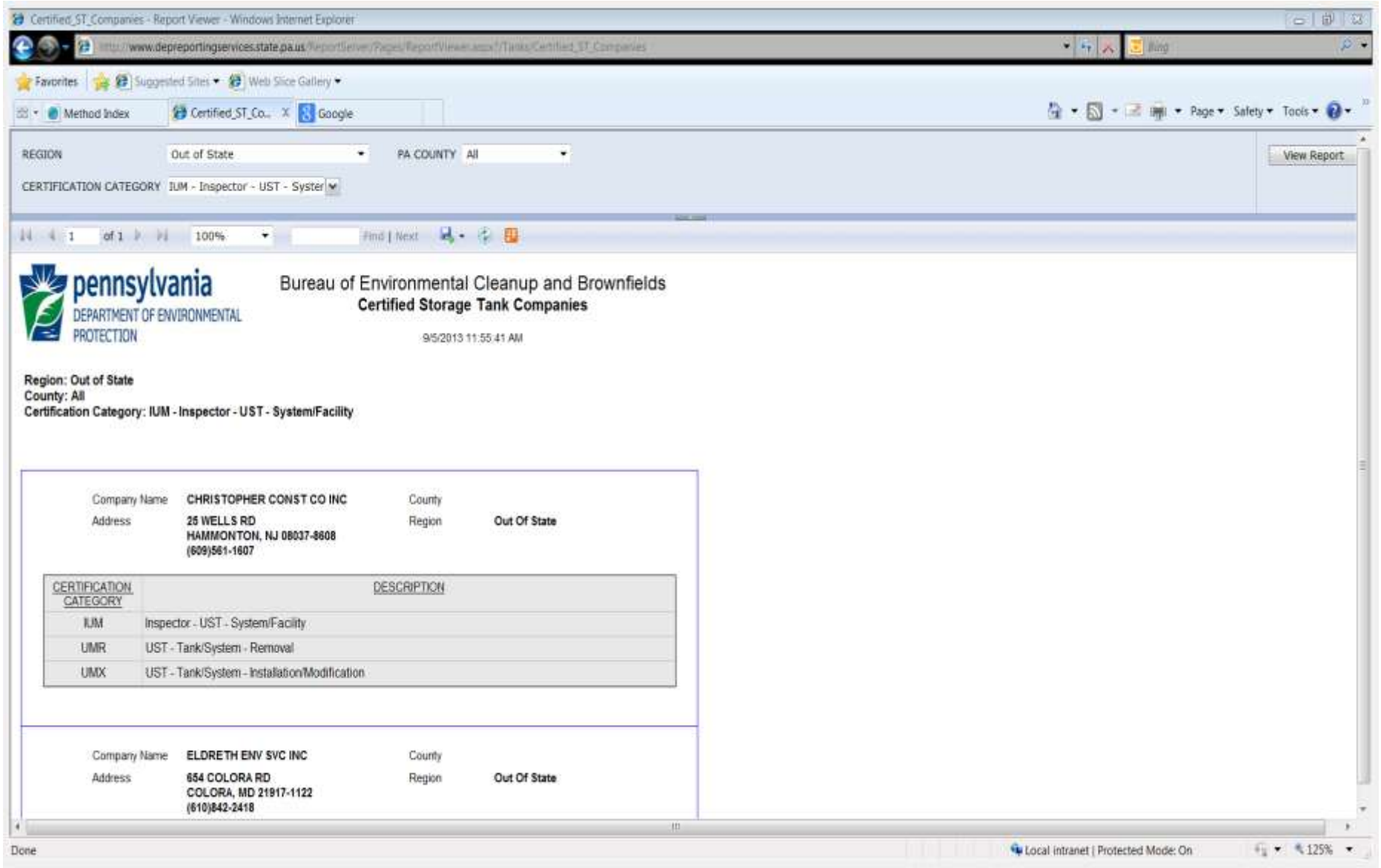
Certified Companies List



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 <u>new AST facility</u>**
- **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**

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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)**

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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!**
- **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)**

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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**

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Let’s take a quick 10 minute break!

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Where do Pennsylvania facilities stand?

- As of April 2013, Pennsylvania DEP's - Significant Operational Compliance (SOC) rate was 82.2%, easily exceeded the national average of 71.8%, and EPA Region 3 state average of 74.0%.
- Pennsylvania ranks 10th of the 56 states and territories in terms of highest SOC rate.

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Where do Pennsylvania facilities stand?

- Of the 23 states that regulate more than 10,000 USTs, Pennsylvania's SOC rate ranks 3rd.
- Of the 9 states that regulate more than 20,000 USTs, Pennsylvania's SOC rate ranks 2nd (Texas ranks 1st).

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Actions against DEP certified individuals

Statewide, from October 1, 2012 through March 31, 2013, the following enforcement actions were taken against DEP certified individuals for violations of Section 108 and Section 132 of the Storage Tank regulations:

- 25 Notices of Violation were issued
- 4 Penalties were assessed and collected

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Penalty Assessment

PENALTY CALCULATION: **$ = (VSxDxW) + ED + S/P + CR**	**VIOLATION NO.** _____	**VIOLATION NO.** _____	**VIOLATION NO.** _____
Violation Seriousness VS Low Risk (100-1,500) Medium Risk (1,000-3,000) High Risk (2,000-5,000)	---------- ----------	---------- ----------	---------- ----------
Duration (minimum 1) (D)			
Willfulness (W) Basic Liability (1) Negligent/Reckless (2) Deliberate (3)			
Environmental Damage (ED)			
Savings/Profit (S/P)			
Cost of Restoration (CR)			
PENALTY SUBTOTAL	$	$	$
PENALTY TOTAL	$		

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Penalty Assessment

- $ = (VS x D x W)+ ED + S/P + CR
- Violation Seriousness (VS)
  - Low Risk ($100-$1,500)
    - Not associated with a release or potential release
  - Medium Risk ($1,000-$3,000)
    - Associated with a release or potential release
  - High Risk ($2,000-$5,000)
    - Associated with a significant release
- Duration (D)

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Penalty Assessment

- Willfulness (W)
  1. Basic Liability
     - no level of willfulness established
  2. Negligent/Reckless
     - violator should have known legal requirements
  3. Deliberate
     - violator knew legal requirements

- Environmental Damage (ED)
- Savings/Profit (S/P)
- Cost of Restoration (CR)

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IUM Technical Information

Presented by:

UST Technical Unit Staff

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Release Reporting Requirements for Storage Tank Owners and Operators

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Release – “Spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank into surface waters and groundwaters of this Commonwealth or soils or subsurface soils in an amount equal to or greater than the reportable released quantity determined under section 102 of CERCLA, and regulations promulgated thereunder, or an amount equal to or greater than a discharge as defined in section 311 of the Federal Water Pollution Control Act and regulations promulgated thereunder.

The term also includes spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank into a containment structure or facility that poses an immediate threat of contamination of the soils, subsurface soils, surface water or groundwater.”

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An **indication of a release** includes one or more of the following conditions:

(1) The presence of a regulated substance or an unusual level of vapors from a regulated substance of unknown origin at a storage tank facility.

(2) Evidence of a regulated substance or vapors in soils, basements, sewer lines, utility lines, surface water or groundwater in the surrounding area.

(3) Unusual operating conditions, indicative of a release, such as the erratic behavior of product dispensing equipment.

(4) The sudden or unexpected loss of a regulated substance from a storage tank or the unexplained presence of water in a storage tank.

(5) Test, sampling, or monitoring results from a release detection method which indicate a release.

(6) The discovery of holes in a storage tank during activities such as inspection, repair or removal from service.

(7) Other events, conditions or results which may indicate a release.

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If an owner/operator suspects a release of regulated substance at his facility, he/ she shall complete an investigation of the suspected release within **7 days** and determine if the suspected release is confirmed as a reportable release.

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The owner or operator shall **investigate** the indication of a release by one or more of the following procedures:

(1) A check of product dispensing or other similar equipment.

(2) A check of release detection monitoring devices.

(3) A check of inventory records to detect discrepancies.

(4) A visual inspection of the storage tank or the area immediately surrounding the storage tank.

(5) Testing of the storage tank for tightness or structural soundness.

(6) Sampling and analysis of soil or groundwater.

(7) Other investigation procedures which may be necessary to determine whether a release of a regulated substance has occurred.

No notification to the Department is required unless the suspected release is confirmed as a reportable release.

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Please note that, under §245.435(b)(3)(ii), owners and operators shall retain current temporary records for a minimum of **1** year after the tank system has been removed.

Temporary records include tank and pipe release detection records for the past 12 months, including written certifications or performance claims for the release detection methods in use and **documentation of investigations of suspected releases**.

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Reportable Release:

"A quantity or an unknown quantity of regulated substance released to or posing an immediate threat to surface water, groundwater, bedrock, soil or sediment."

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"A Reportable Release **DOES NOT INCLUDE** (if the owner or operator has control over the release, the release is completely contained and, within 24 hours of the release, the total volume of the release is recovered or removed) the following:

1. A release to an interstitial space of a double-walled aboveground or underground tank.
2. A release of petroleum to an aboveground surface that is less than 25 gallons.
3. A release of a hazardous substance to aboveground surface that is less than its reportable quantity under CERCLA."

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When a release is confirmed as a reportable release, an owner/operator is required to notify, by telephone, the appropriate regional office of the Department within **24 hours** of the reportable release.

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Within **15 days** of the telephone notification, the owner/operator must submit a “Notification of Reportable Release” form to the appropriate regional office of the Department.

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2550-FM-BWM0082 Rev. 12/2008
BUREAU OF WASTE MANAGEMENT

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

☐ Initial
☐ Follow-Up

NOTIFICATION OF CONTAMINATION *(Certified Installers and Inspectors)*

NOTIFICATION OF REPORTABLE RELEASE *(Owners and Operators)*

The Storage Tank Program's Corrective Action Process (CAP) regulations establish release reporting requirements for owners and operators of storage tanks and storage tank facilities.

Subsection 245.305(a) of the regulations requires owners or operators to notify the appropriate regional office of the Department as soon as practicable, but no later than 24 hours, after the confirmation of a reportable release.

Subsection 245.305(d) requires owners or operators to provide an initial written notification to the Department, each municipality in which the reportable release occurred, and each municipality where that release has impacted environmental media or water supplies, buildings, or sewer or other utility lines, within 15 days of the notice required by Subsection 245.305(a).

Subsection 245.305(e) requires owners or operators to provide follow-up written notification to the Department and to each impacted municipality of new impacts to environmental media or water supplies, buildings, or sewer or other utility lines discovered after the initial written notification required by subsection 245.305(d). Written notification is to be made within 15 days of the discovery of the new impact.

This form may be used to comply with Subsection 245.305(d) and (e).

OWNERS AND OPERATORS (O/O)
INDICATE IF THIS IS AN INITIAL OR FOLLOW-UP NOTIFICATION BY MARKING THE APPROPRIATE BOX FOUND IN THE TOP RIGHT-HAND CORNER OF THIS FORM. PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIB, IV, V, VII and VIII.

NOTIFICATION OF CONTAMINATION
(Certified Installers and Inspectors)

The Storage Tank Program's Certification regulations establish standards of performance for certified installers and inspectors of storage tanks and storage tank facilities.

Subsection 245.132(a)(4) of the regulations requires certified installers and inspectors to report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or inspector.

This form may be used to comply with Subsection 245.132(a)(4). Subsection 245.132(a)(4) requires submission of the form within 48 hours of observing suspected or confirmed contamination. Where there is a reportable release, the form may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the form must be received by the appropriate regional office within 15 days of the notice required by Subsection 245.305(a).

CERTIFIED INSTALLERS AND INSPECTORS (I/I)
PLEASE COMPLETE ALL INFORMATION IN SECTIONS I, II, IIIA, IIIC, VI, VII and VIII.

INSTRUCTIONS

I. **FACILITY INFORMATION** - Record the name, I.D. number and physical location (not P.O. Box) of the facility at which a reportable release has been confirmed or at which suspected or confirmed contamination has been observed. Include the name and phone number of a person to contact at the facility.

II. **OWNER/OPERATOR INFORMATION** - Record the name, business address and phone number of the owner of the facility identified in Section I. Also, record the name and phone number of the operator of the facility.

III. **REGULATED SUBSTANCE INFORMATION** - Indicate to the best of your knowledge: A) the type of product or products involved; B) the quantity of product or products released; and C) whether the contamination is suspected or confirmed.

IV. **REPORTABLE RELEASE INFORMATION** - Record the date of confirmation of the reportable release, e.g., "9/18/01"; the date and regional office notified; and the date the local municipality(ies) [provide name of municipality(ies)] was/were sent a copy of this form. Indicate to the best of your knowledge the source/cause of the release, how the release was discovered and the environmental media affected and impacts.

V. **INTERIM REMEDIALACTIONS** - Indicate the interim remedial actions planned, initiated or completed.

VI. **SUSPECTED/CONFIRMED CONTAMINATION INFORMATION** - Record the date of observation of the suspected or confirmed contamination, e.g., "11/24/01". Indicate to the best of your knowledge the indications of a suspected release or extent of confirmed contamination resulting from the release of the regulated substance.

VII. **ADDITIONAL INFORMATION** - Provide any additional, relevant, available information concerning the reportable release or suspected or confirmed contamination. Include in this section specific details or problems about the release. For example, if the piping was the source of the release and the cause was corrosion of a metal connector or flexible connector, it is important to include that information here. Use additional 8½" x 11" sheets of paper, if necessary.

VIII. **CERTIFICATION** - Please print your name, and provide your signature and date of signature. If a certified installer/inspector, provide certification number and company certification number.

IX. **ATTACHMENT** - If a certified installer/inspector, provide a copy of failed valid tightness test(s), if applicable.

PLEASE SEND COMPLETED ORIGINAL FORM TO:
PA Department of Environmental Protection
Environmental Cleanup Program
Storage Tank Section
(and the appropriate address below,
depending on where the FACILITY is located)

Southwest Region	Northwest Region	Southcentral Region	Northcentral Region	Southwest Region	Northwest Region
2 East Main Street Norristown, PA 19401 PHONE: 484-250-5900 FAX: 484-250-5961	2 Public Square Wilkes-Barre, PA 18711-0790 PHONE: 570-826-2511 FAX: 570-826-2287	909 Elmerton Avenue Harrisburg, PA 17110 PHONE: 717-705-4900 FAX: 717-705-4830	208 W. Third Street, Suite 101 Williamsport, PA 17701 PHONE: 570-321-6525/327-3666 FAX: 570-327-3430	400 Waterfront Drive Pittsburgh, PA 15222 PHONE: 412-442-4091/4000 FAX: 412-442-4328	230 Chestnut Street Meadville, PA 16335-3481 PHONE: 814-332-6945 800-373-3398 FAX: 814-332-6121
Counties Bucks, Chester, Delaware, Montgomery, Philadelphia	**Counties** Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming	**Counties** Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York	**Counties** Bradford, Cameron, Centre, Clinton, Clearfield, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union	**Counties** Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland	**Counties** Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren

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Release Reporting Requirements for Department Certified Individuals

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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.

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If a Department certified individual confirms that a reportable release has occurred while performing services as a certified individual, he has two options:

1. Submit a “Notification of Contamination” form to the appropriate regional office of the Department within **48 hours**. On the form, he should indicate a confirmed release along with completing all of the certified individual’s sections of the form; or

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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.

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

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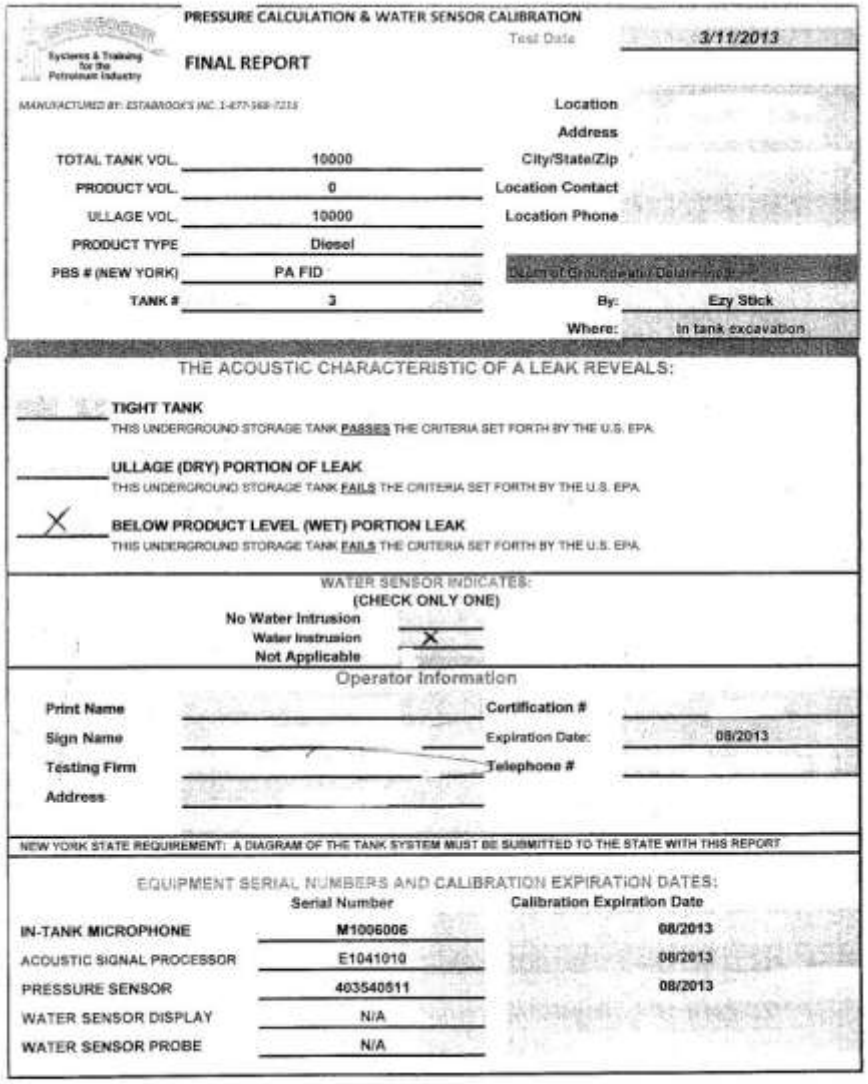

PRESSURE CALCULATION & WATER SENSOR CALIBRATION

Systems & Training for the Petroleum Industry

FINAL REPORT

MANUFACTURED BY: ESTABROOKS INC. 1-877-568-7215

Test Date: 3/11/2013

TOTAL TANK VOL.	10000	Location	
PRODUCT VOL.	0	Address	
ULLAGE VOL.	10000	City/State/Zip	
PRODUCT TYPE	Diesel	Location Contact	
PBS # (NEW YORK)	PA FID	Location Phone	
TANK #	3	By:	Ezy Stick
		Where:	In tank excavation

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

_____ **TIGHT TANK**
THIS UNDERGROUND STORAGE TANK PASSES THE CRITERIA SET FORTH BY THE U.S. EPA.

_____ **ULLAGE (DRY) PORTION OF LEAK**
THIS UNDERGROUND STORAGE TANK FAILS THE CRITERIA SET FORTH BY THE U.S. EPA.

X **BELOW PRODUCT LEVEL (WET) PORTION LEAK**
THIS UNDERGROUND STORAGE TANK FAILS THE CRITERIA SET FORTH BY THE U.S. EPA.

WATER SENSOR INDICATES:
(CHECK ONLY ONE)

No Water Intrusion	
Water Instrusion	X
Not Applicable	

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	

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.

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Dispensers –
Removals and Replacements

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Dispenser removals and replacements generally fall into 4 different categories:

- Removal of a dispenser with no intent of replacing
- Removal and replacement of a dispenser involving excavation
- Removal and replacement of a dispenser not involving excavation
- Removal of a dispenser without its replacement or excavation when placing a tank system in Temporarily Out-of-Service (TOS) status.

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If a facility owner wants to remove a dispenser, with no intention of ever replacing it, the Department considers this a "Partial System Closure" and would require:

1. A 30-Day Closure Notice submitted to the appropriate DEP regional office.
2. The use of a Department certified individual with "UMR" certification to remove the old dispenser. Following the work, the "UMR" certified individual must submit two modification reports to the Department. One copy of the modification report goes to the DEP central office and a second copy of the modification report goes to the appropriate DEP regional office.
3. A site assessment with the appropriate sampling must be done.

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If a facility owner wants to remove a dispenser, replace it, and excavation is required during the work, the Department considers this major modification and also a "Partial System Closure." The Department would require:

1. A 30-Day Closure Notice submitted to the appropriate DEP regional office.
2. The use of a Department certified individual with "UMR" certification to remove the old dispenser. The "UMR" certified individual must submit the appropriate modification reports to the Department.
3. The use of a Department certified individual with "UMX" certification to install the new dispenser. The "UMX" certified individual must submit the appropriate modification reports to the Department.
4. A site assessment with the appropriate sampling must be done.
5. The new dispenser must have a dispenser pan or dispenser sump.

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If a facility owner wants to remove a dispenser, replace it, and excavation is not required, the Department considers this a minor modification and would require:

The use of a Department certified individual with “UMX” certification to remove the old dispenser and install the new dispenser. The “UMX” certified individual must submit the appropriate modification reports to the Department. One copy of the modification report goes to the DEP central office and a second copy of the modification report goes to the appropriate DEP regional office.

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If a facility wants to remove their dispensers to go into "Temporarily Out of Use" status and excavation is not required, the Department considers this a minor modification and would require:

The use of a Department certified individual with "UMX" certification to remove the dispensers. The "UMX" certified individual must submit the appropriate modification reports to the Department. One copy of the modification report goes to the DEP central office and a second copy of the modification report goes to the appropriate DEP regional office.

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Pressurized / Pumped Delivery Issues

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37 PA CODE, CHAPTER 13. STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

§ 13.24a. Tank openings and vents for underground tanks.

(a) Connections for all tank openings shall be liquid tight.

(f) Tank openings provided for purposes of vapor recovery shall be protected against possible vapor release by means of a spring-loaded check valve or dry break connection or other approved device unless the opening is pipe-connected to a vapor processing system. Openings designed for combined fill and vapor recovery shall also be protected against vapor release unless connection of the liquid delivery line to the fill pipe simultaneously connects the vapor recovery line. All connections shall be vapor-tight.

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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.

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If the delivery is metered at the truck and the owner/operators gets a delivery ticket with the exact number of gallons delivered on it, the owner/operator is getting a pressurized or pumped delivery.

Examples: “Pedal Trucks,” “Wagon Trucks,” or home heating oil delivery trucks.

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

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Drop tube shut-off devices - Most models are not designed to provide overfill prevention for tanks that receive pressurized or pumped deliveries.

OPW 61SO OVERFILL

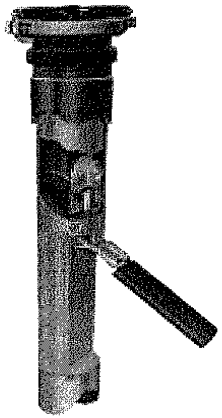
OPW 61SO OVERFILL PREVENTION VALVES

The OPW 61SO Overfill Prevention Valve is designed to prevent the overfill of underground storage tanks by providing a positive shut-off of product delivery. The shut-off valve is an integral part of the drop tube used for gravity filling. The OPW 61SO allows easy installation (without breaking concrete) and requires no special manholes.

The OPW 61SO is a two-stage shut-off valve. When the liquid level rises to about 95% of tank capacity, the valve mechanism is released closing automatically with the flow. This reduces the flow rate to approximately 5 gpm through a bypass valve. The operator may then stop the filling process and disconnect and drain the delivery hose. As long as the liquid exceeds the 95% level, the valve will close automatically each time delivery is attempted.

If the delivery is not stopped and the liquid rises to about 98% of tank capacity, the bypass valve closes completely. No additional liquid can flow into the tank until the level drops below a reset point.

Models of the 61SO are available to meet virtually any UST application including two point, coaxial, poppeted coaxial and remote fill. The 61SO-3000 provides two point overfill protection for 3" riser pipes, and the 61SO-1000 and 61SO-100C (CARB) feature a grooved tube design for use with tank gauging systems. Methanol and CARB (vapor tight) approved models are also available. The OPW 61SO is approved by the New York City Fire Department. (Approval #4902).



IMPORTANT

In order to prevent product spillage from the Underground Storage Tank (UST), properly maintained delivery equipment and a proper connection at the tight fill adaptor are essential. Delivery personnel should be managed and trained to inspect delivery elbows and hoses for damaged and missing parts. They should always make certain there is a positive connection between the adaptor and elbow. If delivery equipment is not properly maintained, or the elbow is not securely coupled to the adaptor, a serious spill may result when the OPW 61TNG closes, causing a hazard, and environmental contamination.

NOTE The OPW 61SO is designed for use on tight fill gravity drop applications only. Do not use for pressure fill applications

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“NOTE: The OPW 61SO is designed for tight fill gravity drop applications only. Do not use for pressure fill applications.”

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A few exceptions are:

1. OPW 61 f Stop
2. Franklin Fueling Systems EBW “The Warden Model 709”
3. Clay and Bailey “1228”.

These were all originally designed for ASTs.

OPW 61 f Stop

61fSTOP-2000

61fSTOP-1000

61fSTOP-3050

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The Warden Model 709

Clay and Bailey

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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.

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Solutions –

1. Have an overfill 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…).

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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 overfilling 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 overfill alarm was present.

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Kerosene Fills

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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."

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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!

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Product Changes in Storage Tanks

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We frequently receive “Storage Tank Registration Amendment Forms” that report product changes in storage tanks. (Kerosene -> Diesel, Gasoline -> Diesel, Diesel -> Gasoline, etc.)

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When product changes are going to occur, there are some very important things to consider:

1. Piping Leak Detection – Is the MLLD 3rd-party certified for the new substance? (e.g. The Red Jacket FX1DV is not third-party certified for gasoline.)
2. Tank Release Detection – Is the ATG probe 3rd-party certified for the new substance?
3. Overfill Prevention – Is the overfill prevention device capable with the delivery method of the new substance? (e.g. A gasoline tank has a coaxial stage I vapor recovery drop tube and a drop tube shutoff valve. This tank is changed to store diesel fuel. To ensure the overfill device is not bypassed, the coax stage I vapor recovery drop tube must be replaced with a straight drop tube and drop tube shutoff valve.)

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4. Venting – Are the vent lines manifolded together? 37 Pa Code, §13.25(f) states, “Vent piping for tanks storing class I liquids shall not be manifolded with vent piping for tanks storing class II or class III liquids, unless positive means are provided to prevent the vapors from class I liquids from entering tanks storing class II or class III liquids, to prevent contamination and possible change in classification of the less volatile liquid.”
5. Is the vent line height and vent cap appropriate for the substance stored? (e.g. Per PA Department of L&I, Class I liquids (gasoline) must vent at a minimum of 12 feet above grade and must have a pressure/vacuum vent cap.)
6. Compatibility – Is the tank, piping, overfill prevention device, ancillary equipment and appurtenances all compatible with the new substance? (e.g. E85 in older fiberglass tanks)
7. USTIF fees – USTIF bills differently for gasoline and diesel. Gasoline is billed by throughput and diesel is billed via an annual capacity fee.

Satellite Dispenser Issue – Large Piping Release Detection

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A shiny new MLLD was recently installed

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At the master dispenser, a release of 3.0 gph at 10 psig within 1 hour was quickly detected.

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At the satellite dispenser, a release of 3.0 gph at 10 psig within 1 hour was **NOT DETECTED**!

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Problem:

In older satellite dispensing systems, the piping that branches off to the satellite dispenser is typically downstream of the solenoid valve. Because of this configuration, leaks in the underground piping that goes to the satellite dispenser are not detected by a mechanical line leak detector and are essentially invisible.

Solutions:

1. Newer model master/satellite dispensers incorporate two or more solenoid valves – at least one solenoid valve in the master dispenser and at least one solenoid valve in the satellite dispenser. This multiple solenoid valve system does allow the satellite piping to be tested by the mechanical line leak detector.
2. If the piping system is double-walled, with containment sumps under the master dispenser and under the satellite dispenser, then sensors can be used for continuous leak detection.
3. Add a dispenser mounted electronic line leak detector to monitor only the satellite piping.

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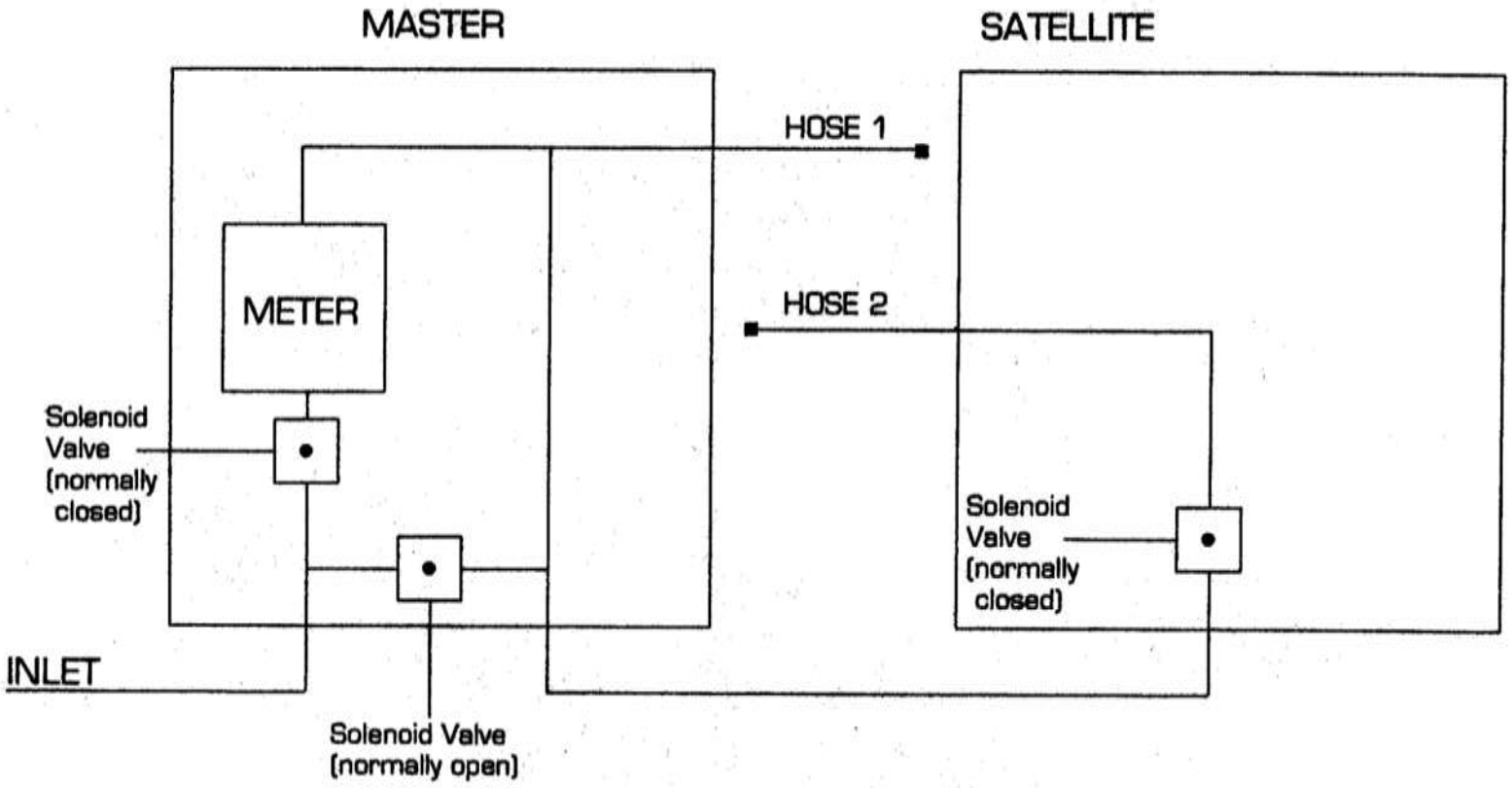

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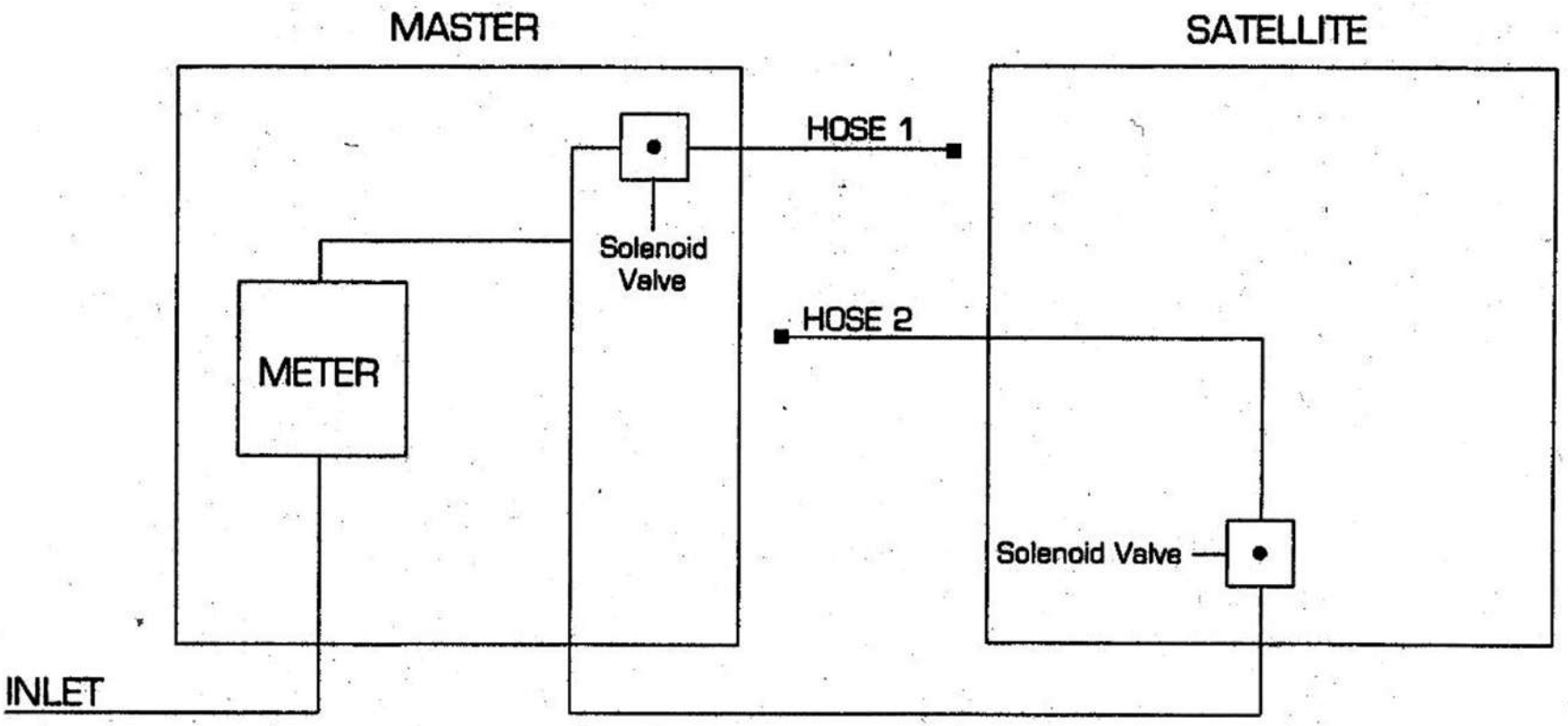

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Satellite Dispenser Issue – Small Piping Release Detection

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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.

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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).

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Let’s take a quick 10 minute break!

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Emergency Procedures
and
Operator Training

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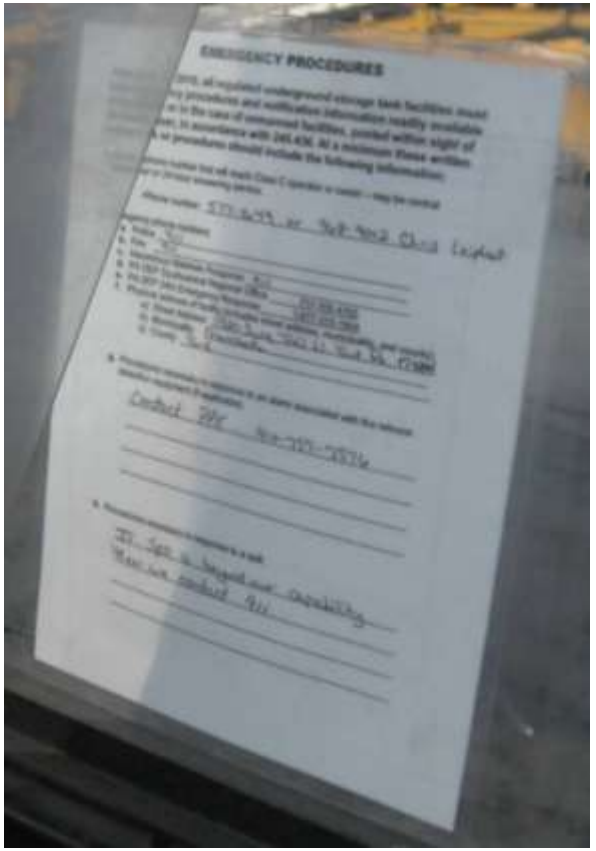
Emergency Procedures



- Required since June 28, 2010.
- Must be complete & available.
- Manned Facilities
  - ➢Readily available to Operators
- Unmanned Facilities
  - ➢Conspicuously and prominently posted

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Emergency Procedures

- What should you be looking for?
  - Contacts
  - Phone Numbers
  - Location
  - Procedures

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Operator Training

- What do you need to see during your inspection?

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Operator Training

- New Form For Documentation Of Class A, B and C Operators.
- Must be filled out and submitted when:
  - A new UST facility opens.
  - A UST is added to an existing facility.
  - A tank's status changes to "Currently in Use" from "TOS" or "Exempt".
  - A change of ownership occurs.

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Facility Operations Inspection Report Completion

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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

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Reports: Compliance Determinations

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

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FOI Reports, Page 1

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

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Emergency Procedures

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

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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).

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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.
- Code 99, Other, must be explained in detail in the comments section on pg. 7.

Manifolded 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

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:
  - 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.

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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

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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.

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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/

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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

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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

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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?

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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

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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.

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Sump Sensors

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

- Sensors must be vertical

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Sump Sensors

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Electronic Line Leak Detectors

- Continuous 3 gph test

AND

- 0.1 gph test annually

OR

- 0.2 gph test monthly

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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

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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**.

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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.

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.

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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.

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New Piping Installations

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“New” Piping Runs

- Any piping run installed after November 10, 2007

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Replacement Piping

- If more than 50% of a piping run is replaced
  - The entire piping system that routinely contains product shall be replaced.
  - Replacement piping must meet the requirements for new piping systems.

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New Piping Requirements

- Secondary Containment
- Monthly Interstitial Monitoring
- For pressurized systems - positive STP shut-off via the continuous 3 gph release detection method

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Pump Shut-off

- When a release is detected, the STP is automatically disabled.
- MLLD slow flow is not STP shutoff.

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Stage II Vapor Recovery Update

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Stage II Vapor Recovery Update

- Vapor recovery from vehicle refueling.
  - Onboard Refueling Vapor Recovery (ORVR) phased in from 1998 to 2006.

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Stage II Vapor Recovery Update

- Stage II and ORVR are redundant.
- Per the CAA – The EPA may waive certain Stage II requirements if/when ORVR systems are in “widespread use” in the vehicle fleet.
- EPA announced that finding on May 9, 2012.

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Stage II Vapor Recovery Update

- 8/15/12 – DEP announced that Stage II Vapor Recovery Systems will no longer be required at new gas stations.
- Stage II Vapor Recovery Systems currently installed must be operated and maintained until further notice.

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Cathodic Protection Issues and Reminders

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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.

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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.

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)

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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.

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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.

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ACT-100 Tanks With Anodes

ACT-100 Tanks With Anodes

- 245.432(a)(1)
  - ”Corrosion protection systems shall be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances.”
- 245.432(c)
  - ”Required equipment, including… corrosion protection, … whose failure could contribute to a release of product, shall be maintained in a good state of repair to ensure they function as designed.”

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ACT-100 Tanks With Anodes

- DEP's position – if an ACT-100 or ACT-100U has supplemental anodes that are factory installed or field installed, then:
  1. The anodes must be tested every 3 years.
  2. Must achieve a passing -850 mV cathodic protection test.

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ACT-100 Tanks With Anodes

- If the cathodic protection test fails, per STI:
  - No current recommended practice for the addition of supplemental anodes for ACT-100 or ACT-100U tanks.
  - The corrosion engineer at STI will put in writing that the procedures in R972 can be used for ACT-100 and ACT-100U type tanks.

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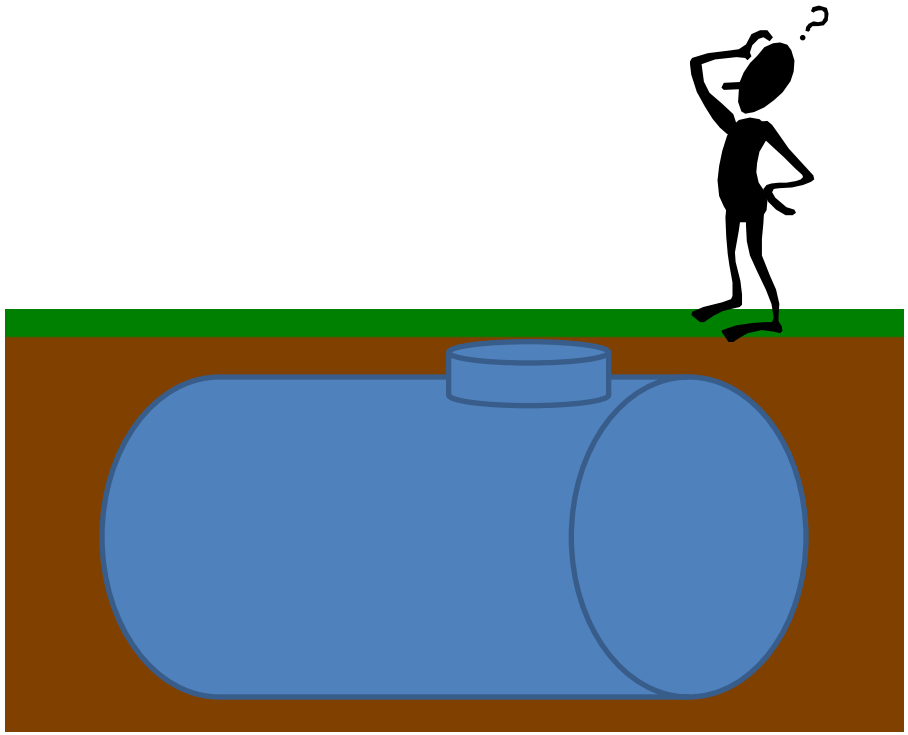
Identifying USTs



Information based on STI “Tank Talk” article from 9/2012

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Clues to look for

- Tank Diameter
- Installation Date
- Riser Location
- Tank Appearance
- Electrical Properties

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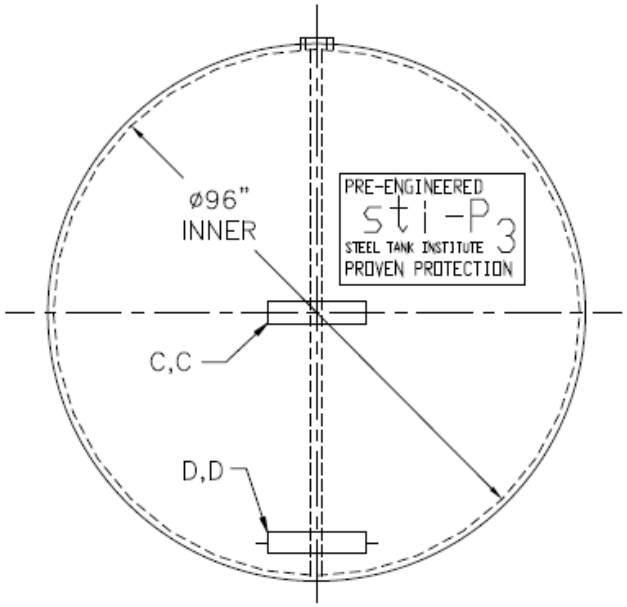
Diameter

- Some diameters are specific to certain types of tanks
  - 92” usually FRP
  - 96” usually Steel



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Date installed

- 1969 – Sti-P3 Technology Invented
- 1984 – STI Standard for D/W Tanks
- 1987 – First Association for Composite Tanks
- 1990 – First STI standard for ACT-100
- 1992 – STI adopted Permatank technology
- 1996 – ACT-100-U created

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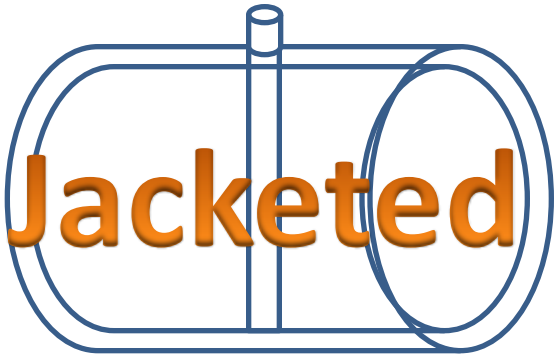
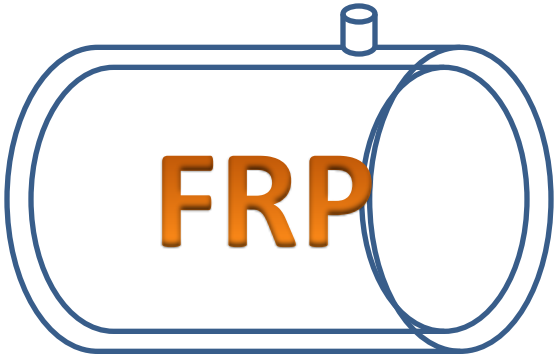
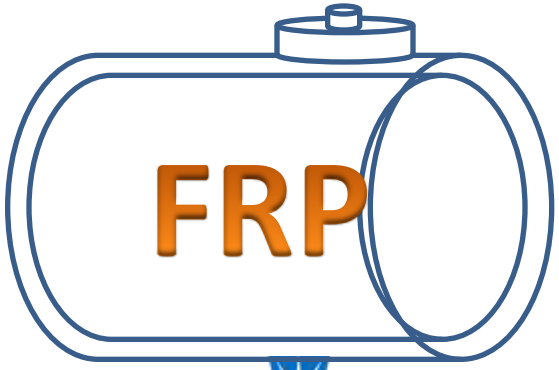
Configuration

- Interstitial Risers







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Tank Appearance

- Color
- Coating
  - 70 mils = Sti-P3
  - > 100 mils = ACT-100
- Ribs

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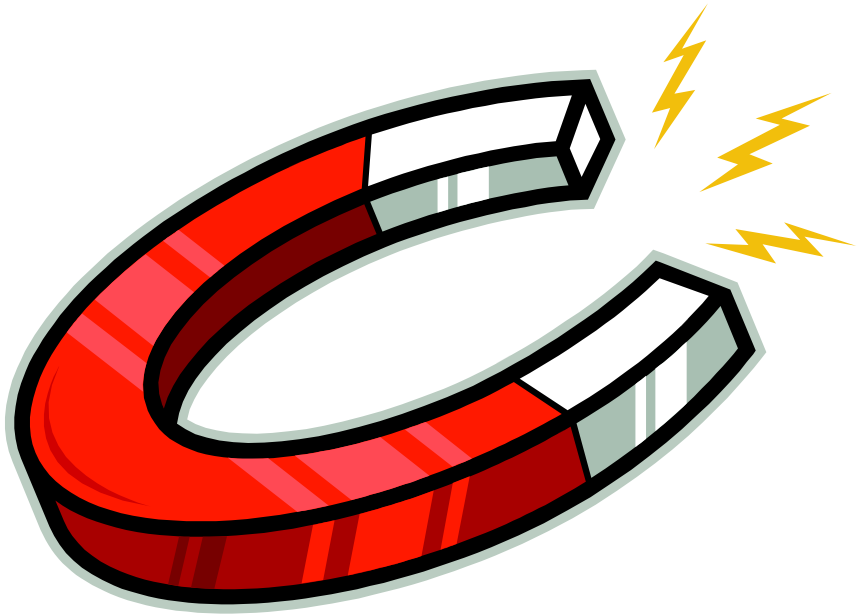
Electrical Properties

- Continuity
- Tank-to-soil Potential
- Magnet



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TOS Tanks

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TOS facility exemptions

- Release detection
- Spill protection
- Overfill prevention
- Operator training
- Emergency procedures

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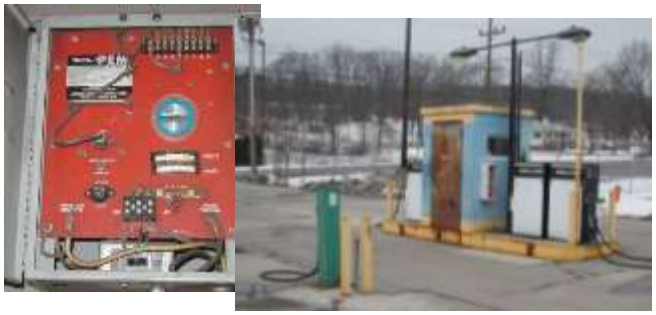
TOS facility requirements

- Less than one inch of product
- Maintain corrosion protection
- Continue 3-year inspections
- Vents functioning, lines capped and secure



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Sump Testing
(Hydrostatic or Vacuum)

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Sump Testing

- Hydrostatic or vacuum testing of newly installed or repaired spill buckets & containment sumps is required to be done with oversight by a PA DEP certified tank installer as part of the installation/repair process.
- This testing must be done in accordance with the manufacturer's procedure or an industry standard; such as PEI RP-1200, and the testing must be properly documented.

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Sump Testing

- Testing must be properly documented.
- Test results must be maintained by both the installer and the facility owner.

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Sump and Spill Bucket Tightness Testing

- All sumps (tank top, transition, dispenser) and spill buckets installed or repaired after 11/10/07 must be tightness tested prior to use
- Owner/operator should have copy of tightness test and Modification Report if applicable
- 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.

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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

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Sump and Spill Bucket Tightness Testing

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Penetration Boot Repairs

- If a sump penetration boot or fitting needs to be repaired or replaced, a UMX certified individual needs to do this work.
- This repair work must conclude with a passing hydrostatic or vacuum test.
- The certification unit is currently looking at a possible new certification for “modification” work only.

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Tank Repairs

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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.

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Tank Repairs

- <u>There is no industry standard regarding a repair of STI-P3 or ACT-100 tank system.</u>
- It appears that during past repairs on these types of tanks, manufacturers have followed API 1631 and NLPA 631 standards.
- These standards are written to apply to single walled, bare steel tanks.

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Tank Repairs

- Situation:
  - Hole in primary
- Solutions (up to this point):
  - Patch welded, lined over
  - Lining only over hole

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Tank Repairs

- NLPA and API call for some type of repair to the hole PRIOR to lining. (Hydraulic cement, welding in a steel plate, welding a seam, and/or boiler plug).

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Tank Repairs

- Because no standard specifically addresses repairs of this nature, the following should be provided by the tank manufacturer IN WRITING:
  - Necessary steps to repair the tank in accordance with standard(s)
  - Verification that the manufacturer will stand behind the repair should be provided.

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Tank Repairs

- The API and NLPA standards, although not specifically meant for such tanks, are recognized industry standards
- Combining standards with the manufacturer's written steps would meet our regulatory requirement for repairs.
- The tank manufacturer cannot do the repairs without a UMX present.

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Tank Repairs

- If the tank manufacturer is not willing to put the steps needed IN WRITING, then the tank cannot be repaired.
- In no way shall the lining serve as corrosion protection.

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Tank Repairs

- For existing single walled STI-P3 tanks, the written statement from the manufacturer must include something regarding the galvanic cathodic protection system and its ability to protect the bare area.

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EPA Proposed Regulation Amendments

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Any Questions?

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Kyle Wylezik – 717-772-5821 – kwylezik@pa.gov