Presented by:

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Topics

- Where Do Pennsylvania Facilities Stand With the US EPA
- Technical topics and Recommendations to Maintain Compliance
- Operator Training and Availability
- Emergency Procedures
- Department Contact Information
As of September 30, 2015, there were 22,720 regulated underground storage tanks located at 7,922 facilities.

Between April 1, 2015 and September 30, 2015, 1,601 third-party and 181 Pennsylvania DEP staff inspections were performed for a total of 1,782 initial, onsite inspections.

Between April 1, 2015 and September 30, 2015, Pennsylvania DEP staff performed 429 follow-up inspections performed as the result of violations discovered during third-party inspections.
As of September 30, 2015, the Pennsylvania DEP’s Overall Significant Operational Compliance (SOC) rate for underground storage tanks was 74.8%, easily exceeding the national goal of 68.0%.

Between April 1, 2015 and September 30, 2015 – 76 enforcement actions, including 32 Delivery Prohibitions, were taken by the Pennsylvania DEP and a total of $171,729.64 was collected in penalties.
Facility Operation Inspections (FOI)

- **3 year** inspection interval for routine inspections
- **6 months to 1 year** after new storage tank installation
- **6 months to 1 year** after a change of ownership
- Next “Facility Operations Inspection” due date is located on your “Storage Tanks Registration / Permit Certificate”
- A reminder letter from the PA DEP is sent as a courtesy; however, the facility can have an FOI at anytime. You don’t need to get a letter from the PA DEP.
- The PA DEP can ask for an inspection at any time to verify compliance. We have been doing this for tanks that have gone from “Temporarily Out of Use” to “Currently-in-Use.”
- A list of PA DEP certified underground storage tank inspectors (IUMs) can be located on our website. This list is updated daily.
There are three important dates and an important status on the registration certificate:

1. The next Facility Operations Inspection due date.
2. The certificate expiration date.
3. The next Lining Inspection due date (Lined tanks only).
4. The Permit Status.
Facility Operation Inspections (FOI)

General Recommendations:

- Have all your tanks inspected at the same time, so all of your tanks and facilities are on the same inspection cycle.
- Have your cathodic protection testing done at the same time.
- If located in northern Pennsylvania, try not to have your inspection scheduled during the cold winter months. Frozen manway lids and spill buckets are great!
- Keep a compliance binder readily available and keep good records.
- Shop around for inspectors (IUMs) – the Department does not regulate third-party inspection prices.
- Be present during the inspection, learn, and ask questions!
Good Recordkeeping?
Technical Topics

Corrosion Protection

– Cathodic Protection (CP) is used to protect metal tanks and metal product piping
– Two different types: Galvanic (anodes on tank) or Impressed Current (rectifier on wall)
  • **3 year** CP survey interval for **all** cathodically protected metal tanks and product piping
  • **6 month** CP survey interval after a new cathodic protection system installation or repairs to an existing system
– Impressed Current - volts, amps, and runtimes from rectifier must also be documented **every 60 days**
– To be compliant during an inspection, a facility must have:
  • The last **2** CP survey results that are passing (Today and 3 years prior)
  • The last **3** volt, amp, and run times from rectifier for impressed current systems (Today, 60 days ago, 120 days ago)
Corrosion Protection

Recommendations:

• Have the CP survey done at the same time as the FOI. Most IUMs can perform the CP survey or arrange to have it done. That’s one less date to remember and one less mobilization charge!
• Three years is three years. Three years and two months = non-compliant
• A CP system requires liquid moisture (electrolyte) to achieve a passing CP survey. If the CP survey is done in the cold winter months or during drought conditions, the CP survey might not pass. If drought conditions are present, try adding water to the backfill with a hose.
• If you have an impressed current system, look for significant changes in your volts and amperage. If you see a change of more than 10% of your initial volt or amperage readings, call your corrosion expert company! When impressed current systems fail, bad things happen relatively quickly.
• Repairs must be designed by a corrosion expert and conducted by a DEP UMX certified individual.
• Keep a compliance binder readily available for review.
Many different release detection methods are available for tanks:

- Interstitial monitoring
- Automatic Tank Gauging (ATG)
- Statistical Inventory Reconciliation (SIR)
- Manual Tank Gauging
- Groundwater Monitoring
- Vapor Monitoring

The selected method depends on the installed tank system. Variables include tank installation date, tank size, product stored, how product is used, etc. There are advantages and disadvantages to each and every method.

To be compliant during an inspection, a facility must have:

- Documentation verifying tank release detection was **passing** and was done at least once every 30 days.
- The last 12 months of records prior to the date of the inspection readily available for review.
Technical Topics

Tank Release Detection

Recommendations:

• Run ATG tests early each month and later in the same month. If a test is invalid or fails, you can easily run an ATG test a second time. This will also count towards your suspected release investigation.

• Keep price in mind. The interstitial space of a double walled steel tank can be stuck manually and documented for free!

• **Learn your ATG system and it’s capabilities.** Example: Without special software called CSLD, a Veeder Root TLS-350 must be between 50-95% full to achieve a passing ATG test.

• Respond to alarms quickly and appropriately!

• Select a method and stick with it.

• Keep a compliance binder readily available – photo copy ATG printouts and place in the binder – ink fades.

• Pay attention! Even CSLD may “miss” a leak.
Release Detection Records – Pay attention!

DEC 3, 2015 8:00 AM
CSLD TEST RESULTS
DEC 3, 2015 8:00 AM

T 1: DIESEL
PROBE SERIAL NUM 042841
0.2 GAL/HR TEST
PER: DEC 3, 2015 PASS

T 2: REGULAR
PROBE SERIAL NUM 042707
0.2 GAL/HR TEST
PER: NOV 20, 2015 PASS

T 3: REGULAR 2
PROBE SERIAL NUM 076397
0.2 GAL/HR TEST
PER: DEC 3, 2015 PASS

T 4: PREMIUM GOLD
PROBE SERIAL NUM 042706
0.2 GAL/HR TEST
PER: DEC 3, 2015 PASS
Here’s the result of not paying attention...
12,000 gallon release!
There are two different types of suction piping systems: European (check valve at pump) or American (check valve at tank).

Different release detection methods are available for suction piping:
- Interstitial monitoring (2 different types)
- Statistical Inventory Reconciliation (SIR)
- Precision Line Tightness Testing
- Groundwater Monitoring
- Vapor Monitoring

The selected method depends on the installed suction piping system. Variables include piping installation date, piping type, piping size, product stored, how product is used, etc. There are advantages and disadvantages to each and every method.

To be compliant during an inspection, a facility must have:
- Documentation verifying the type of suction piping installed – European or Suction.
- Documentation verifying appropriate suction piping release detection was completed. This documentation varies greatly. The piping system could be exempt from release detection, required to complete monthly, or tri-annual release detection.
Pressurized Piping Release Detection

- Many different release detection methods are available for pressurized piping
  - Interstitial monitoring (2 different types)
  - Electronic Line Leak Detector
  - Mechanical Line Leak Detector
  - Statistical Inventory Reconciliation (SIR)
  - Precision Line Tightness Testing
  - Manual Tank Gauging
  - Groundwater Monitoring
  - Vapor Monitoring

- The selected method depends on the installed piping system. Variables include piping installation date, piping type, piping size, product stored, how product is used, etc. There are advantages and disadvantages to each and every method.

- There are two forms of pressurized piping release detection required: “big” leak and “little” leak.

- To be compliant during an inspection, a facility must have:
  - Documentation verifying that “big” leak piping release detection was passing and was done annually.
  - Documentation verifying that “little” leak piping release detection was passing and was done monthly or annually – depends on the method used.
  - The last 12 months of records prior to the date of the inspection readily available.
Pressurized Piping Release Detection

**Recommendations:**

- Keep price in mind. If you have secondary containment on your piping runs, monthly visual sump inspections can be performed and documented for free!
- Check all your sumps after snow melts and significant rainfalls. When installing new sumps, leave plenty of space for backfill between the sump and steel ring.
- Learn your unique system and its capabilities. All methods aren’t the same!
- Respond to alarms quickly and act appropriately!
- Select a piping release detection method and stick with it.
- Many companies offer compliance assistance programs where they keep track of your testing dates and conduct the testing on time.
- Keep a compliance binder readily available for all your release detection records – photo copy all ATG printouts and place in the binder – ink fades.
Sensors can be great but...
Eyeballs can sometimes be better!
Spill Prevention

– Unless the tank is filled in less than 25 gallon increments, a spill bucket must be installed on the tank fill.

– To be compliant during an inspection, a facility must have:
  • A spill bucket installed on the tank fill.
  • All spill buckets must be in good, operable condition.

➢ Recommendations:
  • During install, have your spill buckets raised up from the concrete pad to help with water runoff.
  • Keep spill buckets clean and free of debris, water, and fuel - spill buckets are designed to catch drips of fuel and be cleaned out and not to be continuously in contact with fuel - Maintenance is the key!
  • Check spill buckets after snow melt and significant rainfall.
  • Remember to watch for spill buckets when plowing snow.
  • The average life span of a spill bucket is 5 years!
Technical Topics
Overfill Prevention

Unless the tank is filled in less than 25 gallon increments, an overfill prevention device must be installed on each tank. There are different types of devices: Drop tube shutoff valves, ball floats, overfill alarms, etc.

**IMPORTANT:** The overfill prevention device must be compatible with both the fuel delivery and vapor recovery methods – generally, pressurized deliveries need different devices than gravity deliveries.

Bypassing of the overfill prevention device is prohibited. Example: diesel and coaxial drop tube shutoff valve.

To be compliant during an inspection, a facility must have:
- An overfill prevention device installed on all tanks.
- Overfill prevention equipment must be in good, operable condition and it has to be compatible with the delivery and vapor recovery methods.

**Recommendations:**
- Maintenance is the key!
- Periodically test and inspect overfill alarms or devices: Do the lights and sirens actually work? Can you actually hear it were the driver is standing or see it? Is there a gauge stick jammed in your tank fill?
- Does the delivery driver stick your tank prior to filling it and stand by the nozzle during the entire delivery?
- Does your contract clearly state the responsibilities and what you expect of the delivery driver?
Could you hear or see these alarms?
Would these shut off valves work?
Operators and Availability

- **All** facilities must have Class A, Class B, and Class C Operators trained and designated. **There are no exceptions to this requirement!**

- Class A and Class B Operators must go through formal training and the training certificates must be readily available for review by the inspector at the facility.

- A single person may function as a Class A, Class B, and Class C Operator if they wish. However, they must be designated in writing as such; meaning, a Class A Operator is not automatically a Class C Operator.

- Class A and Class B Operators should train the Class C Operators and must provide them with an annual refresher of the training.

- The Class C training should include specific procedures to follow in the event of a spill, fire, emergency, etc. If a DEP inspector conducts an inspection and mimics an emergency, the Class C Operator must know how to respond immediately.

- Response times vary by Operator class and type of facility –

  - **At Non-retail and/or Unmanned** facilities:
    - Class A and Class B Operators must be available by phone immediately and onsite within 24 hours of an emergency.
    - A class C Operator must be available by phone immediately and onsite within 2 hours of an emergency.

  - **At Retail** facilities:
    - Class A and Class B Operators must be available by phone immediately and onsite within 24 hours of an emergency.
    - A class C Operator must be onsite at all times when fuel is being sold.
Recommendations:

- Have multiple Class C Operators trained and designated at your facility. This training is free and provided by the tank owner, Class A, or Class B Operator.
- If you are the only Class C Operator at a non-retail facility and you go on vacation, you must be able to get back to the facility within 2 hours. No exceptions.
- If you have a retail facility and you are the only Class C Operator, you must shutdown fuel sales if you leave the property for any reason.
- If you have a retail facility, you are the only Class C Operator, and the facility is open 24 hours, how do you sleep?
- Conduct your annual Class C Operator refresher training when you do your other annual safety training; such as: OSHA refresher training, CPR, etc.
Emergency Procedures should be clearly posted in area easily seen by people using the dispensers and by those delivering fuel to the tanks – use good judgment.

• What should be on it?
  – Class A and Class B Operator Phone Numbers
  – 24 Hour Emergency Phone Numbers
  – Location Address with County and Municipality
  – Response Procedures: Fire, Large Spill, Small Spill, etc.

➢ **Recommendations:**
  • Make your procedures concise and to the point. Imagine yourself reading your procedures during a real emergency situation.
  • Review procedures at least annually and update them when information changes. Phone numbers change, response contractors change, etc.
Emergency Procedures – Manned and/or Retail

• Emergency Procedures should be readily available to all personnel at the facility

• What should be on it?
  – Class A and Class B Operator Phone Numbers
  – 24 Hour Emergency Phone Numbers
  – Location Address with County and Municipality
  – Response Procedures: Fire, Large Spill, Small Spill, etc.

➤ Recommendations:
• Make your procedures concise and to the point. Imagine yourself reading your procedures during a real emergency situation.
• Review procedures at least annually and update them when information changes.
• Keep personnel and language barriers in mind. You may need different versions of the procedures with different languages.
Final Note on Emergency Procedures

What do you think happened when DEP staff called these phone numbers?

If you guessed that:

The DEP staff were told it was the wrong number and the individual on the other end was unable to provide the appropriate contact information...

Then, you would be correct!
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Harrisburg, PA  17105-8763
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       717-772-5599
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Web address:  www.dep.state.pa.us
Keyword:  “Storage Tanks”