COMPLIANCE MANAGEMENT STRATEGIES

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Presented by: Megan Kazmierczak, ECS Eclipse

AST vs. UST Compliance requirements

- Aboveground Storage Tanks (ASTs):
  - Misconception that ASTs are "unregulated"
  - Most are subject to federal requirements and some may also be subject to state or local requirements
  - ASTs generally have fewer compliance items to track
- Underground Storage Tanks (USTs):
  - Subject to federal, state and sometimes local requirements
  - In most cases, have more compliance requirements than ASTs

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AST Compliance Background

- No single federal regulatory program for ASTs
- Several federal and state regulations, laws, codes
- Examples of requirements that may apply to ASTs:
  - Spill Prevention Control and Countermeasure (SPCC) regulations
    - Federal EPA program
    - Developed under Clean Water Act, 40 CFR Part 112
    - Purpose is to protect from discharge into water
    - Applicability depends on material stored and quantity

AST Compliance Background

- Examples of requirements that may apply to ASTs:
  - National pollutant discharge elimination system (NPDES) storm water permitting
    - Also developed under Clean Water Act
    - Developed to protect runoff to storm water from activities at industrial facilities
    - Ohio EPA program: http://www.epa.ohio.gov/dsw/storm/index.aspx
  - Flammable/Combustible Liquid Storage
    - Regulated under Ohio Fire Code
    - Local fire department may also have requirements

UST Compliance Background

- 1983 - CBS's 60 Minutes aired 'Check the Water' which brought national attention to the effects of leaking underground storage tanks (USTs)
  - At this time UST's were:
    - Steel tanks unprotected from corrosion
    - Had no spill or overfill prevention/protection
    - Were not being monitored for releases

- 1984 - Congress required EPA to develop regulatory Underground Storage Tank Program (required by Subtitle I of Resource Conservation and Recovery Act (RCRA))
  - The UST Program was developed in response to the problems created by more than 2 Million USTs operating in 1984, many old and leaking, threatening groundwater.

UST Compliance Background

- 1986 Congress amended Subtitle I of RCRA and created Leaking Underground Storage Tank (LUST) Trust Fund
  - To oversee cleanups
  - To pay for cleanups at sites where owner/operator cannot or does not pay
- 1988 – EPA issued the new UST regulations
  - 40 CFR Part 280, 40 CFR Part 281 and 40 CFR Parts 280.50 – 282.105
  - Allowed approved state UST programs to operate in place of federal program
    - In Ohio, regulated by State Fire Marshal, Bureau of Underground Storage Tanks (BUSTR)

UST Compliance Background

- 1989 – New Requirements Started
  - Phase-In of Leak Detection began, including Tank/Line tightness testing
  - New tanks must have spill/overfill, corrosion protection
- 1998- Existing Tanks Upgrade Deadline
  - Spill, Overfill Prevention
  - Monthly Leak Detection
  - Corrosion Protection

"Don't wait until 1998"

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UST Compliance Background

- 2002 - EPA reported 26% of USTs still had significant problems
- March 2003 GAO Report Concluded 200,000 Tanks (30%) not operated and maintained properly (May 2001)
  - Tanks significantly still leaking into environment
  - Even tanks with new equipment still leaking
  - EPA and States Reported -DID NOT have sufficient manpower and funds to inspect all tanks
- 2005 Energy Policy Act amended Subtitle I of the Solid Waste Disposal Act
  - Required all regulated USTs be inspected every 3 years
  - Secondary containment for new installs
  - Delivery prohibition (red tags)
  - Operator training (8/8/2012 deadline)

AST/UST Compliance Future

Where are we going?

- New state and federal UST regulations
  - Mandatory removal requirements for single-wall systems
  - More stringent requirements for monitoring
  - Testing of secondary containment, overfill and spill buckets
  - Requirement for monthly walkthrough inspections
- New regulations allowing decommissioning of Stage II vapor recovery
- New regulations requiring periodic testing of Stage I vapor recovery

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Stage I and II Vapor Recovery

- Clean Air Act amended in 1990
  - Required air quality monitoring and designated non-attainment areas
  - Included requirement for Stage I and II vapor recovery as air pollutant control measures to collect gasoline vapors
- Stage I vapor recovery
  - Collects vapors from tank during deliveries and returns vapors to delivery truck
- Stage II vapor recovery
  - Collects vapors from vehicle fuel tank during refueling

Background of Stage II Vapor Recovery Decommissioning

- Clean Air Act required phase-in of onboard refueling vapor recovery (ORVR) systems for vehicles
  - ORVR captures vapors from vehicle gas tank
  - ORVR and Stage II vapor recovery: redundant control systems
  - Once ORVR determined to be in widespread use, US EPA could waive the requirements for Stage II
  - US EPA confirmed widespread use in May 2012
- Allowed states to begin permitting decommissioning of Stage II vapor recovery systems

Stage II Vapor Recovery Decommissioning in Ohio

- Ohio EPA required Stage II for existing GDFs in Cleveland/Akron, Dayton and Cincinnati
- 2013 Ohio EPA rule revisions exempted new and rebuilt GDFs from requirement to install Stage II
- Effective January 17, 2014, Stage II decommissioning allowed at all GDFs
  - Deadline for completion of decommissioning: January 1, 2017
  - Until Stage II decommissioned, must maintain Stage II system
  - Stage I vapor recovery requirements have not changed

Stage II Vapor Recovery Decommissioning in Ohio

- Ohio EPA decommissioning process
  - Notify Ohio EPA or local air agency in writing 14 days prior to decommissioning
  - Decommissioning must be done by professional technician, in accordance with PEI guidance (PEI/RP300-09)
  - Install low permeation hoses on all dispensers prior to return to service
  - Within 30 days after decommissioning,
    - Apply for Permit-by-Rule (PBR) or Permit-to-Install & Operate (PTIO) for the Stage I vapor recovery system and
    - Submit a certification statement (confirms decommissioning properly done) to Ohio EPA

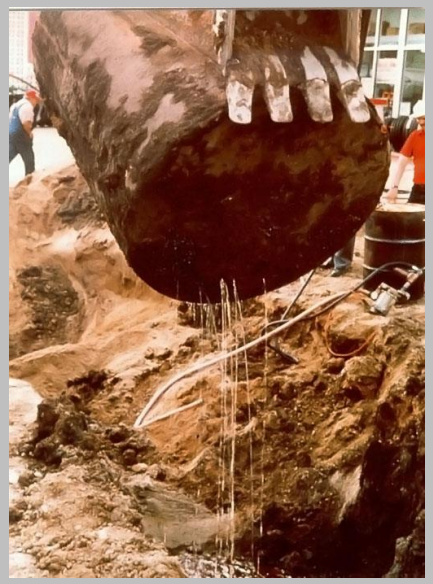
Ohio Petroleum Underground Storage Tank 2014 Annual Report

- Statistics required by 2005 US Energy Policy Act
- 2014 Annual Report info posted October 10, 2014
  - Covers period October 1, 2013 through September 30, 2014
  - Total number of UST facilities at the end of the reporting period: **7,441**
  - Total number of underground storage tanks at the end of the reporting period: **21,887**
- Inspection info:
  - Number of facilities inspected: **2,790**
  - Percent of UST facilities inspected meeting release prevention (corrosion protection, spill and overfill) and release detection requirements: **68%**

Ohio Petroleum Underground Storage Tank 2014 Annual Report

- Release info:
  - Covers release reporting period October 1, 2013 through September 30, 2014
  - Only UST releases that were identified to have taken place during the reporting period were been included in this report.
  - Total new UST releases that took place during the reporting period: ***70**
    - There are 5 known and 1 unknown leak sources, with 22 known and 46 unknown causes for the 70 reported releases

Ohio Petroleum Underground Storage Tank 2014 Annual Report



- Detail about source of releases
  - Tanks: 10 releases (15% of 70 releases)
    - Overfill: 1 (10% of 10 releases)
    - Physical/Mechanical Damage: 2 (20%)
    - Corrosion: 1 (10%)
    - Unknown: 6 (60%)
  - Piping: 21 releases (31% of 70 releases)
    - Physical/Mechanical Damage: 9 (43% of 21 releases)
    - Unknown: 12 (57%)

Ohio Petroleum Underground Storage Tank 2014 Annual Report

- Detail about source of releases

- Dispenser: 8 releases (12% of 70 releases)
  - Physical/Mechanical Damage: 4 (50% of 8 releases)
  - Install problem: 1 (13%)
  - Unknown: 3 (37%)
- Submersible Turbine Pump (STP): 5 releases (7% of 70 releases)
  - Physical/Mechanical Damage: 1 (20% of 5 releases)
  - Unknown: 4 (80%)

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Ohio Petroleum Underground Storage Tank 2014 Annual Report

- Detail about source of releases
  - Delivery problem: 4 releases (6% of 70 releases)
    - Overfill: 3 (75% of 4 releases)
    - Unknown: 1(25%)
  - Unknown: 20 releases (29% of 70 releases)
- To view report, or for past reports, Find Forms & Publications: http://www.com.ohio.gov/fire/default.aspx

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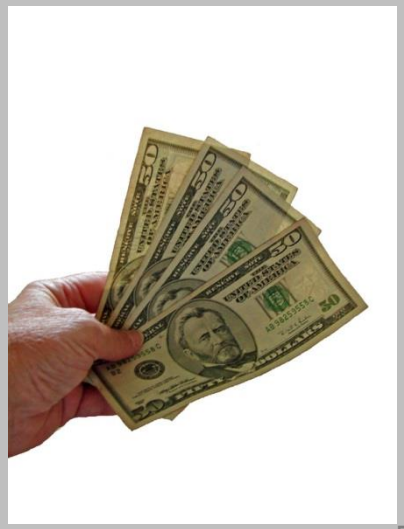
Why Maintain Compliance?

- Reduce environmental risks
  - Fumes from leaks can cause explosions or fire
  - Leaking USTs and ASTs contaminate groundwater, surface water and soils
- Be prepared for inspections
  - The number of compliance requirements is increasing
  - Inspections have increased. BUSTR inspects UST facilities every 3 years
  - Once issues found, may be subject to increased scrutiny

Why Maintain Compliance?



- Avoid fines and penalties
  - Fines and penalties could be the result of not maintaining compliance
  - A reminder from the BUSTR Operational Compliance Guide: IF YOUR UST SYSTEM IS NOT EQUIPPED AND OPERATED IN COMPLIANCE WITH FEDERAL AND STATE REGULATIONS, THE FIRE MARSHAL HAS THE AUTHORITY TO FINE YOU UP TO $10,000 FOR EVERY DAY YOU REMAIN IN VIOLATION.
- Stop station disruption
  - Avoid "red tag" shutdowns
  - Also from the BUSTR Operational Compliance Guide: THE FIRE MARSHAL HAS THE AUTHORITY TO PLACE A RED TAG ON YOUR UST AND PROHIBIT DELIVERY OF FUEL TO YOUR UST.

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Why Maintain Compliance?

- Ensure cleanup fund eligibility
  - Eliminate the possibility of rejection, due to noncompliance, by state cleanup fund

- Improve facility performance
  - Improve facility recordkeeping and employee training
  - Identify maintenance or risk issues before they become a problem

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How to Achieve Compliance?

- Understand what is required
  - Agencies
  - Regulations
  - Aspects of compliance management
- Establish a compliance program
  - Review options, determine best for you

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Important Aspects of Compliance

- Equipment inventory
  - Know what you have
- Permitting and fees
  - UST related: BUSTR registration,
  - fees, UST permits for work, out of service, etc.
  - State fund: PUSTRCB certificate, financial responsibility
  - Air quality: Ohio EPA Permits to install and operate (PTI and PTO) or Permit to install/operate (PTIO), Permit by rule (PBR, if applicable), emissions related filings and fees
  - Local (if applicable)
  - Federal (if applicable)

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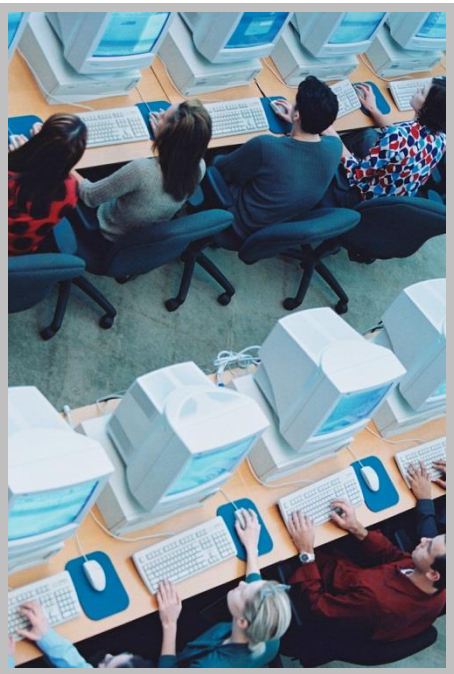
Important Aspects of Compliance

- Testing and inspections
  - Determine requirements for periodic testing and inspections
  - Keep track of due dates
  - Make sure required testing and inspections are performed
- Maintenance and equipment info
  - Keep equipment in good working order
  - May be specific inspection forms / checklists
    - BUSTR Operational Compliance Form
    - Stage II equipment inspection and maintenance logs
    - Impressed current rectifier check logs

Important Aspects of Compliance



- Training
  - Class A, B and C UST operator training
  - Stage I/II vapor recovery training
- Release detection
  - Need passing result each month
  - ATG, interstitial monitoring or other approved method (Statistical Inventory Reconciliation (SIR))
  - Next steps for non-passing results
  - Alarm management (ATG)
  - Release reporting

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Important Aspects of Compliance

- Recordkeeping
  - Maintain organized records related to all aspects of compliance management
- NOV resolution
- Regulatory changes
  - Follow and understand

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Compliance Management Options

- How can owner/operator manage all compliance requirements?
  - Do it yourself
  - Some third-party assistance
  - Mostly third-party assistance

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Compliance Management Options

- Do it yourself
  - How to do it:
    - Understand aspects of compliance management
    - Develop own program
  - Pros:
    - Little cost (if compliance is maintained)
  - Cons:
    - Requires time investment, discipline, organization, well-trained employees

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Compliance Management Options

- Some third-party assistance
  - How to do it:
    - Different vendors for managing different aspects: testing contractor, maintenance contractor, release detection
  - Pros:
    - Can pick and choose which aspects need most assistance
  - Cons:
    - Multiple parties involved, possible communication issues, more costly than DIY

Compliance Management Options

- Mostly third-party assistance
  - How to do it:
    - Use one vendor to assist with all aspects:
      - Maintain equipment inventory
      - Track, renew, maintain permits, pay required fees
      - Scope, dispatch, maintain required tests and inspections
      - Manage and/or perform release detection
      - Document storage (recordkeeping)
      - NOV resolution
      - Regulatory guidance
    - Owner still maintains responsibility

Compliance Management Options

- Mostly third-party assistance (continued)
  - Pros:
    - Higher level of compliance, fewer parties involved, all info in one place, requires less involvement and time investment by owner/operator
  - Cons:
    - More costly than DIY

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Consequences of Non-Compliance

- Threat to health and environment
- Fines and penalties
- Station disruption or shutdown
- Cost of cleanup if a release occurs

Conclusion

- Determine best approach
- Understand what is required
- Achieve and maintain compliance

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Thank You

- Contact info:
  - Eclipse, a Division of ECS, Inc.
  - Megan Kazmierczak, Manager of Compliance Services
  - 614-932-2163
  - mkazmierczak@ecseclipse.com
  - www.ecseclipse.com

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