Aging UST Systems:
What You Need to Know

A National Perspective from ASTSWMO
And Arizona’s Experience
AGING TANKS – REGULATOR CONCERNS

Compliance and Leak Potential

**Compatibility:** Older UST systems were not manufactured to store current fuels

**Corrosion:** ULSD and Gasoline UST systems are showing evidence of internal and external corrosion and degradation

**Insurability:** For UST owners relying on insurance to meet their financial responsibility requirements, they are encountering rate increases, cancellations and non-renewals

**Lack of detailed UST system data:** Older UST systems that have had multiple owners often have incomplete and missing equipment records
ASTSWMO - HELPFUL RESOURCES

Verify Compatibility:
http://astswmo.org/ust-compatibility-tool/

Report Corrosion:
http://astswmo.org/astswmo-corrosion-observations/
TANK AGE AND STATE UST PROGRAMS

Most states do not have requirements that focus on the age of the UST systems

• Three states (ME, VT, CT) require removal of tanks “of a certain age”

Some states offer incentives for removal and replacement of older systems

• Grants
• Low Interest (or Zero Interest) Loans
• Reduction in State Fund Deductible for Cleanup Costs (if contamination is found)

INFORMATION FROM: ASTSWMO REPORT - AN ANALYSIS OF UST SYSTEM INFRASTRUCTURE IN SELECT STATES, OCTOBER 2015
99% of Tanks studied exhibited some evidence of degradation
~ 30% were classified as Moderate to Severe
ARIZONA PROJECTS - INSURABILITY

Availability
Most UST owners in Arizona rely on UST insurance to demonstrate compliance with financial responsibility. Since 2016, ADEQ has been tracking insurance cancellations, terminations and non-renewals (data set < 50)

~ 20% of insurance providers referenced tank age
~ 67% were for sites with tanks installed 30 or more years prior
~ 82% were for sites with tanks installed 25 years or more prior

Affordability
Some Arizona UST owners complained that after policy cancellation, termination or non-renewal, all that was available is a policy that increases their annual premium from approximately $2,000 to $10,000 (or more) and the deductible from $10,000 to $100,000 (or more).
ARIZONA UST PROGRAM INCENTIVES

FREE – Through ADEQ’s State Lead Program

• UST Removals
• Suspected Release Confirmation
• Baseline Assessments

Financial Assistance (Reimbursement) up to a total of $300,000/site for:

• New installations (up to $200,000/site)
• UST Removal (up to $25,000/tank and up to $15,000 for over-excavation or contaminated soil if required)
• Suspected Release Confirmation (up to $20,000/event)
• Baseline Assessments (up to $40,000/event)

*Financial assistance for cleanup is also available
UST owners participating in our Tank Site Improvement Program may receive up to $200,000 in financial assistance to help pay for installation of a new UST system.

ADEQ requires them to provide detailed information on their new system components.

Installers are required to demonstrate applicable training and certifications and documentation demonstrating compatibility.

<table>
<thead>
<tr>
<th>PIPING INFORMATION</th>
<th>ADEQ Inspector Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piping Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Piping Model/ Mfr. Part #</td>
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<tr>
<td>Piping Construction</td>
<td></td>
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<tr>
<td>Piping Material</td>
<td></td>
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<tr>
<td>Piping Type</td>
<td></td>
</tr>
<tr>
<td>Piping Delivery Type</td>
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</tr>
<tr>
<td>Total Piping length to be installed (ft)</td>
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</tr>
<tr>
<td>Thread Sealant Manufacturer</td>
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</tr>
<tr>
<td>Thread Sealant Model Mfr. Part #</td>
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</tr>
<tr>
<td>Adhesive Manufacturer</td>
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<td>Adhesive Model/ Mfr. Part #</td>
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<table>
<thead>
<tr>
<th>SPILL CONTAINMENT INFORMATION</th>
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<td>Spill Containment Model/ Mfr. Part #</td>
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</tr>
<tr>
<td>Spill Containment Construction</td>
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</tr>
<tr>
<td>Spill Containment Site (gal)</td>
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</table>

<table>
<thead>
<tr>
<th>OVERFILL PREVENTION INFORMATION</th>
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<tr>
<td>Overfill Prevention Method</td>
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<tr>
<td>Overfill Prevention Manufacturer</td>
<td></td>
</tr>
<tr>
<td>Overfill Prevention Model/ Mfr. Part #</td>
<td></td>
</tr>
</tbody>
</table>
For additional information:

Tara Rosie
Principal Scientist
Arizona Department of Environmental Quality
rosie.tara@azdeq.gov
602.771.4725
The Impact of Aging UST Systems On Utah’s State Fund

Therron Blatter
Utah Department of Environmental Quality
Utah’s Petroleum Storage Tank Fund

- 1990 PST fund was created and required all regulated facilities to utilize the PST Fund
- 1997 Fund became voluntary, owners could choose to:
  - Stay on the fund
  - Switch to another approved FR mechanism
- Early 2000’s fund began to experience adverse selection
- In 2007 owners had to either utilize the fund for all their USTs or none of their USTs
Utah’s Petroleum Storage Tank Fund

• The PST Fund currently covers 67% of Utah’s regulated USTs
• Low risk facilities are eligible for a rebate of the per gallon fuel surcharge of up to 40%
• Interest free loans are available directly from the PST fund to remove, upgrade and/or replace USTs
<table>
<thead>
<tr>
<th>Fund Covered vs Non-covered USTs (Adverse Selection)</th>
<th>On PST Fund</th>
<th>Insurance or Self-Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Tank Age (Years)</td>
<td>23.3</td>
<td>15.2</td>
</tr>
<tr>
<td>Double-walled Piping</td>
<td>68%</td>
<td>86%</td>
</tr>
<tr>
<td>Double-walled Tanks</td>
<td>38%</td>
<td>74%</td>
</tr>
<tr>
<td>2015 Average Risk Score</td>
<td>.291</td>
<td>.214</td>
</tr>
<tr>
<td>2019 Average Risk Score</td>
<td>.254</td>
<td>.124</td>
</tr>
<tr>
<td>Risk Factor</td>
<td>Factor Weight,</td>
<td>0</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Spill Prevention</td>
<td>18.36</td>
<td>Yes</td>
</tr>
<tr>
<td>Under Dispenser Containment</td>
<td>17.77</td>
<td>Yes</td>
</tr>
<tr>
<td>Tank Riser Containment</td>
<td>13.89</td>
<td>Yes</td>
</tr>
<tr>
<td>Overfill Prevention</td>
<td>10.29</td>
<td>Yes</td>
</tr>
<tr>
<td>Piping Modifications</td>
<td>7.74</td>
<td>Above Ground</td>
</tr>
<tr>
<td>Piping Material</td>
<td>5.42</td>
<td>No Piping</td>
</tr>
<tr>
<td>Tank Modifications</td>
<td>4.19</td>
<td>Secondary Containment or Lining</td>
</tr>
<tr>
<td>Tank Material</td>
<td>3.17</td>
<td>FRP</td>
</tr>
<tr>
<td>Age of Tank</td>
<td>3.00</td>
<td>&lt;5</td>
</tr>
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</table>
Surcharge Rebate Schedule

<table>
<thead>
<tr>
<th>Risk Tier</th>
<th>Facility Risk Value (rounded to nearest 0.0001)</th>
<th>Rebate: % of surcharge paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>&lt;0.10</td>
<td>40%</td>
</tr>
<tr>
<td>Tier 2</td>
<td>0.10-0.2499</td>
<td>25%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>0.25-0.3499</td>
<td>10%</td>
</tr>
<tr>
<td>Tier 4</td>
<td>&gt;0.35</td>
<td>None</td>
</tr>
</tbody>
</table>
PST Loan Program

Goal is to reduce future cleanup costs by improving the equipment at PST Fund covered facilities

• Up to $100,000 per UST system/$300,000 per facility
• Interest free with terms up to 10 years
• Since 2000, 70 tanks have been replaced
• Average age of replaced tanks was 33 years at the time of replacement
• $300 K interest free loan costs the Fund $48,000 in earned interest
ROBERT WINTERBURN
PEI Panel Discussion

Aging UST System: What We Need to Know

Robert Winterburn
Chubb Insurance
VP-Product Line Manager: Storage Tanks

October 2, 2019
Financial Assurance Coverage Requirement

**Required by 40 CFR 280.93:**
- First Party Corrective Actions (Cleanup Costs)
- Third Party Liability (BI/PD)

**Not Required:**
- Defense costs (provided in addition to the FA limits on insurance policies)
## Financial Assurance Requirement

<table>
<thead>
<tr>
<th>Business Type</th>
<th>FA Per Occurrence Amount</th>
<th>FA Aggregate Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>USTs: Petroleum Marketers or Owner/Operators who handle more than 10,000 gallons per month</td>
<td>$1,000,000</td>
<td>$1 million if you have 100 or fewer USTs or $2 million if you have more than 100 USTs</td>
</tr>
<tr>
<td>All Other USTs</td>
<td>$500,000</td>
<td></td>
</tr>
</tbody>
</table>

*CHUBB*
Compliance Mechanisms

How to comply with FA

- Private Insurance
- State Fund
- Self Insure
- Trust Fund
- Corporate Guarantee
- Letter of Credit
- Surety Bond
• **Claims Made and Reported Policies**
  - Requires liability claims to be made and reported during the policy period
  - Requires first-party discoveries of releases to take place and be reported during the policy period.

• **Admitted and Non-Admitted Paper (Surplus Lines)**
  - Difference lies primarily in the regulations that must be followed

• **Policy is written with a Deductible (not self insured retention “SIR”)**

• **Defense costs are in addition to FA-required limits**

• **Cannot exclude coverage for:**
  - Voluntary Tank Removal
  - Voluntary Site Investigation
  - Loading/Unloading
• **UST Certificates of Insurance**  
  - Complies with 40 CFR 280.93 unless State has adopted its own version of Storage Tanks Regulations

• **UST Age Restrictions**  
  - Connecticut requires the removal of USTs when they reach 30 years of age  
  - Alternate life expectancy to 40 years may be approved by the State under specific conditions

• **UST Construction Restrictions**  
  - Various States have required the removal of single wall storage tanks  
  - Examples: Florida, Massachusetts, Rhode Island, New Hampshire, California (2025)

• **AST Financial Assurance (FA)**  
  - Various States require FA for ASTs,  
  - Examples: Florida, Virginia, West Virginia, Delaware, Wisconsin, New Mexico and Missouri
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Chubb. Insured.
Aging UST Systems

Greg Travis
Berkley Environmental
Product Line Manager
OUTLINE

• Approach to Underwriting Tank Systems
• Lessons Learned
• Insuring Older Systems – Consequences of Age
“Underwriting” Requirements
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• Who are you and what are your plans in operating this tank system?
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• Tank System and Components Details
  • Tank Type, Age, Material, Product Stored
  • Piping – Materials, Age, Distances
  • Containment & Spill Bucket Data
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  • Tank Type, Age, Material, Product Stored
  • Piping – Materials, Age, Distances
  • Containment & Spill Bucket Data
• Compliance Records / Documentation
  • History of Prior Releases & Status
  • Inspection Records
  • System Testing Data
Lessons Learned
Data Driven Decision Making
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• Multiple sources provide relevant data points
  • Agent/Broker delivers data to insurance company, often just forwarding from applicant, underwriter then relies on it
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• Availability
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• Interdependence
Consequences of Age
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• Underwriting Scrutiny Increases
  • Exemplary Compliance & Documentation
Consequences of Age

• Underwriting Scrutiny Increases
  • Exemplary Compliance & Documentation

• Policy Coverage Structure Revisions
Base Premium Increases by Tank Age

Tank Age - Years

Premium
Deductible Increases

<table>
<thead>
<tr>
<th>Common Deductibles</th>
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</thead>
<tbody>
<tr>
<td>$5,000</td>
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<tr>
<td>$10,000</td>
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<tr>
<td>$25,000</td>
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<tr>
<td>$50,000</td>
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Consequences of Age - Continued
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Consequences of Age - Continued

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- Policy Coverage Structure Revisions
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  - Deductible Increases
  - Other adjustments potentially added

- Emphasis on Communication Increases
  - Example: Policy documents provide additional instructions on “Notice”
Disclosure

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