Aging tanks study: 59% of USTs in eight states are +20 years old

It seems logical that aging USTs might leak, creating higher risks for state tank funds and private insurers, and ultimately, higher costs for tank owners/operators. However, data available from states is highly variable. Each state has implemented its own UST program and policies.

In October 2014, at the request of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Tanks Subcommittee, the ASTSWMO Board of Directors formed a Workgroup to examine issues related to aging underground storage tanks (USTs) and the potential impacts to owners, operators, and State UST programs. The Workgroup's objective was to analyze whether aging UST infrastructure poses a higher risk of leaks.

The study, published in October 2015, attempts to respond to these questions:

- Is the nation's UST infrastructure getting older?
- If so, to what extent does this affect the risks shouldered by insurers and State tank funds that serve as the predominant financial responsibility mechanisms for owners/operators?
- Are States collecting data in a way that informs risk management decisions needed in the future?
- How do a State’s policies impact owners’ and operators’ decisions related to upgrading, replacing, or closing their USTs?

![Figure 1: Age of Underground Tanks](http://archive.constantcontact.com/fs149/1102248019668/archive/1123325693365.html)

Figure 1 presents information on the average ages of the underground tanks in eight States illustrating that 59% of the tanks in these States are more than 20 years old. Seventy-nine
percent of the tanks in these States are less than 30 years old, and less than 1% are older than 50 years.

**Read the entire ASTSWMO aging tanks study**

**EPA's guide to recently revised UST regulations**

EPA's Office of Underground Storage Tanks (OUST) just released a new guidance document for the recently revised UST regulations.

*Operating and Maintaining Underground Storage Tank Systems: Practical Help and Checklists* contains brief summaries of the federal underground storage tank (UST) requirements for operation and maintenance (O&M), as well as practical help that goes beyond the requirements.

Checklists prompt the user to look closely at what kinds of equipment are in use and how to keep that equipment working properly over the lifetime of the UST system. The manual provides record-keeping forms that also help the UST owner and operator keep equipment operating properly.

**History of corrosion control research**

Fifty years ago, the US Steel Corporation's Applied Research Laboratory tested underground tanks to develop a best method of corrosion control. John B. Vrable, PE and a NACE Corrosion Specialist, lead those studies, working with STI Member Kennedy Tank and the Steel Tank Institute.

This research led to introduction of the sti-P3 tank in 1970. Learn the history of this important R&D effort.

**STI seeks public comment on SP001, SP031, R051**

The Steel Tank Institute is seeking public comments on three standards.

**SP001 and SP031**

STI's SP001 *Standard for the Inspection of Aboveground Storage Tanks* and SP031 *Standard for Repair of Shop-Fabricated Aboveground Tanks for Storage of Flammable and Combustible Liquids* will undergo their five-year review this year, and it is expected that revised standards will be published by the end of 2016. A committee of tank users, fabricators and regulators is being established to make recommendations for changes to the standard.

Comments are requested from interested parties. If you wish to suggest changes to the SP001 or SP031 standards, use the form on this webpage. Note that all proposed revisions must include a rationale (reason for the change) in order to be accepted. Questions may be directed to Dana Schmidt, STI Standards Engineer, 847-550-3832.

**Proposed SP001 and SP031 changes submission deadline: April 20, 2016.**

**R051**

STI's Cathodic Protection Testing Procedures for sti-P3 USTs will be reviewed in 2016 and it is expected that revised procedures will be published by the end of 2016. A committee of tank inspectors, owners, fabricators and regulators has been established.

Comments are requested from interested parties. To submit comments, click here for official comment submission form.

Steel elevated tank saves energy, decreases CO2

A recent article on WaterWorld magazine's website reported recommendations to reduce energy use, made to Dallas/Fort Worth International Airport by engineering firm Freese & Nichols.

The engineers recommended the addition of a steel elevated water tank to the airport's current water system. Gravity feed from the elevated tank would augment water pumping at non-peak times, reducing the number of kilowatt hours by 1.6 million. It would also have the net effect of reducing the carbon footprint of the DFW airport by 2,030 tons of CO2 per year, which is equivalent to removing the carbon emissions of more than 2,000 cars for an entire year.

Read complete article...

Pentagon's Afghanistan boondoggle

USA Today reports that US taxpayers are stuck with the bill for a $43 million natural gas filling station in Afghanistan, "...a boondoggle that should have cost $500,000 and has virtually no value to average Afghans..."

Read USA Today's article...

Man sustains second-degree burns in flash tank fire

A local news story from southeast Florida reported an incident at a gas station. A man was working on an underground tank when it exploded, burning him seriously.

We asked an STI member from southeast Florida for more information. It appears that a tank maintenance company was prepping the fiberglass tank for lining just prior to the fire. Apparently, an electric portable saw was used to cut into the tank sump instead of pneumatic equipment. This is unsafe practice and the saw likely caused the explosion.

The employee has since recovered and returned to work.

See local news story and video...

Quiz: Tightness testing for double wall ASTs

Recent questions from Authorities Having Jurisdiction (AHJs) prompted this short quiz about testing double wall ASTs.

The sources for the questions are STI R912, Shop Fabricated Stationary Aboveground Storage Tanks For Flammable, Combustible Liquids and the NFPA 30 Flammable and Combustible Liquids Code.

STI labeled AST's, such as F921 and Flameshield technologies, also include decals with Air Pressure Test Procedure for Intimate Contact Double Wall Tanks.

Take the AST tightness quiz...

What caused this tank explosion?
Last October, an asphalt tank exploded in Oklahoma. A firefighter had a camera mounted to his helmet that captured the moment.

Firefighters were on site to put out an earlier fire when the explosion occurred, restarting and expanding the fire.

What do you think caused this explosion? Send your thoughts to STI-SPFA and we'll report in the next issue.

- Before the explosion, what can you see is wrong with these tanks?
- Why did this explosion occur so long after the original fire was extinguished and the tanks were cooled?

See more on this story....

Steel pipe praised for longevity

STI-SPFA Member JIFCO passed along a compliment from a pipe project in Nevada. A major repair is underway inside the Rye Patch Dam, to ready it for the 2016 irrigation season. JIFCO manufactured the 48-inch diameter steel pipe for the project.

New steel pipe is "...by far the best way to go," said Pershing County Water Conservation District Manager Bennie Hodges. "We got 80 years out of the last pipe and, with the better coating materials they have nowadays...we think we'll exceed 80 years with these pipes."

Hodges believes pipe replacement was better than lining the old pipes with carbon fiber, a new material with an unknown life span, unlike steel.

See local news report...

Annual Steel Fabricated Product Awards

At its recent annual meeting in Kapalua, Maui, Hawaii, STI-SPFA recognized member companies in 14 product categories with its Steel Fabricated Product of the Year awards for 2015.

Photos and descriptions of the 2015 award-winning entries and category descriptions are posted on STISPFA's website.

There were 49 entries from STI-SPFA member companies for the 2015 Product Awards, utilizing a total 22,450 tons of steel. To determine the winners, association members assessed each entry by anonymous ballot, based on four criteria:

- Promotional value: Promotes the value of steel fabrication
- Uniqueness of product/project: Shows originality and versatility
- Design and engineering: Excels in technical aspects
- Aesthetics: Has visual appeal

Click here for details about each 2015 Steel Fabricated Product Award
API 650 Atmospheric Storage Tank: Paso Robles Tank, Hemet CA

API 620 Low Pressure Liquid Storage Tank: CBI, New Castle DE

Reservoir Storage Tank: Paso Robles Tank, Hemet CA

Elevated Storage Tank: Caldwell Tanks, Louisville KY

Standpipe Storage Tank: Caldwell Tanks, Louisville KY

ASME Pressure Vessel Storage Tank: CB&I, Houston TX

Special Storage Tank: CB&I, Calgary AB

Special Fabrication: Modern Welding of Georgia, Augusta

Atmospheric Storage Tank: AGI Envirotank, Biggar SK

Pressure Vessel of the Year: Boardman LLC, Oklahoma City

Steel Pipe Fabrication: Mid-America Pipe, Scammon KS
Deadliest jobs in construction

Slips, trips and falls are the leading cause in 40% of all construction worker deaths, according to Construction Data blog.

Numbers from 2014 indicate that roofers have the highest work death rate in construction trades, but the highest fatal injury rate. That title goes to agriculture, forestry, fishing and hunting, with 24.9 deaths per 100,000 workers in 2014.

Gas, wind add 82% of 2015 energy capacity

According to Parth Shah on www.snl.com (SNL Financial), an aging energy grid and the push toward lower-emissions fuels propelled gas and wind as generation methods in 2015. While a bit less power generation was added in 2015 than in 2014, in both of the last two years, most of the new additions were gas and wind.