



**Consultant's Corner**  
**How to deal with conflicting codes and standards**  
 by Jeff Shapiro, PE, FSFPE and STI/SPFA consultant



Anyone who designs or operates facilities with flammable or combustible liquids knows that we deal with a lot of codes and standards.

These include the International Fire Code, the NFPA Fire Code, NFPA 30, NFPA 30A and a variety of STI, Petroleum Equipment Institute and American Petroleum Institute standards. For a little more complexity, tack on Federal regulations promulgated by OSHA and EPA.

Although much effort goes into coordinating the various documents that regulate flammable and combustible liquids, perfect harmony isn't achievable for a variety of reasons. Efforts to achieve consistency among regulations face two significant obstacles. [More...](#)

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**Buried steel tanks "pristine" after 27 years**



Eaton Metal Products, an STI/SPFA member, built six sti-P3 underground storage tanks in 1986. Recently, the tanks were removed by the owner and were found to be in excellent condition.

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**Did you know?**  
 Manufacturing supports an estimated 17.2 million jobs in the US--about one in six in the private sector. Nearly 12 million Americans, 9% of the workforce, are employed directly in manufacturing.  
 --NAM



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"These tanks were in pristine condition after 27 years underground," said Trig Travis, Denver Division Manager for Eaton Metal Products. "We believe steel is the best material for underground storage and the condition of these tanks proves the point."

The sti-P3 tank technology was introduced by the Steel Tank Institute in 1969 and is in use globally for underground storage of petroleum products. [Click here](#) for information about sti-P3 and other STI tank technologies.



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## [New report: Compatibility of UST Systems with Biofuels](#)



An Alternative Fuels Workgroup composed of regulator members of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) has released a report entitled "Compatibility of UST Systems with Biofuels." The document includes 22 case summaries and photos of actual UST incompatibility incidents.

The report recommends that state tank programs:

- Implement database tracking mechanisms for biofuel blends storage and use;
- Implement a notification requirement for change of fuel stored in a UST system;
- Establish a permitting process for installation of new or upgraded UST systems storing biofuels;
- Encourage a requirement that owners monitor and periodically remove water.

[Click here to download the Compatibility of UST Systems with Biofuels report](#) from the Association of State and Territorial Solid Waste Management Officials.

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## [Tank and Petroleum Mishaps](#)

## [STI/SPFA Education and Certification Programs](#)

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### [Water Storage Tank Seminar](#)

- October 17 Oklahoma City OK
- November 7 San Diego CA
- December 10-11 Albuquerque NM

### [Cathodic Protection Training & Certification](#)

- October 8-9 Kansas City MO
- November 11-12 Virginia Beach VA

### [UST Trouble-Shooting Workshop](#)

- November 13 Virginia Beach VA

### [SP001 AST Inspection Training & Certification](#)

- August 19-23 Baltimore MD

### [Online Offerings](#)

[Tank Integrity Management Certificate](#)  
See article in this issue.

### [E-learning modules](#)

- Steel Water Pipe Overview
- Steel Water Pipe Coatings and Linings
- Steel Water Tank Standards
- Steel Water Tank Construction
- Steel Water Tank Coatings and Linings

### [Archived webinars](#)

- Steel Water Pipe

## NORTH DAKOTA TRUCKING OPERATION CITED BY OSHA FOLLOWING WORKER DEATH

June 25, 2013--Plains Trucking, Ross, ND, has been cited by the U.S. Department of Labor's Occupational Safety and Health Administration for nine safety violations after a worker was fatally injured March 27 while cleaning the inside of a crude oil tanker that exploded at the company's facility in Ross. [More...](#)

## U.S. WELL SITES IN 2012 DISCHARGED MORE THAN VALDEZ

July 9, 2013 by Mike Soraghan--It went up orange, a gas-propelled geyser that rose 100 feet over the North Dakota prairie. But it was oil, so it came down brown. So much oil that when they got the well under control two days later, crude dripped off the roof of a house a half-mile away. [More...](#)

## OIL STORAGE TANK FIRE BURNS OUT; NO OIL SPILLED

July 9, 2013--The Disaster and Emergency Services Coordinator for Musselshell County in Montana says an oil storage tank fire ignited by lightning on Sunday evening north of Roundup did not spill oil. [More...](#)

[Click here for complete stories and more Tank Mishaps](#)

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## Kansas passes secondary containment mandate



STI's Permatank technology

The State of Kansas has passed legislation mandating secondary containment for underground tanks. Kansas and Missouri are the only states that did not opt for secondary containment under the federal Energy Bill passed during the Bush Administration. The two states chose the "financial responsibility" option at that time. However, Kansas has now amended its regulations. The new law states:

AN ACT concerning the Kansas storage tank act; relating to secondary containment of underground storage tanks; amending K.S.A. 2012 Supp. 65-34,102 and 65-34,103 and repealing the existing sections.

Be it enacted by the Legislature of the State of Kansas:  
New Section 1. (a) Each underground storage tank, or piping connected to any such tank, installed or replaced on and after July 1, 2013, shall be secondarily contained and monitored for leaks...

[Click here](#) to contact the Kansas Storage Tank Section.

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## NEW! Tank Integrity Management certificate online-- "Time and money well-spent" says one learner

Installation and Inspection

- Regulation of Tanks Inside Buildings: A Guide for Users and Enforcers
- Tank Venting Essentials: PreVENTing Catastrophe

Industry Calendar of Meetings, Conferences and Events  
[Click here](#)

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Steel fuel storage tanks are a vital component of our fuel delivery infrastructure. However, even owners, operators, engineers, regulators and others who deal with them every day may not understand their complexity.

STI/SPFA's new Tank Integrity Management© (TIM©) Certificate is a comprehensive online learning program that provides this needed knowledge. Individuals who have completed the program receive the TIM© Certificate, demonstrating their understanding of how shop-fabricated steel fuel storage tanks are built, installed, operated, and maintained.

One recent TIM learner said, "I just want to say 'Thanks' for making this course available online. I took the training, gained from it, and enjoyed it. Time and money well-spent."

Improve your knowledge and demonstrate your expertise with STI/SPFA's Tank Integrity Management Certificate.

[Click here for more information about TIM](#)

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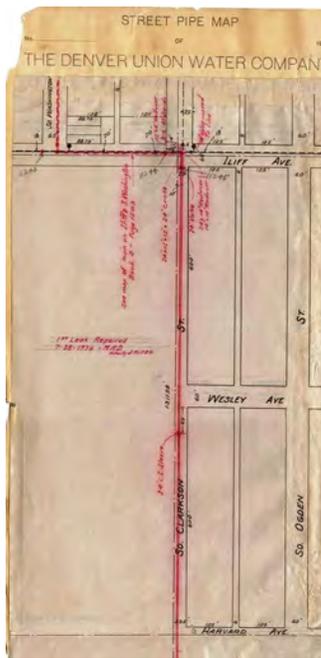
## 100-year-old tank, pipe receive Century Club honor

STI/SPFA's Century club honors the owners of field erected water storage tanks and steel water pipes that have been in continuous service for 100 years or more. We believe it's important to recognize these infrastructure components not only for their extraordinary service life, but also for the role they play in ensuring the safety of our water supplies.



Dothan Utilities, the water agency for the City of Dothan, Alabama, received the Century Club award in recognition of the utility's 116 year old "Dixie Standpipe." The 180,000 gallon, riveted steel water tank has been in service since 1897. A recognition plaque was presented to the City of Dothan at its August 6, 2013, City Commission meeting.

Denver Water received the Century Club award in recognition of the reliability of Conduit 40, 2500-foot length of 24-inch diameter steel pipe installed in 1911. A recognition plaque



was presented to the Denver Board of Water Commissioners at Denver Water's board meeting on June 12.

There are now 24 cities and utility companies throughout the United States that have received STI/SPFA's Century Club award for steel water storage tanks and pipe. [Click here for more information and Century Club enrollment form.](#)

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## Infrastructure shutdown points to need for upgrades



Md. Water Main Shutdown  
Could Affect 200,000 People

Nearly \$400 billion in infrastructure upgrades will be needed in the next 20 years, according to the EPA, to be sure that Americans have access to clean drinking water. EPA's four-year Drinking Water Infrastructure Needs Survey and Assessment was released in early June.

A Maryland suburb of the DC metro area experienced first-hand the effects of needed repairs when a 54-inch, pre-stressed concrete water main was shut down in early July. The pipe is 48 years old and utility officials said repairs "couldn't wait any longer." The shutdown cut off water for 200,000 people was projected to last five days during a heat wave. However, the water utility was able to close a valve to isolate the damaged area.

The Washington suburban Sanitary Commission (WSSC) ordered the shutdown to repair the high-pressure main. There were failures in the 350-miles suburban Washington system in 2008 and 2011. WSSC blames them on the construction of the pipes, which is concrete wrapped with steel wire.

According to the Washington Post, ASCE, AWWA and other experts have warned that without significant and urgent investment in the nation's water infrastructure, more Americans will face disruptions like the one



that occurred in Maryland. It's been estimated that 1.7 trillion gallons of water, about 25%, leak from the nation's pipes before it can reach your faucet.

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Learn more about AWWA's Buried No Longer report

## API 2013 Storage Tank Conference features STI/SPFA experts

	<b>Hop on Board!</b> <b>2013 API Storage Tank Conference &amp; Expo</b> October 23-24, 2013   San Francisco, CA	<b>Plus</b> API Safe Tank Entry Workshop October 21-22
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STI/SPFA is once again co-sponsoring API's annual Storage Tank Conference, October 23-24 in San Francisco. Our professional staff is helping to develop comprehensive and cutting-edge presentations and programs.

Storage tank professionals, tank owners, managers or operators, senior tank designers or construction specialists, representatives of oil and petrochemical refineries, utilities, pipelines, tank cleaning firms--all will find learning and networking opportunities at this event.

[Click here](#) for API Storage Tank Conference program and registration.

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## What an engineering feat!



Operation PLUTO (Pipe-Lines Under The Ocean)

Despite our modern concerns about finding, transporting and delivering oil these days, it's worthwhile to remember there was a time when it was much more difficult.

Watch this video to see how The Greatest Generation of engineers solved the challenge of fueling the military in the European Theater of Operations in World War II.

They sure couldn't just stop at the corner station to fill up their tanks and Jeeps!

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## New! Sustainable Steel Fact Sheet

STI/SPFA presents the latest in our series of STEEL FACTS informational flyers. Sustainable Steel highlights the recyclability and sustainability of steel.

These single-page handouts dispel the myths and present the simple facts about the benefits of using steel, all of which have been researched by industry experts:

- Steel's Sustainability
- The Strength of Steel
- Choose Steel for Lifetime Value
- Cathodic Protected Tank Inspection
- Steel Tanks: Compatible with All Biofuel Blends



[Click here to get your own copies of Steel Facts](#)

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