Comments requested on SP001 5th edition

The public is invited to submit comments on the proposed 5th Edition of the "Standard for the Inspection of Aboveground Storage Tanks." The SP001 Committee is seeking input and all comments will be considered.

If you wish to comment on the proposed SP001 draft, please request the draft and a comment form by email to Dana Schmidt, STI/SPFA Standards Engineer, at dschmidt@steeltank.com. Comments are due June 15, 2011.

Some of the proposed changes include:
- Expansion of the checklists for Owner Inspections.
- Elevated tanks are now considered to have a Continuous Release Detection Method (CRDM), with or without an RPB.
- Addition of a starting date for inspection intervals.

For detailed SP001 5th edition proposed changes, click here.

Tanks inside of buildings--to vent or not to vent, that is the question!

Some TankTalk readers may consider it inappropriate to misuse a common stanza from the Shakespeare play "The Tragedy of Hamlet" and I hope the title doesn't offend you or inhibit your enjoyment of the arts. However, the title paraphrases a question that is commonly asked of ICC staff because of the issues surrounding AST installations inside of buildings.

The storage of flammable and combustible liquids in ASTs inside of buildings requires the fire code official to apply more rigorous provisions from the 2012 International Fire Code® (IFC®) and NFPA 30, Flammable and Combustible Liquids Code. For tanks designed to store liquids with a closed cup flash point temperature below 200°F (Class I, II and IIIA liquids) at atmospheric pressure, the requirements are justified because flammable and combustible liquids exhibit much higher heat release and burning rates when compared to many ordinary combustibles found in buildings. One of the requirements pertains to the termination of normal vent and emergency vent of ASTs inside buildings, and that's the subject of this article.

TINBIDS (Tanks Inside of Buildings) are fairly common in commercial development projects. Over the past 10-15 years, the demand for standby power systems that provide an alternative source of electrical energy to computer servers and similar equipment has increased dramatically. Designers commonly specify engine-driven generators with integral sub-base ASTs to limit the floor area of the standby power source. The TINBID requirements in Chapter 57 of the 2012 IFC...
Normal Venting
In addition to the requirements for tank construction, volume limits and overfill protection, the IFC has requirements for terminating a TINBID's normal vent and emergency vent. The purpose of the normal vent is...

Click here to read the rest of Scott Stookey's tank venting article

Webinar: Tank Venting--PreVENTing Catastrophe
Mark your calendar now! On September 7, code experts Jeff Shapiro and Scott Stookey will lead a tank venting webinar.

Anyone working in the business of manufacturing, designing, installing or inspecting tanks for flammable or combustible liquid storage needs to have a basic knowledge of the requirements for tank vents. This program will offer a down-to-earth explanation of the technical principles and code requirements for vents and key things to look for during inspection.

Watch your STI/SPFA email for registration and details!

STI/SPFA's 2010 Product of the Year Awards
At its annual meeting in March, STI/SPFA recognized member companies in specific industry categories with its Steel Tank and Fabricated Product of the Year awards for 2010. See more photos and info about all the winning entries at 2010 Awards.

- **CB&I, Inc**, San Luis Obispo, CA: Standpipe; and CB&I, Wexford, PA: Elevated Steel Tank
- **Paso Robles Tank, Inc**: Special Storage Tank
- **Sauder Custom Fabrication, Inc**, Emporia, KS: Pressure Vessel
- **T. BAILEY INC**, Anacortes, WA: Shop Fabricated Atmospheric Tank
- **Brown-Minneapolis Tank-Northwest**, Elma, WA: Special Fabrication
- **Ameron International’s Water Transmission Group**, Rancho Cucamonga, CA: two awards for Pipe Fabrication and Pipe Project of the Year
- **Induron Protective Coatings**, Birmingham, AL: Affiliate Member New Product of the Year

STI/SPFA also honored its member companies with Safety Awards. The Safety Award of Excellence, which recognizes companies that have experienced a "Zero (0.0) OSHA Total Recordable Incident Rate" for 12 consecutive months, was given to 22 companies this year. The Safety Award of Achievement, which acknowledges companies with a 10 percent minimum reduction in the OSHA Total Recordable Incidents Rate, with no fatalities in a calendar year, was awarded to 22 companies this year.

More industry events: 2011-12 Industry Calendar of Meetings, Seminars & Conferences
Tank and Petroleum Mishaps

**Gas disposal plant explosion shoots tanks high in sky**
An explosion rocked the small community of Belle Valley, OH, on March 27. Authorities said a pump station at a gas disposal plant caught fire, causing two storage tanks holding a brine mix to shoot some 300 feet in the air.

Fire officials said it took about two hours to put the flames out. Brine is disposed of at this plant after it is brought in from oil wells in the surrounding area. An investigation is underway.

**CSB continues investigation into Tesoro refinery accident**
Marking the one year anniversary of the tragic accident at the Tesoro Refinery in Anacortes, Washington, the federal US Chemical Safety Board (CSB) recently released a video safety message.

The safety video highlights the CSB's ongoing investigation into the April 2, 2010, accident that killed seven workers at Tesoro. At the time of the incident, a heat exchanger was being brought online when the nearly forty-year-old piece of equipment catastrophically failed, spewing highly flammable hydrogen and naphtha which ignited and exploded.

The CSB urges companies to take action to prevent accidents, including:

- Implement a robust mechanical integrity program with an emphasis on thorough inspections of critical equipment
- Monitor process safety performance using appropriate leading and lagging indicators to measure process safety before major accidents occur
- Maintain an open and trusting safety culture where near-misses and loss of containment incidents are reported and investigated.

Read the CSB's final report at [www.csb.gov](http://www.csb.gov).

**Fatal choice: Man uses lighter to look inside chemical drum**
According to an article by George Graham posted on MassLive.com, 33-year-old Daniel Martinez lost his life because he used a disposable lighter to peer inside a 55-gallon drum of flammable cleaning solvent. The incident occurred March 26, 2011, at an auto dealership in West Springfield, MA.

Martinez was employed by a reconditioning contractor. According to the dealership owner, Martinez was on a cell phone with his chemical supplier when he apparently used the lighter to determine the level of product inside the barrel.

Fire officials believe that, given the duration of the fire, a certain amount of cleaning product was in the barrel when it exploded. The force of the explosion propelled the barrel some 25-30 feet into the air.

For more Tank Use Mishaps, click here.

**"Green" fuel storage tank?**
STI/SPFA standards require that if water is found in a storage tank, it must be removed within 30 days. Several states also mandate this inspection and maintenance activity. And here's an interesting example.
KTSM TV from the El Paso, TX, area posted this story from North Carolina on its website in April. It seems that a thrifty and environmentally-conscious woman purchased a diesel-powered VW Jetta a couple of years ago. She figured to save operating costs as well as using a reduced-pollution fuel.

The car was working fine until recently, when she noticed her "check engine" light was coming on frequently. After several trips to the dealership, the mechanics finally diagnosed the problem: there was algae growing in her fuel tank (and throughout the car, too). VW said repair costs would run to $10,500!

Algae needs water to grow. So how did water get into the Jetta's fuel tank? Could it have entered the underground storage tank at the station, or could it have been delivered by truck or pipeline from the bulk plant or terminal? And maybe the algae came along for the ride, as well as the water. The contaminants that thrive in a watery environment don't discriminate between types of tanks.

Click here to read KTSM story

STI/SPFA's biennial Quality Control meeting

More than 120 engineers, technicians, manufacturing personnel, and owners from steel tank manufacturing plants in Canada, the Caribbean, Mexico, and the United States participated in STI/SPFA's Quality Control meeting in May. The gathering is a biennial requirement for companies that manufacture STI/SPFA's tank technologies.

The two-day program focused on quality control, safety, and health issues in steel tank manufacturing settings. On the agenda were pressure and vacuum system hazards, shop painting safety and quality, coatings inspection instrumentation, self-audit for quality, and mobile crane training.

The group then toured Brown-Minneapolis Tank-Northwest's plant in Elma, WA. BMT-NW's facility is a large building originally intended to house two generators for a nuclear power plant. The reactor was never operational and the site is now an industrial park. (If you'd like to learn more about this unique "repurposing," click here.)

"Our Quality Control Meeting gathers the most prominent manufacturers of underground and aboveground storage tanks in the Americas," said Larry O'Shea, Director of Quality Assurance, STI/SPFA.

"STI/SPFA's standards are the highest for the industry," Lorri Grainawi, Director of Technical Services added.
STI/SPFA's Quality Control Meeting is a reflection of the organization's dedication to quality and safety in the manufacture of steel tanks. The association's standards and recommended practices are formally adopted in federal and state regulations and are recognized throughout the steel tank industry. STI/SPFA is also the primary resource for information about the industry.

**Water line rupture releases 1 million gallons**

The Napa Valley Register (CA) reports that a high-pressure, main water transmission line broke on May 10, spilling 1 million gallons of water into a nearby field. The concrete pipe ruptured when a collar between segments popped. Thirty minutes later, the break was four feet wide.

Area residents experienced a noticeable dip in water pressure initially and, as repairs proceeded, mineral deposits stirred up by the break appeared in the water supply.

At the time of the break, the pipeline was carrying 100% of the city's water supply. Fortunately, Napa has another main water treatment plant and full service was restored by the evening of May 11.

The City of Napa's story points to the increasing vulnerability of the nation's water delivery infrastructure. In a New York Times article in 2009, Michael Cooper noted that water mains are "bursting with alarming frequency..." The age of these systems is a major concern--there are even some drinking water pipes still in use made of wood Cooper quotes the American Water Works Association (AWWA) naming this "the dawn of the replacement era." Much of the nation's water piping is being replaced for the first time, but shrinking government budgets and imposing increased water rates during a time of economic hardship are some of the challenges.

According to AWWA, the oldest cast-iron pipes, installed in the late 1800s, have a useful life of 120 years; those laid in the 1920s last 100 years; and the pipes put down in the 1920s only last about 75 years. Adding it all up, a great many water systems need replacement now or in the near future.

[Read more at Napa Valley Register, New York Times](http://www.napavalleyregister.com)

**NESHAP rule compliance deadline July 25, 2011**

New EPA rules for the National Emission Standard for Hazardous Air Pollutants (NESHAP) are effective July 25, 2011. Of concern to steel fabricators are the Metal Fabrication Hazardous Air Pollutants (MFHAP) rules relating to air pollution from welding fumes emitted by a shop (does not include field operations). The rule is determined by SIC codes in the 32000 series.

The metals referred to are any compounds of cadmium, chromium, lead, manganese, or nickel. Check your MSDSs.

EPA has posted [flow charts](http://www.epa.gov) for these rules (see link at end of this article). Key rules:

- If your facility uses less than 2,000 pounds per year of welding rod that contains MFHAP, you must document your purchasing and are subject only to providing additional company information.
- If your facility uses 2,000 pounds or more per year of welding rod that contains one or more MFHAP, you must demonstrate that management practices or fume control measures are being implemented by performing visual inspections.

Again, the compliance date is July 25, 2011. Review the [EPA's flow](http://www.epa.gov)
chart document at the EPA website to determine if and how these rules apply to your shop.