

Changes to EPA's AST & UST Rules

Mott-Smith Consulting Group, LLC



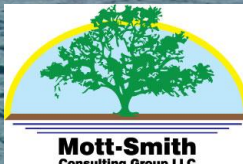
Marshall T. Mott-Smith, President

Mott-Smith Consulting Group, LLC

111 North Calhoun Street, Tallahassee, FL 32301

marshall@mott-smithconsulting.com www.mott-smithconsulting.com

850-391-9835 850-766-2786 cell 850-591-1434 cell



Background to EPA's UST Rulemaking

- 1. First Requirements 1984 – “Interim Prohibition”**
- 2. First UST Rule 1988 – Part 280 – “Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)”**
- 3. Revised 1999, Subpart H “Financial Responsibility”**
- 4. Revisions proposed in 2007 after the passage of the Energy Act of 2005. Rulemaking still in progress.**

- All underground storage tanks over 110 gallons containing pollutants or CERCLA hazardous substances.
- Tanks: >10% in contact with the soil and contain products that are liquids at standard temperature and pressure.

Scope of EPA's UST Rule Applicability



Scope of EPA's AST Applicability

- **EPA - All facilities with an aboveground storage tank or tanks, along with any on-site containers (drums) exceeding 1320 gallons that could release regulated substances to navigable waters**

Federal UST Rule Development

Change is coming...
Change you can
count on!



U.S. Environmental Protection Agency

Office of Underground Storage Tanks

www.epa.gov/oust

Yes, It's True



The Energy Act of 2005

- **Secondary Containment for new UST Systems**
- **Delivery Prohibition**
- **Operator Training**
- **Increased Inspection Frequency**



EPA's Current Rule Development Effort

- **Began in 2007**
- **Developed an “Ideas” List in 2008 with input from affected parties**
- **Held meetings in 2009 with interested parties and regulators to solicit feedback**
- **Developed a shortened list of proposed concepts based on the comments received from industry, state and local regulators, and tribal representatives**
- **Industry Associations, members, and representatives actively participated in the process**
- **Review by contracted industry experts**

Current Status

- 90 days Public Notice Period was extended, and the deadline for submitting comments has ended
- EPA has reviewed the comments and is making changes as necessary
- Rule forwarded to OMB, October, 2014
- EPA's target for adoption is late Fall, 2014



Definitions



A photograph of a snowy street scene. In the foreground, a large white sign on a black post reads: "CLOSED DUE TO EPA REGULATIONS WATCH FOR OUR GRAND RE-OPENING". The sign is positioned in front of a building with a sign that says "DiVozzi & Sons BAKERY & PIZZERIA". The building has large glass windows and a neon sign that says "MAKING PIZZA". A car is parked in the snow-covered parking lot. The sky is overcast and there are bare trees in the background.

CLOSED
DUE TO
EPA
REGULATIONS
WATCH
FOR OUR
GRAND
RE-OPENING

DiVozzi & Sons BAKERY & PIZZERIA

What OUST has proposed...

New Definitions

- Airport Hydrant Systems
- Class ABC Operators
- Dispenser System
- Motor Fuel
- Regulated Substance
- Repair
- Replaced
- Secondary Containment
- Training Program
- Under-Dispenser-Containment (UDC)
- Underground Storage Tank (UST)



New Storage Tank Systems

- All new and replacement storage tanks and piping must have secondary containment
- Requires UDC's for new dispensers





Fiberglass Reinforced Plastic



Field-fabricated secondary containment



Composite

Jacketed



Cathodically Protected Coated Steel

Double-wall Piping with a Good Performance Record in the Florida Leak Autopsy Study*



UPP
Franklin
Fueling



Ameron

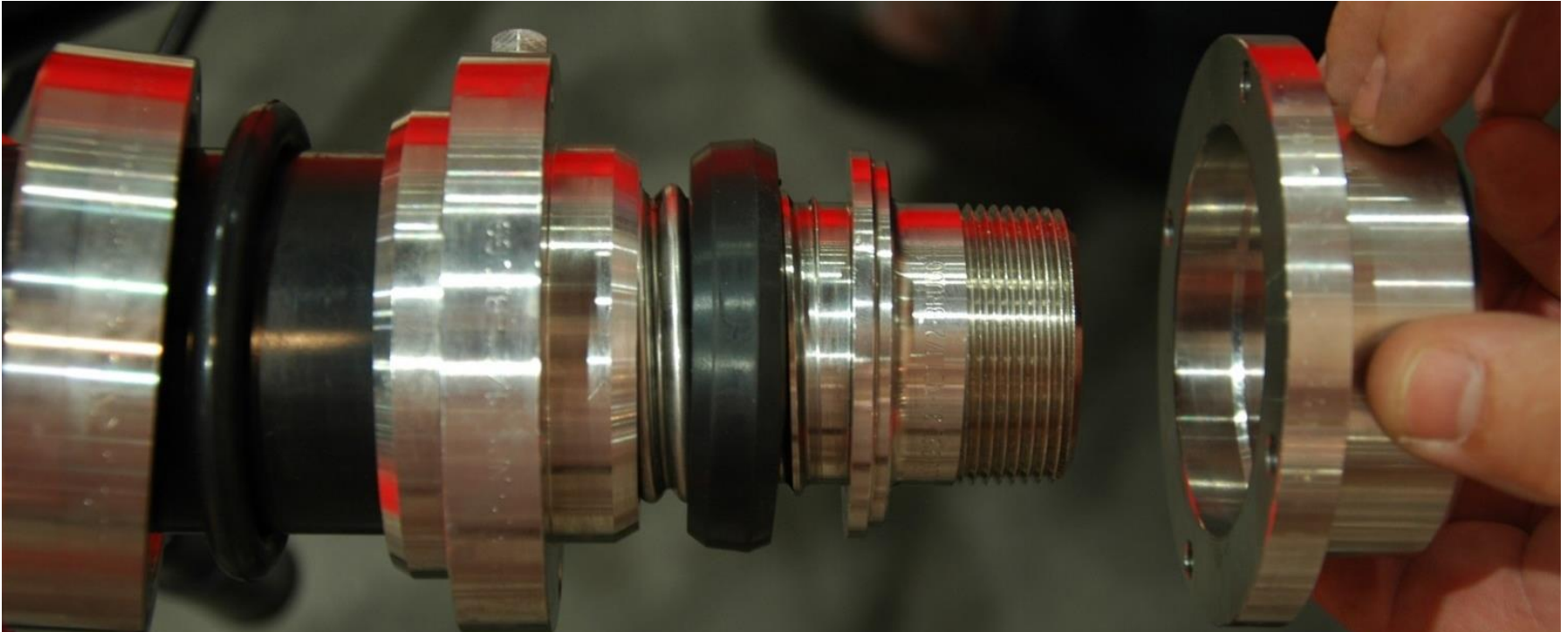
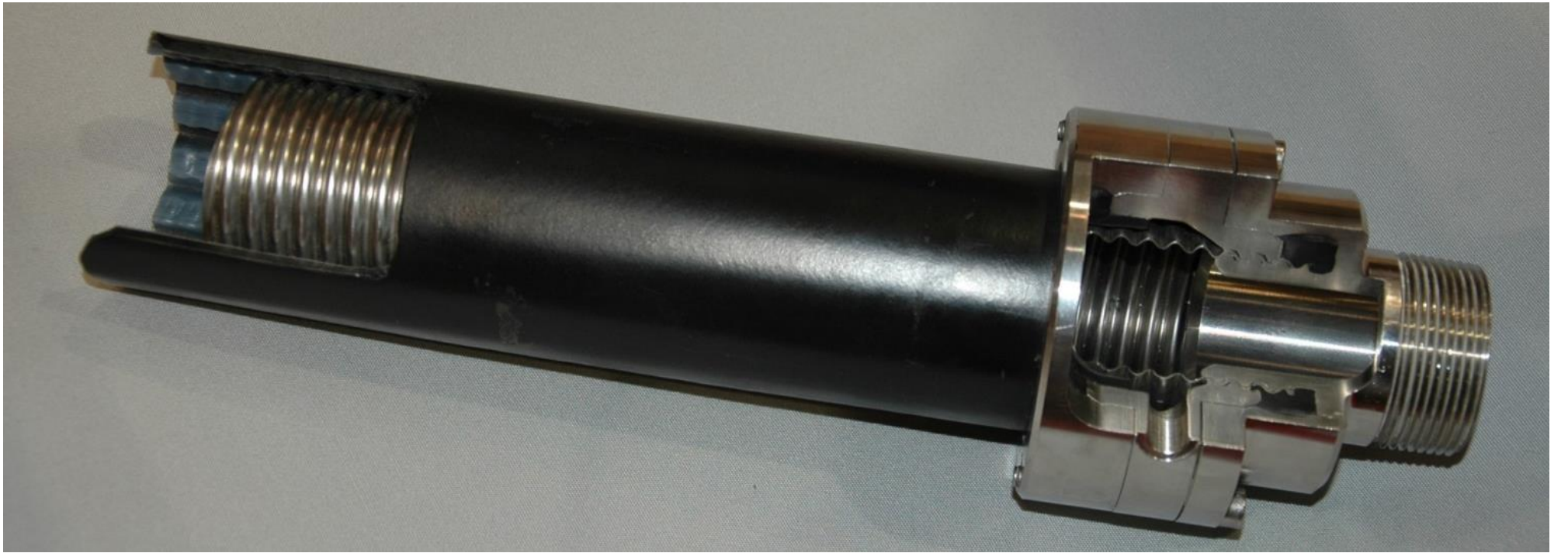


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Nupi

* Not an endorsement,
not all inclusive



New Reference Standards

- NFPA 385
- API 1621
- NACE TM 0101
- NACE TM 0497
- STI RP R051
- NACE RP 02-85
- NACE SP 0169
- STI RP R012
- API 2016
- NFPA 326
- FTPI Protocol for testing dry annular UST spaces



UST Systems with Secondary Containment

- Requires USTs and piping with secondary containment to be continuously monitored, or perform integrity tests every three years using vacuum, pressure, or liquid methods.
- Methods of continuous interstitial monitoring for tanks include liquid filled, vacuum, pressure, and sensors in the interstitial space.



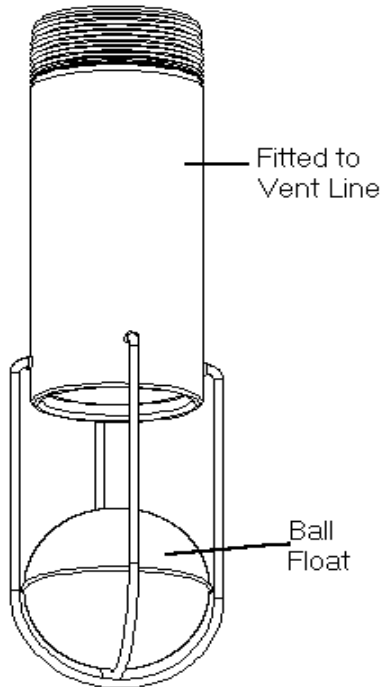
Containment Sumps

- New section requires containment sumps to be continuously monitored if double-walled, or perform integrity tests every three years using vacuum, pressure, or liquid methods



Overfill Prevention

- Requires overfill prevention equipment to be tested at installation and every three years thereafter
- Overfill prevention equipment testing must meet phase-in testing schedule -(one year for pre-88 USTs, two years for 88-98 USTs, and three years for post 98 USTs)



Spill Prevention

- Requires spill buckets to be continuously monitored if double-walled
- Requires annual integrity tests (vacuum, pressure, or liquid) if single-walled
- UST systems in use before the effective date of rule must test spill buckets within one year.



Spill Prevention Equipment



Release Detection

- **UST systems using interstitial monitoring must meet phase-in testing schedule**
- **If in use before the effective date of the rule, must test within one year for pre-88 USTs, two years for 88-98 USTs, and three years for post 98 USTs**
- **All UST systems using vacuum, pressure, or liquid-filled methods must be capable of detecting a breach in the inner and outer wall**
- **Adds the presence of water or product in an interstice as a suspected release, and includes monitoring alarms.**

Proposed Amendment – Clarification that leak detection methods allowed for interstitial monitoring shall be either vacuum, pressure, liquid-filled, sensors or probes, monthly visual, or another method approved by the implementing agency.

Release Detection Testing – USTs & Piping

- Requires USTs and Piping with secondary containment to be continuously monitored, or perform integrity tests every three years using vacuum, pressure, or liquid methods...**Concerns...**
- UST systems using interstitial monitoring must meet phase-in testing schedule specified in Table. If in use before the effective date of rule must test within one year after the effective date of rule for pre-88 USTs, two years for 88-98 USTs, and three years for post 98 USTs.

Proposed Amendment – USTs and Piping with Secondary Containment installed before the effective date of rule that use sensors or visual monitoring for release detection not be required to perform integrity tests.

Testing

- **New sections for annual operability tests for ATGs, probes and sensors, line leak detectors, and vacuum and pressure gauges.**



Alternative fuels

- New section for bio-fuels greater than E-10 and B-20. Requires certifications by nationally recognized labs and manufacturer's approvals



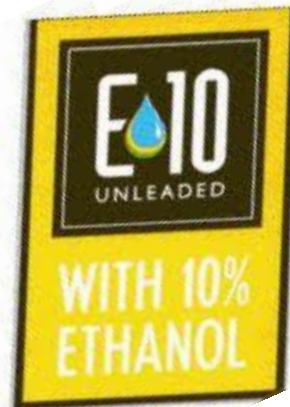
CAUTION!

This fuel contains 15% ethanol maximum

Use only in:

2007 and newer gasoline cars
2007 and newer light-duty trucks
Flex-fuel vehicles

This fuel might damage other vehicles.
Federal law *prohibits* its use in other
vehicles and engines.



**ULTRA-LOW SULFUR
HIGHWAY DIESEL FUEL**
(15 ppm Sulfur Maximum)

Required for use in all model year
2007 and later highway diesel
vehicles and engines.

Recommended for use in all diesel
vehicles and engines.

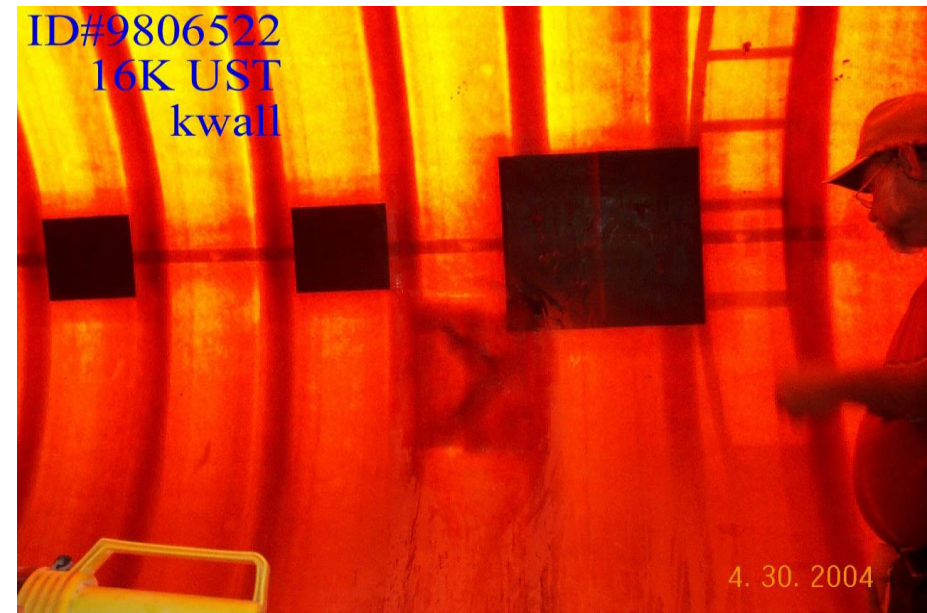
Recordkeeping

- New requirements for documenting compatibility of products stored within the UST system
- Installation of new UST system equipment
- Compliance of spill and overfill prevention equipment
- Compliance for release detection for tanks, piping, and containment sumps
- Documentation of monthly walk-through inspections
- Documentation of operator training.



Repairs

- If the primary or secondary wall is repaired, the structural integrity of the interstitial space must be verified before returning tank/piping to service
- Requires testing of USTs with secondary containment, spill and overfill prevention within 30 days of repair, and UST interstices with vacuum, pressure, or liquid test methods following repairs.



Monthly Visual Inspections

New section requiring monthly inspection of spill prevention equipment, sumps, UDC's, monitoring wells, cathodic protection, and release detection using the list in the rule, an industry standard, or a state implementing agency standard



General

- Requires notice of ownership change within 30 days of acquisition
- Amends existing section with notification requirements for sellers of USTs and requires new form on Appendix III
- Internally-lined USTs not meeting original design standards that can't be repaired must be closed
- New Section for SIR that requires a quantitative result with a calculated leak rate that can detect a 0.2 gph leak



General

- Update tank, piping sections for new technologies – include clad and jacketed tanks, flex-piping
- Technical Corrections – such as update standards and correct typos
- Minor clarifications to the Financial Responsibility Section
- Establishes new table and eliminates old table for Manual Tank Gauging



Requirements for Previous Deferrals

Establishes a Phase-in Schedule for:

- Release detection for Emergency Generator USTs
- Emergency Generator USTs
- Airport Hydrant Systems & Bulk Piping
- Field-Constructed USTs
- **Wastewater Treatment Tanks**



Operator Training

- Requires all o/o's to have designated Class A, B, & C Operators within three years of the effective date of the rule
- Requires o/o's to designate Class A, B, & C Operators for each UST or group of USTs
- Requires Class A & B Operators to be trained or pass a comparable examination from independent trainers. Lists the curriculum for the training. Requires that the training evaluate the Operator's knowledge and skills to make informed UST management decisions



Delivery Prohibition



What's Next?

- EPA Rule Publication
- Potential Industry Challenges to the Rule
- State Initiatives to Revise Applicable State Rules for Consistency

The End

