

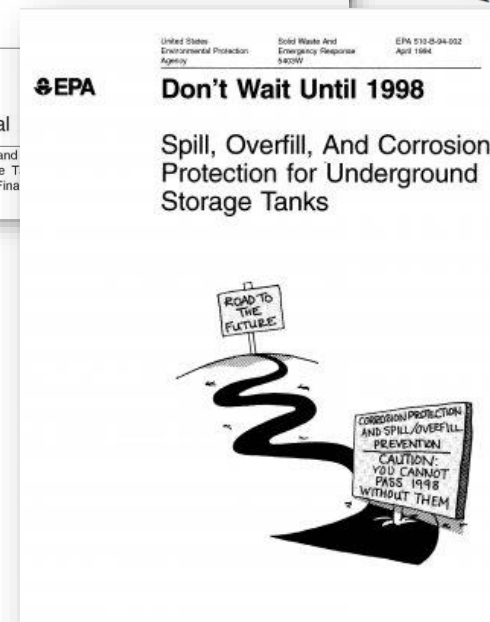
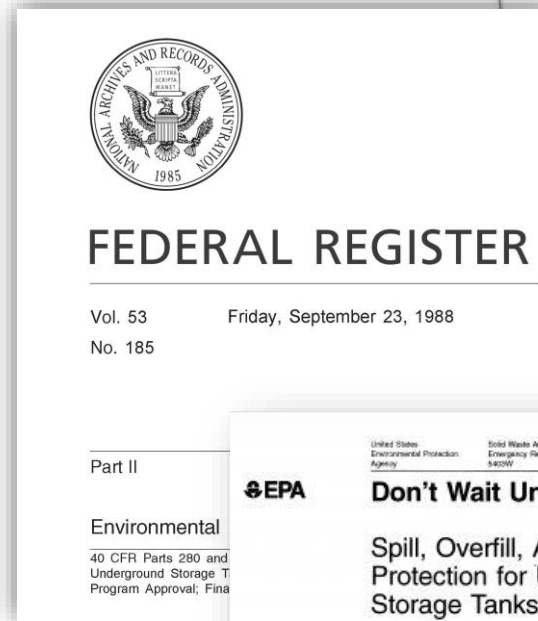


BUILDING RELATIONSHIPS THAT PAVE A PATH FORWARD

South Carolina's plan to bridge the gap between the regulator and the regulated.

REGULATION EVOLUTION

- 1988 to 2015
- 2005 Energy Policy Act
 - May 23, 2008
- 2015 EPA UST Regulations
 - May 26, 2017
- How does this impact public/private relationships?




BRINGING ALL PARTIES TO THE TABLE

- Stakeholder Buy-In
- Critical Stakeholders
 - Tank owners/operators
 - Industry Associations
 - Consultants and contractors
 - Federal, State, and Local Governments
- What's at Stake?
 - Program Resources
 - Industry Concerns
 - Total Compliance Rate
 - Environmental Impact



OUTREACH MATERIAL

- Messaging is everything
 - Keep It Simple!
 - Highlight new requirements
- Thinking outside the box
 - Mail out with annual tank fee invoices
 - Annual Inspections
 - Utilized relationship with Industry Associations to disseminate to members



An Owner/Operator's Implementation Guide for the South Carolina Underground Storage Tank Control Regulations 61-92 Part 280

Changes effective May 26, 2017

- **Flow restrictor (Ball Float Vent Valves)**
280.20(c)(3) - No vent line flow restrictors (Ball Float Vent Valves) may be installed at new facilities or installed at any existing facility.
- **Testing after repairs**
280.33(d) and 280.33(f) - Within 30 days after repair, overflow prevention equipment must be tested for proper function, and spill containment and secondary containment areas of tanks and piping used for interstitial monitoring must be tested for tightness.
- **Closure for internally lined tanks that fail the internal lining inspection and cannot be repaired**
280.21(b)(1)(ii) - Internally lined tanks that fail the internal lining inspection and cannot be repaired in accordance with a nationally recognized code of practice must be permanently closed.
- **Written notification is required within 30 days of acquisition for a change in tank ownership** 280.22(b)
 - ◊ DHEC Ownership Transfer Form: D-3871
- **Written notification is required for a change-in-service and closure 30 days prior to change**
280.71(a)-(c) - Intent to permanently close, make a change-in-service or replace previously installed piping and dispensers. (A change-in-service is switching from a non-regulated substance to a regulated substance or switching from a regulated to a non-regulated substance).
280.32(b) - This notification must be in writing. NOTE: A regulated substance includes a substance greater than 10 percent ethanol, greater than 20 percent biodiesel or any other regulated substance identified by the DHEC.
- **New groundwater and vapor monitoring site assessment must be signed by a licensed professional** 280.45(a) - All facilities conducting monthly groundwater and vapor monitoring for release detection must have a valid site assessment. All new site assessments developed after May 26, 2017, must be signed by a P.E., P.G., or equivalent licensed professional with experience in environmental engineering, hydrology, or other relevant technical discipline.
- **24-hour release reporting**
280.50 - A suspected release must be reported to the DHEC within 24 hours of discovery.
- **The Certificate of Financial Responsibility no longer has to be provided at the time of inspection**
280.111(b)(8) - Certificates of Financial Responsibility will no longer be required at a Compliance Inspection.
 - ◊ DHEC Certificate of Financial Responsibility Form: D-3472

DHEC 24-Hour Emergency Response Line: 1-888-481-0125
DHEC Report It Webpage: www.scdhec.gov/HomeAndEnvironment/ReportIt/
DHEC UST Division: (803) 898-0589 / (803) 898-2544
DHEC Website: www.scdhec.gov/ust
UST Forms: www.scdhec.gov/permits-regulations/forms-applications-registration-reporting-etc
EPA UST Website: www.epa.gov/ust

CR-012261 10/18

Requirements to be met by May 26, 2020

- **Release detection equipment**
280.40(a)(9) - Release detection equipment must be tested for proper operation at least annually.
 - **Release Detection Methods Include:**
 - Automatic Tank Gauging (ATG)
 - Automatic Line Leak Detector (mechanical and electronic)
 - Vacuum Probes / Pressure Gauges
 - Hand-held electronic sampling equipment
 - ◊ DHEC Release Detection Equipment Testing Form: D-3188
- **Spill prevention equipment and containment sumps used for interstitial monitoring** 280.35(a)(9) - Spill prevention equipment and containment sumps used for interstitial monitoring must be tested once every three years (or use a double-walled containment sump/spill bucket with 30 day interstitial monitoring). 280.35(b)(1) - The initial test must be conducted no later than May 26, 2020 and every three years thereafter. If UST system is installed after May 26, 2017, initial testing of equipment starts the three year requirement.
 - **Spill Bucket Testing Options:**
 - Perform Hydrostatic or Vacuum Test
 - ◊ DHEC Spill Bucket Integrity Testing Form: D-2562
 - **Containment Sump Testing Options:**
 - Perform Hydrostatic or Vacuum Test
 - Low level testing if sensors are in place with positive shutdown.
 - ◊ DHEC Containment Sump Integrity Testing Form: D-3183
- **Overflow prevention equipment inspection**
280.35(a)(2) - Overflow prevention equipment must be inspected at least once every three years. 280.35(b)(1) - The initial test must be conducted before May 26, 2020. If UST system is installed after May 26, 2017, initial testing of equipment starts the three year requirement.
 - **Overflow Equipment Repair Options:**
 - Ball Float Vent Valve - No new installations. Repair and re-test. If unable to repair, install either method listed below.
 - Drop Tube Shut Off Valve - Repair and re-test; or install new drop tube shut off valve or audible/visual alarm.
 - Audible/Visual Alarm - Repair and re-test; or install drop tube shut off valve.
 - ◊ DHEC Overflow Prevention Form: D-3187
- **Supplemental training for existing A/B operators**
280.43(a) - For A/B operators certified prior to May 26, 2017, supplemental training must be completed.
 - ◊ <https://apps.dhec.sc.gov/Environment/USTOperatorTraining>
- **Walkthrough inspections**
280.36(a)(1)(i) - Conduct walkthrough inspections that will visually check for damage to the spill prevention equipment and release detection equipment every 30 days. 280.36(a)(1)(ii) - Conduct walkthrough inspections that will visually check for damage to the containment sumps and hand held release detection equipment annually.
 - ◊ DHEC Walkthrough Checklist Form: D-3184
- **Emergency Generator UST Systems**
280.10(a)(1)(i) - Release detection is required for emergency generator UST systems permitted before May 23, 2006 and all new installs.
- **Airport Hydrant Systems and Field Constructed Tanks**
280.251(a)(2)(i) - A one-time notification of existence is required for airport hydrant fuel distribution systems and UST systems with field constructed tanks.
 - ◊ DHEC Notification of USTs Currently in Operation Form: D-1917
- **Groundwater and Vapor Monitoring**
280.45(a) - Records of site assessments for groundwater and vapor monitoring must be maintained for as long as the methods are used.

Disclaimer: This document is provided by DHEC as a condensed reference for the regulated community. Every effort has been made to ensure its accuracy; however, it is not intended as a substitute for the requirements in the South Carolina Underground Storage Tank Control Regulations (SCUSTCR) R.61-92, Part 280 as published in the State Register. Tank owners/operators are responsible for compliance with SCUSTCR R 61-92, Part 280.

CR-012261 10/18

COLLABORATION

- Summer of 2018 a select group of contractors were invited to meet with DHEC on a quarterly basis
- Representation of 14 contractor firms that conduct installs, testing, and/or repairs
 - Dialogue on regulation requirements
 - Direct link to tank owners and operators
 - Provide professional and external input on industry situations



POSITION PAPER - UST COMPLIANCE

Date: July 17, 2018

Subject: Sump Sensors only used as leak detectors in accordance with SC UST Control Regulation, R.61-92, Sections 280.41 and 280.44.

Regulation background/history: Federal regulation CFR 280.44 and SC UST Control Regulation, R.61-92, Section 280.44 state that each method of release detection for pressurized piping used to meet the requirements of R.61-92, Section 280.41 must have automatic line leak detectors (ALLD) installed which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour.

Discussion: Beginning in 1992, some facilities were permitted with sump sensors as a stand alone method for leak detection for double walled pressurized piping in accordance with SC UST Regulation, R.61-92, Section 43(i)(2) and section 44(c) as a variance to the installation of automatic line leak detectors. As part of that variance, it was noted that all leak detection systems must continue to meet the regulatory requirements of detecting a 3.0 gallon per hour



POSITION PAPER - UST COMPLIANCE

Date: August 3, 2018

Subject: Low Level Sump Testing to comply with SC UST Control Regulation, R.61-92, Section 280.35(a)(1)(i)

Regulation background/history: Federal regulation CFR 280.35 and SC UST Control Regulation, R.61-92, Section 280.35(a)(1)(i) state that containment sumps used for interstitial monitoring of piping must be tested at least once every three years, to ensure the sump is liquid tight. Vacuum, pressure, or liquid testing methods may be utilized to complete the testing, in accordance with Section 280.35(a)(1)(i).

Discussion: As noted in EPA's technical compendium, EPA is aware that in certain situations, specifically for certain older systems, even testing four inches above the highest penetration fitting, as outlined in Petroleum Equipment Institute's Recommended Practice RP 1200-12, "may create unusual challenges and unintended consequences. These include:

- It could be difficult to access the sump, requiring the dispenser be removed in order to do the testing.
- The challenges and costs of testing above penetration fittings may lead some owners to abandon their interstitial monitoring and move to a different and possibly less protective release detection method.
- The increased costs incurred for testing to the higher level may serve as a disincentive for owners to upgrade existing systems to include double-wall piping with interstitial monitoring and containment sumps.⁴

Options: For facilities that are conducting interstitial monitoring of piping, one of the following options may be used to comply with the requirements for testing under Section 280.35(a)(1)(i):

- Requirements developed by the manufacturer (Note: If the manufacturer has not developed requirements, refer to options B or C);
- Code of practice developed by a nationally recognized association or independent testing laboratory; or
- Requirements determined by the Department to be no less protective of human health and the environment than the requirements listed above in (A) and (B).

The following is an example of a Low Level Sump Testing method the Department determined to be no less protective. It is the same method described in EPA's UST Technical Compendium, amended June 12, 2018:

- A liquid level sensor is mounted at the lowest point in the sump and a periodic test is performed by adding liquid to a point that will ensure activation of the sensor;⁵ and
- The submersible turbine pump (STP) automatically shuts off when liquid activates the STP sump sensor; or
- The dispenser automatically shuts off when liquid activates the dispenser sump sensor, and the facility is always staffed when the pumps are operational.

A link to an example of testing procedures as well as the sample for documenting the Low Level Sump Testing procedure can be found on the EPA website in the referenced Technical Compendium.⁶ These testing procedures should be followed if low level testing of the containment sumps is performed. Testing must be documented using the format of the sample form. Prior notification to the Department is not required by SC UST Control Regulation. However, documentation should be provided upon request from the Department.

Per Section 280.20(e), UST systems "must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions." Therefore, the Low Level Sump Testing method may not be used during



POSITION PAPER - UST COMPLIANCE

Date: October 9, 2020

Subject: Dry Interstice Monitoring of Double Walled Underground Containment Sumps and acceptance to qualify for the three-year test exemption in accordance with SC UST Control Regulation, R.61-92, Section 280.35.

Regulation background/history: Federal regulation CFR 280.35 and SC UST Control Regulation, R.61-92, Section 280.35(a)(1), state that spill prevention equipment and containment sumps used for interstitial monitoring of piping must prevent releases to the environment by meeting one of the following: (i) the equipment is double-walled and the integrity of both walls is periodically monitored at a frequency not less than the frequency of the walkthrough inspections described in Section 280.35 or (ii) the soil prevention equipment and containment sumps used for interstitial monitoring of piping are tested at least once every three (3) years to ensure the equipment is liquid tight by using vacuum, pressure, or liquid testing.

Discussion: In accordance with South Carolina UST Control Regulation, R.61-92, Part 280, Section 35(a)(1)(i), double-walled sumps with periodic interstitial monitoring between both walls do not require hydrostatic testing at three (3) year intervals.

Double wall sump dry interstice monitoring system design meets the intent of Section 280.35(a)(1)(i). Therefore, triennial



POSITION PAPER - UST COMPLIANCE

Date: August 13, 2018

Subject: Interstitial monitoring of open or closed piping systems in accordance with SC UST Control Regulation, R.61-92, Section 280.20(h)(4)

Regulation background/history: SC UST Control Regulations, R.61-92, Section 280.20(h)(4), requires USTs and piping installed or replaced after May 23, 2008, to be secondarily contained and monitored monthly for leaks. Leaks must be contained and the product removed immediately once detected. Monitoring methods include those allowed under Section 280.44(c) in reference to only Section 280.45(g) for pressure systems. **Discussion:** Industry standard codes of practice, such as PEI RP 100, Appendix C, make reference to PEI RP 900, where interstitial monitoring systems are defined as open or closed systems. For all Interstitial Monitoring Systems, (Closed, Open, and Alternative), piping interstice must be open at the low point sump of the piping run, with a sump sensor being installed at the lowest point of the containment sump.

Options: At all other sumps, the following options are for facilities with pressurized piping installed after May 23, 2008, to meet the compliance requirements of Section 280.20(h)(4):

- Closed interstice system:** all interstice access points are closed and are continuous throughout the entire piping run with a sump sensor properly installed at the lowest point of each containment sump. Depending on the piping layout, crossover tubing may be utilized to maintain interstice continuity. Leaks from the buried portions of the piping will be forced under pressure to the low-point sump via the continuous piping interstice for detection. Because this system isolates other secondary containment sumps (dispenser and transition sumps) from the low point sump, typically at the STP, sensors are required to detect a leak before it exceeds the capacity of any sump.
- Open interstice system:** all interstice access points are open to allow liquid to flow freely into each containment sump. Monthly visual monitoring or sensor monitoring would be allowed at all dispenser and transition sumps because the open access points, with no tubing or fittings to obstruct openings, allow liquid to flow freely from sump to sump reaching the low-point sump sensor, typically located at the STP.
- Alternative interstice system:** the interstice access points may be open or closed, as described in options 1 and 2 above, but must allow each piping segment to drain liquid from the interstice into a containment sump. This system allows for test tubing/other connector components to stay attached but also remain open to a sump. This configuration may not allow liquid to flow freely from sump to sump. Therefore, a sump sensor must be installed at the lowest point in each containment sump and must detect a leak before it exceeds the capacity of any sump.

Note: Upon request other alternative interstitial piping monitoring designs will be evaluated by the Department.

Note: These regulatory requirements apply to any facility conducting interstitial monitoring on pressurized piping regardless of installation date. Facilities installed prior to the May 23, 2008 deadline may switch piping monitoring methods to another viable release detection method as outlined in Section 280.44(c) to remove their systems from the May 26, 2020 secondary containment system testing requirements.

EXTENDING AN OLIVE BRANCH

- Hosted a formal stakeholder meeting on October 17, 2018
- Invitations sent to all tank owners and contractors
- Morning and afternoon session
- 180+ attended
- Gathered important feedback



GAUGING OUR PROGRESS

- Customer feedback sets the direction of our messaging
- Ensure everyone is heard

Your Feedback Is Important!

Circle the number that best represents your answer.					
	1 = Poor	2	3 = Satisfactory	4	5 = Excellent
How would you rate this workshop for meeting your needs or expectations?	1	2	3	4	5
How would you rate the quality of the information presented?	1	2	3	4	5
Was the information presented clearly and effectively?	1	2	3	4	5
How would you rate this workshop overall?	1	2	3	4	5
Would you recommend this workshop to others?	1	2	3	4	5

Thank You!



Still have questions?

1. _____

2. _____

3. _____

4. _____

Provide your contact info below, so we can follow-up with you.

Name: _____ Company: _____

Email: _____ Phone: _____

Thank you!



TAKING THE MESSAGE TO THE INDUSTRY

Southeast Petro and Food Expo – Myrtle Beach, SC

- 2019 – 2022
- Registered for 2023
- A/B Operator Training and Supplemental Training opportunity via online modules



PARTNERING WITH INDUSTRY ASSOCIATIONS



SOUTH CAROLINA ASSOCIATION OF
CONVENIENCE STORES ANNUAL
CONVENTION – SUMMER 2019



SOUTH CAROLINA PETROLEUM
MARKETERS ASSOCIATION ANNUAL
BREAKFAST MEETING – SPRING 2020

OUTREACH WITH A SISTER AGENCY

- Held several workshops with South Carolina Department of Transportation
- Offered Supplemental A/B Operator training on site



GOING ON THE ROAD

- Hosted 8 regional workshops across the state
- Morning and afternoon session
 - Flexibility to enhance participation
- Supplemental A/B Operator training offered on site



South Carolina UST Control Regulation Workshop and Supplemental A/B Operator Training

November 21, 2019

DHEC Charleston Regional Office
Hennessee Conference Room - 3rd floor
1362 McMillan Ave
North Charleston, SC 29405

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

December 18, 2019

Florence County Health Department
Auditorium
145 East Cheves Street
Florence, SC 29506

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

January 8, 2020

DHEC Myrtle Beach Regional Office
EQC Conference Room 104
927 Shine Avenue
Myrtle Beach, SC 29577

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

January 29, 2020

Greenville County Health Department
Auditorium
200 University Ridge
Greenville, SC 29601

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

February 21, 2020

York County Main Library
138 East Black Street
Rock Hill 29730

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

February 26, 2020

DHEC Aiken Regional Office
206 Beaufort Street NE
Aiken, SC 29801

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

March 12, 2020

DHEC Central Office
Peeples Auditorium
2600 Bull Street
Columbia, SC 29201

[AM Session](#) [PM Session](#)
10 am - 12 pm 1 pm - 3 pm

Come fill up
with new tank
information!





South Carolina Department of Health and Environmental Control
Healthy People. Healthy Communities.

CONTACT US

Ryan Ariail
Customer Service Liaison
Underground Storage Tank Management Division
ariailrd@dhec.sc.gov • 803-898-9418

Stay Connected

