



# **NUMERIC ANALYSIS OF 3-YEAR COMPLIANCE TESTING DATA IN SOUTH CAROLINA**

# REGULATIONS



## **R.61-92, UNDERGROUND STORAGE TANK CONTROL REGULATIONS**

**Effective May 26, 2017**

(This Regulation replaces and supercedes any former regulations)

**Environmental Affairs  
Bureau of Land and Waste Management  
S.C. Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201**

### **DISCLAIMER**

This copy of the regulation is provided by DHEC for the convenience of the public. Every effort has been made to ensure its accuracy; however, DHEC reserves the right to withdraw or correct this text if deviations from the official text, as published in the State Register, are found.

- The new 2015 federal regulations were adopted by South Carolina, effective May 26, 2017. The deadline for tank owner/operators to comply was May 26, 2020.

# OUTREACH EFFORTS

- A one-page document was created to explain all the new requirements.
- Posted on our website
- Mailed out with annual UST invoices (3 years)
- Numerous stakeholder meetings were held throughout the state.

## 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, overfill 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)(i) - 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/](http://www.scdhec.gov/HomeAndEnvironment/ReportIt/)

DHEC UST Division: (803) 898-0589 / (803) 898-2544

DHEC Website: [www.scdhec.gov/ust](http://www.scdhec.gov/ust)

UST Forms: [www.scdhec.gov/permits-regulations/forms-applications-registration-reporting-etc](http://www.scdhec.gov/permits-regulations/forms-applications-registration-reporting-etc)

EPA UST Website: [www.epa.gov/ust](http://www.epa.gov/ust)

## Requirements to be met by May 26, 2020

- **Release detection equipment**  
280.40(a)(3) - 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 Probe / 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)(6) - Spill prevention equipment and containment sumps used for interstitial monitoring must be tested once every three years for 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
- **Overfill prevention equipment inspection**  
280.35(a)(2) - Overfill 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.  
  - Overfill 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 Overfill 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**  
280.15(a)(7)(b) - Release detection is required for emergency generator UST systems permitted before May 23, 2008 and all new installs.
- **Airport Hydrant Systems and Field Constructed Tanks**  
280.251(a)(2)(E) - 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(b) - 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.*

# OUTREACH EFFORTS

- New tank owners/operators are offered an outreach opportunity.
- All new tank installations have an outreach inspection completed a few months after opening.
- Anyone can take our free online operator training on our website.



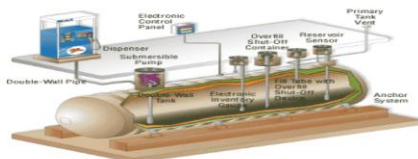
UHC main site  
www.scdhec.gov

## Underground Storage Tanks Class A/B Operator Training

[Register](#)

[Log in](#)

[Help](#)



If you are a current AB operator that took their initial training prior to 2015, you will need to create a new account in the system in order to complete the required supplemental training.

[Contact information for UST Operator Training](#)

## Owner/Operator Compliance Notebook Table of Content

### Section 1

- Owner/Operator Checklist/ Walkthrough
  - ✓ A/B Operator Log
  - ✓ Walkthrough Inspection Log

### Section 2

- Release Detection Monitoring Records
  - ✓ Monthly Monitoring Records (Tank & Piping)

### Section 3

- Annual Test Results
  - ✓ Piping Test Results
  - ✓ Line Leak Detector Function Check Results
  - ✓ Sump Sensor Function Check Results
  - ✓ Release Detection Operability

### Section 4

- Three Year Testing
  - ✓ Spill Bucket Testing
  - ✓ Overfill Prevention Testing
  - ✓ Containment Sump Testing
  - ✓ Corrosion Protection Information
    - Results of 2 most recent tests
    - Rectifier Log (as appropriate)

### Section 5

- Repair/Maintenance Records

Owner/Operator  
Checklist/Walkthrough

Release Detection

Annual Test Results

Three Year Testing

Repair/  
Maintenance Records

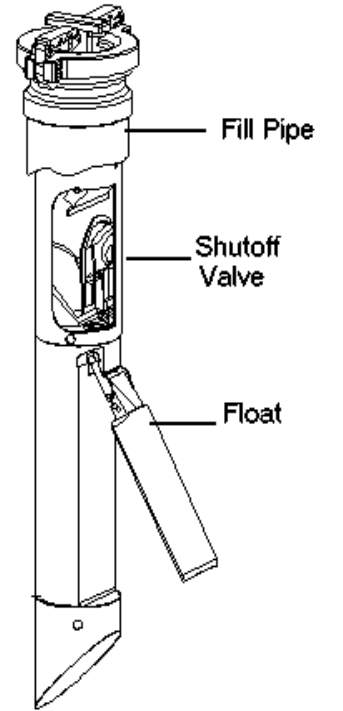
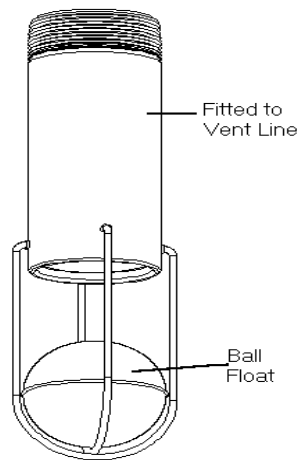
# INSPECTIONS

- 12 inspectors throughout the state
- Normally conducted on a 12-month basis



# TRIENNIAL TESTING

- Overfill Prevention
- Spill Prevention
- Containment Sumps



# ANNUAL TESTING

- Release Detection Equipment
- Walkthrough Inspections



**Release Detection Equipment Testing**  
This form can be used to comply with SC UST regulation 280.40(a)(3).

**dhec**  
This form may be used to document the annual testing of release detection equipment. Please complete the section(s) that are applicable to the equipment at your facility. Inspect equipment in accordance with manufacturer's guidelines. Results must be maintained for at least one year and be readily available for inspection. Note: This form does not replace the need for the Sump Sensor Function Check Form (DHEC Form 3118) or the Line Leak Detector Function Check Form (DHEC Form 3116). These forms should be used in conjunction with this Release Detection Equipment Testing form.

UST FACILITY  
Owner/Operator Name: \_\_\_\_\_ Facility Name: \_\_\_\_\_ Form Number: \_\_\_\_\_  
Facility Street Address: \_\_\_\_\_ Facility City: \_\_\_\_\_ Facility County: \_\_\_\_\_

CONTRACTOR/PERSON CONDUCTING INSPECTION  
Company Name: \_\_\_\_\_ Phone: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

I certify, under penalty of law, that the testing data provided on this form documents the UST system equipment was tested in accordance with the manufacturer's instructions, an accepted industry code of practice, an independent laboratory or Department approved alternative. Note: Any Response that is given a "No" is considered a failure and must be indicated as such on the form.

Printed Name of Person Conducting Inspection: \_\_\_\_\_ Signature of Person Conducting Inspection: \_\_\_\_\_ Inspection Date: \_\_\_\_\_

	Tank #		Tank #		Tank #		Tank #	
	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A
<b>Automatic Tank Gauge Console</b> Manufacturer:								
Is alarm functional?								
Is system correctly configured?								
Is battery backup functional?								
Inspection Result	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Check Pass or Fail								
<b>Automatic Tank Gauge Probes and Sensors</b> Manufacturer:	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A
Is there residual buildup present?								
Can the floats move freely?								
Is the shaft in operational condition?								
Are accessible cables free of kinks and breaks?								
Are they communicating properly with the controller?								
Inspection Result	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Check Pass or Fail								
<b>Automatic Line Leak Detector</b> Manufacturer:	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A	Yes	No or N/A
Can device detect 3 gallons per hour at 10 pounds per square inch within 1 hour by simulating a leak?								
Does the simulated leak cause an alarm (electronic only)?								
Inspection Result	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Check Pass or Fail								
<b>Vacuum Probes and Pressure Gauges</b> Manufacturer:								
Are they communicating properly with the controller?								
Inspection Result	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Check Pass or Fail								

DHEC 3188 (11/2019)

**dhec** UNDERGROUND STORAGE TANK WALKTHROUGH INSPECTION CHECKLIST/OPERATOR LOG  
This form may be used to comply with UST Control Regulations R.61-92, Sections 280.36 and 280.242(b)(3) UST Management Division Contact (803) 898-0589

**GENERAL INFORMATION**  
Facility Permit ID #: \_\_\_\_\_ Facility Name: \_\_\_\_\_ Name of Person Conducting Inspection: \_\_\_\_\_ Date: \_\_\_\_\_  
Facility Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Initial each column below the date of the inspection to indicate that the device/system was inspected and found to be satisfactory on that date. For those items not applicable for this facility, please indicate "N/A". Keep this record for no less than three (3) years. The walkthrough portion of this form must be completed by a knowledgeable person according to an established code of practice. The A/B operator must complete the designated A/B Operator requirements.

**Monthly Inspection Requirements (R.61-92, Part 280)**  
(Indicate in the space under each month the actual date of the inspection)


Spill Prevention Equipment		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<b>Walkthrough Inspection Requirements, 280.36(a)(1)(i)(A)</b>													
Spill Containment Bucket	1	Visually checked the spill prevention equipment for damage.											
	2	Physically removed any liquid or debris.											
	3	The interstitial space on double walled spill buckets is being monitored and checked for leaks (if applicable).											
Fill Cap	4	Checked fill cap to ensure that it is securely on the fill pipe.											
Fill Pipe	5	Checked for (and removed) any obstructions in the fill pipe.											
<b>A/B Operator Requirements 280.242(b)(3), AB Log Item 6: Spill, overflow, and corrosion protection systems are in place and operational.</b>													
Overflow Devices	6	The overflow alarm (if applicable) is audible and visible to the transport driver.											
	7	The overflow devices are present and visually operable.											
<b>Release Detection Equipment</b>		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<b>Walkthrough Inspection Requirements, 280.36(a)(1)(i)(B)</b>													
Automatic Tank Gauge (ATG)	8	The ATG is operating with no alarms or unusual operating conditions.											
Line Leak Detection	9	Visually checked for warning or alarm lights.											
	10	Documented any unusual operating conditions such as dispensers operating at a slow flow rate.											
Statistical Inventory Reconciliation (SIR)	11	Results submitted to a 3rd party so that a passing result can be received for each month											

DHEC Form 3185 (3/2020)



1 (continued)

DHEC 3188 (11/2019)



**May 26, 2020-May 26, 2022**

**Total of 6,387 UST Facility  
Inspections**

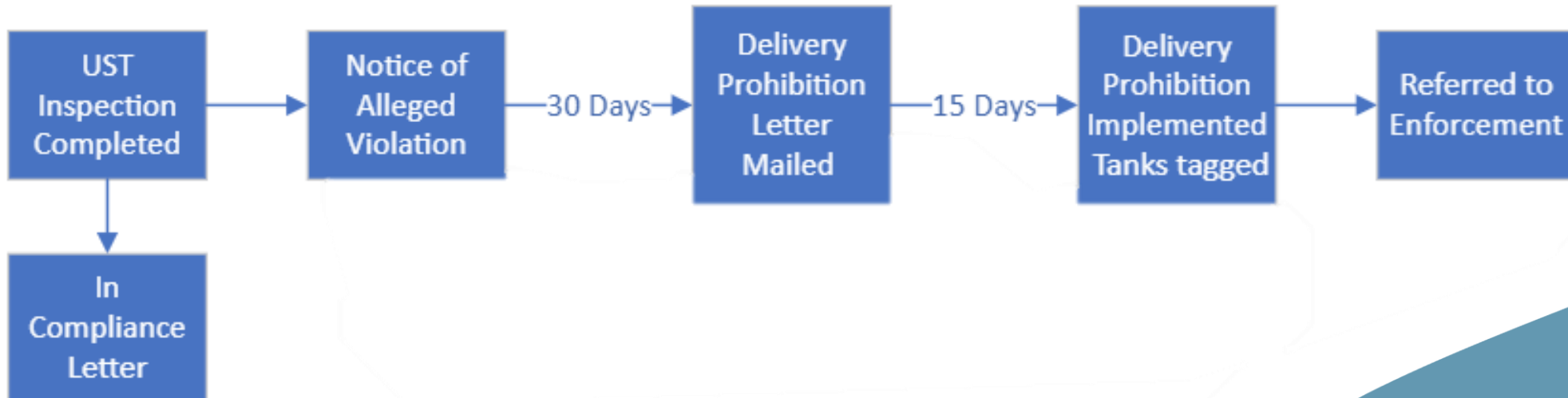
**2 Years of Data**



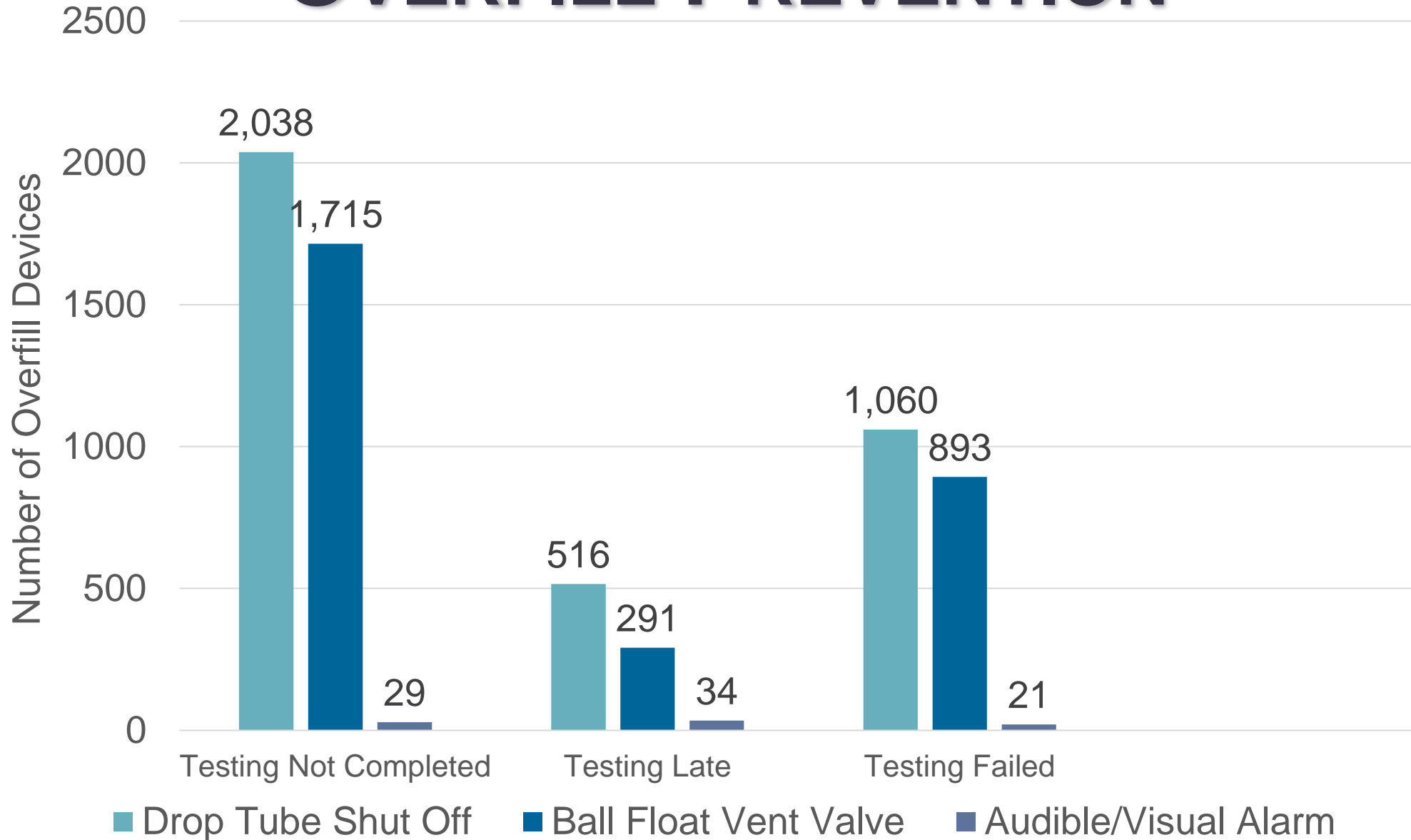


# INSPECTIONS

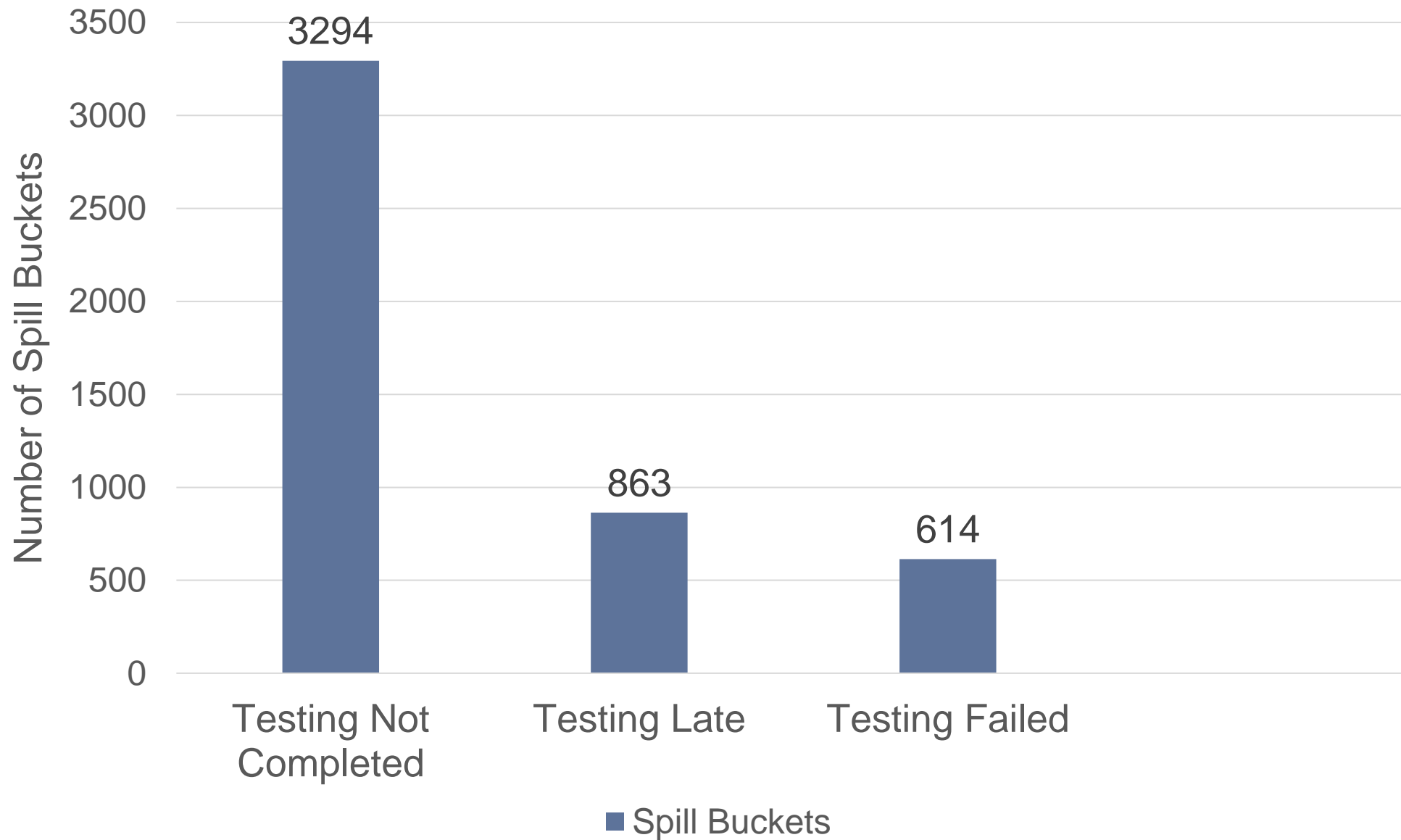
- As each facility came up for inspection, the new requirements were checked for at that time.
- If all requirements were completed an in-compliance letter was issued to the owner.
- If requirements were not satisfied a Notice of Alleged Violation was issued to the owner.



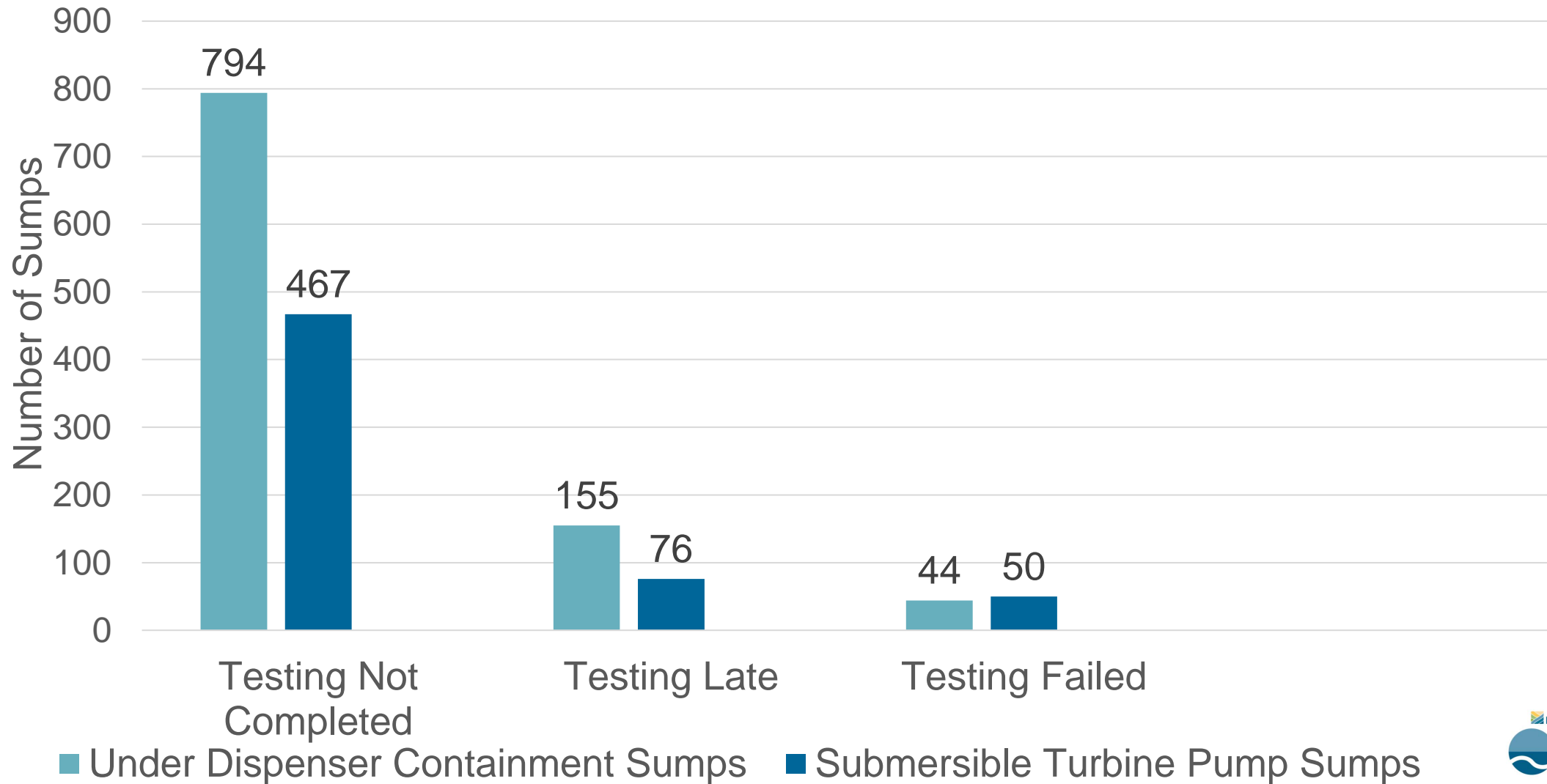
# OVERFILL PREVENTION



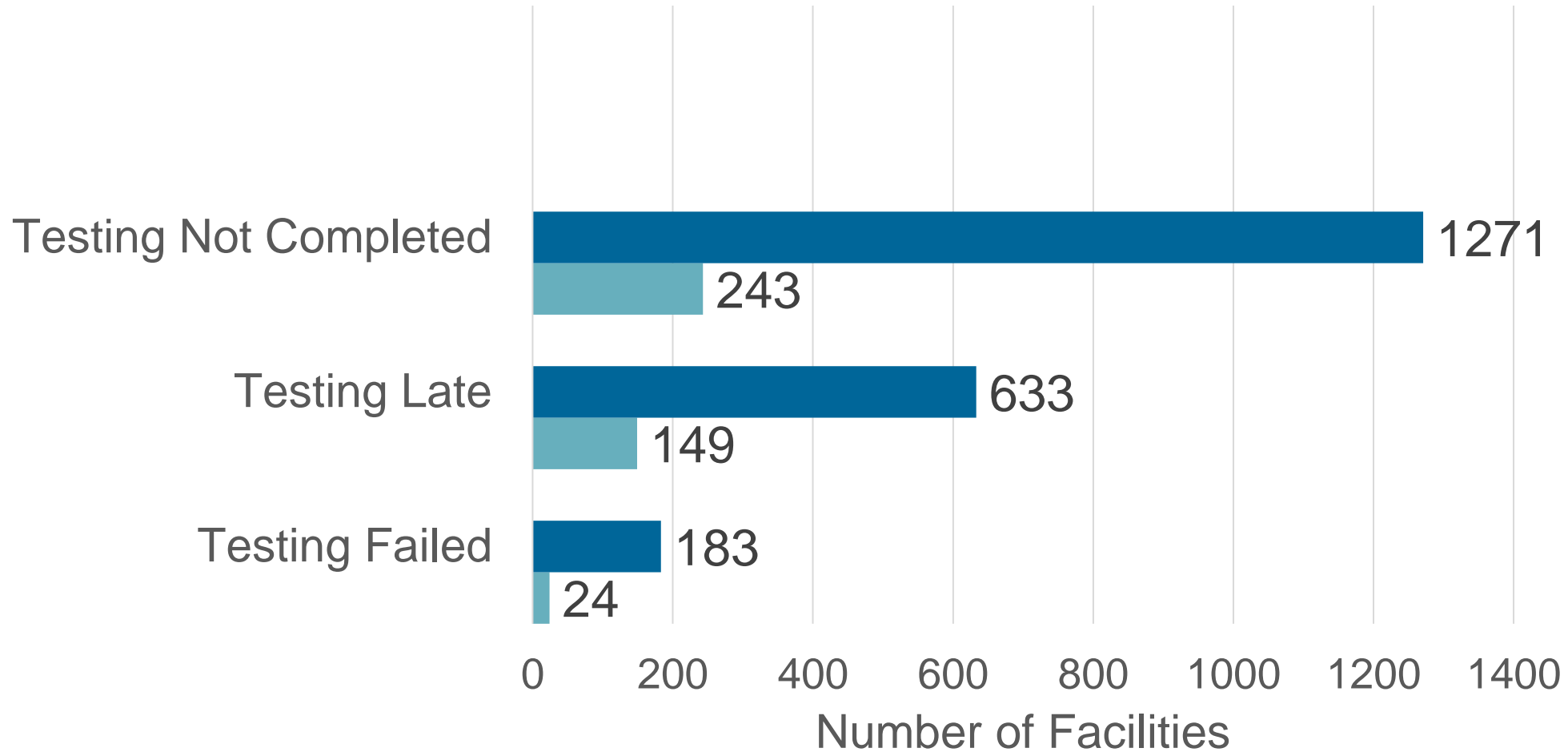
# SPILL PREVENTION



# CONTAINMENT SUMPS USED FOR INTERSTITIAL MONITORING



# RELEASE DETECTION EQUIPMENT

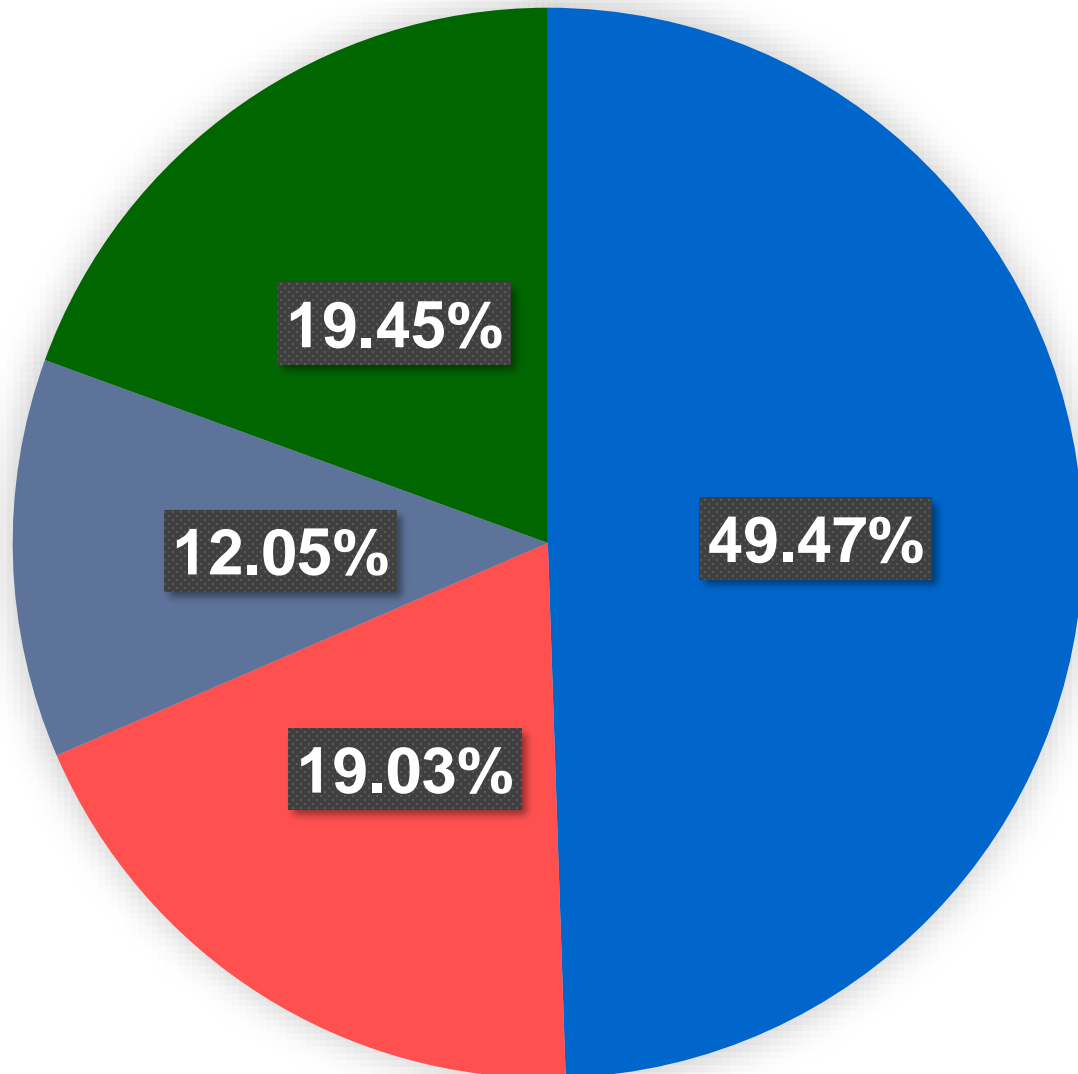


- Tank Release Detection Equipment
- Piping Release Detection Equipment

# WALKTHROUGH INSPECTIONS & SUPPLEMENTAL TRAINING

Requirements Not Completed by Time of Inspection	Number of Facilities	Percent of Facilities in Violation
Annual Walkthrough Inspection	888	13.90%
Monthly Walkthrough Inspection	715	11.19%
Supplemental Operator Training	1,240	19.41%

# SPILL BUCKET RELEASES



■ Results < Reporting Limits:  
Regulatory NFA

■ Results > Reporting Limits but < RBSL's:  
Confirmed Regulatory NFA

■ Results > RBSL:  
Data Inconclusive due to Existing Release

■ Results > RBSL:  
Confirmed New Release

NFA: No further action

RBSL: Risk based screening levels



## Contact Us

Courtney Evans  
Environmental Health Manager  
[evansch@dhec.sc.gov](mailto:evansch@dhec.sc.gov)  
803-898-0589



## Stay Connected

