

Newest UST Regulations & Impacts on Insurers



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**FIRST
ENVIRONMENT**



INTRODUCTION

Underground and aboveground regulated and non-regulated storage tanks (USTs and ASTs) often leak harmful substances into the environment, even with recent advances in tank technology and implementation of more stringent regulations. These substances, once leaked into the environment, continue to represent one of the most common sources contaminating groundwater in the United States. Not only do leaking USTs and ASTs represent a common source contaminating groundwater, but these releases also trigger one of most frequent environmental claims submitted to insurers.

Since the mid-1980s the Association of State and Territorial Solid Waste Management Official's (ASTSWMO's) state fund survey has tracked 149,611 eligible UST releases for state fund reimbursement at an average cost of \$152,666¹. The total paid out by state funds is estimated at approximately \$23 billion. However, if you use the EPA average clean-up cost of \$130,000 per site² or the ASTWMO average cost of \$152,666 for the estimated 540,000³ (both eligible and ineligible) confirmed releases that have occurred nationwide since the early 1980s, the estimated cost spent to date is much higher than \$23 billion. This is because an estimated 390,389 confirmed clean-ups were not eligible for state funding. In such cases, private financial assurance in the form of tank insurance policies most likely financed clean-up of most sites not covered by state funds. Insurance as a financial assurance remains very important to owners and operators of regulated USTs and ASTs when state funds do not exist or are unable to reimburse owner and operators.

¹ ASTSWMO Table 3, 2019 Level of Activity in State Financial Assurance Funds.

² EPA, Frequent Questions About Underground Storage Tanks, <https://www.epa.gov/ust/frequent-questions-about-underground-storage-tanks>

³ Correspondence with the EPA in January 2021

REGULATORY UPDATES

On July 15, 2015, EPA revised certain portions of the 1988 federal UST technical regulation in 40 Code of Federal Regulations (CFR) Part 280. The change in regulations added new requirements for the operation, inspection, testing and maintenance of regulated USTs in the U.S., with the goal of improving the 540,423 active regulated USTs that store petroleum or hazardous substances at approximately 193,000 facilities (of which approximately 115,000 are fuel service stations⁴).

However, according to insurers, these requirements may have actually caused an increase in tank related claims. Why is that? Many of the new tank claims are believed to be the result of added UST spill prevention testing, specifically testing of spill buckets, also often referred to the tank system weak link. According to the EPA's Anthony Raia, Release Prevention Division Director:

“The tightness testing requirements are key changes making the greatest difference...since having a spill bucket for example doesn't mean a whole lot for environmental protection unless the bucket is liquid tight, and typically those start cracking and leaking after around five years. Also, the required walkthrough inspections are important...conducting those monthly and annually are very important as operators can spot warning signs/deficiencies before there is any harm to the environment.”

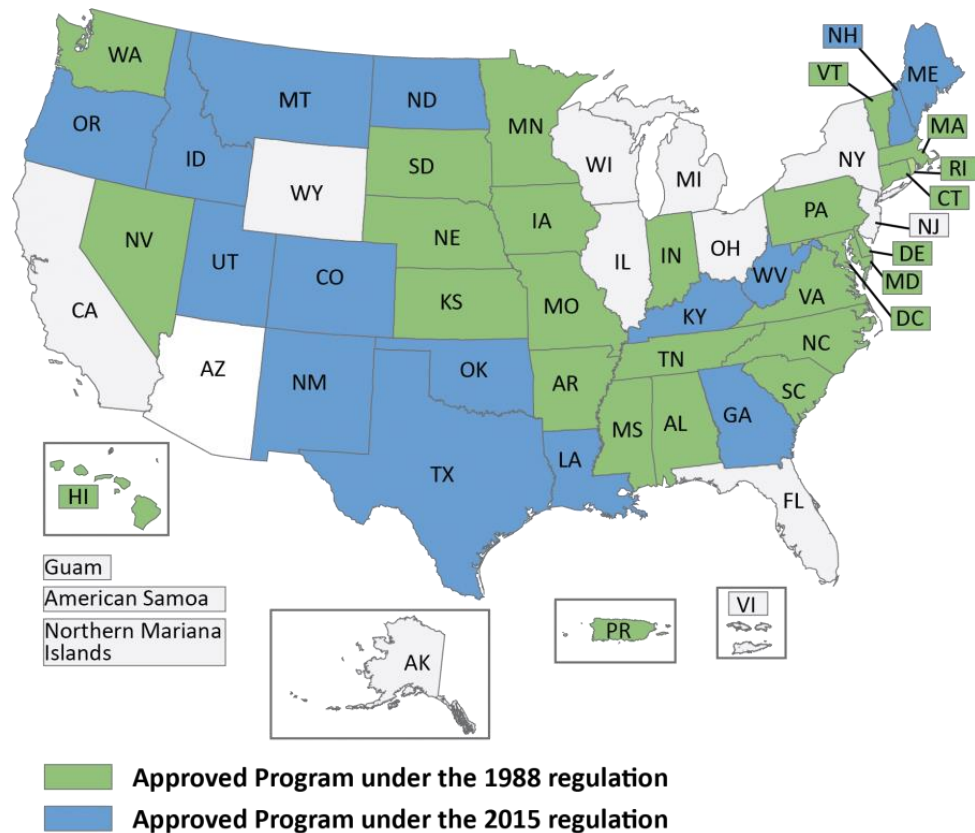
Spill buckets are designed to contain spills of hazardous substances associated with filling the USTs, but they often crack due to wear and tear during filling operations. Instead of directing the liquid back to the tank as designed, the liquid leaks to the environment. Therefore, one major provision of the July 2015 regulation was to have spill bucket testing completed by October 13, 2015, and then every three years afterwards. If the spill bucket fails the liquid, pressure or vacuum test, EPA does not require an investigation to confirm a new release; instead, it requires repair/replacement of the equipment, and possibly an investigation (depending on the situation). It has been First Environment's experience that most states require testing of soil to assess impacts above the states' regulatory soil clean up requirements. If the investigation reveals contaminants exceeding a soil or groundwater regulatory standard below the bucket, the owner/operator of the tank system is required to report a confirmed release to the regulatory authority, often triggering a UST claim submittal to the insurer. The next step is to remediate and close out the release.

In addition, the July 2015 regulatory update required all 11 states/territories without UST State Program Approval (SPA) to comply by October 13, 2018. The other states/territories with SPAs had varied compliance deadlines, with some states extending into 2021 (17 in all). Also, if an SPA was already in place, the EPA requires the state to re-apply incorporating the July 2015 requirements (or a more stringent form). As of January 2021, 15 states have received updated SPA from the EPA. A summary of the states with approved programs is illustrated in [Figure 1](#).

⁴ MarketWatch, How Many Gas Stations Are In U.S.? How Many Will There Be In 10 Years? <https://www.marketwatch.com/story/how-many-gas-stations-are-in-us-how-many-will-there-be-in-10-years-2020-02-16>, February 16, 2020

Figure 1: Map of States with Approved UST Programs (2020)

Source: U.S. EPA, <https://www.epa.gov/ust/state-underground-storage-tank-ust-programs>



INSURANCE IMPLICATIONS

Considering the recent change in regulations and its wide-reaching affects, insurers often raise the questions:

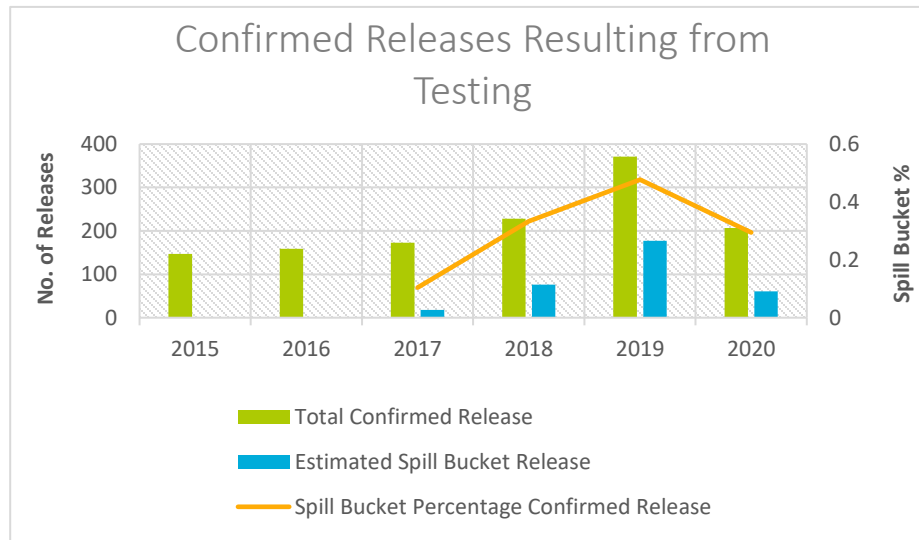
- 1. Has the number of confirmed releases increased as a result of the required spill bucket and sump testing?**
- 2. What is the severity of such releases to the environment?**

Through our experience conducting cause and origin assessments for insurers, First Environment has noticed an increase in reported spills associated with the added testing. Although there is a lack of published data confirming this, our experts received confirmation through discussion with Colorado Division of Oil & Public Safety (Colorado OPS) Director Mahesh Albuquerque. Colorado OPS oversees the state's UST program and saw a significant percentage of spill bucket failures (~60%) when they were tested, especially if they had not been tested for years since installation. Specifically, Colorado has 6,997 active regulated USTs at 2,771 facilities. The spill bucket testing deadline was January 1, 2020, three years after the state's new regulations went into effect (January 1, 2017). As show in **Figure 2**, the data

collected by Colorado OPS identifies a clear trend of increasing confirmed releases from 2015 through 2019 leading up to the spill bucket and piping containment sump testing deadline. The confirmed releases from spill buckets increased each year from 2017 to 2019 relative to total tank system releases as a result of increased testing. In fact, an increase in confirmed UST releases from 10% in 2017 to 48% in 2019 was accounted for by spill buckets.

FIGURE 2: Increase in Confirmed Releases Resulting from Testing

Source: Zach Hope, PE, Petroleum Program Manager, CDOP



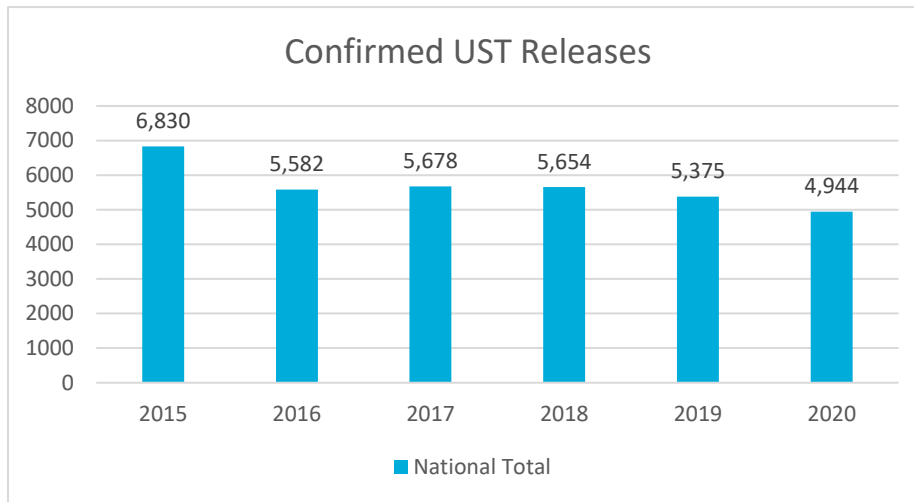
In addition, the New Jersey Department of Environmental Protection’s (NJDEP’s) Acting Chief for the Bureau of UST Compliance and Enforcement, Mike Hollis, indicated confirmed discharges from added testing appear to have increased in 2018 based on field inspections, although he indicated the NJDEP does not keep cause and origin UST release statistics. Mr. Hollis also noted that 10 NJDEP inspectors visit the 3,300 active facilities with regulated USTs for inspection at least every three years.

In December 2019, the EPA indicated that more testing could lead to more confirmed releases to the environment as reported in Colorado, but the EPA’s statistics from 2015 to 2020 (as shown in **Figure 3**) do not show an increase. However, a slight rise in confirmed discharges between 2016 and 2017 could be explained by the required spill prevention testing in those nine states leading up the 2018 deadline.



FIGURE 3: Confirmed Nationwide UST Releases (2015 – 2020)

Source: U.S. EPA (December 23, 2020)



One explanation as to why an increase in releases is not evident in EPA statistics may be due to the staggered testing deadlines; in fact, 10 states have required spill bucket testing deadlines in 2020 possibly not captured in EPA’s statistics. In all, 17 states have a required spill bucket testing deadline in 2021 and most are on different dates (see [Table 1](#)).

TABLE 1: State & Territorial UST Regulations - Compliance Deadlines for Major Provisions

Source: U.S. EPA, <https://www.epa.gov/ust/state-underground-storage-tank-ust-programs>

| State | Regulation Effective Date | Compliance Deadlines | State | Regulation Effective Date | Compliance Deadlines |
|--|---------------------------|----------------------|----------------|---------------------------|----------------------|
| Alabama | 12/2017 | 12/2020 ¹ | Missouri | 5/2017 | 1/2020 |
| Alaska | 9/2018 | 10/2018 | Montana | 10/2018 | 10/2021 |
| American Samoa | N/A | N/A | Nebraska | N/A | N/A |
| Arizona | 1/2020 | 1/2020 | Nevada | 12/2017 | 10/2018 |
| Arkansas | 9/2018 | 10/2018 | New Hampshire | 10/2018 | 10/2021 |
| California | 10/2018 | 10/2018 | New Jersey | 1/2018 | 10/2018 |
| Colorado | 1/2017 | 1/2020 | New Mexico | 7/2018 | 7/2021 ⁴ |
| Commonwealth of Northern Mariana Islands | 4/2016 | 10/2018 | New York | N/A | N/A |
| Connecticut | N/A | N/A | North Carolina | 1/2017 | 10/2018 |
| District of Columbia | 2/2020 | 10/2021 | North Dakota | 4/2018 | 4/2021 |
| Delaware | 1/2020 | 10/2021 | Ohio | 9/2017 | 10/2018 |
| Florida | 1/2017 | 10/2018 | Oklahoma | 9/2017 | 10/2018 |
| Georgia | 6/2017 | 12/2020 | Oregon | 6/2018 | 10/2020 |
| Guam | N/A | N/A | Pennsylvania | 12/2018 | 12/2020 |
| Hawaii | 7/2018 | 7/2021 ² | Puerto Rico | 1/2018 | 7/2018 |
| Idaho | 3/2017 | 10/2021 ⁷ | Rhode Island | 11/2018 | 10/2021 |

| State | Regulation Effective Date | Compliance Deadlines | State | Regulation Effective Date | Compliance Deadlines |
|---------------|---------------------------|----------------------|----------------|---------------------------|---------------------------------|
| Illinois | 6/2018 | 10/2018 | South Carolina | 5/2017 | 5/2020 |
| Indiana | 6/2018 | 6/2021 | South Dakota | 6/2018 | 10/2021 |
| Iowa | N/A | N/A | Tennessee | 10/2018 | 10/2021 |
| Kansas | 7/2020 | 10/2021 | Texas | 5/2018 | 1/2021 |
| Kentucky | 4/2019 | 4/2019 | Utah | 1/2017 | 10/2018 ⁵ |
| Louisiana | 9/2018 | 9/2021 | Vermont | 9/2018 | 9/2020 |
| Maine | 9/2018 | 9/2018 ⁶ | Virginia | 1/2018 | 1/2021 |
| Maryland | N/A | N/A | Virgin Islands | N/A | N/A |
| Massachusetts | N/A | N/A | Washington | 10/2018 | 10/2020 or 10/2021 ³ |
| Michigan | 11/2018 | 10/2018 | West Virginia | 6/2018 | 10/2018 |
| Minnesota | 4/2019 | 10/2020 | Wisconsin | 11/2019 | 11/2019 |
| Mississippi | 10/2018 | 10/2021 | Wyoming | 6/2018 | 10/2018 |

¹ Spill Prevention Testing 8/2007; Walkthrough Inspection 10/2018

² Spill Prevention Testing: Non FCT-AHS Systems 8/2014; FCT-AHS 7/2019

³ Spill Prevention, Overfill Inspection, Sump Testing: Facilities with Even ID 10/2020, Odd ID 10/2021; Walkthrough Inspection 10/2019

⁴ Walkthrough Inspection 7/2018; Spill Prevention, Overfill Inspection, Sump Testing 7/2021

⁵ Walkthrough Inspection 1/2012

⁶ Sump Testing Varies Based on Date of Installation and Tank Location 10/2018-8/2021

⁷ Walkthrough Inspection 10/2018

CONCLUSION

The good news is that confirmed releases from spill buckets are generally of lower cost (often ranging from \$3,500 to \$15,000 to clean up) as compared to full scale leaking UST remediations, assuming groundwater is not impacted. Another piece of the good news is the clean-up backlog has been declining since 1999. The EPA reported backlog declined from approximately 162,600 in 2000 to 62,500 in 2020⁵.

This reduction is due to better remediation technologies; advances in the materials used to construct UST systems; installation of new and more advanced tank systems; and stricter regulations requiring UST testing, inspections, and state trained UST A/B operators responsible for maintaining the UST system nationwide. In addition, the clean-up of confirmed releases has out-paced new releases – from October 2019 to September 2020, 7,211 remediations were completed, while only 4,944 new releases were reported.⁶ This result has been good for the environment and insureds; it should also be good news for pollution insurers due to fewer releases each year, and of lower severity; they can also expect coverage costs to clean-up to continue to decline while the number of regulated tanks associated with insurance premium stays the same. While it is reasonable to expect a continued decline in new releases and lower severity, insurers should not expect tank releases and associated claims to go away, but rather increase on the three-year required testing cycle.

⁵ EPA, 20 years of Progress Closing LUST site, <https://www.epa.gov/sites/production/files/2021-01/documents/percent-backlog-reduction-1-13-21-508.pdf>, January 2021

⁶ EPA, Semiannual Report Of UST Performance Measures End Of Fiscal Year 2020, <https://www.epa.gov/sites/production/files/2020-11/documents/ca-20-34.pdf>, November 2020



About First Environment

First Environment works closely with insurers and attorneys nationwide who have expressed an interest in being informed of changes in tank technology, the regulations that govern USTs and ASTs, and information on where and why tanks fail. The primary author is Scott Green, PG, a New York and New Jersey certified UST A/B operator. Mr. Green previously worked at AIG for 13 years as a consultant who supported environmental claims. He currently serves as an expert to insurers nationwide for UST/AST matters involving cause and origin assessments, cost allocations, UST compliance, and state investigation and remediation requirements.