



## ANNUAL UPDATE FOR CALENDAR YEAR 2019

SB 181

COMPLIANCE WITH WATER QUALITY STANDARDS AND CLASSIFICATION

JANUARY 2, 2020

This update to the Water Quality Control Commission summarizes the activities of the Division of Oil and Public Safety’s Storage Tank Program related to SB 181 for calendar year 2019.

### ***Technical Activities for Calendar Year 2019***

Number of Open Confirmed Releases .....	730
Number of 2019 Confirmed Releases .....	376
Number of Cleanups Initiated .....	204
Number of Cleanups Completed .....	286

### ***State Fund Information for Calendar Year 2019***

Number of Reimbursement Applications Reviewed by the PST Committee.....	103
Number of Supplemental Reimbursement Applications Approved by Staff.....	806
Reimbursement by the PST Committee (including State Lead/LUST Trust).....	\$30,623,909

### ***Enforcement Actives for Calendar Year 2019***

Number of Notices of Violations Issued.....	838
Number of Notices of Violations Resolved.....	659
Number of Enforcement Orders Issued.....	23
Number of Enforcement Orders Resolved.....	13
Number of Tanks with Delivery Prohibition.....	7

### ***Summary of Statistics***

The number of open petroleum release events continued to decline before reaching an historic programmatic low of 580 open releases in January 2019. This was a result of several factors including release prevention and detection efforts, identifying releases earlier, developing better conceptual site models, implementing effective corrective action plans, and continuing to successfully implement our Tier III and Tier IV risk-based closure criteria. However, as anticipated by OPS, there was a subsequent spike in new confirmed releases in 2019 due to increased secondary containment testing (spill buckets, tank sumps, dispenser sumps) by tank owners and operators trying to meet the January 1, 2020 EPA deadline for this required testing. As a result, the number of open releases increased from 580 in January 2019 to 730 on December 31, 2019. However, these new releases discovered from secondary containment testing are smaller in size, and easier and less expensive to characterize and clean up. OPS continues to lead EPA Region 8 with 286 completed cleanups in calendar year 2019, and 218 completed cleanups for EPA fiscal year 2020, which represents 55% of the entire Region 8 goal of 400 closures.







## OPS Program Achievements and Improvements

Listed below are achievements and improvements made by the Division to more effectively protect groundwater from contamination associated with releases from petroleum storage tank systems and to protect the solvency of the Petroleum Storage Tank Fund.

### EPA State Program Approval

OPS received final State Program Approval (SPA) from the U.S. Environmental Protection Agency (EPA) for the Underground Storage Tank (UST) Program on July 19, 2019. OPS submitted a complete program revision application to EPA on July 6, 2018 seeking EPA SPA approval of Colorado's revisions corresponding to the EPA final rule published on July 15, 2015. Colorado was the fourth state to receive SPA, and the OPS Director received a congratulatory letter from the EPA OUST Director for this noteworthy accomplishment and for leading the way for other states in pursuit of SPA. These revisions included the following periodic testing and inspection requirements that are required by January 1, 2020:

By 1/1/2020 and annually thereafter		
		
Release detection equipment must be inspected and tested.		
By 1/1/2020 and every 3 years thereafter		
		
UST spill buckets and basins need integrity testing.	Overfill prevention devices need to be inspected.	Sumps used for interstitial monitoring of piping need integrity testing.

OPS will begin requesting documentation of these new testing and inspection requirements in January 2020 during our routine inspections.

### March 2019 Revised Storage Tank Regulations

OPS revised the Storage Tank Regulations which became effective March 17, 2019. Key revisions included enhanced tank installer and service technician certifications, and allowing tank removal costs to be reimbursable from the Petroleum Storage Tank Fund. Other revisions included better aligning OPS' suspected and confirmed release criteria with EPA regulations. In particular, the revised regulations made any failed system test an automatic confirmed release, which prompts a requirement for a site check or site characterization.

### Petroleum Storage Tank Committee Policy 29

All UST systems installed in Colorado after August 2008 are secondarily contained and inherently pose a lower risk of a release to the environment. Releases from these newer secondarily contained tank systems are usually detected earlier, are small in size, and consequently are easier and less expensive to remediate. During 2019, thirty-year warranties began to expire on thousands of USTs across the country that were installed to comply with EPA's 1988 UST rule. In Colorado, almost 30% of the more than 7,100 active USTs are over 30 years old. In an effort to reduce the environmental risk posed by an aging tank population, the Committee authorized Policy 29 to use moneys in the Petroleum Storage Tank Fund to provide reimbursement of UST removal costs. This enabled tank owners or operators to proactively make decisions to replace or close aging UST systems, with replacement systems being upgraded to include secondary containment. Reimbursement of UST removal costs from Policy 29 included the following limitations and requirements:

- UST(s) must have been installed prior to August 2008.
- Reimbursement is \$1 per gallon of UST volume removed, up to \$30,000 per facility.
- An owner/operator is limited to up to \$1,000,000 in UST removal reimbursement per year.
- The Committee will allocate no more than \$4,000,000 per year for UST removal reimbursement, subject to available funds.
- Reimbursement is only available to owners or operators of active UST systems, and property owners with abandoned or orphaned tanks, who are eligible to the Fund.
- The entire UST system must be removed on or after January 1, 2019.

During 2019, the Committee approved the reimbursement of approximately \$585,000 for the removal of 110 aging USTs in accordance with Policy 29.

### 2019 Tank Removal Incentive

The Colorado Revised Statutes [§ 8-20.5-103 (3.5)] authorize moneys in the Petroleum Storage Tank Fund (Fund) to be used as incentives to underground or aboveground storage tank owners and operators for significant operational compliance or to upgrade existing tank systems. In addition to Policy 29, the Committee offered an incentive to reduce the financial burden for an owner/operator who discovers confirmed releases while removing and permanently closing their entire UST or AST system. The Committee finds that maximum environmental benefit is achieved when tank systems are removed altogether and not replaced, ending fuel-dispensing activities at the property. Therefore, an owner/operator's maximum operational compliance is achieved through the complete discontinuation of fuel-dispensing activities. In 2019, OPS revised regulations to make storage tank removal costs eligible for Fund reimbursement, which further affirms the benefits of storage tank removal. The incentive is in the form of a waiver of the \$10,000 deductible when an owner/operator seeks reimbursement from the Fund for cleanup of

a confirmed release that is determined to be eligible by the Committee. This tank removal incentive had some limitations and requirements including:

- A maximum of 10 facilities per owner/operator, with only one incentive allowed per facility.
- The facility must be in significant operational compliance with release detection and release reporting as identified by OPS and evaluated by the Committee.
- The incentive only applies to systems removed and not replaced.

In addition to the 110 USTs that were removed during 2019, twelve facilities received Committee approval for the Tank Removal Incentive for a total deductible waiver of \$120,000. Combined with Policy 29, OPS has reimbursed over \$700,000 to tank owners and operators for the removal of aging petroleum storage tanks during 2019. The Petroleum Storage Tank Committee approved an extension of the 2019 Tank Removal Incentive to December 31, 2020.

#### National Release Prevention Recognition

OPS received national recognition for our release prevention efforts in the latest Petroleum Equipment Institute (PEI) newsletter published November 7, 2019. The content is below:

*“Aging USTs affect all PEI members involved with retail fueling systems. That’s why PEI’s convention session on aging USTs drew 500 attendees and *PEI/RP1700: Recommended Practices for the Closure of Underground Storage Tank and Shop-Fabricated Aboveground Storage Tank Systems* has become such an important industry resource.*

Nevertheless, so far, state financial assistance for tank removals remains spotty. At this point, Colorado wins the gold medal for shifting the focus of its petroleum storage tank fund from cleanup to release prevention. Among other benefits, owners and operators replacing USTs in the Centennial State can receive grants of \$1 per gallon of tank volume removed.

How can Colorado be that generous? Three reasons top the list: the state’s fund is healthy; the Department of Oil and Public Safety has excellent aging data for the state’s UST population; and the regulatory authorities have adopted a long-term perspective.

States without one or more of these characteristics might not be as generous.”

#### Tier III and Tier IV Risk-Based Closures

OPS implemented Tier III and Tier IV risk-based closure criteria in October 2014 to allow for regulatory closure of releases with low-risk contamination offsite but no actual risk to receptors. OPS continues to engage with impacted offsite property owners as early as possible in the assessment process to discuss the risks associated with the releases. All Tier III and Tier IV closures are clearly identified on our GIS [Interactive Map Viewer](#) publically available on the OPS website with a link to a fact sheet that summarizes release conditions at the time of closure. In calendar year 2019, OPS completed 19 Tier III and Tier IV closures. Since implementation in October 2014, OPS has issued a total of 148 Tier III and Tier IV closures, which represents 11% of the 1,317 release closures in that time span.

### Online Petroleum Program Guidance

In February 2016, OPS published a web-based Petroleum Program guidance. Subsequently, OPS has provided guidance updates and enhancements as necessary to clearly state the program expectations and requirements for assessment, remediation, and closure of petroleum release events. The guidance will be migrated to a more user friendly platform in 2020.

### Recognized Environmental Professional Program

Recognized Environmental Professionals (REPs) replaced Individual Listed Consultants on January 1, 2018. The purpose of the REP designation is to better align decision-making responsibility between OPS, responsible parties and their environmental consultants by identifying environmental consultants who can demonstrate decision-making experience on releases to the environment. There are currently 79 approved REPs.

A REP is an individual qualified to be the principal decision maker on work related to the environmental assessment, risk characterization, and remediation of OPS petroleum releases based on education and demonstrated decision-making experience. REPs are responsible for:

- Decision-making as it relates to site assessment, risk characterization, remediation, progressing toward regulatory endpoints, budget development and management.
- Signing off on report submittals (i.e., site characterization reports, corrective action plans, monitoring and remediation reports, no further action requests) for release events.
- Communication of regulatory deadlines to both the responsible party and OPS.

This distinction better aligns responsibility between the responsible party, the responsible party's consultant, and OPS, which enables OPS to shift program resources towards continuing education and release prevention.

### REP Continuing Education

The REP Program includes continuing education requirements to maintain active REP status. OPS developed two required REP Continuing Education courses. The "Effective Corrective Action Plan Preparation" course is worth 5 credits and was provided in September 2017, October 2017, December 2018, and October 2019 to a total of 106 participants. The "Conceptual Site Model Development" course is worth 7 credits and was provided twice in July 2018 and once in March 2019 to a total of 72 participants. Both courses involve hands-on group exercises and were well received as an effective way to clearly convey program expectations related to the assessment, remediation, and closure of petroleum releases. These two required courses will be offered again in 2020 to provide REPs the opportunity to meet the continuing education requirement for REP recertification in 2021. In addition to the two required OPS training courses, REPs are required to obtain 12 continuing education credits from external sources. Examples include webinars, workshops, courses, and conferences related to site assessment and remediation from organizations such as the Interstate Technology and Regulatory Counsel, EPA CLU-IN, and the New England Interstate Water Pollution Control Commission.

### Risk-Based Inspections

In an effort to prevent petroleum releases, OPS began varying the frequency of facility inspections in October 2017 and the facility owner/operator's level of involvement during the inspection. The inspection frequency is determined by OPS using facility compliance history, equipment material and age, previous releases, and other criteria to identify higher-risk facilities versus lower-risk facilities. Higher-risk facilities are inspected annually and OPS announces these inspections ahead of time to encourage owner/operator involvement. The OPS Inspector performs a compliance inspection as usual, conducts an onsite compliance records review, and uses the opportunity to educate the owner/operator on compliance tips and discuss the owner/operator's monthly and annual inspections. OPS will continue to inspect lower-risk facilities in unannounced inspections.

### Mobile Inspection App

OPS developed an iPad Inspection to increase inspection efficiency and communication effectiveness for facility inspections. The App was very inexpensive to develop and is fully configurable by in-house staff. Some of the efficiency benefits of the Inspection App include reducing handoffs, eliminating paperwork, and providing instantaneous communication of inspection results and violations to owners/operators.

### 2019 Keys to Compliance Summer Outreach Conferences

During the summer of 2019, OPS held Keys to Compliance outreach conferences at five locations in Colorado. The purpose of these free outreach conferences is to provide petroleum storage tank owners and operators the opportunity to meet the OPS Petroleum Program staff, learn about helpful tips for operating in compliance with the petroleum storage tank regulations, and to meet and network with peers about strategies they have utilized to comply with regulatory requirements. Petroleum Program staff gave presentations on Compliance, Remediation, and the Petroleum Storage Tank Fund. A summary of the outreach conferences is provided below.

<b>Date</b>	<b>Location</b>	<b>Attendees</b>	<b>Exhibitors</b>
June 19, 2019	Arvada	191	23
July 10, 2019	Loveland	138	25
July 25, 2019	Pueblo	66	18
August 7, 2019	Durango	50	16
August 15, 2019	Grand Junction	62	20
<b>Totals</b>		507	102

### Petroleum Cleanup and Redevelopment Fund (PCRF) Story Map

OPS staff developed the [PCRF Brownfields Story Map](#) and published it on the OPS website. This story map includes information about what a Brownfield is, the story of how OPS got involved with the Brownfields Program, examples of OPS Brownfield success stories, and additional funding incentives provided by the PCRF program for the removal and associated environmental cleanup of legacy petroleum storage tanks.

### COSTIS Database Replacement Project

The Colorado Storage Tank Information System (COSTIS) is 20 years old and is in the process of being replaced with a cloud-based Salesforce platform. The new database will be called COSTIS Interactive or COSTIS IA and will have much more functionality for internal and external users. Examples include an enhanced external customer portal with fillable forms and templates for submitting information and reports. This will enable easy access for customers to apply for petroleum storage tank permits, submittal of tank registrations, and to determine the current status of tanks. Other advantages will include improved services to customers, reduced wait times, and the ability to access and upload inspection information in real time eliminating additional data entry. Internal examples include automated responses to reports such as requests for system tests, site checks, site characterizations, and issuance of No Further Action closure letters, deficiency letters, and notices of violation.

### Proposed Changes to PAH Groundwater and Soil Standards

The CDPHE Water Quality Control Division has proposed changes to numeric groundwater standards for seven polycyclic aromatic hydrocarbons (PAHs) summarized below.

<b>Polycyclic Aromatic Hydrocarbon</b>	<b>Current Standard (mg/L)</b>	<b>Proposed Standard (mg/L)</b>
Benzo(a)anthracene	4.8 E-6	1.3 E-4
Benzo(a)pyrene	4.8 E-6	1.3 E-5
Benzo(b)fluoranthene	4.8 E-6	1.3 E-4
Benzo(k)fluoranthene	4.8 E-6	1.3 E-3
Chrysene	4.8 E-6	1.3 E-2
Dibenzo(a,h)anthracene	4.8 E-6	1.3 E-5
Indeno(1,2,3-CD)pyrene	4.8 E-6	1.3 E-4

The proposed changes to the PAH standards are orders of magnitude higher than the current standards and are based on updates to the EPA IRIS assessment, which identified benzo(a)pyrene as a mutagen. If approved by the Water Quality Control Commission, OPS will adopt the revised groundwater standards as risk-based screening levels. In addition, OPS will utilize the new standards to adjust the OPS soil risk-based screening levels for these PAHs.