

Strategies To Increase LUST Cleanups: Lessons From States

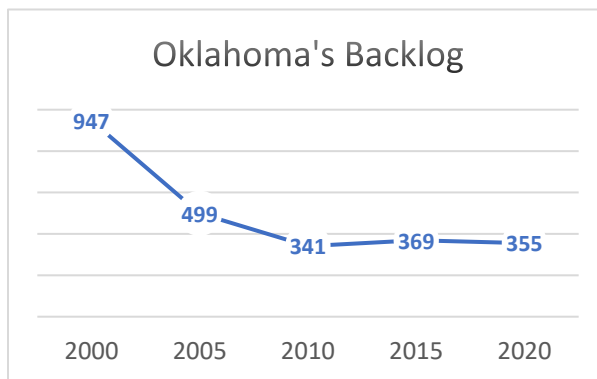
Oklahoma Reduced Legacy Releases By 86 Percent Since 2005

Summary

- Oklahoma applied four overarching strategies to reduce the number of legacy releases – open leaking underground storage tank (LUST) releases on the books prior to 2000.
 - They modified policies, rules, statutes, and increased their state fund cap which allowed them to continue spending money on legacy releases.
 - They developed cost and payment procedures that streamlined the overall funding process and clearly communicated these procedures to their regulated community.
 - They fully applied the Oklahoma Risk-Based Corrective Action (ORBCA) methodology to identify sensitive receptors and pathways, model reasonable exposure pathways of concern, institute engineering controls where warranted, and apply long-term monitoring for plume stability.
 - They continued to invest in technology to enhance their database and online corrective action portal and made process improvements for efficient paperless tracking and automated processes.

Results

- Oklahoma adopted ORBCA in late 1996, which required a Tier 1A assessment report for every active release case. This led to assessment report submissions for review through 2002 and resulted in the closure of many cases due to lack of risk exposure.
- From 2005 to 2020, Oklahoma decreased its backlog of legacy releases from 422 to 58, an 86 percent reduction. Since the beginning of the federal underground storage tank program in 1988, Oklahoma has cleaned up 94 percent of their reported confirmed releases.
- Oklahoma prioritized filling data gaps on legacy releases and applied risk-based corrective action to close many of them. This included identifying exposure pathways and monitoring to determine the likelihood of exceeding risk-based screening levels.
- Oklahoma established and periodically updates its unit cost structure and added it to the corrective action portal which helped expedite case closures, particularly legacy releases.



Oklahoma's LUST sites remaining 2000-2020.

Lessons Learned

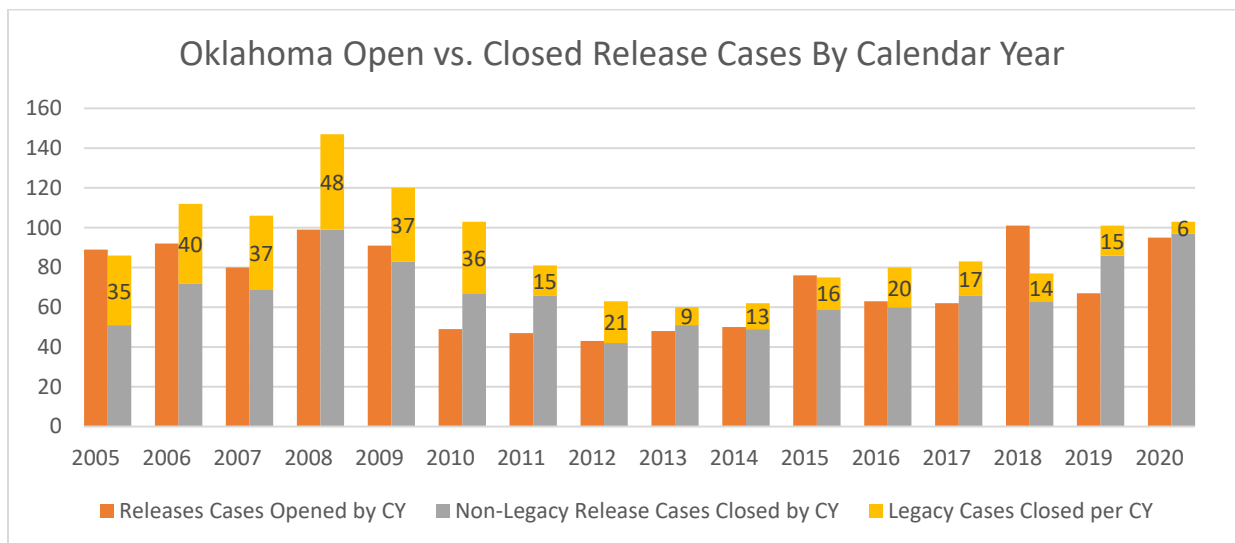
- Increasing the state fund's cap from to \$1.5 million to \$2.5 million allows Oklahoma to continue spending on legacy releases that are not moving forward and implement cleanup technologies that didn't exist years ago.
- Establishing explicit timeframes for the cleanup process and following up when they are not met keeps sites moving.
- Automating the submittal and approval of work plans, purchase orders, claims, and technical reports through Oklahoma's online portal and PIMS (Petroleum Information Management Systems) database results in an improved process for state staff and external users. The PIMS database also tracks case related activities and alerts appropriate regulatory staff when there has been no activity after one year.
- Streamlining case funding procedures and working with the regulated community eliminates long negotiations, leading to the quicker allocation of money for cleaning up a LUST release.
- Employing engineering controls to eliminate receptor pathways helps close sites. Oklahoma offers to connect homes to public water supply, reimburse for the cost to plug water supply wells potentially



impacted, and compensate citizens \$1,000 for the loss of use of their water well. This \$1,000 compensation is intended to help offset water bills for a year.

Background

- Oklahoma's robust and well-established risk based corrective action program, [ORBCA](#), is central to their success at closing LUST sites. Its protective measures include searching for sensitive receptors within 660 feet of LUST releases and identifying and screening utility manways within 330 feet to effectively evaluate the risk posed by the release. Conducting a thorough site conceptual exposure model as well as long term monitoring and employing engineering controls helps identify and evaluate pathways of concern.
- Oklahoma's PIMS database improved efficiency on many levels. It streamlined their budgeting process and provides real time status of their state fund budget down to the release level, enabling them to make funding decisions quicker.
- In 2013, Oklahoma launched their Corrective Action Portal to receive online submissions from owners and operators as well as licensed environmental consultants. It allows for fast submissions of work plans, purchase orders, change orders, technical reports, and claims. The portal contains validations and business rules that ensure quality and consistent data. PIMS and the portal operate as one seamless process.



Oklahoma's open release cases by calendar year (orange) versus closed release cases by calendar year (yellow plus gray) since 2005. Legacy cases closed (yellow) represents the proportion of legacy cases closed out of all cases closed per calendar year.

For More Information

- [Oklahoma Corporation Commission, Petroleum Storage Tank Division](#), 405-522-1444

