

Removal, Cleanup & Prevention, Leaking Underground Storage Tanks

Accomplishments 1990 to July 2004

Contamination from regulated underground storage tanks (UST) spills and leaks threaten soil and groundwater. Toxic and carcinogenic substances in petroleum can jeopardize public health, and explosive vapors can compromise buildings. Over the last 14 years, the State of Alaska put in place an effective program that helps tank owners and operators upgrade, close and remove underground tanks, clean up contaminated sites caused from leaking tanks, and prevent new leaks and spills.

Overview

Early Years

Emergency regulations in 1990 provided for **technical and financial assistance** for underground storage tank (UST) owners and operators, **cleanup** of existing contamination, and **prevention** of future releases.

Tank status unknown. Installation, operation, and maintenance practices were unknown at UST facilities. Status of contamination due to leaking, overfilling, and spilling associated with UST systems was unknown.

Now

6,144 USTs were removed and closed since the beginning of the program.

2,282 regulated UST sites with known contamination have been identified since 1989.

59% have been cleaned up and closed.

94% (1015/1084) of the USTs in use have been inspected and meet leak detection and proper equipment requirements set out in regulations.

Cleanup & Removal

Contaminated UST Sites' Status

Registration started in 1991 to help assess universe of USTs and their status.

133 known contaminated UST sites in 1989.

Began cleanup efforts at 13 high priority sites using federal funds.

7,228 USTs have been registered with the state in the last 14 years:

1,084 active (see status, lower back page).

6,144 decommissioned.

2,282 known contaminated UST sites have been identified since 1989.

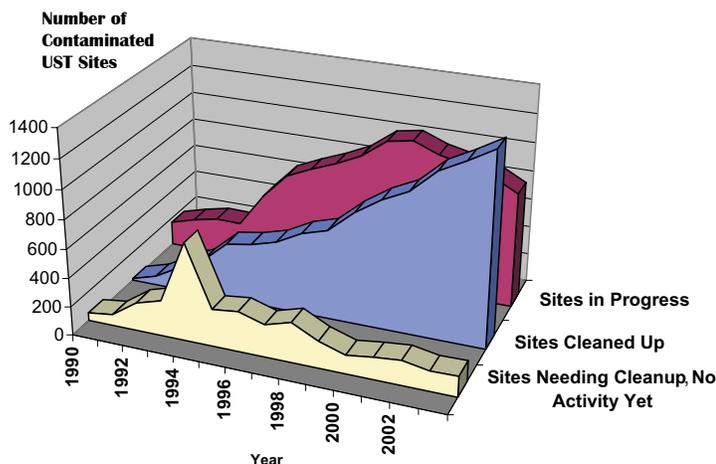
Completed cleanup at 1,351 UST sites with spills or leaking UST systems, including 8% which were conditionally closed, with restrictions to protect people from exposure to remaining contamination. The department tracks these over time.

Confirmed releases at UST sites decreased from 104 in 1998 to 13 in 2004, likely due to prevention actions.

31% of contaminated active UST sites have approved cleanup plans; 12% are in long-term monitoring status.

Innovative cleanup technologies, strategies, and risk-based cleanup standards have allowed more sites to be closed.

Contaminated Underground Storage Tank (UST) sites cleanup status 1990-2004



Prevention

Early Years

Now

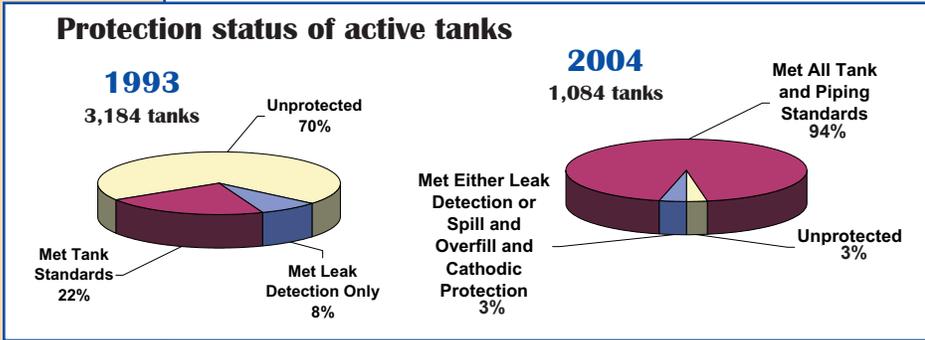
Inspection

Approximately 8-10 UST facilities were inspected annually by the U.S. Environmental Protection Agency and DEC staff to verify operational UST compliance.

70% of the tanks were unprotected in 1993. They had no leak detection, corrosion protection, or spill and overfill prevention equipment.

94% of all active and temporarily closed tanks (1,015) have been inspected through third-party inspections on a 3-year cycle, begun in 2000. Tanks are equipped for leak detection, corrosion protection, and spill/overfill prevention and meet operational and maintenance requirements.

The other 6% of tanks are not receiving fuel because they either failed inspection or did not have one done. DEC is working with owners and operators toward full compliance or tank closure.



Owners and operators can hire one of 20 state-certified tank inspectors when inspections are due.

DEC staff review inspection reports for each facility and randomly audit all inspectors over the course of three years.

Tank Worker Certification

DEC began certifying tank workers in 1991 to ensure integrity of UST work by qualified professional tank workers.

In 1999, an additional license for "3rd party inspector" was added to the certification categories for tank workers. Owners and operators can hire licensed tank workers to help ensure that operational compliance and maintenance, leak detection, corrosion protection and spill and overfill requirements are met.

Financial Responsibility

Pre-1990, DEC required no proof of insurance from tank owners/operators to show ability to pay for cleanup and damages from leaks.

87% of tank owners (209/241) have currently shown DEC that they have financial responsibility insurance for 2004 to adequately cover the costs of a leak or spill at the site. All are required to have it.

Laboratory Approval

No laboratory approval before 1995: analytical data reported to DEC for contaminated UST sites was inconsistent.

24 laboratories now approved: approval began in 1995 to ensure accurate and consistent analytical testing for contaminated UST and non-UST sites.

Laboratories are approved annually. Standard Alaska Petroleum Analytical Methods are in place to ensure consistency in laboratory analysis.

Financial Assistance

Expended \$5.6 million for 524 grants by the end of 1992 to pay a portion of the costs of tank tightness testing, upgrade or removal and closure, and site assessment and cleanup.

Expended \$31.5 million in grants or loans since 1990 to pay a portion of the costs of tank tightness testing, upgrade or removal and closure, and site assessment and cleanup.

1,094 grants and 29 loans were issued to provide financial assistance to eligible owners and operators.

