

**ANNUAL UPDATE FOR FISCAL YEAR 2008/2009**  
**COLORADO DEPARTMENT OF LABOR AND EMPLOYMENT**  
**DIVISION OF OIL AND PUBLIC SAFETY**

**SB 181**  
**COMPLIANCE WITH WATER QUALITY STANDARDS AND CLASSIFICATION**  
**SEPTEMBER 2009**

This update is offered to the Water Quality Control Commission concerning the activities of the Division of Oil and Public Safety Storage Tank Program for the period ending June 30, 2009.

**Technical Activities**

Number of releases active during Fiscal Year 2009.....	1,250
Number of confirmed releases.....	185
Number of sites issued No Further Action required letters...	252
Number of Site Characterization Reports reviewed.....	.. 156
Number of Corrective Action Plans reviewed and approved	256
Number of Monitoring Reports reviewed.....	3,060
Number of Final Enforcement Letters sent.....	.... 66
Number of Enforcement Settlement Agreements sent.....	.... 0

**State Fund Information for Fiscal Year 2009**

Number of reimbursement applications heard by the PST Committee.....	102
Number of supplemental reimbursement applications approved by Staff.....	1,654
Dollars reimbursed by the PST Committee (including State Lead and LUST Trust).....	\$30,059,409
Total dollars reimbursed since inception of the Fund (1991).....	\$357,387,516

**Program Improvements**

Listed below are improvements made by the Division to the program in order to more effectively investigate and remediate the contamination associated with petroleum storage tank system failures and protect the solvency of the Petroleum Storage Tank Fund.

## **Regulation Changes/Site Summary Form/Risk-Based Deadlines**

On January 1, 2009, the Division implemented changes to regulations associated with the site assessment and cleanup of petroleum contaminated sites. These changes include increasing the usefulness of the Site Summary Form (SSF), setting risk-based deadlines for the Site Characterization Report (SCR), tying the Corrective Action Plan (CAP) deadline to 60 days after request, and formally requiring quarterly monitoring.

The SSF now requires installation of monitoring wells within 60 days of the release if soil is not fully defined before encountering groundwater. In addition, the need for offsite access must be evaluated to accelerate investigation of off-site impacts, and the site classification must be proposed to allow the setting of the risk-based deadline for the SCR. The new format for the Site Summary Form is based on the format that was developed for the Monitoring and Remediation Report (MRR) in FY 2008 to allow data to be input once and then to be reused over the life of the event.

The Risk-Based Deadline for the SCR provides shorter deadlines for higher risk sites. All submittal deadlines are from the date of the release. The highest risk sites (Classification 1.1 to 1.6) which pose an immediate risk to human health, safety or sensitive environment have a 120 day deadline for SCR submission. Sites with short-term risks (0-6 months and Classification 2.1 through 2.7) have a 150 day deadline. Sites with intermediate-term threats (7-24 months and Classification 2.a.1 and 2.a.2) and long-term threats (greater than 2 years and Classification 3.1 through 3.4) have a 180 day deadline. Sites with no demonstrable threat (Classification 4.1 through 4.3) have a 210 day deadline.

With SCR deadlines ranging from 120 to 210 days from the date of release, the CAP could no longer be tied to the day of release since the SCR must be complete before a CAP can be developed. The CAP deadline of 60 days from request is consistent with the deadline when all SCRs were due in the same timeframe.

Identifying the requirement for quarterly monitoring in regulation finally allows the Division to assess fines or penalties for failure to properly perform periodic monitoring. Without periodic monitoring results, the Division was unable to properly evaluate the progress of remediation activities or whether the site warranted closure (by regulation, the Division needs four consecutive quarters of monitoring to allow a site that was contaminated to be closed). These changes will result in the Division having a better understanding of the extent of contamination at facilities with releases and ensure that resources are expended at the sites with the most serious risks first.

## **Economic Feasibility Summary/Electronic Reimbursement Application (EFS/ERAP)**

The EFS form now includes start and end dates for the scope of work associated with the proposed/approved costs. This aids in reviewing proposed costs, and tracking reimbursement. A place to input the projected closure date has been added to the EFS to clearly state when the remediation goals are anticipated to be met. In addition, with the update to incorporate 2009 Reasonable Cost Guidelines (RCGs), new tasks codes are available for additional common task and labor codes, a data validation feature has been added to the EFS to warn or prevent RCGs from being exceeded, and the format has been streamlined.

### **Methyl-Tert Butyl Ether (MTBE)**

MTBE was adopted as a chemical of concern (COC) for the groundwater ingestion pathway through regulation in 2005. Additionally, an MTBE Guidance Document was developed and published to assist tank owners and operators and their consultants with completing MTBE assessments and cleanups. MTBE differs from other COCs in that the property boundary is not considered a POE, but rather water supplies used for human consumption within 2,500 feet of the source. From May 30, 2005 forward, responsible parties are required to analyze MTBE from groundwater samples collected at all site monitoring wells. During FY 2009, 68 MTBE Assessment Reports (MARS) were received and an additional 24 groundwater fate and transport models were included in other types of reports for eliminating the MTBE groundwater elimination pathway. Pathway elimination was granted for 39 sites using successful fate and transport models. A total of 51 MTBE pathway elimination letters were sent for sites that met the criteria for MTBE groundwater ingestion pathway elimination.

In 2009, the Division also published a list of requirements for each type of MTBE Assessment Report to ensure all the required information is being submitted and to facilitate review. The requirements identify tables, figures, and the Site Info and Site Status tabs from the Monitoring and Remediation Report required to properly evaluate whether pathway elimination is warranted.

### **Tank Closure Program**

OPS Remediation Section provided regulatory oversight during the permanent closure of 282 petroleum storage tanks at 123 locations during FY 2009 and will continue this role in FY 2010. During these closure inspections, OPS staff ensures that proper tank closure methods are utilized and closure assessment sampling of soil and groundwater is conducted to measure for the presence of a release. During FY 2009, 85 site closures (69.1%) had confirmed petroleum releases compared to 50.7% in FY 2008 and 61.58% in FY 2007.

## **LUST Trust Fund**

OPS continues to aggressively assess and remediate sites where tank owners are unknown, unwilling or unable to perform the work or in emergency situations. During FY 2009, the OPS expended \$1,686,054.90 at the 38 sites in the LUST Trust program. Work performed at these sites was funded through the USEPA Leaking Underground Storage Tank (LUST) Trust Grant and through costs recovered from the Petroleum Storage Tank Fund (PSTF) for eligible sites. Thirty-eight sites are being addressed because the owner is either financially unable or unwilling to perform the work. Of these 38 sites, 22 have active remediation systems operating, eight are conducting monitored natural attenuation, three are conducting post remedial monitoring, and four have are the process of developing corrective action plans. One subsurface investigation was performed to identify the responsible party.

In FY 2009 OPS began expending the additional LUST funding received in FY 2008 to address low priority sites. OPS identified 67 sites that have been in the LUST Trust program but due to their low priority rankings had not been addressed. To be more efficient with the additional funds OPS grouped these sites to be assessed in one mobilization and assigned them to contractors based on location. In FY 2009 OPS expended \$31,110.76 at approximately 25 of the 67 sites.

## **LUST Trust Fund Cost Recovery**

In FY 2009, the OPS continued to implement a program to recover funds expended from the LUST Trust Grant. Costs were recovered at 36 sites where the RP was eligible for reimbursement from the Colorado Petroleum Storage Tank Fund (PSTF). The eligible funds were transferred from the PSTF to the LUST Trust Grant. In FY 2009 the OPS recovered \$2,070,906.46 from the PSTF. The recovered money will enable the Section to continue to perform assessments and remediation activities at high priority sites. Total costs recovered to date are \$10,377,795.46.

## **Petroleum Storage Tank Fund - State Lead Cleanups**

In FY 2009 the OPS continued to actively assess and remediate 103 State Lead sites. In FY 2008 the OPS initiated a new State Lead program for responsible parties (RP). Of the 103 active State Lead sites, 35 are in the State Lead for RP program and 68 sites are being addressed for persons bearing no responsibility for the release. In FY 2009 the OPS expended \$4,467,000.00 at all State Lead sites.

## **Brownfields Grant**

The OPS \$200,000 Brownfields Assessment Grant expired on September 30, 2008. Utilizing the assessment grant monies, OPS was able to provide No Further Action letters to the property owners of five sites. Most notably, the Classical Gas site in Milliken will facilitate the expansion of the Milliken police department building.

In Kit Carson, OPS conducted an extensive Phase II environmental assessment for the Paxson Building which helped Kit Carson Rural Development with its decision to acquire this blighted property and work toward preparing a development ready site.

The OPS continues to partner with the Colorado Department of Public Health and Environment (CDPHE) and the Colorado Brownfields Foundation to implement the Colorado Historic and Scenic Byways Initiative. In addition, OPS and CDPHE have an interagency agreement in place that provides assistance in the assessment and cleanup of Brownfields sites throughout the State.

## **Risk Based Decision Making**

In FY 2009, regulations that incorporate risk based decision making (RBDM) promulgated in February 1999, continued to be successfully implemented. The RBDM process consists of a tiered approach to site evaluation and cleanup. During the Tier 1 evaluation, the highest concentrations of chemicals of concern are compared to Tier 1 risk-based screening levels RBSLs for each complete exposure pathway. For sites with contamination above the RBSLs, owners/operators are given the option to cleanup to Tier 1 RBSLs or to collect additional site-specific data and proceed to a Tier 1A or Tier 2 evaluation. Two Tier 1A models, ten Tier 2 models, and 178 fate and transport models (92 for MTBE contamination and 86 for contamination of BTEX COCs) were submitted in FY 2009. The model results for BTEX COCs (including Tier 1A and Tier 2 models) were 60 passed, six failed and 32 found to be invalid.