

**Annual Report to the
Environmental Review Commission
North Carolina General Assembly**

**The Status of Leaking Petroleum Underground Storage
Tanks, the State Cleanup Funds, and the
Groundwater Protection Loan Fund
For Fiscal Year 2010 (1 July 2009 to 30 June 2010)**

1 September 2010



**NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES**

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Underground Storage Tank Section

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Executive Summary

North Carolina's underground storage tank program is administered by the N.C. Division of Waste Management's Underground Storage Tank (UST) Section in DENR. The section enforces UST regulations and manages funds used to perform cleanups of petroleum UST discharges or releases (UST incidents). The program was initiated in 1988 in response to growing reports of USTs leaking petroleum into soil and groundwater supplies. Funding for the program is provided by the Commercial and Noncommercial Cleanup Funds, the federal UST regulatory grant and LUST prevention grant, and the federal Leaking UST Fund cooperative agreement. Until 1998, some funding was provided by the Groundwater Protection Loan Fund.

Summary of key statistics for FY 2010 (1 July 2009 through 30 June 2010)

Commercial Fund Revenues	\$27,969,420
Commercial Fund Expenditures	\$21,464,042
Noncommercial Fund Revenues *	\$ 6,726,977
Noncommercial Fund Expenditures	\$ 5,823,127
Petroleum UST Incidents – Reported	793
Petroleum UST Incidents - Closed Out	835

* Includes transfers of \$4,283,393 to non-commercial trust fund per G.S. 119-18(b) from DOT

Summary of key statistics for the entire history of the UST program (1 July 1988 to 30 June 2009)

Commercial Fund Revenues	\$566,203,933
Commercial Fund Expenditures	\$502,727,628
Noncommercial Fund Revenues	\$127,997,732
Noncommercial Fund Expenditures	\$126,574,199
Petroleum UST Incidents – Reported	25,414
Petroleum UST Incidents - Closed Out	16,804

Status of the Commercial and Noncommercial Funds as of 30 June 2010

Commercial Fund Assets on 30 June 2009	\$84,910,009
Commercial Fund Expenditures for FY2010	\$21,464,042
Commercial Fund Obligations (projected)	\$54,175,775
Estimated Commercial Fund Balance	\$9,270,192
Noncommercial Fund Assets on 30 June 2009	\$ 9,056,358
Noncommercial Fund Expenditures for FY2010	\$ 5,823,127
Noncommercial Obligations (projected)	\$ 6,098,584
Estimated Noncommercial Fund Balance	(\$2,865,353)

In FY 2010, the UST cleanup funds continued to manage costs in accordance with the requirements of Session Law 2004-124 which directed the department to give priority to cleanup of releases that pose the highest risks to human health and the environment and to emergency situations. The session law also directed the department to order non-emergency work only if the costs could be reimbursed by the appropriate cleanup fund within 90 days of claim approval. To meet these legislative requirements, the department uses a Risk, Rank, and Abatement (RRA) scoring system that quantifies the relative risks of all releases, allowing the department to direct work at the highest risk incidents and reimburse the costs of that work within 90 days. Every week the department reviews balances, encumbrances, and expenditures of both the Commercial and Noncommercial Funds, and periodically adjusts the RRA score threshold in order to direct as much cleanup work as resources will allow. By the end of FY 2010, the program was directing work at all high risk commercial UST releases and at about 4 percent of all high risk noncommercial releases.

For the 12-month period from 1 July 2009 through 30 June 2010, as in the previous four fiscal years, the Commercial Fund balance exceeded obligations. Since FY 2008, fund obligations include un-reimbursed costs associated with work being undertaken by UST owners in advance of being ordered by the department to perform that work.¹ As a result, the balance for FY 2010 is considerably less than in fiscal years prior to FY 2008. However, this reporting change more accurately depicts the true fund balance. The Noncommercial Fund shows a negative balance because claims exceeded revenue. Noncommercial Fund obligations also include un-reimbursed costs of non-directed work. Based on the eligibility application and claim request activity in FY 2010, claim reimbursements are expected to continue to deplete revenues in both the Commercial and Noncommercial Funds.

North Carolina's Regulated and Unregulated USTs

The North Carolina underground storage tank (UST) program deals with both regulated and unregulated USTs.

Regulated petroleum UST facilities are typically gasoline stations or government-owned fueling facilities. Regulated USTs, including those that are temporarily not being used, are required to be registered with the UST program, must comply with all aspects of leak prevention (such as leak detection, spill and overfill prevention, and corrosion protection), and receive inspections to ensure their compliance. Owners of all regulated petroleum UST facilities, with the exception of federally-owned UST facilities, pay annual operating fees and can apply to the Commercial Cleanup Fund for reimbursement of the costs of assessing and cleaning up contamination. Regulated petroleum UST facilities must have valid operating permits to receive deliveries of fuel, and their operators must be trained.

Unregulated USTs include small tanks used to store home heating oil for individual homes and larger tanks used to store heating oil for schools, hospitals, multi-family residences, manufacturing facilities, and government facilities. The smaller home heating oil USTs (which are typically about 550 gallons in capacity) are not registered or inspected and are not required to have leak detection, corrosion protection, spill/overfill prevention, or operating permits. A heating oil UST that stores fuel for consumptive use on the premises,

¹ S.L. 2004-124 prevents DENR from ordering cleanup work unless the appropriate UST Cleanup Fund can reimburse approved costs of the work within 90 days. The law allows UST owners to proceed with cleanup work without being directed by DENR; these "undirected" activities often happen in connection with real estate transactions. UST owners performing and paying for undirected tasks must wait for reimbursement until the costs of all work actually ordered by the department has been reimbursed.

and is larger than 1100 gallons in capacity, must be registered and have a valid operating permit to receive deliveries of fuel. Owners of these larger petroleum commercial USTs pay annual operating fees and can apply to the Commercial Cleanup Fund for reimbursement of the costs of assessing and cleaning up contamination.

Table 1 – Regulated Petroleum USTs – Active & Temporarily Closed		
	Number of USTs	Number of Facilities
Privately-Owned	26,147	7,966
Federally-Owned	144	41
State-Owned	339	202
Municipality/County-Owned	678	322
Totals	27,308	8,531

In North Carolina, about 62% of the regulated USTs are owned by about 15% of the total number of owners. Generally, these are companies that own multiple facilities, and government entities. About 38% of USTs are owned by people having only one UST facility.

Table 2 – Ownership of Regulated Petroleum USTs Active & Temporarily Closed			
	# of Owners	# of USTs	# of Facilities
Owners of One Facility	3,498	10,361	3,498
Owners of Two Facilities	244	1,391	488
Owners of Three Facilities	84	818	252
Owners of Four Facilities	56	727	224
Owners of Five or More Facilities	217	14,011	4,069
Totals	4,099	27,308	8,531

About one out of every four USTs in North Carolina is more than 29 years old. Only about 6% of the USTs are double-walled. This percentage is rising because on 1 November 2007, North Carolina's secondary containment rules became effective. These rules require all UST systems (tanks, lines, and dispensers) installed or replaced after that date to be secondarily contained; that is, to have double-walled construction with leak detection monitoring devices in the spaces between the inner and outer walls.

Table 3 – Age of Regulated Petroleum USTs Active & Temporarily Closed			
	Active	Temporarily Closed	Total
Installed in or before 1973	2,490	935	3,425
Installed in 1974 to 1980	2,580	359	2,939
Installed in 1981 to 1990	9,699	611	10,310
Installed in 1991 to 2000	7,565	212	7,777
Installed in 2001 to 6/30/2010	2,829	28	2,857
Totals	25,163	2,145	27,308

Over the last nine years, the number of installations of new UST systems has been decreasing, while the number of permanent closures has been relatively constant (except for the last four-year period). The number of permanent closures in any year has always exceeded the number of new installations.

Table 4 – New Installations & Permanent Closures of Regulated Petroleum USTs		
Year	# of New Installations	# of Permanent Closures
2000	545	1037
2001	510	742
2002	449	807
2003	297	718
2004	328	697
2005	335	758
2006	395	849
2007	299	560
2008	259	646
2009	218	573
2010	115	262

Commercial USTs also include unregulated large heating oil USTs, which are greater than 1,100 gallons in capacity and store oil for consumptive use on the premises. These USTs are typically owned by hospitals, industries, schools, and government agencies. These USTs must have valid operating permits in order to receive deliveries of fuel.

Table 5– Number of Unregulated Commercial Heating Oil Petroleum USTs		
	Number of USTs	Number of Facilities
Privately-Owned	738	539
Federally-Owned	32	52
State-Owned	118	77
Municipality/County-Owned	1,343	1,004
Totals	2,231	1,672

In 1988, there were approximately 58,000 commercial tanks in North Carolina whose owners were required to pay annual operating fees (billable tanks). Each year since 1988, the number of billable tanks has almost always decreased. Currently, North Carolina has about 27,308 active regulated USTs at 8,531 facilities. Inspection data show that 66% of tank owners and operators comply with UST regulations. These regulations cover proper operation and maintenance of UST systems and emphasize leak detection.

To help the state meet the requirements of the federal Energy Policy Act of 2005, the North Carolina General Assembly (under Session Law 2008-107) authorized DENR to annually use \$791,614 in additional funds from the Commercial Leaking Petroleum Underground Storage Tank Cleanup Fund to establish and support 11 positions within the UST program, including one environmental program supervisor, nine environmental specialists, and one environmental engineer. The additional funds are made available from part of the increase in annual operating fees. Adding these positions to the UST program has enabled DENR to increase compliance inspection frequency and conduct UST operator training, as required by the federal Energy Policy Act. The department believes that expanded inspection and training activities will help prevent releases of petroleum from USTs into the environment. In addition, Session Law 2010-154 authorized DENR to develop and implement a training program for primary operators and emergency response operators of UST systems. The training program provides

instruction on proper operation and maintenance of UST systems, including all associated state and federal regulatory requirements. By 1 August 2010, all

UST system owners must designate primary and emergency response operators for their systems. All primary operators must be trained by 8 August 2012. Primary operators will, in turn, train all emergency response operators.

Petroleum UST Incidents – Regulated and Unregulated USTs

Discharges or releases from petroleum USTs, called incidents or releases, are reported to DENR regional offices where they are added to an incident management database. Table 6 lists the number of incidents reported and closed out in each region during this fiscal year as well as the number of incidents reported and closed out since the UST program began in 1988. Some UST systems that have not leaked are also properly closed. These are referred to as “clean closures” in the tables below.

Table 6 Petroleum UST Incidents By Region ¹						
Region	7/1/09 – 6/30/10			7/1/88 – 6/30/10		
	Reported	Closed	Clean Closures	Reported	Closed	Clean Closures
Asheville	97	78	6	2,637	1,678	872
Fayetteville	48	33	35	1,843	1,014	1,441
Mooresville	108	147	4	4,981	3,629	1,283
Raleigh	171	151	10	5,131	3,352	683
Washington	99	115	1	3,270	2,093	115
Wilmington	80	82	2	1,978	1,223	470
Winston-Salem	190	229	13	5,574	3,815	2,001
	793	835	71	25,414	16,804	6,865

Total reported incidents affecting groundwater that have been closed out: 5,735

Total reported incidents closed out since implementation of RBCA¹: 12,483

Total remaining open incidents: 8,614

Open commercial incidents: 6,443

Open noncommercial incidents: 2,171

1. Risk-based corrective action implemented 1/2/98.

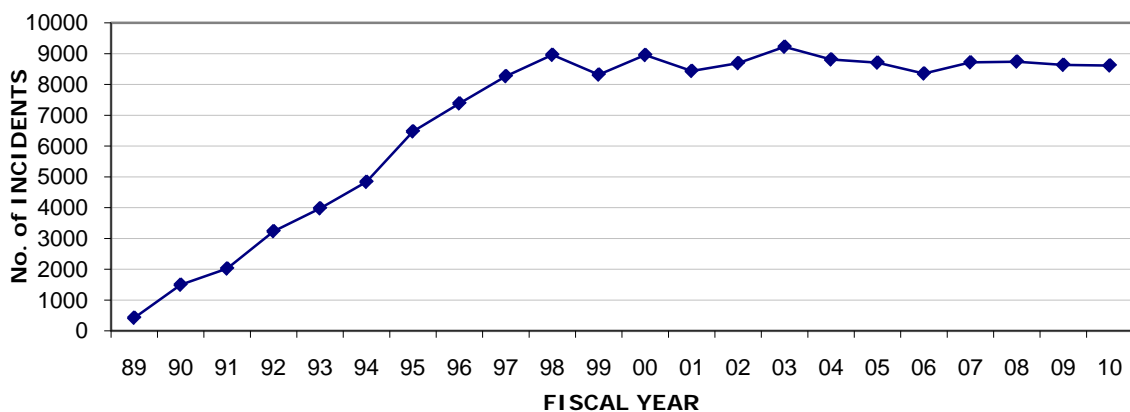
At present, there are approximately 6,443 commercial incidents, in all risk categories, that have yet to be closed out. Although responsible parties continue to have a statutory duty to clean up petroleum releases, Session Law 2004-124 limits the amount of cleanup work that DENR can direct at any one time to the amount that can be paid for by the resources available in the funds. This approach has eliminated the negative balance of the Commercial Fund and has reduced the negative balance of the Noncommercial Fund, but has resulted in a backlog of releases waiting to be cleaned up. It is also important to note that additional releases are added to the inventory of existing petroleum releases every year. While the UST program works to clean up and close existing releases, new (or newly discovered) releases are also being reported. There was a modest increase in the number of releases reported in FY 2010. The number rose from 778 in FY 2009 to 793 in FY 2010.

Data tracking improvements are continuously made to the UST incident management database. These changes will enable the UST Section to better predict the number of incident closures and project Commercial Fund and Noncommercial Fund expenditures.

Leaking UST systems pose a substantial threat to human health and the environment. Maintaining the quality of North Carolina's drinking water and groundwater depends on preventing releases to the environment. Direct education and technical assistance for tank owners and operators is critical. Education and assistance can help ensure responsible handling of petroleum products (including methyl tert-butyl ether) and early detection in the event of a leak. The modest increase in reported releases is believed to be a function of the increased numbers of compliance inspections conducted and training designed to improve the leak detection expertise of owners and operators.

Beginning 2 January 1998, DENR implemented risk-based corrective action rules for petroleum UST incidents. Under these rules, each incident receives a risk classification of "high," "intermediate," or "low" based on its potential threat to human health and the environment. The rules allow intermediate and low risk incidents to be cleaned up to less stringent standards than high risk incidents, since lower risk incidents, by definition, present much less chance of contaminating water supplies. (Since risk classifications depend on conditions that exist at a point in time, changing conditions can lead to reclassifications to higher or lower risk levels.) Of the total number of UST incidents closed since 1988, approximately 50% were closed following implementation of risk-based corrective action. As indicated in Figure 1, the number of open incidents increased from 1988 through FY 1998, remained fairly constant from FY 1998 until FY 2003, and has slightly declined from FY 2003 until the present.

Figure 1 - Open UST Incidents



Funding for the Underground Storage Tank Cleanup Program

The funds to administer all aspects of the UST program (about \$8.4 million per year) are provided as follows: (1) about 64% by legislative allowances to use specific amounts of the receipts in the Commercial and Noncommercial Cleanup Funds; (2) about 23% by a federal UST regulatory grant and a federal Leaking UST cooperative agreement, both provided by the US Environmental Protection Agency; and (3) about 13% by monies appropriated by the N.C. General Assembly. Of the 107.8 Full Time Equivalent (FTE) positions assigned to the UST program, 75 positions are supported by receipts, 26.9 by federal grants, and 5.9 by state appropriations. In addition, the cleanup funds and federal grant monies pay for four regional administrative positions which support the program.

Commercial and Noncommercial Leaking UST Cleanup Funds

The Leaking Petroleum Underground Storage Tank Cleanup Act of 1988 (GS 143-215.94A et. seq) established two separate funds: the Commercial Cleanup Fund and the Noncommercial Cleanup Fund. Both may be used to reimburse eligible UST owners, operators, and landowners for the reasonable and necessary costs of environmental cleanup and third-party liability claims. Additionally, both funds enable DENR staff to:

- record and track UST release incidents;
- register and permit regulated USTs, manage tracking databases, and collect annual UST operating fees;
- identify parties responsible for releases;
- provide technical assistance and training to tank owners and operators;
- inspect UST systems to ensure compliance with leak prevention and detection regulations;
- monitor cleanups or releases;
- review site assessments and corrective action plans;
- evaluate innovative assessment and cleanup technologies;
- review reimbursement claim procedures;
- manage contracts for cleanups designated as "State Lead";
- inspect and monitor land applications of contaminated soil; and
- identify, evaluate, and remove abandoned petroleum USTs.

DENR has the authority to contract for the cleanup of petroleum UST incidents if the owner or operator cannot be identified or located, if the owner or operator is financially unable to perform cleanup, or if the owner or operator refuses to perform the required cleanup. In the latter case, DENR is authorized by general statute to recover costs incurred during assessment and cleanup activities.

Commercial Fund Receipts and Disbursements

Revenue into the Commercial Cleanup Fund

The sources of funding for the Commercial Fund include:

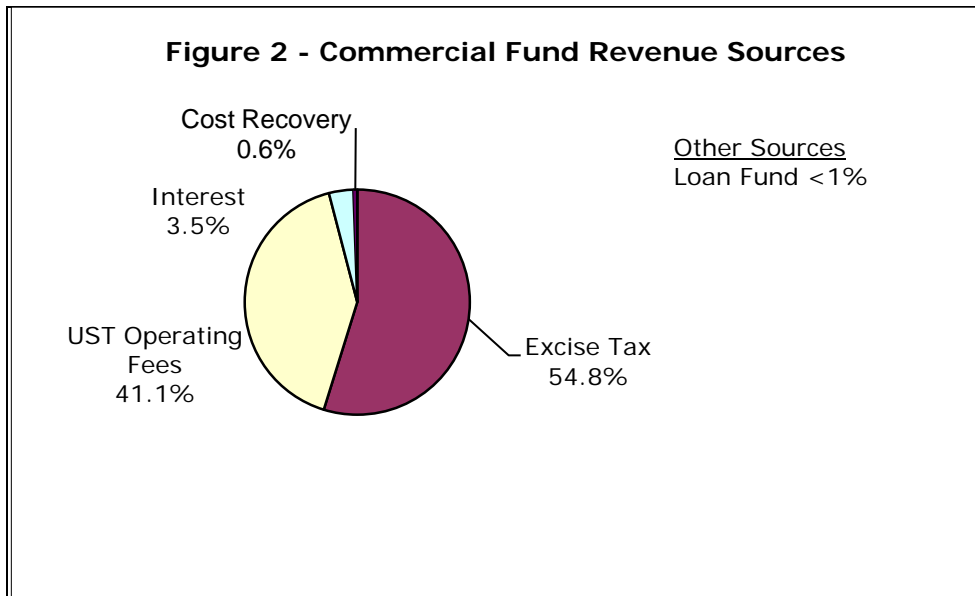
- one-half of approximately 30% of the motor fuel and kerosene inspection tax of 1/4 of one cent per gallon (See Note 1 below);
- 19/32 of the excise tax of 1/2 cent per gallon on motor fuel and kerosene;
- annual UST operating fees (See Note 2 below);
- costs recovered from UST owners and operators for work performed by state contractors;
- loan collection and interest for the Groundwater Protection Loan Fund; and
- interest earned on the account.

Note 1: After using a portion (about 70%) of the revenue to enable the Departments of Revenue and Agriculture to collect the inspection tax, one-half of the remaining revenue goes into the Commercial Cleanup Fund and one-half goes into the Noncommercial Cleanup Fund. However, if the balance of the Noncommercial Cleanup Fund is below \$5 million, all of the remaining revenue goes into the Noncommercial Fund. The balance of the Noncommercial Fund has been below \$5 million for all of this fiscal year, so all of the remaining revenue has gone into the Noncommercial Fund.

Note 2: Owners and operators of commercial petroleum USTs are required to pay annual operating fees into the Commercial Fund in order to be eligible for reimbursement from the Commercial Fund. Annual operating fees were first set at \$30 for tanks with capacities equal to or less than 3,500 gallons (small tanks) and \$60 for tanks with capacities in excess of 3,500 gallons (large tanks). Annual operating fees increased almost annually from 1989, reaching \$150 for small tanks and \$225 for large tanks by 1993. On 1 January 1997, fees increased to \$200 for small tanks and \$300 for large tanks. On 1 January 2009 annual operating fees were increased to \$420 per tank, regardless of capacity by House Bill 2498.

Revenues received for the Commercial Fund for the 12-month period from 1 July 2008 to 30 June 2009 were approximately \$27.9 million (Table 7). The relative contributions to the Commercial Fund from each of the funding sources are illustrated in Figure 2.

Table 7 - Commercial Fund Revenues	
7/1/09 - 6/30/10	
Motor Fuel & Kerosene Inspection Tax	\$ 0
Motor Fuel & Gasoline Excise Tax	\$ 15,326,206
Operating Fees	\$ 11,505,666
State Lead Cost Recovery	\$ 158,147
Interest	\$ 975,185
Loan Fund Collection and Interest	\$ 4,216
Transfer from Bernard Allen Fund	\$ 0
Total Commercial Revenues	\$ 27,969,420
Transfer to Noncommercial Fund	\$0
Transfer to Department of Agriculture	\$(90,000)
Transfer to Federal LUST Program (cost recovery)	\$(0)
Net Commercial Revenues	\$ 27,879,420



Disbursements from the Commercial Trust Fund

UST owners, operators and landowners may request reimbursement of reasonable and necessary costs incurred for environmental assessment and cleanup activities. Claims may be submitted if the eligibility requirements for the cleanup funds are met. Deductibles that must be met before receiving reimbursement from the Commercial Fund are generally \$20,000, \$50,000 or \$75,000, the actual amount depending on statutory factors. In some cases, variations of the standard eligibility deductibles occur because of compliance-related issues or multiple releases on one property. Table 8 lists the receipts, disbursements and administrative expenses by fiscal year for the commercial fund for the period 1 July 1988 to 30 June 2010.

Table 8
Receipts, Disbursements & Administrative Expenses
for the Commercial Fund

Fiscal Year	Receipts	Disbursements ¹	Administrative Expenditures
FY 1989	\$ 2,337,685	\$ 14,768	
FY 1990	5,773,632	79,080	\$ 201,255
FY 1991	7,330,573	1,616,760	547,595
FY 1992	13,484,008	4,409,229	517,221
FY 1993	18,032,784	9,651,948	601,687
FY 1994	24,438,966	22,904,802	694,424
FY 1995	56,037,135 ²	37,405,510	666,270
FY 1996	28,178,768	44,060,639	2,322,632
FY 1997	28,564,034	44,163,273	2,623,339
FY 1998	27,291,220	30,267,392	2,530,036
FY 1999	26,783,344	16,104,152	2,567,668
FY 2000	27,178,623	22,820,069 ³	2,579,540
FY 2001	27,240,303	24,566,132 ⁴	2,730,236
FY 2002	27,124,210	36,872,426	2,397,264
FY 2003	27,055,759	26,498,565	2,221,851
FY 2004	26,934,685	23,514,179 ⁵	2,527,451
FY 2005	50,255,908 ⁷	46,966,083 ⁶	2,654,447
FY 2006	28,143,119	15,474,991 ⁸	2,636,228
FY 2007	27,564,837	7,372,403 ⁹	2,725,418
FY 2008	27,458,790	11,511,344 ¹⁰	2,859,460
FY 2009	31,026,131	15,007,590 ¹¹	3,380,143
FY 2010	27,969,410	17,760,225 ¹²	3,703,143
TOTAL	\$566,203,924	\$459,041,560	\$ 43,597,982

1. Does not include administrative costs.
2. Commercial receipts for FY 1995 included \$31,288,889 that was transferred from the Groundwater Protection Loan Fund.
3. Adjustment due to a transfer from the Commercial Fund to the Federal Trust Fund of \$288,117 as a clean-up expenditure rather than as an administrative cost.
4. \$33,866 transferred to Federal Trust Fund as a clean-up expenditure.
5. Includes transfer of \$2,036,932 from Commercial to Noncommercial Trust Funds per GS 119.18(b); transfer of \$90,000 to Department of Agriculture; and transfer of 452,722 to Federal Trust Fund as a clean-up expenditure.
6. Includes transfer of 43,150,730 from Commercial to Noncommercial Trust Fund per GS 119.18(b). Transfer from Department of Agriculture of \$38,702 to Federal Trust Fund.
7. Includes additional revenue from the 1-year 1.1cent per gallon excise tax or \$19,000,000 to the Trust Fund.
8. Includes \$1,922,601 transfer to Noncommercial Fund, \$90,000 transfer to Dept. of Agriculture, and \$30,016 transfer to repay Federal Trust Fund for State Lead program expenses.
9. Includes transfer to Noncommercial Fund of \$598,935 and disbursement from the Commercial Fund to the Department of Agriculture (\$90,000) and Federal LUST Grant (\$108,904).
10. Includes transfer to Noncommercial Fund of \$1,381,848, and disbursement from the Commercial Fund to the Department of Agriculture (\$90,000), and Federal LUST Grant (\$53,752).
11. Includes transfer to Noncommercial Fund of \$1,004,895, and disbursement from the Commercial Fund to the Department of Agriculture (\$90,000).
12. Includes disbursement to Dept. of Agriculture of \$90,000.

Claims Against the Commercial Cleanup Fund

Claims against the Commercial Cleanup Fund are processed on a “first-come, first-serve” basis. The status of all claims requesting reimbursement from the Commercial Fund that were received as of 30 June 2010 is presented in Table 9. These claims only include costs claimed to date, and do not represent the total costs for cleanups.

UST Section staff supervised contract cleanups at 944 commercial UST releases. The current three-year contract covers the period from FY 2009 to FY 2012. However, it was not started until the beginning of the calendar year of 2010 due to a delay in completing the selection of the contractors. The program has also subdivided the state into three regions, hiring three contractors per region to provide environmental cleanup. A total of five contractors were selected to fill these nine contracts and provide assessment and remediation of the state-lead incidents.

**Table 9 – Claims Against the Commercial Cleanup Fund
1 July 1988 – 30 June 2010**

	Number	Cost
Claims Paid	28,982	\$428,679,372
Incidents Denied Totally ¹	33	\$ 4,573,040
Claims Denied Partially ²	15,675	\$ 86,593,416
Total Deductibles Paid	-----	\$ 79,329,138
Claims Pending	959	\$ 9,947,596
Contracted Cleanups ³	944	\$ 19,410,432

¹ Ineligible

² Excessive or undocumented costs

³ State Lead actions undertaken or completed

Commercial Fund Balance and Projected Needs

As of 30 June 2010, the Commercial Fund balance was \$63,445,967 with pending claims of \$47,882,217 (see Figure 3). The estimated/projected Commercial Fund balance for FY 2010 is \$15,563,750 (See Figure 4). From FY 2000 through FY 2004, obligations against the fund greatly exceeded fund resources, so the difference between the fund balance and the pending obligations steadily increased (see Figure 3). This was largely due to the fact that the UST Section implemented an expedited review process during FY 2002 in an effort to reduce the time for claim review. While claim review time was reduced, the result was a delay in the reimbursement payment, since the Commercial Fund could only pay out what had been received for the month.

This gap between fund resources and fund obligations (defined as actual reimbursement claim amounts) continued to widen until FY 2005 when, with the passage of Session Law 2004-124, the gap rapidly narrowed. The present situation represents a significant change in the Commercial Fund over previous years because the UST Section now directs most of the work that is done, and only the owners of those commercial and noncommercial incidents with risk levels above the risk threshold are directed to continue with assessments and remediation. This results in greater fiscal control over the fund and focuses resources on those incidents exhibiting the greatest risks to human health and the environment. The fund balance has remained greater than disbursements and claims pending (Table 10) and DENR has been able to periodically direct cleanups of more high risk incidents. The fund balance is not sufficient, however, to address the costs of cleaning up all petroleum releases eligible for reimbursement from the Commercial Cleanup Fund. The gap between fund resources and total demand for cleanup has left owners of low and intermediate risk releases without meaningful access to reimbursements from the Commercial Cleanup Fund. Those owners can proceed with cleanups using personal financial resources, but are not assured reimbursement from the Commercial Cleanup Fund until the costs of all cleanup work that has been actually ordered by DENR – limited now to high risk releases – has been reimbursed.

Figure 3 - Commercial Fund Balance and Claims Pending & Obligations

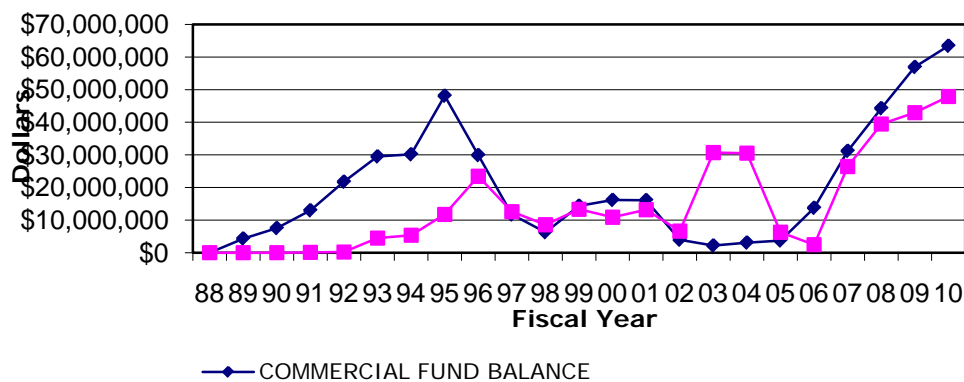


Figure 4 - Commercial Fund Balance Minus Claims Pending & Obligations

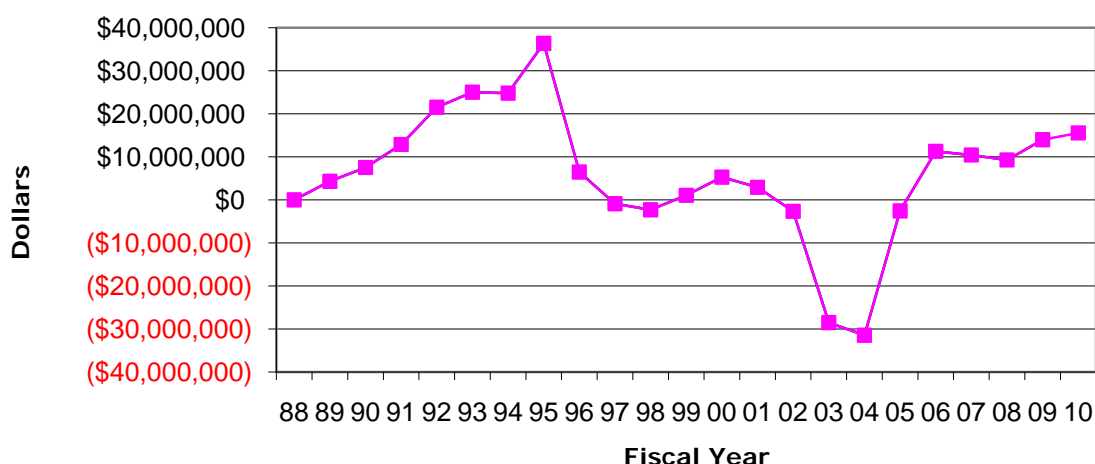


Table 10 – Total Commercial Fund Revenues and Expenditures 7/1/09 – 6/30/10	
Commercial Fund Balance as of 6/30/09	\$ 56,940,589
Total Commercial Revenues (see Table 7)	\$ 27,969,420
Total Commercial Expenditures	(\$21,464,042)
Total Claims and Contracted Cleanups - \$17,670,225	
Transfers ¹ - \$ 90,000	
Administrative Costs - \$ 3,703,817	
Commercial Fund Balance as of 6/30/10	\$ 63,445,967
Total Projected Estimated Obligations ²	(\$54,175,775)
Estimated Commercial Fund Balance as of 6/30/10	\$ 9,270,192

1. From Table 8, footnote 12, transfer to the Noncommercial Fund for State Lead expenses.

2. Estimated obligations include estimates of un-reimbursed costs for tasks not requiring pre-approval that were incurred prior to implementation of Session Law 2004-124, outstanding un-reimbursed costs for pre-approved directed tasks, requested reimbursement costs for claims under review, approved costs for claims awaiting reimbursement, unreimbursed costs for approved non-directed tasks, and remaining program administration costs.

One initiative which may affect future demand on the Commercial Fund is pay-for-performance (PFP) cleanups. On 1 October 2001, the General Assembly ratified House Bill 1063, which allows responsible parties to participate in the pay-for-performance program on a voluntary basis. PFP requires cleanup goals to be met before payments can be made to environmental consultants. This reimbursement method requires the Commercial Fund to obligate the contracted cleanup costs. PFP obligations may initially place a higher demand on the Commercial Fund, but should decrease the costs of cleanups. PFP was re-authorized by House Bill 2498 in 2008.

Another factor that may increase future demands on the Commercial Fund is the increase in claims for bodily injuries and property damages brought by third parties. In FY 2010, there were seven on-going and/or new third-party claim actions. The financial impact of third-party claims cannot be estimated with certainty because the Commercial Fund does not directly control award amounts resulting from legal actions due to third-party claims.

After UST operating fees were increased on 1 January 1997, revenue from this funding source declined through the end of FY 1999 (Table 11). This decline was likely due to a reduction in the number of registered USTs which occurred after implementation of the 1998 federal upgrade requirements for USTs. Many tank owners chose to close their USTs rather than bring them into compliance with the new standards. Since 1 January 1997 annual operating fees remained unchanged, at \$200 to \$300 per tank, until 1 January 2009, when House Bill 2498 increased the annual operating fee to \$420 per tank, regardless of tank capacity. This legislation was enacted in order to bring sufficient additional revenue into the Commercial Fund to help the state meet two requirements of the federal Energy Policy Act of 2005 – removing free product petroleum at all releases and conducting compliance inspections at every UST facility at least once every three years.

Table 11 – Commercial UST Population and Operating Fee Revenue		
<u>Fiscal Year</u>	<u>No. of Commercial USTs Billed</u>	<u>Operating Fee Revenue</u>
FY 1989	-	\$ 4,322,917
FY 1990	-	\$ 8,086,895
FY 1991	57,385	\$ 6,889,969
FY 1992	52,529	\$ 9,910,737
FY 1993	48,812	\$18,032,784
FY 1994	43,314	\$23,661,875
FY 1995	39,289	\$ 8,500,000
FY 1996	37,529	\$11,050,000
FY 1997	37,776	\$10,839,975
FY 1998	36,563	\$10,008,917
FY 1999	34,428	\$ 8,697,468
FY 2000	33,558	\$ 8,844,093
FY 2001	33,776	\$ 8,464,019
FY 2002	32,839	\$ 8,553,715
FY 2003	31,155	\$ 8,087,033
FY 2004	32,005	\$ 8,309,807
FY 2005	31,518	\$ 7,987,101
FY 2006	30,638	\$ 7,951,508
FY 2007	30,145	\$ 7,937,236
FY 2008	28,477	\$ 7,686,324
FY 2009	29,156	\$ 10,686,223
FY 2010	28,667	\$11,505,666

Noncommercial Fund Receipts and Disbursements

Revenue into the Noncommercial Cleanup Fund

The sources of funding for the Noncommercial Fund include:

- one-half of approximately 30% of the motor fuel and kerosene inspection tax of 1/4 of one cent per gallon (See Note 1 below);
- 3/32 of the excise tax of 1/2 cent per gallon on motor fuel and kerosene; and
- interest earned on the account.

Note 1: After using a portion (about 70%) of the revenue to enable the Departments of Revenue and Agriculture to collect the inspection tax, one-half of the remaining revenue goes into the Commercial Cleanup Fund and one-half goes into the Noncommercial Cleanup Fund. However, if the balance of the Noncommercial Cleanup Fund is below \$5 million, all of the remaining revenue goes into the Noncommercial Fund. The balance of the Noncommercial Fund has been below \$5 million for all of this fiscal year, so all of the remaining revenue has gone into the Noncommercial Fund.

Owners and operators of noncommercial USTs are not required to pay annual operating fees. Revenues received for the Noncommercial Fund for the 12-month period from 1 July 2009 to 30 June 2010 were slightly greater than \$ 6 million (Table 12).

Table 12 - Noncommercial Fund Revenues 1 July 2009 – 30 June 2010	
Motor Fuel & Kerosene Inspection Tax	\$ 4,283,393
Motor Fuel & Gasoline Excise Tax	\$ 2,421,422
Interest	\$ 22,163
Cost Recovery	\$ 0
Total Noncommercial Revenues	\$ 6,726,978

North Carolina General Statute 119-18(b) states that if the amount of revenue in the Noncommercial Fund at the end of the month is at least \$5 million, one-half of the motor fuel inspection tax must be credited to the Commercial Fund and one-half must be credited to the Noncommercial Fund. If the amount of revenue in the Noncommercial Fund at the end of the month is less than this threshold amount, all of the inspection tax will be credited to the Noncommercial Fund. For FY 2010, all \$4,283,393 of the fund revenues from the inspection tax was transferred into the Noncommercial Fund.

Disbursements from the Noncommercial Cleanup Fund

Noncommercial Fund deductibles are \$0 for UST owners and operators, and \$5,000 for landowners. (Note: On 1 July 2010, the statute was amended to eliminate the \$5,000 deductible and 10% co-pay for landowners.) Table 13 lists the receipts and disbursements by fiscal year for both funds for the period from 1 July 1988 to 30 June 2010.

Table 13 - Receipts & Disbursements for Noncommercial Cleanups 7/1/88 - 6/30/10				
Fiscal Year	Receipts		Disbursements ¹	
				Admin Expenses
FY 1989	\$	0	\$	0
FY 1990		2,905,035		201,254
FY 1991		2,934,347		547,595
FY 1992		3,018,344		517,221
FY 1993		7,693,288		601,686
FY 1994		3,404,086		694,423
FY 1995		5,194,725		666,270
FY 1996		5,215,550		783,684
FY 1997		5,587,781		801,143
FY 1998		5,717,592		667,724
FY 1999		5,945,461		620,574
FY 2000		5,636,563		570,738
FY 2001		5,811,666		733,811
FY 2002		6,620,808 ³		913,755
FY 2003		7,664,329 ⁴		1,166,494
FY 2004		8,060,151		1,244,864
FY 2005		14,885,997 ⁵		1,265,079
FY 2006		7,615,613 ⁶		1,298,441
FY 2007		6,053,993 ⁷		1,349,006
FY 2008		6,030,546 ⁸		1,416,685
FY 2009		6,178,730 ⁹		1,324,956
FY 2010		6,726,977 ¹⁰		1,451,830
TOTAL		\$128,901,582		\$ 18,837,233

1. Does not include administrative costs.
2. \$2 million transferred out of Noncommercial Fund to the State's General Fund.
3. Includes transfer of \$784,382 from Circle K Settlement Fund.
4. Includes transfer of \$3,418,990 of motor fuel and kerosene tax from Commercial to Noncommercial trust funds due to balance below \$5 million – Gs 119.18(b).
5. Includes additional revenue from the 1-year 1.1 cent per gallon excise tax or \$19,000,000 to the Trust Fund.
6. Includes \$1,922,601 transfer to Noncommercial Fund, \$90,000 transfer to the Dept. of Agriculture, and \$30,016 transfer to repay Federal Trust Fund for State Lead program expenses.
7. Includes transfer to Noncommercial Fund of \$598,935 and disbursement from Commercial Fund to Dept. of Agriculture (\$90,000) and Federal LUST Grant (\$108,904).
8. Includes transfer to Noncommercial Fund of \$1,381,848, and disbursement from the Commercial Fund to the Dept. of Agriculture (\$90,000), and Federal LUST Grant (\$53,752).
9. Includes transfer to Noncommercial Fund of \$1,004,895, and disbursement from the Comm. fund to Dept. of Agriculture. (\$90,000).
10. Includes transfer from NC DOT of \$4,283,393.

Claims Against the Noncommercial Cleanup Fund

Claims against the Noncommercial Fund are processed on a "first-come, first-serve" basis. The status of all claims requesting reimbursement from the fund that were received as of 30 June 2010 is presented in Table 14. These claims only include costs claimed to date, and do not represent the total costs for cleanups. This year, UST Section staff supervised contract cleanups at 190 noncommercial UST releases.

**Table 14 – Claims Against the Noncommercial Cleanup Fund
7/1/88 – 6/30/10**

	Number	Cost
Claims Paid	12,527	\$101,164,637
Incidents Denied Totally ¹	4	\$ 59,845
Claims Denied Partially ²	5,245	\$ 12,549,205
Total Deductibles Paid	-----	\$ 1,223,700
Claims Pending	309	\$ 3,371,925
Contracted Cleanups ³	190	\$ 2,149,817

¹ Ineligible

² Excessive or undocumented costs

³ State Lead actions undertaken or completed

Noncommercial Fund Balance and Projected Needs

As of 30 June 2010, the Noncommercial Fund balance was \$3,233,231 (Table 15). The total for pending claims stood at \$3,371,925 (Table 14). Compared to the previous fiscal year, claims against the Noncommercial Fund and reimbursements from the Noncommercial Fund have increased. This trend is most likely the result of increased environmental awareness on the part of buyers and lenders during sales of residential properties, where most unregulated tanks (heating oil USTs) are located. Many of the releases from unregulated USTs are discovered during property transfers. The department expects this trend will continue for the foreseeable future (see Figures 5 and 6).

Table 15 - Total Noncommercial Fund Revenues, Expenditures and Balance 7/1/09 - 6/30/10	
Noncommercial Fund Balance as of 6/30/09	\$2,329,380
Total Noncommercial Revenues (see Table 12)	\$6,726,978
Total Noncommercial Expenditures	(\$5,823,127)
Total Claims and Contracted Cleanups - \$4,371,297	
Administrative Costs - \$1,451,830	
Noncommercial Fund Balance as of 6/30/10	\$3,233,231
Projected Noncommercial Fund Obligations¹	(\$6,098,584)
Estimated Noncommercial Fund Balance as of 6/30/10	(\$2,865,353)

1. Estimated obligations include estimates of un-reimbursed costs for tasks not requiring pre-approval that were incurred prior to implementation of Session Law 2004-124, outstanding un-reimbursed costs for pre-approved directed tasks, requested reimbursement costs for claims under review, approved costs for claims awaiting reimbursement, unreimbursed costs for approved non-directed tasks, and remaining program administration costs.

Figure 5 - Noncommercial Fund Balance and Claims Pending & Obligations

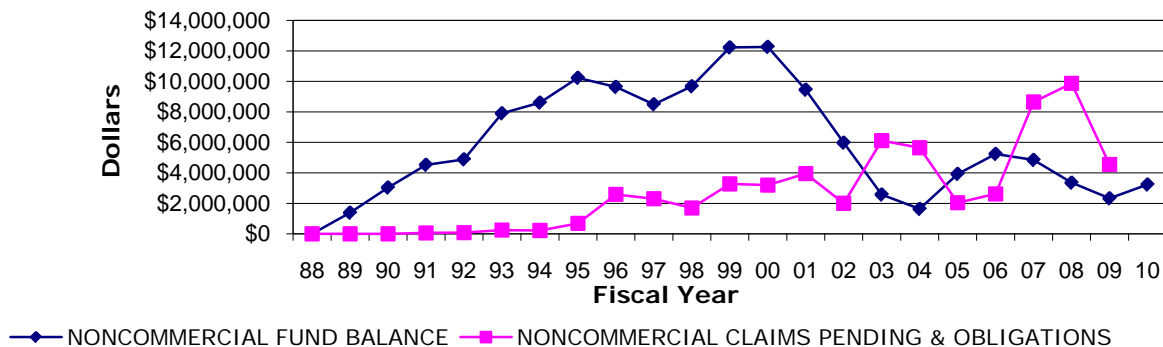


Figure 6 - Noncommercial Fund Balance Minus Claims Pending & Obligations

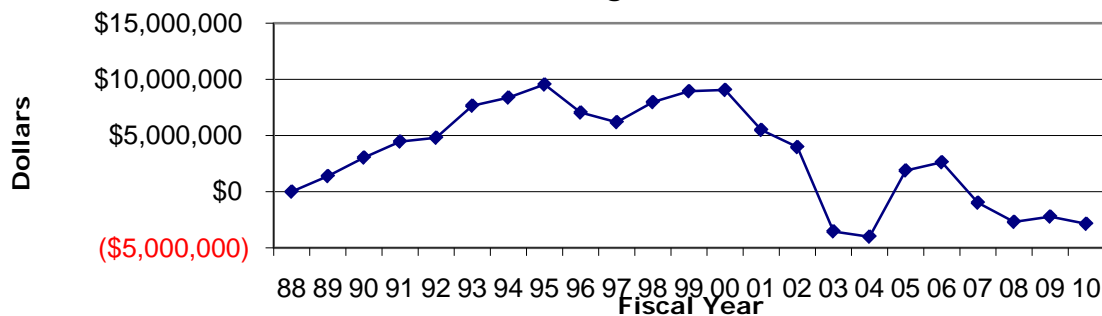


Table 16 shows the estimated cost to complete cleanups for noncommercial incidents reported from 1 July 2009 to 30 June 2010. It should be noted, however, that cleanups can easily extend over several years and costs may vary greatly. In addition, these figures do not include remedial costs for reported releases from past fiscal years.

Table 16 – Estimate of Cleanup Costs for Noncommercial Incidents Reported 1 July 2009 – 30 June 2010		
<u>Region</u>	<u>Incidents*</u>	<u>Total Estimated Cleanup Cost**</u>
Asheville	37	\$ 520,590
Fayetteville	9	\$ 126,630
Mooreville	59	\$ 830,130
Raleigh	121	\$ 1,702,470
Washington	60	\$ 844,200
Wilmington	47	\$ 661,290
Winston-Salem	130	\$ 1,829,100
Total	463	\$6,514,410
*In evaluating the last 12-month period, approximately 37% of reported new releases are from noncommercial sites		
**An average cost of \$ 14,070 is used as an estimate of total cleanup costs for noncommercial sites		

Federal UST Regulatory Program Grant

The UST Section receives grant money from the federal government to promote compliance with federal and state UST regulations. The UST Section received \$1,006,500 for three years (1 July 2008 through 30 September 2010) to fund these activities as well as activities related to implementing provisions of the Federal Energy Policy Act of 2005. In FY 2010, the UST Section received additional funds in the amount of \$813,334 which extended the budget period to 30 September 2010. The provisions of the Energy Policy Act include inspecting UST facilities at least every three years, implementing secondary containment requirements for all new and replacement UST systems, prohibiting delivery of fuel to non-compliant UST systems, training UST operators and maintaining and publishing information about sources and causes of releases from UST systems. The grant funds two permanent technical positions. The grant will also fund contracts to upgrade the existing permitting and inspection database.

Federal Leaking UST Trust Fund Program Cooperative Agreement

The Federal Leaking UST Trust Fund Program Cooperative Agreement is used to clean up petroleum contamination from leaking USTs, provide alternative water supplies to affected third-parties, perform emergency activities, temporarily relocate residents affected by leaking USTs and conduct enforcement activities. The use of this cooperative agreement is limited to regulated USTs, primarily commercial tanks used for storing motor fuels. Releases from USTs used for heating oil and those used for farm or residential uses (1,100 gallons capacity or less) are not eligible for resources from this cooperative agreement.

Individuals (i.e., owners/operators) do not have access to the federal LUST Trust Fund. Only the federal government and states with cooperative agreements with the EPA can draw on the Trust Fund. It may be used in situations where: (1) the responsible party cannot be identified; (2) the responsible party is financially unable to pay for the

cleanup; or (3) the responsible party is unwilling and refuses to undertake assessment and/or cleanup actions.

Since the state's UST program began in 1988, the federal Leaking UST Trust Fund Program Cooperative Agreement has made 30 awards totaling \$55,567,279. As of 30 June 2010, the state has spent \$53,317,078 of these awards. Of that amount, approximately \$23,043,947 has been spent on cleanup activities; \$4,690,022 on enforcement actions; and \$26,128,432 on program administration. Administrative costs include personnel costs, operating costs, travel costs and equipment costs. Because of limitations in program tracking capabilities, program element costs through FY 2001 are estimated. However, in FY 2002, program tracking capabilities were improved such that disbursements can be more accurately reconciled with grant awards.

The program is obligated to seek recovery of all costs incurred during state lead cleanups. For FY 2010, the UST Section recovered \$10,300. Since the programs implementation, a total of \$1,878,468 has been recovered in federal cleanup money. Of the total amount recovered, \$1,075,067 has come from the North Carolina Commercial Fund for sites determined eligible for Commercial Fund reimbursement after cleanup activities had begun. For this fiscal year, there were no funds transferred from the Commercial Fund to cost recovery.

The EPA approved \$2,134,000 for North Carolina from the federal Leaking UST Trust Fund for federal FY 2010. However, almost all of the approved monies were not available until after the beginning of calendar year 2010.

Groundwater Protection Loan Fund

The Groundwater Protection Loan Fund Program was created in 1991.* It provided financial assistance to owners of commercial USTs who replaced or upgraded their tanks to meet the performance standards required for all USTs by 22 December 1998. Administrative rules implementing the program were adopted by DENR and became effective 1 December 1992. Revenues for the fund were generated through a 0.0025 cent (one quarter of one cent) per gallon motor fuel excise tax received from 1 January 1992 through 31 December 1994.

Once the Groundwater Protection Loan Fund had served its purpose, the balance of the fund (\$31,288,899) was transferred into the Commercial Cleanup Fund.

*Session Laws 1991, c. 538, s. 25 - G.S. 143-215.94P

American Recovery and Reinvestment Act Of 2009

The UST program received a grant from the US EPA on July 17, 2009 for a portion of the \$200 million allocated by the American Recovery and Reinvestment Act of 2009 (ARRA) for cleanups of leaking underground storage tanks (LUST cleanups) nationwide. The Section's grant award of \$7,554,000 is being used to conduct assessment and cleanup activities at approximately 172 UST releases located throughout the State. Rules and guidelines governing the use of federal LUST funds apply to ARRA funds also, so all 172 releases chosen are those for which parties responsible for the releases are unable or unwilling to conduct cleanups. The funds will

allow NC DENR to carry on the cleanup processes at these UST releases that pose a risk to public health and the environment, and to later seek recovery of cleanup expenditures from the parties responsible for releases whenever required and appropriate.

The US EPA grant covers a period of 30 months (beginning on 15 May 2009 and ending 30 September 2011). However, eligible assessment and cleanup activities may continue past the two-year mark if funds remain available. The UST Section has awarded contracts worth \$6,763,343 to five environmental cleanup companies and contracts worth \$594,265 to two laboratory service providers. The UST Section has also hired two hydrogeologists for a period of two years to oversee the assessment and cleanup activities of the cleanup companies, to assist in managing the contracts, to assist in reporting accomplishments, and to monitor the contracted cleanup companies and laboratories for compliance with all ARRA rules and guidelines. As of 30 June 2010, the UST program had obligated about 97% of the grant and had spent about 22%. Cleanup work is being conducted at about 100 of the 172 incidents and about 13 have been closed out.

Pay for Performance

On 15 October 2001, House Bill 1063 was enacted by the North Carolina General Assembly. This bill gives the Division of Waste Management's Underground Storage Tank program the authority to allow voluntary performance-based cleanups of discharges or releases of petroleum from underground storage tanks. Two petroleum release incidents were ultimately selected for the initial pilot program and performance-based contracts were awarded to two qualified environmental service providers to clean up the releases for set costs and in specified time periods. In both cases, specified milestones (generally percentage reductions in contaminate levels in the soil and groundwater) must be achieved before reimbursements for costs are made to the environmental service providers from the Commercial Trust Fund. Both contracts have reached the contract termination date. Final cleanup goals were unattainable at one of the sites due to technical infeasibility but the risk of the site was reduced to Low. Only partial payment was made for the final unattainable milestone. Final cleanup goals were reached at the other site. It was closed and the contractor compensated in full in accordance with the contract.

House Bill 2498 extended the voluntary pilot program retroactively back to 1 October 2001 with a new expiration date of 1 October 2011. The UST Section will continue to notify applicants to the UST Program of the availability of pay-for-performance and encourage responsible parties of UST releases to consider pay-for-performance cleanups of their incidents.

Site Specific Risk-Based Cleanups

In 2008, the General Assembly passed Session Law 2008-195 which directed NCDENR to establish a pilot program to evaluate the cleanup safety and cost-effectiveness of using of site-specific risk-based cleanup standards for certain Intermediate Risk petroleum UST incidents. This voluntary pilot program would allow responsible parties to determine cleanup levels using the Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites adopted by the American Society for Testing and Materials (ASTM) as E1739-95(2002) for Intermediate Risk incidents where contamination had not and would not move past the property boundaries of the site. Since participation in the pilot program

is at the election of the owner, operator, or landowner, the UST Section solicited volunteers by sending a memo discussing SL 2008-195 to the responsible parties and consultants on our contact list and posted the memo on our website. There have been four inquiries about participating in the pilot program, with one consultant pursuing the details of task codes for the required analyses. To date, however, no RP has elected to participate, and the UST program has been unable to compare benefits and drawbacks of site-specific cleanups with benefits and drawbacks of presently allowable risk-based cleanups.

Recommendations

The Division of Waste Management makes the following recommendations for the Commercial and Noncommercial Cleanup Funds and the UST program:

- Transition from (and ultimately terminate) the Commercial Cleanup Fund. In place of a state-subsidized fund, owners and operators of regulated, commercial USTs should use other financial responsibility mechanisms, such as private insurance, bonding, letters of credit, self-insurance, and others. This action will initially reduce and ultimately end the use of public funds to clean up new releases from UST systems that have responsible owners and operators. A state fund will continue to be needed to clean up the legacy of existing petroleum releases, and to clean up new releases from UST systems owned or operated by parties that lack financial resources. Transitioning to other approved FR mechanisms will also help to reduce the number and severity of releases by giving tank owners and operators additional economic incentives to prevent releases and clean up releases before contamination reaches the state's soil and groundwater.
- Prevent releases by maintaining a compliance inspection frequency of three years for USTs in North Carolina. Triennial inspections will help ensure UST systems are in compliance with all release prevention and detection requirements, help train UST operators, detect and correct more out-of-compliance equipment and operating procedures that could allow a release, and detect some undiscovered releases before contamination of the soil and groundwater occurs.
- Prevent releases by continuing to provide release prevention and detection training to UST owners and operators. Owner/operator training is required by the federal Energy Policy Act of 2005, and it is particularly important due to the large number of UST facilities in North Carolina being bought and operated by new and inexperienced owner/operators each year.
- Continue to find and implement better and more cost-effective methods for assessing and cleaning up petroleum releases, including reviewing existing rules and regulations and reducing or eliminating requirements whenever practical while maintaining a sufficient level of protection for public health and the environment.
- Continue to encourage responsible parties of UST releases to consider pay-for-performance cleanups of their incidents. Pay-for-performance (PFP) is a reimbursement method that requires cleanup goals to be met before payments can be made to environmental consultants. The PFP pilot program indicates that cost savings are realized in cleaning up the pilot program sites selected.