Order Code RS21201
Updated March 16, 2004

Leaking Underground Storage Tanks: Program Status and Issues

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Summary

To address a nationwide problem of leaking underground storage tanks (USTs), Congress established a leak prevention, detection, and corrective action program in 1984. In 1986, Congress created the Leaking Underground Storage Tank (LUST) Trust Fund to help the Environmental Protection Agency (EPA) and states cover the costs of responding to leaking petroleum USTs where tank owners fail to do so, and to oversee LUST cleanup activities. Much progress has been made in the program, but several issues have emerged. One issue is that state workloads increased, as states enforced UST regulations phased in through 1998, and as more leaks were detected as tank owners acted to comply. A related issue concerns the discovery of methyl tertiary butyl ether (MTBE) at thousands of LUST sites. This gasoline additive, used to reduce air pollution from auto emissions, is very water soluble, and leaks with MTBE are more difficult and costly to remediate. States have long sought larger appropriations from the Trust Fund to support LUST cleanup efforts, and some have sought increased flexibility for using LUST funds. Detections of MTBE in water supplies have raised congressional interest in increasing Trust Fund appropriations to remediate MTBE contamination and to enforce the leak prevention program. The 108th Congress has acted on several bills that address these issues. The conference report for the Energy Bill, H.R. 6, which has been approved by the House, would expand uses of LUST funds, provide funding for cleaning up MTBE and other oxygenated fuels leaks, add new leak prevention and enforcement provisions to the UST program, and provide a product liability safe harbor for MTBE and renewable fuels. A new energy bill, S. 2095, includes the same tank provisions, but excludes the safe harbor provision. This report will be updated.

Background

In the 1980s, EPA determined that many of the roughly 2 million underground storage tanks in the United States were leaking. Many other tanks were nearing the end of their useful life expectancy and were expected to leak in the near future. Approximately 50% of the U.S. population relies on ground water for their drinking water, and States were reporting that leaking tanks were the leading source of groundwater contamination.

In 1984, Congress responded to this growing environmental and safety threat and established a leak prevention, detection, and cleanup program for USTs containing chemicals or petroleum through amendments to the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. 6901, *et seq*.). RCRA, Subtitle I, directed EPA to establish operating requirements and technical standards for tank design and installation, leak detection, spill and overfill control, corrective action, and tank closure. The universe of regulated tanks was extremely large and diverse, and included many small businesses. Consequently, EPA phased in the tank regulations over a 10-year period (from 1988 through 1998). Strict standards for new tanks took effect in December 1988, and all tanks were required to comply with leak detection regulations by late 1993. All tanks installed before 1988 had to be upgraded (with spill, overfill, and corrosion protection), replaced or closed by December 22, 1998.

In 1986, Congress established a response program for leaking petroleum USTs through the Superfund Amendments and Reauthorization Act (P.L. 99-499), which amended RCRA Subtitle I. These provisions authorized EPA and states to respond to petroleum spills and leaks, and created the Leaking Underground Storage Tank (LUST) Trust Fund to help EPA and states cover the costs of responding to leaking USTs in cases where the UST owner or operator does not clean up a site. The LUST Trust Fund money is used primarily by EPA, and states that have entered into cooperative agreements with EPA, to oversee and enforce corrective actions performed by responsible parties. EPA and states also use Fund monies to conduct corrective actions where no responsible party has been identified, where a responsible party fails to comply with a cleanup order, or in the event of an emergency, and to take cost recovery actions against parties. In about 96% of cases, EPA or states have been successful in getting responsible parties to perform the cleanup. In these cases, the cleanup costs typically have been paid for by the responsible party, a state fund (discussed below), and/or private insurance.

The 1986 law further directed EPA to establish financial responsibility requirements to ensure that UST owners and operators are able to cover the costs of taking corrective action and compensating third parties for injuries and property damage caused by leaking tanks. As mandated, EPA issued regulations requiring most tank owners and operators selling petroleum products to demonstrate minimum financial responsibility of $1 million. Alternatively, owners and operators may rely on state assurance funds to demonstrate financial responsibility, saving them the cost of purchasing private insurance.

Most states have established financial assurance funds, and unlike the federal Trust Fund, state funds are often used to reimburse financially solvent tank owners and operators for some or all of the costs of remediating leaking tank sites. Reimbursements often target small businesses that face financial hardship when paying cleanup costs. Revenues for state funds are typically generated through gas taxes and tank fees. EPA reports that states have expended more than $5 billion to clean up LUST sites over the past decade. However, outstanding claims against state funds often substantially exceed available fund resources.

LUST Trust Fund: Funding and Appropriations

The LUST Trust Fund has been funded primarily through a 0.1 cent-per-gallon motor fuels tax that commenced in 1987. The tax generated roughly $150 million per year, and more than $1.6 billion was collected for the Trust Fund before the taxing authority expired in December 1995. Congress reinstated the LUST tax through the Taxpayer Relief Act of 1997 (P.L. 105-34) for the period October 1, 1997, through March 31, 2005. In FY2003, the

LUST tax generated $184.4 million in net revenue, and the Fund took in $45 million of interest in cash (earning $64.5 million in interest, on an accrual basis). Net receipts for the year were $248.9 million. At the end of FY2003, the Fund's net assets were $2.06 billion.

According to EPA, a total of about $2.6 billion had been collected in taxes through September 2001. Of that amount, Congress had provided $945 million to EPA, and EPA disbursed approximately $794 million (roughly 85%) of the provided amount to states for LUST program administration, oversight, and cleanup activities.

For FY2003, Congress provided $72.3 million from the Trust Fund for the LUST program. For FY2004, the President requested $72.5 million and received roughly $76 million in the Consolidated Appropriations Act for FY2004 (P.L.108-199). The President again has requested $72.5 million for FY2005.

EPA uses a portion of the appropriation to oversee cooperative agreements with states, to implement the LUST corrective action program on Indian lands, and to support state and regional offices. Recent EPA priorities in the LUST program have included: reducing the backlog of confirmed releases; promoting better, faster, less expensive cleanups; providing assistance to Indian tribes; assisting with the cleanup of more complicated sites, especially sites contaminated with MTBE; and supporting state programs with technical assistance.

Fifty states have entered into cooperative agreements with EPA, and receive grants under these agreements to help cover the cost of administering the LUST program. States generally use the LUST program grants to hire staff for technical oversight of corrective actions performed by responsible parties, and also for undertaking emergency responses and cleaning up abandoned tank sites.

EPA has allocated an average of 85% of the Trust Fund appropriation to the states and has used the remainder for its program responsibilities. In EPA's FY1998 appropriations bill, Congress required that states receive at least 85% of the amount provided from the LUST Trust Fund. Although EPA typically has allotted that portion to the states, EPA has argued for continued flexibility in allocating funds, particularly because the Agency has had primary responsibility for implementing the LUST corrective action program on Indian lands. As requested by the Administration, Congress authorized EPA in it's FY1999 appropriations (P.L. 105-276) to enter into assistance agreements with Indian tribes to support the development and implementation of underground storage tank programs on Indian lands. Conferees also directed that at least 85% of the appropriated level be provided to the states and tribal governments (H.Rept. 105-769). Subsequent appropriations bills have not included such a requirement. However, EPA's recent budget requests, including the FY2005 request, have stated that approximately 85% of the amount requested from the Trust Fund will be used for state cooperative agreements and to support tribal cleanup efforts.

Program Status

EPA estimates that since the federal underground storage tank program began, more than1.5 million of the roughly 2.2 million petroleum tanks subject to regulation have been closed. Through FY2003, 439,385 releases had been identified, 403,558 cleanups had been initiated, and 303,120 cleanups had been completed. Cleanups had yet to be completed at

136,265 sites.[1] Also, as of September 30, 2003, approximately 682,870 tanks remained in service and subject to UST regulations. EPA reports that, over time, the frequency and severity of leaks from UST systems have been reduced greatly.

The General Accounting Office (GAO) estimated, that by the end of fiscal year 2000, 89% of USTs had upgraded tank equipment to meet federal requirements. However, the GAO reported that, because of poor training of personnel, about 29% of USTs were not being operated or maintained properly, thus increasing the risk of leaks and ground water contamination. The GAO also reported that only 19 states physically inspected all of their tanks every 3 years (the minimum EPA considers necessary for effective tank monitoring), and that, consequently, EPA and states lacked the information needed to evaluate the effectiveness of the tank program and take appropriate enforcement actions.[2]

In late 2000, EPA announced four initiatives to improve the effectiveness of the tank program. The Agency also issued a new definition of compliance that places greater emphasis on the proper operation and maintenance of tank equipment and systems. EPA estimated that by the end of fiscal year 2003, 79% of UST facilities were in "significant operational compliance" with the 1998 release *prevention* requirements, and 72% of facilities were in significant operational compliance with the leak *detection* requirements.

Methyl Tertiary Butyl Ether (MTBE)

In recent years, as states and EPA were making significant progress in addressing leaking tanks, a major issue emerged. The gasoline additive, MTBE, was being detected at a growing number of LUST sites and in drinking water wells. Once released, MTBE moves through soil and into water more rapidly than other gasoline components, and it is more difficult and costly to remediate than conventional gasoline. Although MTBE is considered to be less toxic than other gasoline components (such as benzene), even small amounts of MTBE can render water undrinkable because of its strong taste and odor. At least 42 states now require testing for MTBE in ground water at LUST sites. In 2000, 31 states reported that MTBE was found in ground water at 40% or more of LUST sites in their states; 24 states reported MTBE at 60% to 100% of sites.[3] As MTBE monitoring has increased, so has the number LUST corrective actions that involve this additive. (For more information, see CRS Report 98-290, *MTBE in Gasoline: Clean Air and Drinking Water Issues*.)

Federal and state regulators anticipate that, eventually, as tank owners and operators more completely comply with UST requirements, the number of petroleum and related MTBE leaks from USTs should decline significantly. At the end of FY2002, EPA reported that, as a result of improved leak detection and prevention measures, there was a 54% decrease in the number of new releases reported in the previous 3 years.

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[1] See [http://www.epa.gov/oust/cat/camarchv.htm] for state-by-state information.

[2] U.S. General Accounting Office. *Environmental Protection: Improved Inspections and Enforcement Would Better Ensure the Safety of Underground Storage Tanks*. GAO-01-464. May 2001. p. 2-6.

[3] New England Interstate Water Pollution Control Commission (NEIWPCC). *Survey of State Experiences with MTBE Contamination at LUST Sites (August 2000).*

Legislation

The 107th Congress. Several bills addressed LUST issues and MTBE specifically. Two broad bills concerning fuels issues (S. 950 and S. 670), would have amended RCRA to expand the use of the LUST Trust Fund to carry out corrective actions for releases of MTBE, and to enforce UST leak prevention and detection regulations. The Senate-passed version of the comprehensive energy bill, H.R. 4, contained similar provisions, adding that an MTBE release need not be from an UST to be eligible for cleanup funding. These Senate bills and the House-passed version of H.R. 4 all would have authorized an appropriation of $200 million from the Trust Fund to remediate contamination from MTBE releases. S. 1850 (S.Rept. 107-316) contained the most extensive amendments to Subtitle I, with a strong emphasis on leak prevention. In many ways, this bill paralleled House-passed and Senate committee-reported bills from the 105th Congress (H.R. 688 and S. 555, respectively).

The 108th Congress. The 108th Congress has acted on several LUST and MTBE bills. In May, the Senate passed S. 195 (S.Rept. 108-13), which is equivalent to S. 1850 from the 107th Congress. Similar UST bills have been introduced in the House, including H.R. 2733, H.R. 3231, and H.R. 3335. These bills broaden the uses for which EPA and states may use these funds, such as enforcing leak prevention and detection requirements, and helping tank owners pay for corrective actions in cases of economic hardship. The bills include similar operator training provisions, and varying requirements for tank inspections. They authorize EPA and states to use LUST Trust Fund money to respond to MTBE releases that threaten human health, welfare, or the environment,[4] and authorize appropriations for this purpose (under S. 195, the releases need not be from USTs to be eligible for assistance). The bills share similar requirements for states to develop compliance strategies for state and locally owned tanks. H.R. 2733 and H.R. 3335 directly prohibit delivery of gasoline (and other regulated substances) to noncompliant USTs, while S. 195 gives EPA and states authority to prohibit delivery to these tanks (many states already prohibit such deliveries).

In a May 2003 letter to the Chairman of the House Committee on Energy and Commerce, former EPA Administrator Whitman commented on S. 195, noting positive aspects of the bill, but also expressing concern with some provisions. The Administrator cautioned that allowing the use of LUST funds to pay for cleanups at sites with owners or operators facing financial distress (with no threshold defined), and to prohibit cost recovery of any funds used in that capacity, would run counter to the "polluter pays principle" and limit EPA's ability to recover even partial costs, as appropriate, such as from an insurance company. The Administrator also noted that EPA's existing cost recovery guidance allows for consideration of an owner's or operator's ability to stay in business. Another concern was that the Senate bill's proposed use of funds for non-UST leaks would expand the scope of the program and potentially strain EPA's ability to respond to UST releases.

The conference report for H.R. 6, the Energy Policy Act of 2003 (H.Rept. 108-375), which has been approved by the House, would strengthen the leak prevention provisions of

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[4] RCRA Subtitle I currently authorizes EPA and states to undertake correction actions only when releases involve USTs and only if the action is necessary to protect human health or the environment. These limitations have become an issue in addressing MTBE releases, that may come from sources other than USTs or from unknown sources, and that may not present a threat to human health or the environment but, nonetheless, render water undrinkable.)

the federal UST regulatory program, and broaden the allowable uses of the LUST Trust Fund. Title XV, Subtitle B, on underground storage tank compliance, essentially incorporates the language of H.R. 3335, which is similar to Senate-passed S. 195. These provisions add new tank inspection and operator training requirements, prohibit fuel delivery to ineligible tanks, expand UST requirements for federal facilities, authorize states to use LUST funds to help tank owners or operators pay the costs of cleanup in cases of financial hardship, and allow LUST funds to be used to enforce leak prevention and detection requirements. The conference report authorizes LUST Trust Fund appropriations of $200 million for each of FY2004 through FY2008 for remediating tank leaks, generally, and the same amount for responding to tank leaks containing MTBE or other oxygenated fuel additives (e.g., ethanol). H.R. 6 phases out the use of MTBE in fuels, and removes the Clean Air Act's oxygen content requirement for reformulated gasoline, which prompted the increased use of MTBE.

H.R. 6 also includes a "safe harbor" provision to protect manufacturers and distributors of fuels containing MTBE and renewable fuels (e.g., ethanol and biodiesel fuels) from products liability claims. This provision would not affect liability for cleanup costs, drinking water contamination, or negligence. However, with liability for manufacturing and design defects ruled out, plaintiffs would have to demonstrate negligence (or requirements for alternate bases of liability), a more difficult legal standard to meet. (For further discussion, see CRS Report RS21676, *The Safe Harbor Provision for Methyl Tertiary Butyl Ether (MTBE)*. Public water suppliers widely oppose the safe harbor provision and have expressed concern that it could leave communities paying much of the cost for cleaning up water supplies contaminated by MTBE or other fuels. Proponents of the provision argue that such a safe harbor is reasonable, given that the additive has been used largely to meet federal mandates. They further argue that the focus should be placed on preventing leaks from underground storage tanks, which are the primary source of MTBE contamination. The new Senate energy bill, S. 2095, contains the same LUST provisions as H.R. 6, but does not contain the product liability safe harbor provisions for MTBE or renewable fuels.

The House-passed version of H.R. 6 proposed to authorize the use of $850 million from the LUST Trust Fund for cleaning up UST leaks of fuels containing oxygenates (e.g., MTBE and ethanol), eliminate the oxygenate requirement, require the use of renewable fuels, and provide a product liability safe harbor for MTBE and renewable fuels. The Senate version of H.R. 6 proposed to authorize the appropriation of $200 million from the Trust Fund for cleaning up MTBE and other ether fuel contamination (from USTs and other sources), ban MTBE, require the use of renewable fuels, provide a product liability safe harbor for renewable fuels (but not for MTBE), authorize the use of LUST funds for enforcing the UST leak prevention program, and authorize new research and technical assistance programs. (For more details, see CRS Report RL31912, *Renewable Fuels and MTBE: Side-by-Side Comparison of the House and Senate Energy Bills and the Conference Report on H.R. 6*.)

Several other bills have been introduced to address leaking tanks and MTBE contamination. H.R. 1122 would authorize $200 million in LUST funding for cleaning up MTBE contamination; H.R. 2136 would ban MTBE and authorize $850 million for MTBE cleanup; and H.R. 2253 would ban MTBE and prohibit any gasoline additive unless it is determined not to have any adverse effects on the public. Two bills aim specifically at leak prevention through stricter technological requirements: H.R. 3940 and S. 2201 would require secondary containment for all new tank systems and for replacement tanks and pipes.