Leaking Underground Storage Tanks (USTs): Prevention and Cleanup

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May 18, 2010

Congressional Research Service
7-....
www.crs.gov
RS21201

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

To address a nationwide water pollution problem caused by leaking underground storage tanks (USTs), Congress authorized a leak prevention, detection, and cleanup program in 1984, under Subtitle I of the Solid Waste Disposal Act. In 1986, Congress established the Leaking Underground Storage Tank (LUST) Trust Fund to provide a source of funds to support the Environmental Protection Agency (EPA) and states in remediating leaks from petroleum USTs. The LUST Trust Fund is funded primarily through a 0.1 cent-per-gallon motor fuels tax. Historically, EPA and states primarily have used LUST fund appropriations to oversee LUST cleanup activities by responsible parties and to clean up sites where owners fail to do so.

Since the program began, the frequency and severity of releases from USTs have declined markedly. Through FY2009, cleanup had been initiated or completed at nearly 80% of the 488,000 confirmed release sites, while a backlog of some 100,000 contaminated sites remained.

Despite much progress in the program, challenges have remained. A key issue has been that state resources have not met the demands of administering the UST leak prevention program. States have long sought larger appropriations from the trust fund to support the LUST cleanup program, and some also sought flexibility to use fund resources to administer and enforce the UST leak prevention program. Another issue has concerned the detection of methyl tertiary butyl ether (MTBE) in groundwater at many LUST sites and in some drinking water supplies. This gas additive was used widely to meet Clean Air Act requirements to reduce auto emissions. However, MTBE is very water-soluble, and, once released, it is more likely to reach water supplies and often is more costly to remediate than conventional gasoline leaks.

In the Energy Policy Act of 2005 (EPAct; P.L. 109-58), the 109th Congress expanded the leak prevention provisions in the UST program, imposed new program responsibilities on EPA and states, and authorized use of the LUST Trust Fund for prevention as well as cleanup purposes. The law also repealed the Clean Air Act oxygenated fuel requirement that had prompted the extensive use of MTBE. In the Energy Independence and Security Act of 2007 (EISA; P.L. 110-140), the 110th Congress amended the Clean Air Act to authorize EPA to regulate fuels and fuel additives for the purpose of protecting water quality, as well as air quality.

EISA also increased the renewable fuel standard (RFS), and an emerging issue concerns the compatibility of ethanol and biofuels with storage tank infrastructure. Ethanol is more corrosive than gasoline, and EPA estimates that half the tanks in the ground have not been tested for compatibility with ethanol blends greater than 10%. The RFS is likely to push blending beyond 10% in a few years. The concern is that a new wave of leaks could occur as the amount of ethanol in gasoline increases to meet the RFS. S. 1666 would direct EPA to allow the use of mid-level ethanol blends only after infrastructure compatibility and consumer safety issues are addressed.

Congress has increased program funding since the enactment of EPAct. The American Recovery and Reinvestment Act (ARRA; P.L. 111-5) appropriated $200 million from the trust fund for the LUST cleanup program, and Congress provided another $112.6 million from the fund for cleanup and leak prevention and detection activities in regular FY2009 appropriations. For FY2010, in P.L. 111-88, Congress provided $113.1 million from the fund, including $78.7 million for LUST cleanup activities, and $34.4 million for UST leak prevention, detection, and other program responsibilities added by the EPAct. The Administration has requested similar amounts for FY2011. This report reviews UST and LUST programs and related issues and developments.

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Background

In the 1980s, EPA determined that many of the roughly 2.2 million underground storage tanks (USTs) in the United States, most of them storing petroleum products, 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 underground tanks were the leading source of groundwater contamination.

In 1984, Congress responded to this public health and environmental threat and established a leak prevention, detection, and cleanup program for USTs containing chemicals or petroleum by establishing an underground storage tank regulatory program in Subtitle I of the Solid Waste Disposal Act,[1] also known as the Resource Conservation and Recovery Act (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 (1988 through 1998). Strict standards for new tanks took effect in 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 (SARA; P.L. 99-499), which amended RCRA Subtitle I. The amendments authorized EPA and states to respond to petroleum spills and leaks. SARA also amended the Internal Revenue Code of 1986 to create the Leaking Underground Storage Tank (LUST) Trust Fund to help EPA and states cover the costs of responding to leaking USTs in cases where UST owners or operators do not clean up a site. EPA and the states have used the annual LUST Trust Fund appropriation mainly to oversee and enforce corrective actions performed by responsible parties. The law also authorized the use of funds to conduct corrective actions where no responsible party has been identified, where a responsible party fails to comply with a cleanup order, in the event of an emergency, and to take cost recovery actions against parties. EPA and states have been successful in getting responsible parties to perform most cleanups. In these cases, the cleanup costs typically have been paid for by a state fund (discussed below), the responsible party, and/or private insurance.

State Funds

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 a minimum financial responsibility of $1 million. Alternatively, owners and operators could rely on state assurance funds to demonstrate financial responsibility, saving them the cost of purchasing private insurance. Most states established financial assurance funds. Unlike the federal LUST Trust Fund, state funds often are used to reimburse financially solvent

[1] Solid Waste Disposal Act, 42 U.S.C. 6991-6991i.

tank owners and operators for some or all of the costs of remediating leaking tank sites. Revenues for state funds typically have been generated through tank fees and petroleum fees; collectively, these funds have provided more cleanup funds than the federal LUST Trust Fund.

A 2009 survey of state financial assurance funds, conducted by the Vermont Department of Environmental Conservation, showed that, cumulatively, states had provided more than $17 billion through their funds to support the cleanup of leaking tank sites. During 2009, state funds collected $1.38 billion in annual revenues and paid out a total of $875 million, while outstanding claims against state funds reached $2.69 billion, up from $1.32 billion in 2006. States reported that the average cost of cleaning up a leaking tank site was roughly $127,000. The number of sites with claims also has increased annually, growing from 159,909 in 2006 to 173,717 in 2009. While 10 states have made a transition to private insurance, 20 states have extended their funds' original sunset date to address the backlog of leaking tanks.[2]

LUST Trust Fund: Funding and Uses

The LUST Trust Fund is funded primarily through a 0.1 cent-per-gallon motor fuels tax which began in 1987. The Energy Policy Act of 2005 (P.L. 109-58) extended the tax through September 2011. During FY2009, the fund earned approximately $107 million in interest and $169 million in tax receipts (down from $228.3 million in FY2007). The estimated total revenue value of the trust fund was roughly $276 million for the fiscal year. At the start of FY2010, the fund had an unobligated balance of approximately $3.0 billion.

For a number of years, Congress appropriated approximately $72 million annually from the LUST Trust Fund to support the LUST response program. The Energy Policy Act of 2005 (EPAct; P.L. 109-58) authorized new uses of the trust fund and added new appropriations authorities to fund Subtitle I leak prevention and detection activities, in addition to cleanup activities. In the Consolidated Appropriations Act, 2008 (P.L. 110-161), Congress provided $105.8 million from the fund, including roughly $72 million for the cleanup program and $33.8 million for the UST leak prevention program, reflecting the broadened range of authorized uses of the fund under EPAct.

EPA typically has allocated approximately 81% of the annual trust fund appropriation to the states in the form of cooperative agreements, and 4% to support LUST-eligible activities on Indian lands. The agency has used the remaining 15% for its program responsibilities. EPAct (P.L. 109-58, § 1522) specified that EPA must allot at least 80% of the LUST Trust Fund appropriation to the states. Under cooperative agreements with EPA, the states receive grants to help cover the cost of administering the LUST program. States have used most of their LUST program grants to hire staff for technical oversight of corrective actions performed by responsible parties. Typically, they have used about one-third of their LUST grants for cleaning up abandoned tank sites and undertaking emergency responses. In FY2009, EPA provided approximately $63 million through state cooperative agreements and to tribes for the cleanup program and used roughly $11 million to meet its responsibilities. EPA provided another $34.4 million from the trust fund for state and tribal grants to implement and enforce the UST leak prevention program.

[2] State Financial Assurance Funds surveys from 1997 through the present are available at http://www.astswmo.org/publications_tanks.htm. ASTSWMO is the Association of State and Territorial Solid Waste Management Officials, which includes representatives of state underground storage tank programs.

EPA uses its portion of the appropriation to oversee cooperative agreements with states, implement the LUST corrective action program on Indian lands, and support state and regional offices. EPA priorities in the LUST program have included reducing the backlog of confirmed releases; promoting better and less expensive cleanups; providing assistance to Indian tribes; assisting with the cleanup of more complicated sites, especially sites contaminated with MTBE; and implementing the Energy Policy Act provisions. More recent work areas for EPA's UST program involve evaluating the compatibility of fuel storage tanks with alternative fuels, and evaluating the transport and degradation characteristics of ethanol and biodiesel blends.

Program Status and Issues

EPA reports that since the federal underground storage tank program began, more than 1.7 million substandard underground storage tanks subject to regulation have been closed and, overall, the frequency and severity of leaks from UST systems have been reduced significantly. Through September 2009, 611,449 tanks remained in service (at approximately 223,000 sites) and subject to UST regulations. A total of 488,496 releases had been confirmed, and 463,060 cleanups had been initiated. Approximately 79.5% (388,331) of all reported releases had been cleaned up, and the backlog of sites requiring remedial action dropped to 100,165 sites. During FY2009, 7,168 releases were confirmed, and 12,944 cleanups were completed.[3]

Despite these cleanup achievements, program needs remain significant. Although EPA expects that private parties will pay for most cleanups, states estimated in 2007 that $12 billion was needed to remediate at least 54,000 tank sites that lack viable owners.[4]

Moreover, many tank owners and operators have yet to achieve full compliance with EPA technical regulations that are intended to prevent and detect leaks. EPA had estimated that by FY2001, 89% of USTs had upgraded tank equipment to meet federal requirements. However, the Government Accountability Office (GAO) reported that because of poor training of tank owners, operators, and other personnel, about 200,000 (29%) USTs were not being operated or maintained properly, thus increasing the risk of leaks and ground water contamination. GAO also reported that only 19 states physically inspected all their tanks every three years (the minimum EPA considered necessary for effective tank monitoring) and, consequently, EPA and states lacked the information needed to evaluate the effectiveness of the tank program and take appropriate enforcement actions.[5] Among its initiatives to improve compliance, EPA revised the definition of compliance ("significant operational compliance") to place greater emphasis on the proper operation and maintenance of tank equipment and systems. At the close of FY20009, EPA reported that, nationwide, 79.3% of recently inspected UST facilities were in compliance with the release *prevention* regulations, 76.3% were in compliance with the leak *detection* regulations, and 66.4% of facilities had complied with the combined requirements.

[3] For state-by-state information, see http://www.epa.gov/oust/cat/camarchv.htm.

[4] Government Accountability Office, *Leaking Underground Storage Tanks: EPA Should Take Steps to Better Ensure the Effective Use of Public Funding for Cleanups*, GAO-07-152, 2007.

[5] U.S. GAO, *Environmental Protection: Improved Inspections and Enforcement Would Better Ensure the Safety of Underground Storage Tanks*, GAO-01-464, May 2001, pp. 2-6. Also see *Environmental Protection: More Complete Data and Continued Emphasis on Leak Prevention Could Improve EPA's Underground Storage Tank Program*, GAO-06-45, November 2005.

To address some of the program weaknesses and to improve leak prevention, Congress added new requirements to the UST regulatory program for EPA, states, and UST owners and operators, under the Energy Policy Act of 2005. The new provisions included requirements for inspections and for operator training. (See discussion below.)

Methyl Tertiary Butyl Ether (MTBE)

As the UST program matured during the 1990s, and states and EPA were making solid progress in addressing tank leaks, a new problem emerged. The gasoline additive MTBE was being detected at thousands of LUST sites and in numerous drinking water supplies, usually at low levels. Gasoline refiners had relied heavily on MTBE to produce gasoline that contained oxygenates, as required by the 1990 Clean Air Act Amendments as a way to improve combustion and reduce mobile source emissions. Once released into the environment, however, MTBE moves through soil and into water more rapidly than other gasoline components. Because of its mobility, MTBE is more likely to reach drinking water supplies, and it often is more difficult and costly to remediate than conventional gasoline. Although MTBE is thought to be less toxic than some gasoline components (such as benzene), even small amounts can render water undrinkable because of its strong taste and odor. Also, in 1993, EPA's Office of Research and Development concluded that the data support classifying MTBE as a possible human carcinogen.[6] EPA continues to evaluate the health effects of this compound and, in particular, the potential effects associated with ingestion. Although EPA has not done so, at least seven states have set drinking water standards for MTBE, and many states have established cleanup standards or guidelines. At least 25 states have enacted limits or bans on the use of MTBE in gasoline.

At least 42 states require testing for MTBE in ground water at LUST sites. In a 2000 survey, 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. An update of this survey found that many sites had not been tested for MTBE and that most states did not plan to reopen closed sites to look for MTBE.

Congressional Actions

The 109th Congress addressed LUST and MTBE contamination issues in EPAct. Provisions of the act revised the UST leak prevention and cleanup programs (Title XV, Subtitle B), and extended the 0.1 cent-per-gallon motor fuels tax that finances the LUST Trust Fund through September 2011 (§ 1362).

The House version of H.R. 6 had included a retroactive safe harbor provision to protect manufacturers and distributors of fuels containing MTBE or renewable fuels from product liability claims. This provision was opposed by water utilities, local government associations, and many states. Opponents argued that providing a liability shield would effectively leave gas station owners liable for cleanup, and as these businesses often have few resources, the effect of the provision would have been that the burden for cleanup would fall to local communities, water utilities, and the states. Proponents argued that a safe harbor was merited because MTBE was

[6] U.S. Environmental Protection Agency, *Assessment of Potential Health Risks of Gasoline Oxygenated with Methyl Tertiary Butyl Ether (MTBE)*, EPA/600/R-93/206, 1993.

used heavily to meet federal clean air mandates. They further argued that the focus should be placed on preventing leaks from USTs, which have been the main source of MTBE contamination. Ultimately, the conferees dropped the safe harbor provision and dropped a provision to ban MTBE. P.L. 109-58 repealed the Clean Air Act oxygenated fuel requirement that had prompted extensive use of MTBE, and imposed a renewable fuels mandate.[7] This CAA amendment eliminating the oxygen requirement in reformulated gasoline, combined with state bans and refiners' actions to eliminate MTBE in gasoline, has cut markedly into MTBE use (about 14 million barrels per year as of early 2008, down from about 100 million barrels per year at the peak).

Underground Storage Tank Compliance Act

Title XV, Subtitle B, of EPAct comprised the Underground Storage Tank Compliance Act (USTCA). The USTCA amended RCRA Subtitle I to add new leak prevention and enforcement provisions to the UST regulatory program and imposed new requirements on states, EPA, and tank owners. The USTCA requires EPA, and states that receive funding under Subtitle I, to conduct compliance inspections of tanks at least once every three years. It also requires states to comply with EPA guidance prohibiting fuel delivery to ineligible tanks, to develop training requirements for UST operators and individuals responsible for tank maintenance and spill response, and to prepare compliance reports on government-owned tanks in the state. Further, to protect groundwater, states must require either that new tanks located near drinking water wells are equipped with secondary containment, or that UST manufacturers and installers maintain evidence of financial responsibility to provide for the costs of corrective actions.[8]

The USTCA authorized the appropriation of $155 million annually for FY2006 through FY2011 from the LUST Trust Fund for states to use to implement new and existing UST leak prevention requirements and to administer state programs. For cleanup purposes, the USTCA authorized trust fund appropriations of $200 million annually for FY2006 through FY2011 for EPA and states to administer the LUST cleanup program, and another $200 million annually for FY2006 through FY2011, specifically for addressing MTBE and other oxygenated fuels leaks (such as ethanol).[9]

The 110th Congress

To increase state program resources and facilitate cleanups, Congress provided the new funding authorities under EPAct (including the authority to use the LUST Trust Fund for prevention activities in addition to cleanup activities). Nonetheless, trust fund requests remained at roughly $72 million. For FY2008, the President requested $72.4 million from the LUST Trust Fund for cleanup activities, and another $22.3 million from general revenues through the State and Tribal Assistance Grants (STAG) account to support leak prevention activities. The Senate Committee

[7] For more information on LUST and MTBE provisions in P.L. 109-58, see CRS Report RL32865, *Renewable Fuels and MTBE: A Comparison of Provisions in the Energy Policy Act of 2005 (P.L. 109-58 and H.R. 6),* by (name red acted), (name redacted), and (name redacted).

[8] USTCA implementation information and documents are available online at http://www.epa.gov/oust/fedlaws/epact_05.htm.

[9] Technical corrections to the Energy Policy Act were enacted in P.L. 109-168 on January 10, 2006. The only substantive correction to the USTCA was the revision of the dates authorizing appropriations for Subtitle I (from FY2005 through FY2009, to FY2006 through FY2011).

on Appropriations similarly recommended cleanup funding from the trust fund and prevention funding from the STAG account (S.Rept. 110-91). In contrast, the House report for EPA's FY2008 funding bill, H.R. 2643 (H.Rept. 110-187) noted that the EPAct authorized the prevention grants to be funded from the LUST Trust Fund. The House combined the funding to reflect the broad uses of the trust fund authorized by EPAct. The House-passed bill approved $117.9 million from the trust fund for cleanup and leak prevention activities (including tank inspections). This amount included $10 million more than requested for LUST cooperative agreements, and $15.7 million more for state UST grants authorized by EPAct (which, when combined with the funds moved from the STAG account, would have provided a total of $35.5 million for prevention activities). Noting this increase in UST funding, the House rejected EPA's request that Congress revise the state inspection requirements under EPAct. The Consolidated Appropriations Act, 2008, followed the House approach and provided a total of $105.8 million from the Trust Fund to support both UST and LUST programs.

For FY2009, EPA requested $72.3 million from the trust fund for the LUST cleanup program. EPA again requested funds under the STAG account ($22.8 million) to help states meet new EPAct responsibilities, including (1) triennial tank inspections, (2) operator training, (3) prohibition of delivery to non-complying tanks, and (4) secondary containment or financial responsibility for tank manufacturers and installers. In an effort to reduce EPAct costs to states, EPA submitted legislative language to allow states to use alternative mechanisms to meet the inspection mandate. The 110th Congress, as part of its broader approach deferring final action on pending FY2009 appropriations to the 111th Congress, did not consider specific EPA appropriations. Rather, the consolidated appropriations act for FY2009 (P.L. 110-329) generally extended funding for EPA programs at FY2008 levels through March 6, 2009.

The 111th Congress

The 111th Congress finalized appropriations to support agency programs for FY2009. The President had requested funding from the trust fund to support only the LUST cleanup program ($72.3 million), while requesting funding for the UST leak prevention program from general revenue funds. In the FY2009 Omnibus Appropriations Act (P.L. 111-8), Congress provided $112.6 million from the trust fund, including $72.3 million for the LUST cleanup program and $20.3 million for grants to states to meet Energy Policy Act mandates.

The American Recovery and Reinvestment Act (ARRA; P.L. 111-5) provided an additional $200 million to EPA for the LUST cleanup program.[10] Appropriated from the LUST Trust Fund, the funds have been allocated among the states through grant agreements with EPA.[11] These recovery funds may be used for two general purposes:

- to oversee the cleanup of releases from underground storage tanks that contain petroleum products, where cleanups are conducted by responsible parties, and
- to conduct cleanups directly where the responsible party is unknown, unable, or unwilling to respond, or when prompt action is needed.

[10] Section 9003(h) of the Solid Waste Disposal Act, 42 U.S.C. 6991b(h).

[11] States, territories, and Indian tribes are eligible to receive funds under the LUST program.

The stimulus act waived the usual 10% state match requirement for the LUST program, and specified that EPA may use no more than 1.5% of the funds for program management and oversight.

For FY2010, the Administration and Congress looked to the trust fund to support both LUST and UST program activities. P.L. 111-88 approved $113.1 million from the LUST Trust Fund, including $78.67 million for cleanup activities and $34.43 million for most other Subtitle I leak prevention and detection provisions. Congress provided another $2.5 million from general revenues for state grants to cover remaining Subtitle I responsibilities not authorized under EPAct to be supported by trust fund revenues. Several years of stable funding have enabled states to plan and administer their programs, and to meet the EPAct requirements, including tank inspections, which has been perhaps the most challenging new mandate imposed on the states. **Table 1** provides the amounts appropriated for FY2009 and FY2010 for the LUST Program by EPA account and includes the amount requested for FY2011.

Table 1. Appropriations for the LUST Trust Fund Program Account: FY2009-FY2010 Enacted, and the FY2011 President's Request

(millions of dollars)

Account/Program Area	FY2009 Omnibus P.L. 111-8	FY2009 ARRA P.L. 111-5	FY2009 Total Enacted	FY2010 Enacted P.L. 111-88	FY2011 Request
LUST Account	$112.6	$200.0	$312.6	$113.1	$113.2
EPAct Provisions	*$35.5*	*$0.0*	*$35.5*	*$34.4*	*$34.4*
STAG Account					
Categorical Grant: UST	*$2.5*	*$0.0*	*$2.5*	*$2.5*	*$2.5*

Source: Prepared by the Congressional Research Service. Enacted appropriations are from the conference report to accompany the Interior, Environment, and Related Agencies Appropriations Act for FY2010 (H.R. 2996, H.Rept. 111-316, p. 242 - p. 243). President's FY2011 request is from EPA's FY2011 Annual Performance Plan and Congressional Justification, p. 920. Numbers may not add due to rounding.

Note: "Omnibus" refers to the Omnibus Appropriations Act for FY2009 (P.L. 111-8); "ARRA" refers to the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).

The appropriations from the LUST Trust Fund have increased since the enactment of EPAct, as states had urged. However, the appropriation levels still remain below the amount of interest earned annually on the fund ($124 million in FY2009) and the levels authorized in EPAct. Moreover, the amount provided now is used for a broader range of activities, supporting both the LUST cleanup program and UST leak prevention program. Overall, the amount provided to the states for oversight and enforcement of the LUST cleanup program and for taking emergency remediation actions under that program has not increased markedly in recent years ($78.67 million for FY2010); thus states might continue to press Congress to release more money from the fund. That said, the American Recovery and Reinvestment Act provided a $200 million boost to the cleanup program, and Congress may be interested in knowing how readily states have been able to make use of the additional funding.

Emerging Issue: Ethanol and Biofuels Compatibility

An emerging UST issue concerns the impact that ethanol and other biofuels may have on storage tank infrastructure. Ethanol, for example, is more corrosive than gasoline, thus increasing the risk of fuel leaks in tank systems. The renewable fuel mandates in EPAct and, subsequently, the Energy Independence and Security Act of 2007 (EISA; P.L. 110-140) present new technical issues for USTs and for fuel storage and delivery infrastructure, generally.

Underground storage tanks typically have not been designed to store higher blends of ethanol (generally above 10%). EPA estimates that half the tanks in the ground are 20 years old and have never been tested for compatibility with higher ethanol blends.[12] Tank owners, EPA, states, and the motor fuels industry are concerned that a new wave of leaks could occur as the amount of ethanol blended in gasoline increases to meet the EISA renewable fuel standards. To address this issue, the House in the 110th Congress passed H.R. 547 (H.Rept. 110-7) to require EPA to establish a research and development program on materials that could be added to biofuels to make them more compatible with existing infrastructure used to store and deliver petroleum-based fuels. The Senate did not act on this bill.

EISA did include an amendment to section 211(c) of the Clean Air Act to allow EPA to regulate fuels and fuel additives to protect water quality, as well as air quality. This provision is intended to enable EPA to prevent or address potential water quality problems that might result from the use of alternative fuels and fuel additives (such as those experienced with MTBE use).

In the 111th Congress, legislation again has been introduced to address the issue of compatibility of higher ethanol blends with fuel storage and distribution infrastructure, and motor vehicle engines as well. S. 1666 would authorize the EPA Administrator to allow the introduction of mid-level ethanol blends into commerce only after the agency met several conditions, including responding to Science Advisory Board recommendations on mitigating materials compatibility and consumer safety issues associated with the use of those higher blends.

Currently, priority research areas for EPA's UST program include evaluating the compatibility of fuel storage tanks with alternative fuels, and evaluating the transport and degradation characteristics of ethanol and biodiesel blends.

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[12] For further discussion of ethanol and biofuels issues, see CRS Report R40155, *Selected Issues Related to an Expansion of the Renewable Fuel Standard (RFS)*, by (name redacted) and (name redacted).