

CRS Report for Congress

Received through the CRS Web

Selected Environmental Provisions in the Energy Bill (H.R. 6)

Brent Yacobucci, Coordinator
Analyst in Energy Policy
Resources, Science, and Industry Division

Summary

On November 17, 2003, the conference report on the omnibus energy bill, H.R. 6, was approved by the conference committee; H.R. 6 was passed by the House on November 18. The conference report (H.Rept. 108-375) contains various provisions that could affect environmental quality, either directly or indirectly. This report provides a short discussion of selected environmental provisions involving limits on the use of MTBE; a renewable fuel mandate for gasoline; stricter regulation of underground storage tanks; Clean Water Act requirements for oil and gas exploration; incentives and R&D funding for alternative fuels and vehicles; energy efficiency and conservation incentives; hydroelectric relicensing; ozone compliance deadlines; use of mining wastes; and hydraulic fracturing. This report will be updated as warranted.

MTBE and Ethanol: Fuels. Title XV of the bill contains several provisions addressing the gasoline additive methyl tertiary butyl ether (MTBE). Under the Clean Air Act Amendments of 1990, reformulated gasoline (RFG) sold in numerous areas of the country with poor air quality must contain an oxygenate — MTBE, ethanol, or other substances containing oxygen — as a means of improving combustion and reducing emissions of ozone-forming compounds and carbon monoxide. A little more than 30% of the gasoline sold in the United States is RFG, and a majority of RFG contains MTBE. MTBE has been implicated in numerous incidents of groundwater contamination, however, and 17 states have taken steps to ban or regulate its use. The most significant of these bans (in California and New York) take effect at the end of 2003.

The bill would ban the use of MTBE as a fuel additive, except in states that specifically authorize its use, after December 31, 2014, unless the President determines not to ban it. The Clean Air Act requirement to use MTBE or other oxygenates in RFG would be repealed 270 days after enactment. In place of this requirement, the bill would provide a major new stimulus to the use of ethanol: Under a renewable fuels standard (RFS), annual production of gasoline would be required to contain at least 5 billion gallons of ethanol or other renewable fuel (more than double the current production of ethanol) by 2012. To prevent backsliding on air quality, the bill requires that reductions

in emissions of toxic substances achieved by RFG be maintained; it authorizes \$2 billion in grants to assist merchant MTBE production facilities in converting to the production of other fuel additives; and, perhaps most controversially, it would provide a “safe harbor” from product liability lawsuits for producers of MTBE, ethanol, and other renewable fuels (product liability lawsuits have been used to force petroleum and chemical companies to pay for cleanup of ground and surface water contaminated by releases of fuels containing MTBE). The bill also authorizes funds for MTBE cleanup (discussed below under “MTBE and Underground Storage Tanks: Water Quality”). [This section prepared by James McCarthy, Specialist in Environmental Policy.]

MTBE and Underground Storage Tanks: Water Quality. Title XV, Subtitle B, makes extensive amendments to the Solid Waste Disposal Act (SWDA) to strengthen leak prevention provisions of the federal underground storage tank regulatory program, and to broaden the allowable uses of the Leaking Underground Storage Tank (LUST) Trust Fund. The conference report essentially incorporates the language of H.R. 3335, the Underground Storage Tank Compliance Act of 2003. The provisions add new tank inspection and operator training requirements; prohibit fuel delivery to ineligible tanks; expand underground storage tank (UST) requirements for federal facilities; and require EPA, with Indian tribes, to develop and implement a strategy to address releases on tribal lands. The provisions also authorize states to use funds from the LUST Trust Fund to help UST owners or operators pay the costs of remediating tank leaks in cases where the cost of cleanup would significantly impair the ability of the owner or operator to continue in business. EPA and states also may use LUST funds to conduct inspections and enforce federal and state UST release prevention and detection requirements.

Section 1531 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 leaks containing MTBE or other oxygenated fuel additives (e.g., ethanol). [This section prepared by Mary Tiemann, Specialist in Environmental Policy.]

Oil and Gas Exploration: Clean Water. Section 328 of the conference report would give a permanent exemption from Clean Water Act (CWA) stormwater runoff rules for the construction of exploration and production facilities by oil and gas companies and the roads that service those sites. Currently under that act, the operation of facilities involved in oil and gas exploration, production, processing, transmission, or treatment generally is exempt from compliance with stormwater runoff regulations, but the construction of these facilities is not. The amendment would modify the act to specifically include construction activities in the types of oil and gas facilities that are covered by the law’s statutory exemption from stormwater rules.

The issue arises from stormwater permitting rules for small construction sites and municipal separate storm sewer systems that were issued by EPA in 1999 and became effective March 10, 2003. Those rules, known as Phase II of the Clean Water Act stormwater program, require most small construction sites disturbing one to five acres and municipal separate storm sewer systems serving populations of up to 100,000 people to have a CWA discharge permit. The permits require pollution-prevention plans describing practices for curbing sediment and other pollutants from being washed by stormwater runoff into local water bodies. Phase I of the stormwater program required construction sites larger than five acres (including oil and gas facilities) and larger municipal separate

storm sewer systems to obtain discharge permits beginning in 1991. (For background, see CRS Report 97-290, *Stormwater Permits: Status of EPA's Regulatory Program*.)

As the March 2003 compliance deadline approached, EPA proposed a two-year extension of the Phase II rules for small oil and gas construction sites to allow the agency to assess the economic impact of the rule on that industry. EPA stated that the delay was needed to comply with President Bush's Executive Order 13211, which directed agencies to consider the effects of their actions on energy-related production activities. EPA had initially assumed that most oil and gas facilities would be smaller than one acre in size and thus excluded from the Phase II rules, but recent Department of Energy data indicate that several thousand new sites per year would be of sizes subject to the rule.

The provision in the final bill is similar to one in the House-passed H.R. 6: It makes EPA's two-year delay permanent and makes it applicable to construction activities at all oil and gas development and production sites, regardless of size. Oil and gas officials argue that the EPA stormwater rule creates costly permitting requirements, even though the short construction period for drilling sites carries little potential for stormwater runoff pollution. Supporters said the amendment was intended to clarify existing CWA language. Opponents argued that the provision did not belong in the energy legislation, and that there was no evidence that construction at oil and gas sites causes less pollution than other construction activities. [This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy.]

Alternative Fuels and Vehicles: R&D and Incentives. There is growing interest in reducing dependence on foreign oil. A popular strategy for limiting petroleum use is to promote the expansion of alternative fuels and advanced technology vehicles. Recently, interest has focused on the development of hydrogen fuel and fuel cell vehicles.

Title VIII of the conference report would authorize \$2.1 billion for research and development of hydrogen fuel and fuel cells over the course of FY2004-FY2008. This is equal to the House-approved version, but lower than the Senate-approved version. It is roughly equal with the amount announced by the President in the 2003 State of the Union address. A goal of 100,000 fuel cell vehicles commercially available by 2010 and 2.5 million vehicles by 2020, a provision of the Senate version of the bill, was not included in the final conference report.

In addition to R&D, section 1318 would provide extensive tax credits for the purchase of certain alternative fuel and advanced technology vehicles. Covered vehicles include fuel cell vehicles, electric vehicles, hybrid-electric vehicles, alternative fuel vehicles, and lean-burn vehicles. Credits vary depending on the technology employed, the performance of the vehicle, and the size of the vehicle. Further, section 1319 would extend the existing tax deduction for the installation of alternative fuel infrastructure. [This section prepared by Brent Yacobucci, Analyst in Energy Policy.]

Energy Efficiency and Conservation. Title XIII of the conference report includes a number of tax incentives to promote conservation and efficiency. The final bill would expand to new geothermal facilities a production tax credit that has been regarded as helpful to the expansion of wind energy. The bill provides additional support for weatherization programs and would establish a voluntary program to promote efficient appliances. However, critics of the bill argue that incentives are heavily weighted toward

energy production. [This section prepared by Robert Bamberger, Specialist in Energy Policy.]

Hydroelectric Power: Relicensing. Section 231 would allow applicants for hydroelectric licenses increased flexibility in compliance with conditions imposed by federal agencies. Currently, the Federal Power Act gives certain federal agencies the authority to attach conditions to Federal Energy Regulatory Commission (FERC) licenses. For example, federal agencies may require applicants to build passageways through which fish can travel around the dam, schedule periodic water releases for recreation, release minimum flows of water for fish migration, control water release rates to reduce erosion, or limit reservoir fluctuations to protect the reservoir's shoreline habitat. Once an agency issues such conditions, FERC must include them in its license. While these conditions often generate environmental or recreational benefits, they may also require construction expenditures and may increase generation costs by reducing operational flexibility.

The conference report would allow stakeholders to propose alternative license conditions, and would require federal agencies to consider alternatives proposed by license applicants. The bill would also require an agency to accept an applicant's proposed alternative if it found that the alternative (1) provides for the adequate protection and utilization of the federal reservation, or will be no less protective of the fish resource than the fishway initially prescribed, and (2) costs less to implement, and/or will result in improved operation of the project for electricity production. [This section prepared by Kyna Powers, Analyst in Environmental Policy.]

Air Quality: Ozone Nonattainment Area Deadlines. Section 1443 of the bill would extend Clean Air Act deadlines for areas that have not attained the ozone air quality standard if upwind areas "significantly contribute" to their nonattainment. Under the 1990 Clean Air Act Amendments (P.L. 101-549), ozone nonattainment areas were classified in one of five categories: marginal, moderate, serious, severe, or extreme. Areas with higher concentrations of the pollutant were given more time to reach attainment. In return for the additional time, they were required to implement more stringent controls on emissions. Failure to reach attainment by the specified deadline was to result in reclassification of an area to the next highest category and the imposition of more stringent controls. Areas such as Dallas-Fort Worth, for example, classified as serious, were required to reach attainment by 1999. When they did not do so, the law required that they be reclassified (or "bumped up") to the severe category, with a new deadline of 2005 and more stringent controls.

For a variety of reasons, EPA has generally not reclassified areas when they failed to reach attainment by the statutory deadlines. As of June 2003, the agency's website listed 20 marginal areas, 7 moderate areas, and 12 serious areas, most of which would appear to be categorized as severe under the statutory requirements. In several cases, the agency granted additional time to reach attainment on the grounds that a significant cause of the area's continued nonattainment was pollution generated outside the area and transported into it by prevailing winds. EPA was sued over its failure to bump up five of these areas; of the first three cases decided (Washington, D.C.; St. Louis; and Beaumont-Port Arthur, Texas), the agency lost all three. As a result, EPA has taken steps to reclassify the three areas.

Section 1443 would roll back these reclassifications and would extend attainment deadlines in areas affected by upwind pollution to the date on which the last reductions in pollution necessary for attainment in the downwind area are required to be achieved in the upwind area. The specific date is open for interpretation. Under EPA's overturned policy, areas were given extensions no longer than the attainment or compliance deadline in the upwind area (generally 2004, 2005, or 2007). The language of Section 1443 appears to give EPA flexibility to extend the deadlines beyond those dates, however; it also would apply to the agency's new 8-hour ozone standard scheduled to be implemented next year, making many additional areas eligible for extensions. [This section prepared by James McCarthy, Specialist in Environmental Policy.]

Use of Tar Creek Mine Tailings. The Tar Creek Superfund site in northeastern Oklahoma is a former lead and zinc mining area of approximately 40 square miles. Section 1445 of the bill directs the EPA Administrator to establish criteria for the safe and environmentally protective use of mine tailings from the site (known as "chat") in highway construction projects. The mine tailings are deposited in hundreds of piles and ponds in the area, and contain lead and other heavy metals. Approximately 25 percent of the children living on the site have elevated blood lead concentration levels, according to EPA.¹ The criteria that the agency is instructed to issue are to include an evaluation of whether to establish numerical standards for the concentration of lead and other hazardous substances in materials used for highway construction. [This section prepared by Mark Reisch, Analyst in Environmental Policy.]

Hydraulic Fracturing: Drinking Water Regulation. Section 327 of the conference report amends the Safe Drinking Water Act (SDWA), Section 1421(d), to specify that the definition of "underground injection" excludes the injection of fluids or propping agents used in hydraulic fracturing operations for oil and gas production.

SDWA directed EPA to promulgate regulations for state underground injection control (UIC) programs that included minimum requirements for programs to prevent underground injection that endangers sources of drinking water. The provisions specified that UIC program regulations may not prescribe requirements that interfere with or impede "any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection" (SDWA §1421(b)(2)).

The bill prevents EPA from regulating the underground injection of fluids for hydraulic fracturing purposes, thus removing EPA's existing discretion to do so under SDWA. The provision incorporates language from the House bill specifically exempting hydraulic fracturing from the definition of underground injection. The Senate bill directed EPA to study the effects of hydraulic fracturing of hydrocarbon-bearing formations on underground sources of drinking water, and to determine whether regulation was necessary.

EPA reports that before 1997 it had not considered regulating hydraulic fracturing because EPA did not view this well production process as an activity subject to regulation

¹ U.S. EPA, Region 6, *Five-Year Review: Tar Creek Superfund Site, Ottawa County, Oklahoma*, March 2000, p. 6.

under SDWA's UIC program. The Legal Environmental Assistance Foundation (LEAF) challenged EPA's interpretation of SDWA in 1994, and argued that Alabama should regulate hydraulic fracturing for coalbed methane development as underground injection. LEAF petitioned EPA to withdraw Alabama's UIC program, and sued EPA when the petition was rejected. In 1997, the 11th Circuit Court of Appeals ruled that the injection of fluids for the purpose of hydraulic fracturing constitutes underground injection as defined under the SDWA, that all underground injection must be regulated, and that hydraulic fracturing of coalbed methane wells in Alabama should be regulated under the state's UIC program (*LEAF v. EPA*, 118 F. 3d 1467). In 1999, EPA approved a revision to Alabama's UIC program to include regulations for hydraulic fracturing of coalbed methane wells.

Following the court's decision, EPA decided it needed more information before making further decisions regarding the regulation of hydraulic fracturing, and undertook a study to evaluate impacts to drinking water sources from hydraulic fracturing practices used in coalbed methane production. In August 2002, EPA issued a draft report that identified water quality and quantity problems attributed to hydraulic fracturing in several states in the West and Southeast, but concluded that the overall impact was small.²

In 2003, EPA's National Drinking Water Advisory Council recommended that EPA (1) work to eliminate the use of diesel fuel and related additives in fracturing fluids that are injected into formations containing drinking water sources; (2) continue to study the health and environmental problems that could occur from hydraulic fracturing for coalbed methane production; and (3) defend its authority and discretion to implement the UIC program in a way that advances protection of groundwater resources from contamination. [This section prepared by Mary Tiemann, Specialist in Environmental Policy.]

Other Issues Not Included in the Conference Report. *ANWR:* One major element of the energy debate in the 108th Congress has been whether to approve energy development in the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska, and if so, under what conditions, or whether to continue to prohibit development to protect the area's biological resources. Current law forbids energy leasing in the refuge. The House adopted an amendment to H.R. 6 by Representative H. Wilson to limit certain features of federal leasing development to no more than 2,000 acres. It rejected an amendment by Representative Markey to delete ANWR development from the bill. The Senate version contained no provisions to open the refuge to development. Several Senators threatened to filibuster any conference report that contained development provisions and, in the end, the conference bill dropped the House's development title. [This section prepared by M. Lynne Corn, Specialist in Natural Resources.]

Renewable Portfolio Standard: A key issue in the debate over H.R. 6 has been the inclusion or exclusion of a renewable portfolio standard (RPS). An RPS would impose a requirement on electric utilities to increase the use of renewable fuels in electric power generation. The Senate bill contained a 10% RPS provision. The conference report contained no similar provision, nor did the House version. [This section prepared by Robert Bamberger, Specialist in Energy Policy.]

² U.S. EPA, *Draft Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, August 2002, pp. 6-20 – 6-21.