

Issue Brief for Congress

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Clean Air Act Issues in the 108th Congress

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Clean Air Act Issues in the 108th Congress

SUMMARY

Clean air issues were discussed at length in the 107th Congress, but legislation was not enacted, leaving the same issues for possible consideration in the 108th. With new leadership in the Senate, the prospects for such legislation and its content are likely to change. Further, the Senate committee of jurisdiction (Environment and Public Works) will almost certainly focus first on consideration of highway and transit funding (the authorization for which, known as TEA21, expires at the end of FY 2003). Thus, although there is some interest in considering broad changes to the Clean Air Act, the more immediate prospect is for targeted proposals that might be attached to reauthorization of TEA21.

The most prominent air quality issue in recent months has been the controversy over EPA's proposed changes to the Clean Air Act's New Source Review (NSR) requirements, which impose emission controls on modifications of power plants and other major facilities. Despite congressional interest, NSR has not been the subject of legislation. The Administration has asked Congress to modify Clean Air Act requirements for power plants, however, by enacting "multi-pollutant" legislation. The Environment and Public Works Committee narrowly approved multi-pollutant legislation (S. 556) June 27, 2002; but the Administration and much of the electric power industry opposed the bill, and it did not reach the Senate floor.

A second holdover issue from previous Congresses concerns regulation of the gasoline additive MTBE. MTBE is used to meet Clean Air Act requirements that gasoline sold in the nation's worst ozone nonattainment areas contain at least 2% oxygen, to improve combustion. The additive has been implicated

in numerous incidents of ground water 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, leading many to suggest that Congress revisit the issue before then to modify the oxygenate requirement and set more uniform national requirements regarding MTBE and its potential replacements (principally ethanol).

A third clean air matter that might be considered in the 108th Congress is the conformity of metropolitan area transportation plans with the Clean Air Act. Under the act, federal agencies are prohibited from funding most highway or transit projects in areas that have not attained any of the six National Ambient Air Quality Standards if the projects would increase the frequency or severity of nonattainment or delay attainment of any standard. The impact of conformity requirements is expected to grow in the next several years. The growth of emissions from SUVs and other light trucks and greater than expected increases in vehicle miles traveled have both made it more difficult to demonstrate conformity; recent court decisions have tightened the conformity rules; and the scheduled implementation of more stringent air quality standards in 2004 will mean that additional areas are subject to conformity requirements. Of particular concern to these areas may be the fact that the Clean Air Act provides no authority for waivers or grace periods, and, during a conformity lapse, only a limited set of exempt projects can be funded. Modifying conformity would be controversial, however, since it provides an effective tool for ensuring that transportation and air quality planning are coordinated.



MOST RECENT DEVELOPMENTS

The 107th Congress did not pass major legislation amending the Clean Air Act. Of the bills that might have amended the Act, H.R. 4, the comprehensive energy bill, came closest to passage; however, it died in conference at the end of the Congress. The Senate version of the bill would have banned use of the gasoline additive MTBE, eliminated the requirement to use MTBE or other oxygenates in reformulated gasoline, authorized additional funding for cleanup of ground water contaminated by the substance, and required that motor vehicle fuel contain ethanol or other renewable fuels. The House bill contained only the ground water cleanup provisions, not the ban on MTBE nor the provisions requiring the use of ethanol.

Environmental Protection Agency (EPA) recommendations regarding the Clean Air Act's New Source Review (NSR) program were released November 22, 2002. Under the Administration's energy plan, announced in May 2001, EPA and the Justice Department had been directed to review the impact on utilities and refineries of NSR and of recent enforcement actions taken under its authority. The new NSR rules (some proposed and others promulgated by EPA November 22) will make it easier for companies to modify their facilities without installing new pollution controls. A separate Justice Department review was released in January 2002; it concluded that EPA's enforcement actions "are supported by a reasonable basis in law and fact." Many argue that the enforcement actions will be undercut by the changes in the NSR regulations now being implemented by EPA.

BACKGROUND AND ANALYSIS

Despite steady improvements in air quality in many of the United States' most polluted cities, the goal of clean air continues to elude the nation: 107 areas with a combined population of 97.8 million were classified as "nonattainment" for one or more of the National Ambient Air Quality Standards (NAAQS) as of December 2002. Two pollutants account for the vast majority of nonattainment areas: ozone – 36 areas with 85.5 million people – and particulate matter (PM) – 61 areas with 24.9 million people. Thirty-nine areas with 18.4 million people have failed to achieve standards for carbon monoxide, sulfur dioxide, or lead.

The standards for these pollutants are health-based: the statute requires that EPA set them at levels necessary to protect the public health with an adequate margin of safety, based on a review of the scientific literature. From time to time (every 5 years according to the statute, but less frequently in reality), the Agency reviews the latest scientific studies and either reaffirms or modifies the standards. The most recent changes (a strengthening of the ozone and PM standards) were promulgated in 1997. Due to legal challenges and other delays, the new standards have not yet been implemented. When they are implemented (now expected in 2004), they are likely to double the number of areas in nonattainment.

National Ambient Air Quality Standards drive many of the Clean Air Act's programs. The need to attain them sets in motion State Implementation Plans that establish detailed requirements for sources of air pollution, including: the imposition of Reasonably Available Control Technologies on stationary sources of pollution; the requirement that new sources of pollution in nonattainment areas "offset" their emissions by reductions in pollution from

other sources; the operation of inspection and maintenance programs for auto emission controls; the requirement to use cleaner burning reformulated gasoline as a means of reducing emissions; and the necessity of demonstrating that new highway and transit projects “conform” to the State Implementation Plan for the area in which they will be constructed.

Other provisions of the Act are separate from the State Implementation Plans, and are for the most part national in scope. These include emission standards for cars, trucks, and other mobile sources of pollution; standards for new major sources of pollution; emission standards for sources of hazardous air pollutants; standards for prevention of significant deterioration in areas where air quality is better than the NAAQS; the acid rain and regional haze programs; and stratospheric ozone provisions.

Issues in the 108th Congress

Several of the clean air issues facing the 108th Congress are holdovers that were discussed at length, but not resolved, in the 107th. Changes to the Act’s reformulated gasoline program, for example, including a ban on use of the gasoline additive MTBE, reached a conference committee as part of the comprehensive energy bill (H.R. 4); and legislation was reported on the regulation of emissions from electric power plants (S. 556). Ultimately, neither bill was enacted, leaving these issues for possible consideration in the 108th. (For information on bills introduced and considered in the 107th Congress, see IB10065, *Clean Air Act Issues in the 107th Congress*.)

When, and in what form, these issues might be resurrected is less certain. In the Senate, the committee of jurisdiction for air issues (Environment and Public Works) is expected to focus first on consideration of highway and transit funding (the authorization for which, known as TEA21, expires at the end of FY2003). As a result, although some in the new leadership have expressed an interest in considering broad changes to the Clean Air Act, the more immediate prospect could be for targeted proposals that might be attached to reauthorization of TEA21. In addition, with new leadership in the Senate, the specifics of bills dealing with any of the holdover issues may change.

In the remainder of this Issue Brief, we look in more detail at four prominent air issues that might be of interest in the new Congress: New Source Review, multi-pollutant legislation, MTBE, and transportation conformity.

New Source Review (NSR). The most prominent air quality issue in recent months has been whether to modify the Clean Air Act’s New Source Review requirements. EPA proposed and promulgated several changes to these rules in November 2002, the net effect of which will be to allow modification of some existing major sources of air pollution without subjecting them to new emission standards.

The controversy over the NSR process stems from EPA’s application of New Source Performance Standards to existing stationary sources of air pollution that have been modified. In Section 111, the Clean Air Act states that new sources (subject to NSR) include modifications of existing sources as well as plants that are totally new. Industry has generally avoided the NSR process, however, by claiming that changes to existing sources were “routine maintenance” rather than modifications. In the 1990s, EPA began reviewing records of electric utilities, petroleum refineries, and other industries to determine whether

the changes were routine. As a result of these reviews, since late 1999, EPA and the Department of Justice have filed suit against 14 electric utilities, claiming that they made major modifications to 53 units in 14 states, extending their lives and increasing their electric generating capacity without undergoing required New Source Reviews and without installing best available pollution controls. With one exception, these suits were filed by the Clinton Administration.

Two of the 14 utilities charged with NSR violations (Tampa Electric and PSEG of New Jersey) have settled with EPA, agreeing to spend more than \$1.3 billion over the next decade on pollution controls or fuel switching in order to reduce emissions at their affected units. Two other utilities (Virginia Power and Cinergy) reached agreement in principle more than 2 years ago to spend more than \$1 billion each to resolve NSR violations, but final settlement negotiations have not been concluded. A fifth utility, the Tennessee Valley Authority, has announced plans to spend \$1.5 billion to reduce emissions at four of its plants, although not as part of a settlement agreement. Between July 25, 2000 and December 20, 2001, the Agency also reached agreement with nine petroleum refiners representing more than 30% of industry capacity. The refiners agreed to settle potential charges of NSR violations by paying fines and installing equipment to eliminate 153,000 tons of pollution.

Most of the utilities have not settled with EPA. They and other critics of the Agency's enforcement actions claim that EPA reinvented the rules. A strict interpretation of what constitutes routine maintenance, they contend, will prevent them from making changes that were previously allowed, without a commitment of time and money for permit reviews and the installation of expensive pollution control equipment. This provides disincentives for power producers, refineries, and others to expand output at existing facilities, they maintain.

NSR rules have been under review by the Administration since the May 2001 release of the President's energy plan. In the plan, EPA was charged with undertaking a review of NSR, with the EPA Administrator to report to the President regarding the impact of NSR regulations on investment in new utility and refinery generation capacity, energy efficiency, and environmental protection. The review was concluded in June 2002, and regulatory changes were promulgated and proposed November 22, 2002.

EPA promulgated four sets of changes to NSR. First, it will allow facilities to use Plantwide Applicability Limits, rather than emissions from the individual units being replaced, to determine whether emissions will increase from a plant modification (this is expected to make it easier to modify facilities without triggering NSR). Second, certain environmentally beneficial pollution control and prevention projects will be allowed to proceed without NSR permits, upon submission of a notice to the permitting authority. Third, plants that install state-of-the-art pollution controls (referred to as "clean units") will be allowed to modify their facilities during the ensuing 10 years without undergoing further review, provided they meet emission limits specified in their permit. And fourth, the methodology used to calculate whether emissions will increase (triggering NSR) will be changed—for example, facilities other than power plants will be able to compare projected emissions after a modification to the highest emission levels reached during any 24-month period during the previous 10 years.

In addition to the four promulgated changes, the Agency also proposed new regulations defining what constitutes routine maintenance, which is exempt from review. The proposal would exempt from NSR modifications that cost less than threshold amounts.

The proposed and promulgated changes have been characterized by the Administration as streamlining or improvement of the program, and by environmental groups and a number of states as a significant weakening. They are almost certain to trigger litigation, with enforcement of NSR blocked for the immediate future. In the meantime, the prospect of an NSR rollback, critics argue, has already caused utilities to withdraw from settlement negotiations over the pending lawsuits, delaying emission reductions that could have been achieved in the near future. (For additional discussion of NSR issues, see CRS Report RL30432, *Air Quality and Electricity: Enforcing New Source Review*.)

Despite congressional interest, including hearings in the 107th Congress, NSR has not been the subject of legislation.

Multi-Pollutant Legislation. In addition to the regulatory changes in NSR, the Administration has also asked Congress to modify Clean Air Act requirements for power plants by enacting “multi-pollutant” legislation. A number of multi-pollutant bills were introduced in the 107th Congress. Depending on the bill’s author, such legislation comes in 3- or 4-pollutant versions. The 3-pollutant bills would set standards for sulfur dioxide, nitrogen oxides, and mercury. The 4-pollutant bills add carbon dioxide to the mix.

Such legislation, it is argued—whether in 3- or 4-pollutant form—would both reduce emissions and encourage investment in new plants by providing certainty regarding future regulatory requirements. In some proposed bills, it would replace numerous existing regulatory programs, including NSR, New Source Performance Standards, Prevention of Significant Deterioration, Lowest Achievable Emission Rate standards, Best Available Retrofit Technology, and regulations under development to control mercury emissions from electric utilities.

The number of these current and prospective regulations on power plant emissions has suggested to many in industry, environmental groups, Congress, and the Administration that the time is ripe for such comprehensive legislation. The key questions are how stringent the controls will be, and whether carbon dioxide (CO₂) will be among the emissions subject to controls.

Regarding the stringency issue, several bills introduced early in the last Congress would have required reduction of NO_x emissions to 1.5 or 1.6 million tons per year (a nearly 80% reduction from 1998 levels) and reduction of sulfur dioxide emissions to 2.23 - 4.45 million tons per year (a reduction of roughly 65% - 80% versus 1998). Regarding mercury, the bills would have either required EPA to determine the level of reductions, or required about a 90% reduction from current levels of emissions (from 48 to 4.5 or 5 tons annually). In general, these reductions would have taken place by 2005 or 2008, depending on the bill. Three of the bills would also have set caps on CO₂ emissions, at the level emitted in 1990. (For additional information and a detailed comparison of the legislative proposals, see CRS Report RL31326, *Air Quality: Multi-Pollutant Legislation*.)

The Administration's "Clear Skies" bill, which was not introduced until late in the second session of the 107th Congress, envisions less stringent standards than those in the other bills, phased in over a longer period of time. For NO_x, the Administration would reduce emissions to 1.7 million tons per year by 2018, with an intermediate limit of 2.1 million tons in 2008. For sulfur dioxide, the limit would be 3.0 million tons annually in 2018, with an intermediate limit of 4.5 million tons in 2008. For mercury, the limit would be 26 tons per year in 2010, declining to 15 tons in 2018. "Clear Skies" and most of the other bills envision a system like that used in the acid rain program, where national or regional caps on emissions are implemented through a system of tradeable allowances.

The Administration opposes controls on CO₂, viewing them as a step towards implementing the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which it opposes. The absence of CO₂ from the mix leads to different strategies for achieving compliance, preserving more of a market for coal, and lessening the degree to which power producers might switch to natural gas or renewable fuels as a compliance strategy.

Four hearings on multi-pollutant legislation were held by the Senate Environment and Public Works Committee in the 107th Congress, and the Committee narrowly approved Senator Jeffords' 4-pollutant bill, with amendments, June 27, 2002 (S. 556, S.Rept. 107-347). Opposed by the Administration and by the electric utility and coal industries, the bill died without reaching the Senate floor.

In addition to the Jeffords bill and the other bills discussed above, Senator Carper introduced legislation late in the second session that was described as an effort to reach middle ground. The Carper bill would have regulated CO₂ as well as the other three pollutants, but its deadlines and the required reductions in emissions fell somewhere between the Jeffords bill and the Administration's Clear Skies proposal. (The Carper bill is also discussed in CRS Report RL31326. For additional information on regulation of electric utility emissions, see CRS Report RS20553, *Air Quality and Electricity: Initiatives to Increase Pollution Controls*.)

MTBE. Another holdover issue from previous Congresses concerns regulation of the gasoline additive MTBE (methyl tertiary butyl ether). MTBE is used to meet Clean Air Act requirements that reformulated gasoline (RFG), sold in the nation's worst ozone nonattainment areas, contain at least 2% oxygen, to improve combustion. Under the RFG program, areas with "severe" or "extreme" ozone pollution (82 counties with a combined population of 55 million) must use reformulated gas; areas with less severe ozone pollution may opt into the program as well, and many have. In all, portions of 17 states and the District of Columbia use RFG, and about 30% of the gasoline sold in the United States is RFG.

The law requires that RFG contain at least 2% oxygen by weight. Refiners can meet this requirement by adding a number of ethers or alcohols, any of which contains oxygen and other elements. By far the most commonly used oxygenate is MTBE. In 1999, 87% of RFG contained MTBE, a number since reduced to about 70%. MTBE has also been used since the late 1970s in non-reformulated gasoline, as an octane enhancer, at lower concentrations. As a result, gasoline with MTBE has been used virtually everywhere in the United States, whether or not an area has been subject to RFG requirements.

MTBE leaks, generally from underground gasoline storage tanks, have been implicated in numerous incidents of ground water contamination. The substance creates taste and odor problems in water at very low concentrations, and some animal studies indicate it may pose a potential cancer risk to humans. For these reasons, 17 states have taken steps to ban or regulate its use. The most significant of the bans (in California and New York) take effect at the end of 2003, leading many to suggest that Congress revisit the issue before then to modify the oxygenate requirement and set more uniform national requirements regarding MTBE and its potential replacements (principally ethanol).

Support for eliminating the oxygen requirement on a nationwide basis is widespread among environmental groups, the petroleum industry, and states. In general, these groups have concluded that gasoline can meet the same low emission performance standards as RFG without the use of oxygenates. But a potential obstacle to enacting legislation to remove the oxygen requirement lies among agricultural interests. About 6% of the nation's corn crop is used to produce the competing oxygenate, ethanol. If MTBE use is reduced or phased out, but the oxygen requirement remains in effect, ethanol use would soar, increasing demand for corn. (In fact, ethanol use is already growing as MTBE begins to be phased out.) Conversely, if the oxygen requirement is waived by EPA or legislation, not only would MTBE use decline, but so, likely, would demand for ethanol. Thus, Members of Congress and Governors from corn-growing states have taken a keen interest in MTBE legislation. Unless their interests are addressed, they could pose a potent obstacle to its passage.

In the 107th Congress, Senate-passed legislation (the Senate version of the comprehensive energy bill, H.R. 4) would have banned the use of MTBE in gasoline within 4 years, eliminated the 2% oxygen requirement, preserved and in some cases enhanced the emission reductions achieved by reformulated gasoline, provided additional authority to EPA to regulate fuel additives, and required a tripling of the use of ethanol or other renewable fuels in motor vehicles by 2012. The bill also authorized funding to clean up MTBE leaks from tanks, to oversee and enforce tank leak prevention and detection regulations, and for grants to assist conversion of merchant MTBE production facilities to production of cleaner fuel additives. The conferees on H.R. 4 did not reach agreement before the 107th Congress adjourned.

As the deadlines for state phaseout of MTBE move closer, investment decisions involving hundreds of millions of dollars hang on the regulatory framework of the post-MTBE gasoline market. Thus, pressure for congressional action on this issue is likely to remain high. Whether this pressure will produce enacted legislation is less clear. (For additional discussion of the MTBE issue, see CRS Report 98-290, *MTBE in Gasoline: Clean Air and Drinking Water Issues*. For information on ethanol, see CRS Report RL30369, *Fuel Ethanol: Background and Public Policy Issues*.)

Conformity of Transportation Plans and SIPs. A fourth clean air issue that might be considered in the 108th Congress is the conformity of metropolitan area transportation plans with the Clean Air Act. Under the Act, areas that have not attained any of the six National Ambient Air Quality Standards must develop State Implementation Plans (SIPs) demonstrating how they will reach attainment. As of December 2002, 107 areas with a combined population of 97.8 million people were subject to the SIP requirements. Section 176 of the Clean Air Act prohibits federal agencies from funding projects in these areas unless they “conform” to the SIPs. Specifically, projects must not “cause or contribute to any

new violation of any standard,” “increase the frequency or severity of any existing violation,” or “delay timely attainment of any standard.” Because new highways generally lead to an increase in vehicle miles traveled and related emissions, both the statute and regulations require that an area’s Transportation Improvement Program (TIP), which identifies major highway and transit projects an area will undertake, obtain a new demonstration of conformity no less frequently than every 3 years. Highway and transit projects cannot receive federal funds unless they are part of a conforming TIP.

The impact of conformity requirements is expected to grow in the next several years for several reasons. The growth of emissions from SUVs and other light trucks and greater than expected increases in vehicle miles traveled have both made it more difficult to demonstrate conformity; recent court decisions have tightened the conformity rules; and the scheduled implementation of more stringent air quality standards in 2004 will mean that additional areas are subject to conformity. Thus, numerous metropolitan areas will face a cutoff of highway and transit funds unless they impose sharp reductions in vehicle and industrial emissions.

Of particular concern to these areas may be the fact that the Clean Air Act provides no authority for waivers or grace periods once conformity lapses. During such a lapse, only a limited set of exempt projects (mostly safety-related or replacement and repair of existing transit facilities) can be funded: the rules do not even allow funding of new projects that might reduce emissions, such as new transit lines. These limitations are among the issues that may be raised by those seeking to amend the conformity provisions. Modifying conformity would be controversial, however, since it provides one of the most effective tools for ensuring that transportation and air quality planning are coordinated.

LEGISLATION

For legislation introduced in the 107th Congress, see CRS Issue Brief IB10065, *Clean Air Act Issues in the 107th Congress*.

CONGRESSIONAL HEARINGS, REPORTS, AND DOCUMENTS

For congressional hearings, reports, and documents during the 107th Congress, see CRS Issue Brief IB10065, *Clean Air Act Issues in the 107th Congress*.

FOR ADDITIONAL READING

CRS Report RL30432. *Air Quality and Electricity: Enforcing New Source Review*, by Larry B. Parker and John E. Blodgett.

CRS Report RS20553. *Air Quality and Electricity: Initiatives to Increase Pollution Controls*, by Larry B. Parker and John E. Blodgett.

CRS Report 98-236. *Air Quality: EPA's Ozone Transport Rule, OTAG, and Section 126 Petitions — A Hazy Situation?*, by Larry Parker and John Blodgett.

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CRS Report RL31531. *Particulate Matter Air Quality Standards: Background and Current Developments*, by Anne L. Hardenbergh.

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