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Clean Air Act Issues in the 106th Congress

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SUMMARY

EPA decisions regarding implementation of programs mandated by the Clean Air Act and court challenges to those decisions will provide numerous opportunities for oversight in the 106th Congress. Also, a Senate subcommittee has begun hearings concerning reauthorization of the Act. These hearings are expected to continue next year.

Congress last enacted major amendments to the Clean Air Act in 1990, and the Environmental Protection Agency (EPA) is in the midst of implementing numerous provisions of those amendments. Current efforts include development of tighter emission standards for vehicles and fuels, promulgation of programs to control regional haze and ozone transport, implementation of controls on sources of 188 air toxics, preparation for Phase 2 of the acid precipitation program, and approval of state implementation plans for the ozone standards.

In addition, the Agency promulgated major revisions to the ambient air quality standards for ozone and particulates in 1997, an action that would have required most states and urban areas to establish additional controls on a wide range of pollution sources. The revised standards were challenged by numerous parties and are currently in limbo, pending resolution of appeals.

The Clean Air Act and its 1990 amendments appear to have contributed to a marked improvement in air quality nationwide. Los Angeles, for example, while still far from attaining air quality standards, had cleaner air in 1999 than at any time since measurements began in the 1940s. Nationwide, more than half of the areas not meeting air quality standards for ozone in 1990 now do so. Even greater progress has been achieved with carbon monoxide: 36 of 42 areas not in attainment in 1990 now meet the standard.

While substantial progress has been made, numerous issues remain on the horizon. Included are controversies over the use of MTBE, an additive that makes gasoline burn more cleanly, but has been implicated in incidents of ground water contamination; the degree to which sulfur should be regulated in gasoline; a variety of decisions regarding long-distance ozone transport, including the desirability of additional regulation for sources of nitrogen oxides (chiefly electric utilities); the timetable for additional, so-called Tier 2 controls on auto and light truck emissions; and whether plans for new highways must conform to emission budgets under the Clean Air Act.

The current Congress has already taken action on one Clean Air Act issue. On August 5, 1999, the President signed S. 880 (P.L. 106-40), a bill that modified the Act's risk management planning requirement for facilities that handle extremely hazardous substances.

Note: This Issue Brief does not discuss the "greenhouse effect" or issues related to global climate change. For a discussion of those issues, see CRS Issue Brief IB89005, *Global Climate Change*, updated regularly.

MOST RECENT DEVELOPMENTS

On September 29, the Senate Environment and Public Works Committee ordered reported an amended version of S. 1053. The bill would ease Clean Air Act restrictions on the funding of highway projects that do not conform with plans for achieving air quality standards. On September 30, the House Commerce Subcommittee on Health and Environment approved an amended version of H.R. 11, a bill to exempt California reformulated gasoline from federal requirements that it contain at least 2% oxygen. The oxygenate requirement has led most refiners to use an additive called MTBE, which has contaminated ground and surface waters in California and other states.

On October 29, the U.S. Court of Appeals for the District of Columbia Circuit denied EPA's request for a rehearing on its decision in American Trucking Associations v. EPA. *The denial leaves standing a May 1999 decision that remanded the Agency's new air quality standards for ozone and particulates. An appeal to the Supreme Court is considered likely.*

Several important regulatory decisions have also been made recently. On December 21, the President announced new so-called "Tier 2" standards for auto and light truck emissions and for sulfur in gasoline. On December 17, EPA took action under Section 126 of the Clean Air Act, approving petitions from four Northeast states to control the transport of nitrogen oxides from 392 stationary sources in 12 states and the District of Columbia. This action achieves some of the results that would have come from the Agency's Ozone Transport Rule, which has been stayed pending resolution of a court challenge.

BACKGROUND AND ANALYSIS

The Clean Air Act requires the Environmental Protection Agency (EPA) to establish minimum national standards for air quality, and assigns primary responsibility to the states to assure compliance. Areas not meeting the standards, referred to as nonattainment areas, are required to implement specified air pollution control measures. The Act establishes federal standards for autos and other mobile sources of air pollution, for sources of 188 hazardous air pollutants, and for the emissions that cause acid rain. It establishes a comprehensive state-run permit system for all major sources of air pollution. It also addresses the prevention of pollution in areas with clean air, as well as protection of the stratospheric ozone layer.

The last comprehensive amendments to the Act, enacted November 15, 1990 (P.L. 101-549), included the program to control acid rain, new standards for emissions of hazardous air pollutants, new requirements for motor vehicles and fuels, and stringent new requirements for nonattainment areas.

Many of these provisions (notably the acid rain and air toxics provisions, and some of the requirements for autos and fuels) were strenuously debated, but most have not been subject to controversy since enactment. The new provisions on acid rain, air toxics, cleaner-burning gasoline, and automobiles have generally been implemented on schedule, in many cases at less cost than anticipated. There have also been noticeable improvements in air quality in recent years: of 98 metropolitan areas not attaining the 1-hour ozone standard in 1990, more than half now do so. Even greater progress has been achieved with carbon

monoxide: 36 of the 42 areas not in attainment in 1990 now meet the standard. Nevertheless, major controversies remain concerning implementation of the Act.

Issues in the 106th Congress

Implementation of the National Ambient Air Quality Standards

On May 14, 1999, the U.S. Court of Appeals for the D.C. Circuit, in a case filed by the American Trucking Associations and 37 other plaintiffs, overturned National Ambient Air Quality Standards for ozone and particulates promulgated by the Environmental Protection Agency in 1997. EPA's request for a rehearing was denied October 29.

Under the Clean Air Act, EPA sets national standards for ambient (outdoor) air quality, and is directed to review the standards every 5 years. On July 18, 1997, the Agency completed its review of 2 of the 6 standards, promulgating a new standard for fine particulates (referred to as $PM_{2.5}$) and revised standards for ozone and coarse particles (PM_{10}). (For background on the standards, see CRS Report 97-8, *Air Quality: Background Analysis of EPA's 1997 Ozone and Particulate Matter Standards*.)

The net impact of the promulgated standards would be increased stringency. Analyses by interested parties have indicated that many areas now considered to be in compliance with the National Ambient Air Quality Standards (NAAQS) for ozone and particulates would not meet the new standards. EPA has been reluctant to project the number of counties likely to be in nonattainment, since the actual determinations for ozone would be made using monitoring data for 1997-1999 or later periods; in the case of $PM_{2.5}$, a monitoring network will not be complete until 2000, so lists of nonattainment counties are even more tentative. Nevertheless, for $PM_{2.5}$, the Agency estimates that about 150 U.S. counties would not have met the standard in 1997, versus 41 under the current requirement. For ozone, the number of counties out of attainment under the new standard has been estimated to nearly triple, from 106 to about 300.

Such an increase in the number of nonattainment areas would have broad implications for the states, affected industries, economic sectors such as agriculture and transportation, and individuals. As a result, Congress has remained interested in the standards and decisions regarding their implementation. Industry and business interests, led by the National Association of Manufacturers and the American Petroleum Institute, had urged that the ozone and PM standards not be tightened, claiming excessive costs, lack of significant demonstrable benefits, loss of competitiveness, and technical infeasibility. Since promulgation of the standards, at least 38 groups have sued EPA to overturn them. At the same time, health and environmental stakeholders either have supported the new standards or have proposed tightening them further, while state reactions have been divided.

As noted, on May 14, the U.S. Court of Appeals for the D.C. Circuit remanded both the ozone and particulate standards (*American Trucking Associations* v. *Environmental Protection Agency*). In a split decision (2-1), the court ruled that EPA had unconstitutionally usurped legislative powers. In Sections 108 and 109 of the Clean Air Act, Congress directed EPA to establish ambient air quality standards necessary to protect public health with an adequate margin of safety. But the court found that EPA exercised legislative discretion in

actually setting the ozone and PM standards, since it was not clear from the statute or from EPA's interpretation of it where the standard should be set. "Although the factors EPA uses in determining the degree of public health concern associated with different levels of ozone and PM are reasonable, EPA appears to have articulated no 'intelligible principle' to channel its application of these factors; nor is one apparent from the statute," according to the opinion.

The court also considered several other issues — rejecting five arguments the plaintiffs made regarding both standards, but finding in favor of the plaintiffs on various issues specific to one or the other standard. Regarding ozone, the court ruled that the 1990 Clean Air Act Amendments preclude EPA from enforcing a revised ozone standard as a result of language in Section 181(a) that requires all nonattainment areas to be classified on the basis of the old 1-hour ozone standard. The court also held that the Agency erred in not considering possible benefits of ground-level ozone in its analysis of the health effects of the pollutant. Regarding particulates, the court concluded that EPA's choice of PM_{10} as the indicator for coarse particles was arbitrary and capricious. The court concluded that there was "ample support" for the Agency's decision to regulate coarse particles, but argued that the Agency needed to choose an indicator such as $PM_{10-2.5}$ (particles smaller than 10 microns but larger than 2.5) rather than PM_{10} (all particles smaller than 10 microns, including fine particles) in its regulations aimed to control the coarse fraction.

The 105th Congress conducted a number of oversight hearings on standards-related issues, and enacted legislation (P.L. 105-178, Title VI) to address some of the concerns raised. The legislation codified EPA's announced implementation schedule, giving the Agency until July 2000 to designate ozone nonattainment areas and December 2005 to designate $PM_{2.5}$ areas (the schedule was longer than that mandated under the Clean Air Act, and some had feared that EPA would be forced by court challenges to implement a speedier schedule). Beyond concerns over implementation, many in Congress remain concerned that the ozone standard is too strict and will not achieve improvements in public health commensurate with its cost. Many have also questioned the fine particle standard — particularly whether the Agency had sufficient information to determine the appropriate level of the standard, and whether the observed health effects noted in the underlying research were caused by fine particles of all kinds or by some specific subset. The court's decision did not support many of the specific concerns raised, but its effect is likely to be a delay in implementation of the standards. How long will depend on the results of further appeals.

After reviewing the court's decision, EPA Administrator Browner categorized it as "extreme, illogical, and bizarre." Since numerous environmental statutes give discretion to the Administrator similar to that termed unconstitutional in this decision, the decision — if left unchallenged — could reshape dramatically EPA's authority to promulgate regulations. Acting on EPA's behalf, the Justice Department requested a rehearing by the full (en banc) Court of Appeals, but the court rejected the request October 29. An appeal to the Supreme Court is now considered likely. (For a further discussion of the court's ruling, see CRS Report RS20228, *The D.C. Circuit Remands the Ozone and Particulate Matter Clean-Air Standards: American Trucking Associations v. EPA*, June 10, 1999.)

Although legislation on the standards may be introduced, Congress is likely to function as an interested observer until the appeals process runs its course. Nevertheless, the case

raises important issues regarding congressional delegation of authority that Members may wish to address at some point in the future.

Mobile Sources and Fuels

Two issues related to automobiles and their fuels have attracted congressional interest in the 106th Congress: the continued use of methyl tertiary-butyl ether (MTBE) as an additive in cleaner burning gasoline, and the sulfur content of fuels.

MTBE and Reformulated Gasoline. The Clean Air Act Amendments of 1990 required numerous areas with poor air quality to add chemicals called "oxygenates" to gasoline as a means of improving combustion and, thus, reducing emissions. The most commonly used of these oxygenates is MTBE. A little more than 30% of the gasoline sold in the United States contains oxygenates, and of this, 76% contained MTBE in 1997.

State and local environmental agencies and EPA attribute marked improvements in air quality to the use of oxygenated and reformulated gasoline (RFG). The improvements in measured air quality have not come without controversy, however. In Alaska and Wisconsin, residents complained of a wide array of effects, including headaches, dizziness, nausea, sore eyes, and respiratory irritation, from exposure to gasoline/MTBE exhaust, before refiners switched to alternative gasoline formulations using ethanol. MTBE from a number of sources, including leaking underground storage tanks, has also been linked to contamination of drinking water supplies.

For a variety of reasons, concerns over MTBE have recently focused on California. California has the most extensive reformulated gasoline requirements in the country, with state requirements separate and in addition to the federal. In addition, it has experienced the most significant contamination of drinking water by MTBE. The incidents of drinking water contamination led the state legislature in October 1997 to enact legislation to require state standards for MTBE in drinking water and to require the University of California (UC) to conduct a study of the health and environmental effects of MTBE. The UC report, issued in November 1998, recommended a gradual phase-out of MTBE use in the state. Based on the report and on subsequent public hearings, on March 25, 1999, Governor Davis of California signed an Executive Order to require a phase-out of MTBE use in the state by December 31, 2002, and requested a waiver of federal requirements to use oxygenates in reformulated gasoline. EPA has entered discussions with the state, but at a May 6 House Commerce subcommittee hearing, the Agency expressed uncertainty whether it has authority under the circumstances to grant the requested waiver. Without a waiver, ozone nonattainment areas in the state will be required to substitute another oxygenate (most likely, ethanol) when the MTBE ban takes effect.

The MTBE issue received additional attention in late July when an advisory panel reported to EPA Administrator Carol Browner. The Blue-Ribbon Panel on Oxygenate Use in Gasoline, composed of industry representatives, state and local officials, environmentalists, academics, and others, recommended that Congress remove the RFG program's oxygenate requirement and clarify state authority to regulate gasoline components. Subsequently, on August 4, the Senate adopted by voice vote Senator Boxer's amendment to the FY2000 Agriculture appropriations bill (S. 1233) expressing the sense of the Senate that use of MTBE should be phased out.

The principal issue for Congress is whether Clean Air Act provisions concerning reformulated gasoline should be modified to allow refiners to discontinue or lessen their use of oxygenates. Legislation to permit California refiners to do so (H.R. 11 / S. 266) has the nearly unanimous support of that state's congressional delegation. The legislation would provide additional flexibility to refiners and marketers of RFG in California only — not in other states. The House Commerce Subcommittee on Health and Environment approved H.R. 11, with an amendment, September 30. Amendments to phase out the use of MTBE, to apply the bill's provisions to areas outside California, and to address international trade issues related to MTBE phase-out were offered and withdrawn during markup, and may need to be addressed before the bill is considered by the full committee. Separate legislation allowing additional flexibility in all states (S. 645, S. 1886, and H.R. 3449) has also been introduced, as have four bills (H.R. 1367, H.R. 1398, H.R. 1705, and S. 1037) that would phase-out or ban the use of MTBE in gasoline. (For additional discussion of the MTBE issue, see CRS Report 98-290, *MTBE in Gasoline: Clean Air and Drinking Water Issues*.)

Sulfur in Gasoline and Tier 2 Emission Standards. Section 202(i) of the Clean Air Act required EPA, after implementing tighter emission standards for autos and light trucks in 1994-1996 (so-called Tier 1 standards), to study the need for further (Tier 2) reductions, the availability of technology to achieve such reductions, and the cost-effectiveness of such technology. The Agency was required to submit a report to Congress by June 1, 1997, containing the results of the study, and, if stricter standards were needed, to make that determination by December 31, 1999. On August 4, 1998, the Agency submitted its report to Congress. In it, the Agency concluded that further reductions in emissions are needed, that technology exists to make those reductions, and that the technologies can be applied cost-effectively.

On December 21, 1999, President Clinton announced the promulgation of new standards under this authority. These standards, the Tier 2 standards, will regulate autos and light trucks and set new requirements limiting sulfur in gasoline. (The final standards will appear in the Federal Register at a future date, but are similar to the standards proposed in the Federal Register May 13. For a discussion of the proposed standards, see CRS Report RL30298, *Air Quality and Motor Vehicles: An Analysis of Current and Proposed Emission Standards.*) The new standards are expected to reduce emissions 77-95% below Tier 1 standards. They will be phased in over a period of 6 years, beginning in 2004; at the end of the period, in 2009, sport utility vehicles, vans, and trucks weighing up to 8,500 pounds will have to meet the same emission standards as cars for the first time.

The new standards will regulate not only vehicle emissions, but also the sulfur content of gasoline. Recent studies by a number of sources indicate that the performance of catalysts in vehicle emission control systems is negatively affected by the presence of sulfur. Sulfur, a contaminant naturally present in crude oil, competes with other pollutants for "space" on the active surface of the catalyst, limiting the catalysts's ability to convert pollutants such as nitrogen oxides and hydrocarbons to less harmful gases. Sulfur also interferes with the operation of oxygen sensors, which are key elements of the on board diagnostic systems used to determine whether vehicle emission control systems are functioning properly.

The sulfur content of gasoline in the United States averages about 340 parts per million (ppm). Reducing sulfur content to 30 ppm, as required in California, would cut nitrogen

oxide emissions in half in new vehicles, and reduce hydrocarbon emissions by significant amounts as well, without any change in emission control technology.

Whether sulfur causes permanent damage to catalysts or its effects are reversible once the catalyst is exposed to lower sulfur exhaust is a key question on which differing views have been expressed. The answer depends on a number of factors including the catalyst design and location, the richness of the fuel mixture, engine calibration and load, and the amount of sulfur in the fuel. If the damage is permanent, national year-round reductions in sulfur would appear more desirable. If not, regional and seasonal controls might achieve the desired effects.

In anticipation of the Tier 2 proposal, a number of parties, including auto manufacturers and most states, urged EPA to set strict national standards for fuel sulfur content. Petroleum refiners, supported by 9 Western and Midwestern states, argued for less stringent and more localized controls. In general, the rule leans toward the position staked out by the former group, setting a nationwide standard of 30 ppm in 2004, but with additional time provided for small refiners to achieve compliance. It is similar to requirements that would be set by legislation introduced by Senator Moynihan (S. 171) and Representative Kildee (H.R. 888).

With the auto industry, environmentalists, and most states largely pleased with the rule, objections have come mostly from the petroleum industry and from states where oil is produced and refined. A Senate Environment subcommittee held three days of hearings on the proposal May 18, May 20, and July 29, and a House Science subcommittee held a hearing July 21. As of the end of the first session, however, no legislation had been introduced to scale back the proposal. (For additional information, see CRS Report RS20163, *Sulfur in Gasoline*, updated July 12, 1999.)

Regional Haze

On April 22, 1999, Vice President Gore announced a final rule implementing a much-delayed program to reduce regional haze. (The rule appeared in the Federal Register July 1.) Under the rule, which was required by Section 169A of the Clean Air Act, states must develop plans to improve visibility in what are called Class I areas (national parks and wilderness). Progress must be demonstrated at 10-15 year intervals, but states will have until 2064 to return visibility to pristine levels.

Regional haze is caused by the presence of small particles in the air. These particles absorb and scatter sunlight, reducing contrasts, washing out colors, and making distant objects indistinct or invisible. Because of this pollution, the current visual range in the eastern United States is only about 20 miles, about one-fifth of the range one could expect in the absence of air pollution. In the West, visibility is better, ranging up to 90 miles, but even there it is only half to two-thirds of its natural range.

Emissions from utilities, smelters, mobile sources, manufacturing, construction activities, and prescribed burning of agricultural lands and forests all contribute to the formation of regional haze and all could be subject to regulation under the program. Addressing the problem will require planning on a regional basis and will involve measures in all 50 states.

When proposed in July 1997, the regional haze rule ignited substantial controversy. Issues included the potential impacts on economic sectors (particularly agriculture and electric

utilities), the choice of methodology for measuring improvements in visibility, what constitutes the "reasonable further progress" required by the Act, and whether EPA paid sufficient attention to the recommendations of the Grand Canyon Visibility Transport Commission, an advisory body consisting of the governors of 8 Western states and 5 Indian tribes which undertook a 5-year study of visibility issues on the Colorado plateau. A public comment period on the proposed rule expired in December 1997, but after criticism from a number of governors and congressional sources, EPA reopened the period for an additional 30 days in September 1998. In the reopened period, the Agency sought comments on language proposed by Western governors to facilitate the recommendations of the Grand Canyon Commission.

The final rule is substantially changed from the one originally proposed, and appears to have resolved much of the controversy. It will require the states to submit revised State Implementation Plans detailing the steps they will take to improve visibility. In the proposal, the goal was for each state to improve visibility by one "deciview" (a measure of visibility) every 10 to 15 years. Environmental groups and others complained that this measure of progress would leave many areas in the eastern half of country with impaired visibility for as long as two centuries, while subjecting areas in the West to more stringent controls. In the final version, the goal has been changed to give all states until 2064 to return visibility in Class I areas to background levels. In response to criticism that the proposal ignored recommendations of the Grand Canyon Commission, the final rule incorporates the Western governors' proposed language and deems it sufficient to meet the rule's requirements.

Congress may still be interested in the potential impacts of the program on Western states, particularly the extent to which controls will be required on agriculture, electric utilities, and industrial sources of pollution. The role to be played by federal land managers through prescribed burns in national forests and on other public lands may also be of concern. Several hearings on these issues were held in the 105th Congress, and more are possible in the 106th.

Risk Management Plans

One Clean Air Act issue that has been the subject of enacted legislation in the 106th Congress is the requirement in Section 112(r) of the Act that operators of stationary sources which produce, process, handle, or store certain extremely hazardous substances prepare risk management plans. The plans are required for facilities that possess more than threshold levels of any of 77 acutely toxic substances or 63 flammable gases; more than 64,000 facilities were believed to be covered by the requirement when it was promulgated. The plans had to be submitted to EPA by June 21, 1999, and the Act requires that they be made available to the public.

An issue raised by these regulations that generated substantial numbers of complaints was the inclusion of small businesses that use or store propane among the regulated entities. Propane users and dealers argued that they were already governed by standards of the National Fire Protection Association (NFPA) and that further regulation was unnecessary. Furthermore, they believe that propane should not be regulated because it is not toxic. EPA argued, however, that numerous incidents, including the second most deadly chemical accident in history, have involved propane explosions. Flammable and combustible liquids, other than gasoline, were involved in more than 128,000 reported accidental releases from

1987 through 1996, according to federal databases. Further, according to EPA, NFPA's standards do not cover the full range of requirements under Section 112(r).

EPA has worked with NFPA to coordinate EPA and NFPA standards, and planned to raise the threshold quantity that would lead to regulation of propane users. In the meantime, the D.C. Circuit of the U.S. Court of Appeals granted a stay of the rule for all propane facilities.

Two bills in the 106th Congress addressed these issues. H.R. 1301 (Blunt) would have prohibited the listing of liquefied petroleum gas (including propane) under the risk management planning requirements of Section 112(r); S. 880 (Inhofe) exempts flammable fuels that are not acutely toxic from the risk management planning provision. S. 880 was reported, amended, by the Environment and Public Works Committee June 9, 1999 (S. Rept. 106-70). It passed the Senate June 23. The House passed the bill, with amendments, July 21. The Senate agreed to the House amendments, August 2, and the bill was signed by the President (P.L. 106-40) on August 5.

A second issue affects all reporting facilities. Under Section 112(r), each risk management plan must include a hazard assessment and an evaluation of worst case accidental releases. EPA had initially planned to make this information available to the public via the Internet, but the chemical industry and others, including the Federal Bureau of Investigation, raised concerns that terrorists might use such information to identify and target facilities. EPA subsequently changed its mind concerning Internet access and worked with the FBI and other security experts to develop a system preventing access to sensitive information.

Nevertheless, many interested parties, including the FBI, remained concerned that the Freedom of Information Act (FOIA) might be used to gain access to information that might subsequently be posted on the Internet. Environmental groups, on the other hand, are concerned that the public should be aware of potential risks. Given the wide range of information already publicly available, some argued that affected industries were using security concerns as a red herring to avoid wider public disclosure of risks, not to keep information from terrorists. In any event, under current law, EPA would have little recourse but to make at least a summary of the information available in some form.

To address the security concerns raised by the Section 112(r) requirements, the Clinton Administration submitted draft legislation to Congress May 7, 1999. In the House, Representative Bliley introduced EPA's bill as H.R. 1790. In the Senate, the Administration's provisions were attached with minor changes as an amendment to S. 880 and reported by the Environment and Public Works Committee June 9. Negotiations ensued among the committee's leaders, producing a manager's amendment that passed the Senate by unanimous consent June 23, 1999. A slightly amended version passed the House July 21. As noted previously, the Senate agreed to the House amendments, August 2, and the bill was signed by the President (P.L. 106-40) on August 5.

As enacted, the bill establishes a one-year moratorium on public electronic release of detailed information about worst-case accident scenarios. Qualified state and local officials, including fire fighters, will have access to the data during this period, but the general public will not. EPA is to use the moratorium period to regulate distribution of detailed off-site consequence analysis information in order to minimize increases in risk of terrorist and

criminal activity (due to the posting of data on the Internet), the likelihood of accidental releases, and the likelihood of harm to public health and welfare. In addition, the bill requires companies that file risk management plans, with some exceptions, to hold public meetings to discuss their off-site consequence analyses. (For additional information on the risk management plan requirements and related legislation, see CRS Report RL30228, *Accident Prevention Under the Clean Air Act Section 112(r): Risk Management Planning by Propane Users and Internet Access to Worst-Case Accident Scenarios*.)

Sanctions and "Conformity"

Under the Clean Air Act, there are two provisions that can result in denial of federal highway funding to local areas: sanctions and a lapse in what is called "conformity." The sanction authority is found in Sections 179 and 110(m) of the Act. Under these sections, the EPA Administrator is required to impose highway fund and other sanctions on areas that have not submitted or not implemented adequate plans to attain air quality standards. Conformity requirements are found in Section 176. This section prohibits federal departments and agencies from approving, permitting, or providing financial support to transportation improvements in areas that have not attained air quality standards, unless such improvements conform with the State Implementation Plan for achieving air quality.

Sanctions. If the EPA Administrator determines that a state has failed to submit an acceptable implementation plan for achieving or maintaining air quality standards, or has failed to implement the requirements of an approved plan, a finding is made notifying the state of the deficiency. This starts what EPA refers to as the "sanctions clock." Sanctions must be imposed 18 months after the Administrator makes such a determination, but they may not be imposed if the deficiency has been corrected within the 18-month period. It is not failure to attain air quality standards that leads to sanctions, but failure to submit an acceptable plan or to implement the measures identified therein.

In such cases, Section 179 of the Clean Air Act authorizes EPA to use two types of sanctions: 1) imposing what are called "2:1 offsets" on new or modified sources of emissions; and 2) withholding certain federal highway funds. Under regulations issued pursuant to Section 179, the Administrator first imposes the offset sanction. If the deficiency has not been corrected within 6 months, both sanctions are applied.

When highway fund sanctions are imposed, not all funding is affected. Projects are exempt from sanctions when the Department of Transportation determines — based on accident or other appropriate data — that the principal purpose is an improvement in safety. In addition, despite sanctions, DOT may approve several types of projects geared toward the improvement of air quality, including transit projects, HOV lanes, breakdown lanes, projects to improve traffic flow, and park-and-ride lots.

The threat of sanctions is a powerful tool; but, perhaps because the threat is powerful, the imposition of sanctions is a rare event. EPA has formally notified the states of its intent to use this tool 858 times since 1990. Actual imposition of sanctions, which cannot occur until 18 months after formal notification, has occurred 18 times in that time period; in most of these cases, the issue was resolved after the imposition of offset sanctions. Only 2 areas have had highway sanctions imposed. As of October 1999, they were in effect for one small area (East Helena, Montana).

Conformity Lapse. Conformity determinations are also a powerful tool — one meant to integrate transportation and air quality planning. Areas in 29 states have experienced a lapse of conformity at some time since 1993, and 5 areas, the largest of which is Atlanta, currently have lapsed conformity.

Conformity lapses operate in a fashion similar, in some respects, to highway fund sanctions. As with sanctions, exceptions are provided for highway projects that will improve safety or air quality. Further limiting their impact, conformity lapses have, until recently, been applied only to new projects. In many cases, an area simply waits until its next revision of its Transportation Improvement Program (TIP) or its State Implementation Plan to revise the proposed project or through other measures to return to conformity. Thus, few areas have lost funding despite a conformity lapse.

In Atlanta, for example, the area continued until recently to receive its full share of federal highway funding because exempt and grandfathered projects (from previously approved TIPs) were allowed to proceed. New projects, however, including Atlanta's Outer Perimeter highway, have been stalled.

One reason that conformity has come to the attention of Congress this year is a court decision: on March 2, 1999, the U.S. Court of Appeals for the District of Columbia Circuit ruled that the Clean Air Act limits grandfathering of funding in conformity situations, overturning EPA's regulations and considerably raising the stakes for Atlanta and other areas that are subject to a conformity lapse. EPA and the Department of Transportation subsequently reached agreement on procedures to implement the court's decision, and the Agency announced on April 16 that it would not appeal the decision.

This decision and another case that awaits trial in Missouri have aroused congressional interest in the sanctions and conformity issues. Two bills (Senator Bond's S. 495 and Representative Baker's H.R. 1626) would repeal the highway fund sanction provisions, and two other bills (Senator Bond's S. 1053 and Representative Talent's H.R. 1876) would restore the grandfather provisions of the conformity rule overturned by the March 2 court ruling.

The Senate Environment and Public Works Committee held a hearing on the conformity issue July 14 and ordered S. 1053 reported, with substantial amendments, September 29. As amended, the bill would restore the grandfather provisions in effect prior to the March 2 court decision for a period of one year while EPA writes new regulations. The bill also stipulates that certain projects, including any project approved prior to March 2, may be implemented even if conformity lapses. It establishes new requirements regarding approval of emissions budgets by EPA, allows the use of non-federal funds for right-of-way acquisition and highway design during periods of conformity lapse, and delays the application of conformity to areas that may be designated nonattainment under the pending 8-hour ozone standard. (For additional background, see CRS Report RL30131, *Highway Fund Sanctions and Conformity Under the Clean Air Act*, updated October 15, 1999.)

Ozone Transport Rule

While not the subject of legislation so far in this Congress, another subject of concern may be the ozone transport rule promulgated by EPA on October 27, 1998, and subsequent

EPA actions related to ozone transport. The rule, a major element of the ongoing effort to reduce ozone concentrations in the Northeastern states, implements a regional strategy for reductions in emissions of NOx, a pollutant that combines with volatile organic compounds to form ozone in areas downwind of its release.

The ozone transport rule grew out of the efforts of the Ozone Transport Assessment Group (OTAG) to develop a regional strategy for NOx reductions. In June 1997, OTAG (a group composed of the 37 easternmost states) completed its work, recommending regional measures to reduce NOx emissions, but specifying only a broad range rather than an agreed percentage for the targeted reductions. EPA promulgated its regulations implementing the OTAG recommendations on October 27, 1998, calling for average reductions of 28% in NOx emissions in 22 Eastern states and the District of Columbia (later revised to 25%). These reductions would be implemented through State Implementation Plans, beginning in May 2003. The SIPs were to be submitted to EPA by September 30, 1999.

The degree to which the regulations impose additional requirements on utilities and other sources of NOx is the prime area of controversy. The accuracy of the modeling used to determine the distribution of the needed reductions, the form of emissions trading to be allowed under the regulations, and the amount (or lack) of flexibility EPA will give to the states in planning reductions are other issues.

The rule was also a centerpiece of the Agency's implementation plan for the new 8-hour ozone air quality standard, which was overturned on May 14. The trigger for the ozone transport rule was the statutory 1-hour standard, not the 8-hour standard. However, it was coupled with the 8-hour standard in the final rule. Apparently, EPA's commingling of the standards was sufficient for the U.S. Court of Appeals for the D.C. Circuit to issue an indefinite stay of the transport rule on May 25 (*Michigan* v. *EPA*). Whether EPA will revise the rule to base it on violations of the 1-hour standard only, or will await the judicial appeals process on the final rule as promulgated, remains to be seen.

In a related action, in the wake of the court decision, EPA has decided on an approach to what are referred to as the "Section 126 petitions." Under Section 126, any state or political subdivision may petition EPA for a finding that stationary sources in another state are significantly contributing to nonattainment problems in their state. In response to petitions from 8 Northeastern states, EPA found in April, 1999, that 19 Midwestern and Southern states (and D.C.) contributed to nonattainment problems in 6 of the petitioning states with respect to the 8-hour standard, and 12 Midwestern and Southern states (and D.C.) contributed to nonattainment difficulties with respect to the 1-hour standard. Implementation of this finding was to be contingent and coordinated with the state's response to the Ozone Transport Rule. In June, however, in response to the court decision, EPA stayed that finding and announced its intention to decouple the Section 126 findings from the Ozone Transport Rule, and its findings under the 1-hour standard and the 8-hour standard. This would mean that Section 126 implementation would involve the 12 states (and D.C.) at least until the situation with the 8-hour standard and the transport rule is clarified. EPA took final action on four of the Section 126 petitions December 17, 1999, imposing NOx control requirements on 392 stationary sources located in 12 states and D.C. The required controls take effect in May 2003.

The transport rule has come to the attention of Members of Congress from some of the affected states, but there has been no action in the 106th Congress. In the last Congress, two bills introduced by Representatives Wise and Ney (H.R. 3690 and H.R. 4136) would have required additional data collection before promulgation of a final ozone transport rule and would have postponed the rule's effective date until no earlier than 2005. No action was taken on these bills. (For additional information on the OTAG process and the promulgated rule, see CRS Report 98-236, *Air Quality: EPA's Ozone Transport Rule, OTAG, and Section 126 Petitions — A Hazy Situation?*)

LEGISLATION

P.L. 106-40, S. 880 (Inhofe)

Amends the Clean Air Act to remove flammable fuels from the list of substances with respect to which reporting and other activities are required under the risk management plan program of Section 112(r). Introduced April 26, 1999; referred to Committee on Environment and Public Works. Reported, amended, June 9, 1999 (S.Rept. 106-70). Passed Senate June 23, 1999. Passed House, amended, July 21, 1999. Senate agreed to House amendments, August 2, 1999. Signed into law August 5, 1999.

H.R. 11 (Bilbray)

Amends the Clean Air Act to permit exclusive application of California state regulations regarding reformulated gasoline in federal RFG areas within the state. Introduced January 6, 1999; referred to Committee on Commerce. Hearing held, May 6, 1999, by Subcommittee on Health and Environment. Approved, amended, by Subcommittee on Health and Environment, September 30, 1999.

H.R. 25 (Boehlert)

To reduce acid deposition by requiring additional controls on sources of sulfur dioxide and nitrogen oxides and to provide for a study and controls on emissions of mercury. Introduced January 6, 1999; referred to Committee on Commerce.

H.R. 236 (Rogan)

Amends the Clean Air Act to exempt prescribed burning on National Forest lands from regulation under the Act for a period of 10 years after enactment. Introduced January 6, 1999; referred to Committee on Commerce.

H.R. 657 (Sweeney)

To reduce acid deposition. Similar to H.R. 25. Introduced February 9, 1999; referred to Committee on Commerce.

H.R. 888 (Kildee)

Clean Gasoline Act of 1999. Amends the Clean Air Act to limit sulfur concentrations in gasoline. Introduced March 1, 1999; referred to Committee on Commerce.

H.R. 1367 (Franks)

Amends the Clean Air Act to prohibit the use of the fuel additive MTBE in gasoline. Introduced April 12, 1999; referred to Committee on Commerce.

H.R. 1395 (Hunter)

Amends the Clean Air Act to prohibit imports of gasoline to California and to suspend the application of RFG and oxygenated fuel requirements of state and federal law in California when the retail price of gasoline in the state is 20% greater than its average in the most recent 3-year period. Introduced April 13, 1999; referred to Committee on Commerce.

H.R. 1398 (Pombo)

Amends the Clean Air Act to prohibit the use of the fuel additive MTBE in gasoline. Introduced April 14, 1999; referred to Committee on Commerce.

H.R. 1626 (Baker)

Amends the Clean Air Act to repeal the highway fund sanctions. Introduced April 29, 1999; referred to Committee on Commerce.

H.R. 1705 (Pallone)

Amends the Clean Air Act to waive the oxygenate requirement for reformulated gasoline and to phase out the use of the fuel additive MTBE in gasoline; requires a study by the National Academy of Sciences on the health and environmental effects of all gasoline oxygenates. Introduced May 5, 1999; referred to Committee on Commerce.

H.R. 1755 (Filner)

Border Smog Reduction Accountability Act. Provides for reimbursing states for the costs they incur in implementing the Border Smog Reduction Act of 1998. Introduced May 11, 1999; referred to Committee on Commerce.

H.R. 1790 (Bliley)

Chemical Safety Information and Site Security Act of 1999. Limits public disclosure of accidental release scenario information in risk management plans required under Section 112(r) of the Clean Air Act. Introduced May 13, 1999; referred to Committees on Commerce, Government Reform, and Judiciary. Hearings held by Commerce Subcommittee on Health and Environment May 19 and 26.

H.R. 1876 (Talent)

Amends the Clean Air Act to incorporate the grandfather provisions of the transportation conformity regulations, as in effect on March 1, 1999. Introduced May 19, 1999; referred to Committee on Commerce.

H.R. 2427 (Cox)

Amends the Clean Air Act to remove a provision limiting air pollution grants to individual states to no more than 10% of the total amount appropriated or allocated. Introduced July 1, 1999; referred to Committee on Commerce.

H.R. 2556 (Wolf)

National Telecommuting and Air Quality Act. Requires the Secretary of Transportation to make a grant to a nonprofit private entity to design a pilot program on telecommuting as a means of reducing emissions of air pollutants that are precursors to ground level ozone. Introduced July 19, 1999; referred to the Committees on Commerce and on Transportation and Infrastructure.

H.R. 2667 (Allen)

Omnibus Mercury Emissions Reduction Act of 1999. Amends the Clean Air Act to establish requirements for operation of fossil fueled electric utility generators, commercial and industrial boilers, incinerators, chlor-alkali plants, and Portland cement plants to reduce mercury emissions. Introduced August 2, 1999; referred to Committee on Commerce.

H.R. 3449 (Greenwood)

Amends the Clean Air Act to provide that petitioning states may waive the requirements concerning the oxygen content of RFG and to provide for a scheduled phasedown of MTBE use. Introduced November 18, 1999; referred to Committee on Commerce.

S. 171 (Moynihan)

Amends the Clean Air Act to limit sulfur concentrations in gasoline. Introduced January 19, 1999; referred to Committee on Environment and Public Works.

S. 172 (Moynihan)

To reduce acid deposition. Similar to H.R. 25. Introduced January 19, 1999; referred to Committee on Environment and Public Works.

S. 266 (Feinstein)

Senate counterpart to H.R. 11. Introduced January 20, 1999; referred to Committee on Environment and Public Works.

S. 268 (Feinstein)

Strengthens emission standards for gasoline-powered marine engines. Introduced January 20, 1999; referred to Committee on Environment and Public Works.

S. 495 (Bond)

Repeals the highway fund sanction provisions of the Clean Air Act. Introduced March 2, 1999; referred to Committee on Environment and Public Works.

S. 645 (Feinstein)

Amends the Act to waive the oxygen content requirement for reformulated gasoline. Introduced March 17, 1999; referred to Committee on Environment and Public Works.

S. 673 (Leahy)

Amends the Clean Air Act to establish requirements concerning the operation of fossil fuel-fired electric utility steam generating units, commercial and industrial boiler units, solid waste incineration units, medical waste incinerators, hazardous waste combustors, chlor-alkali plants, and Portland cement plants to reduce emissions of mercury. Introduced March 19, 1999; referred to Committee on Environment and Public Works.

S. 1037 (Boxer)

Amends the Toxic Substances Control Act to provide for reduction in the use of MTBE. Introduced May 13, 1999; referred to Committee on Environment and Public Works.

S. 1053 (Bond)

Amends the Clean Air Act to incorporate the grandfather provisions of the transportation conformity regulations, as in effect on March 1, 1999. Introduced May 14,

1999; referred to Committee on Environment and Public Works. Ordered reported, amended, September 29, 1999.

S. 1470 (Lautenberg)

Chemical Security Act of 1999. Amends the Clean Air Act to ensure that adequate actions are taken to detect, prevent, and minimize the consequences of accidental releases that result from criminal activity that may cause substantial harm to public health, safety, and the environment. Introduced July 30, 1999; referred to Committee on Environment and Public Works.

S. 1521 (Santorum)

National Telecommuting and Air Quality Act. Similar to H.R. 2556. Introduced August 5, 1999; referred to Committee on Commerce, Science, and Transportation.

S. 1886 (Inhofe)

Permits Governors to waive the oxygen requirements for reformulated gasoline, and allows the development of voluntary standards to control the release of MTBE from underground storage tanks. Introduced November 9, 1999; referred to Committee on Environment and Public Works.

CONGRESSIONAL HEARINGS, REPORTS, AND DOCUMENTS

U.S. Congress. House. Committee on Commerce. Subcommittees on Health and Environment and Oversight and Investigations. *Internet Posting of Chemical "Worst-Case" Scenarios: A Road Map for Terrorists?* February 10, 1999.

U.S. Congress. House. Committee on Commerce. Subcommittee on Health and Environment. *H.R. 11*. May 6, 1999.

-----. *H.R. 1790, the Chemical Safety Information and Site Security Act of 1999*. May 19 and 26, 1999.

U.S. Congress. House. Committee on Science. Subcommittee on Energy and Environment. *Reducing Sulfur in Gasoline and Diesel Fuel.* July 21, 1999.

----- *Reformulated Gasoline.* September 14 and 30, 1999.

U.S. Congress. Senate. Committee on Environment and Public Works. *Conformity Regulations.* July 14, 1999.

U.S. Congress. Senate. Committee on Environment and Public Works. Subcommittee on Clean Air, Wetlands, Private Property, and Nuclear Safety. *EPA's Risk Management Plan Program of the Clean Air Act.* March 16, 1999.

----- *Proposed Sulfur Standard for Gasoline*. May 18 and 20 and July 29, 1999.

-----. *MTBE*. October 5, 1999.

-----. *Clean Air Act Reauthorization.* October 14, 1999.

FOR ADDITIONAL READING

CRS Issue Briefs

CRS Issue Brief IB97003. *Stratospheric Ozone Depletion: Implementation Issues*, by Larry B. Parker. (Updated regularly)

CRS Reports

CRS Report 97-8. *Air Quality: Background Analysis of EPA's 1997 Ozone and Particulate Matter Standards*, by John E. Blodgett, Larry B. Parker, and James E. McCarthy. Updated June 19, 1998. 32 p.

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. Updated June 15, 1999. 22 p.

CRS Report RL30298. *Air Quality and Motor Vehicles: An Analysis of Current and Proposed Emission Standards*, by David M. Bearden. September 2, 1999. 21 p.

CRS Report RL30131. *Highway Fund Sanctions and Conformity Under the Clean Air Act*, by James E. McCarthy. Updated October 15, 1999. 8 p.

CRS Report 98-290. *MTBE in Gasoline: Clean Air and Drinking Water Issues*, by James E. McCarthy and Mary Tiemann. Updated October 15, 1999. 15 p.

CRS Report 96-737. *Nitrogen Oxides and Electric Utilities: Revising the NSPS*, by Larry Parker. Updated October 13, 1998. 6 p.

CRS Report RL30228, *Accident Prevention Under the Clean Air Act Section 112(r): Risk Management Planning by Propane Users and Internet Access to Worst-Case Accident Scenarios*, by Linda-Jo Schierow. June 10, 1999. 8 p.

CRS Report RS20163. *Sulfur in Gasoline*, by Stephen Thompson and James E. McCarthy. Updated July 12, 1999. 6 p.

CRS Report RS20228, *The D.C. Circuit Remands the Ozone and Particulate Matter Clean-Air Standards: American Trucking Associations v. EPA*, by Robert Meltz and James E. McCarthy. June 10, 1999. 6 p.