

THE CLEAN AIR ACT

OVERVIEW

Enacted in 1970, the Clean Air Act (CAA) is the most complex, comprehensive, and costly environmental statute in existence. Amended in 1977 and again in 1990, the CAA has spawned thousands of pages of regulations covering numerous sources of air emissions.¹ The CAA is divided into the following six titles:

- Title I regulates the six so-called criteria pollutants (particulate matter, sulfur dioxide, carbon monoxide, nitrogen oxides, ozone, and lead). The EPA sets National Ambient Air Quality Standards (NAAQS) for these six pollutants. Each state must submit State Implementation Plans (SIPs) to the EPA, spelling out how it will achieve attainment with the NAAQS. States with areas that exceed these standards are subject to additional requirements and potential penalties.
- Title II covers mobile sources of pollution: motor vehicles and fuels.
- Title III, the air toxics program, deals with so-called hazardous pollutants.
- Title IV addresses industrial emissions believed to contribute to acid rain.
- Title V created an air emissions permitting program, operated by the states under EPA supervision.
- Title VI regulates the production and use of chemicals believed to deplete the stratospheric ozone layer, such as chlorofluorocarbons (CFCs).

During the 30-year existence of this federal regulatory scheme, the quality of air has improved dramatically.² These gains continue trends preceding 1970, indicating that technological advances and state and local controls before federal involvement were having a positive effect.³ The extent and kinds of air quality improvements that were likely to continue had Congress not passed the Clean Air Act (under state law and via other mechanisms) are subject to debate. What is clear is that the law has proven very costly, possibly higher than necessary to achieve its goals. The EPA estimates direct

¹ 42 U.S.C. §§ 7401 to 7671(q).

² For more information, see brief "Environmental Trends" in *The Environmental Source*.

³ Indur Goklany, *Clearing the Air: The Real Story of the War on Air Pollution* (Washington, D.C.: Cato Institute, 1999).



costs at approximately \$21 billion annually, rising to \$28 billion by 2010.⁴ Others believe the actual costs, including the indirect ones, may be much higher.⁵

Most notable is the progress in reducing ambient concentrations of all six criteria pollutants. Technological advances have greatly contributed to these positive trends. For example, automobiles manufactured today pollute approximately 25 times less than their 1970s counterparts.⁶ These positive trends will likely continue, even if no new regulations are enacted.

Nevertheless, the EPA continues to tighten existing requirements and add new ones, always claiming that much more needs to be done. Generally, these new initiatives provide fewer benefits but impose higher costs than previous ones. In some instances, recent air regulations have been overturned successfully in federal court as being in excess of statutory authority.⁷ However, several provisions of the CAA grant wide latitude to the agency, making legal challenges to agency overreaching difficult. For example, the agency is required to revisit the NAAQS every five years and set new standards if deemed necessary to protect public health with what the agency deems an “adequate margin of safety.” This process led to the costly and controversial new ozone and particulate matter standards in 1997.

More than ever before, Congress needs to pay close attention to new EPA regulations under the Clean Air Act and to use its authority to block those not in the interest of the American people or the environment. In addition, as Congress takes up reauthorization of the Clean Air Act, it needs to consider placing sensible limits on the EPA’s power to generate new regulations.

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⁴ Environmental Protection Agency, “The Benefits and Costs of the Clean Air Act,” Draft Executive Summary (Washington, D.C.: U.S. EPA, June 1999).

⁵ Randall Lutter and Richard Belzer, “EPA Pats Itself on the Back,” *Regulation* 23, no. 3 (2000): 23-28; Robert W. Crandall et al., “Clearing the Air — EPA’s Self-Assessment of Clean Air Policy,” *Regulation* 19, no. 4 (1996): 35-46.

⁶ Joseph Bast and Jay Lehr, *The Increasing Sustainability of Cars, Trucks, and the Internal Combustion Engine* policy study no. 95 (Chicago: Heartland Institute, 22 June 2000).

⁷ Jonathan Adler, *Environmental Performance at the Bench: The EPA’s Record in Federal Court* (Los Angeles: Reason Public Policy Institute, 22 June 2000), <http://www.rppi.org/environment/ps269.html>.



THE CLEAN AIR ACT AND HIGHER GASOLINE PRICES

For the first time in many years, the high price of gasoline is a major issue. Increases in the price of crude oil have contributed to the increased costs at the pumps, but federal environmental regulations also are taking a substantial toll on the driving public.

Under the 1990 Amendments to the Clean Air Act, the EPA has heavily regulated the composition of gasoline. This includes the reformulated gasoline (RFG) program, applicable to nearly one-third of the nation's fuel supply, as well as an oxygenated fuels program. These specialized fuel formulations cost up to 10 cents per gallon more than conventional gasoline, according to the U.S. Energy Information Administration.¹

Conventional gasoline is regulated as well. For example, all gasoline sold in the United States must now meet certain Reid Vapor Pressure requirements, which is a measure of how readily fuel evaporates. These requirements change with the seasons and vary from state to state, and even among counties within states.²

Many more fuel-related rules are in the works. For example, the EPA has recently promulgated tough new standards for sulfur in gasoline and diesel fuel, estimated to add 4.5 cents and 5.8 cents to the price per gallon respectively and to increase the potential for supply problems.³

Several EPA rules are specific to certain states or localities, resulting in the balkanization of the nation's fuel supply. The U.S. Energy Information Administration believes that "the proliferation of clean fuel requirements over the last decade has complicated petroleum logistics," and warns that "additional clean fuels programs could make the system more vulnerable to local shortages and price spikes."⁴ Such a price spike occurred in Chicago and Milwaukee in the summer of 2000, when a new type of RFG, unique to the Midwest, rose above \$2 per gallon. According to a Congressional Research Service study, approximately 25 cents to 34 cents of the price rise was caused by the EPA's regulations.⁵

Other rules have affected the price of gasoline in less direct ways. For example, the EPA's aggressive implementation of the New Source Review (NSR) program has made it very difficult to build new refineries, or even upgrade existing ones. Currently, refinery capacity is proving inadequate to the task of providing the quantity and variety of fuels now required; yet the last American refinery was built in the 1970s.

Air quality has dramatically improved over the past 30 years, due, in substantial part, to reductions in motor vehicle emissions.⁶ But most of the credit goes to improvements in the vehicles themselves, not to recent federal micromanagement of the makeup of fuels. Indeed, costly fuel regula-

¹ http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/weekly.

² Environmental Protection Agency, *Regulatory Announcement: Control of Emissions of Hazardous Air Pollutants from Mobile Sources* (Washington, D.C.: U.S. EPA, July 2000).

³ National Petroleum Council, U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels, working draft (Washington, D.C.: National Petroleum Council, 20 June 2000).

⁴ U.S. Department of Energy, *Energy Information Administration, Demand and Price Outlook for Phase 2 Reformulated Gasoline, 2000* (Washington, D.C.: U.S. DOE, 7 April 1999).

⁵ Lawrence Kumins, *Midwest Gasoline Prices: A Review of Recent Market Developments* (Washington, D.C.: Congressional Research Service, 28 June 28 2000).

⁶ Joseph Bast and Jay Lehr, *The Increasing Sustainability of Cars, Trucks, and the Internal Combustion Engine*, policy study no. 95 (Chicago: Heartland Institute, 22 June 2000).



tions like the RFG program have proven to be environmentally unjustified and even counterproductive.⁷

To protect the driving public from further unnecessary costs, Congress must take a more aggressive role regarding new EPA regulations affecting gasoline.

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⁷ National Research Council, *Ozone Forming Potential of Reformulated Gasoline* (Washington, D.C.: National Academy Press, 1999).



THE CLEAN AIR ACT'S MTBE MISTAKE

The 1990 amendments to the Clean Air Act (CAA) established detailed requirements for motor fuels. Among other things, the CAA created the reformulated gasoline (RFG) program, designed to help reduce ozone in the nine smoggiest areas of the country, as well as any other areas with ozone levels that the EPA classified as "severe." Since 1995, all gasoline sold in these areas, amounting to approximately 30 percent of the nation's supply, must meet particular compositional requirements and emissions performance standards in order to be certified as RFG. On June 1, 2000, more stringent RFG standards took effect.

Most controversial is the requirement that RFG contain at least 2 percent oxygen content by weight. This mandate necessitates the addition of so-called oxygenates, most commonly methyl tertiary butyl ether (MTBE). However, reports of MTBE leaking into water supplies have sparked a backlash against its use. California, New York, and several other states have enacted phaseouts of MTBE use in gasoline, and several federal bills introduced in Congress attempted to do the same nationwide. EPA, long a strident proponent of MTBE, reversed its position in a 1999 report, which advocated that MTBE use be substantially reduced because of concerns over its effect on water quality.¹

Unfortunately, ethanol is the only other viable oxygenate. Thus, if MTBE use is restricted but the CAA's 2 percent oxygen content requirement is retained, the law would amount to a de facto ethanol mandate. However, despite strong support from ethanol interests, ethanol has environmental drawbacks of its own.

In addition, RFG is expensive, regardless of whether it is blended with MTBE or ethanol. Recent price data compiled by the U.S. Energy Information Administration indicate that, over the past year, RFG has averaged 2 cents to 10 cents more per gallon than conventional gasoline.² And early last summer, the price of ethanol-containing RFG in Chicago and Milwaukee spiked above \$2 per gallon.³

Meanwhile, the air quality benefits of oxygenates have been called into question. A National Research Council study concludes that "the addition of MTBE or ethanol appears to have only a small effect on the exhaust emissions of RFGs."⁴

Mandating the addition of either MTBE or ethanol to gasoline does little, if any, good for the environment and imposes unnecessary costs on the driving public. Congress should amend the CAA to eliminate the requirement that RFG contain 2 percent oxygen.

— Ben Lieberman

¹ Environmental Protection Agency, *Achieving Clean Air and Clean Water: The Report of the Blue Ribbon Panel on Oxygenates in Gasoline* (Washington, D.C.: U.S. EPA, 15 September 1999).

² U.S. Department of Energy, U.S. Energy Information Administration, "Weekly Gasoline Price Updates," available at <http://www.eia.doe.gov>.

³ Lawrence Kumins, *Midwest Gasoline Prices: A Review of Recent Market Developments* (Washington, D.C.: Congressional Research Service, 28 June 2000).

⁴ National Research Council, *Ozone Forming Potential of Reformulated Gasoline* (Washington, D.C.: National Academy Press, 1999), 201.



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OZONE AND PARTICULATE MATTER STANDARDS

In 1996, EPA proposed new rules tightening the already strict existing standards for ozone and particulate matter (smog and soot).¹ These proposed rules sparked perhaps the strongest level of opposition in the 30-year history of the Clean Air Act. Groups as diverse as the National Black Chamber of Commerce and the American Farm Bureau Federation feared that the high costs of these measures would outweigh the modest benefits.² Even within the Clinton administration, several agencies questioned the merits of the new rules, including the Departments of Treasury, Transportation, Commerce, Energy, and Defense, as well as the Small Business Administration, Office of Science and Technology Policy, Council of Economic Advisors, and others.

EPA conceded that the ozone rule would cost somewhere between \$600 million and \$6.3 billion annually, and the particulate rule would cost an additional \$6.3 billion annually.³ Others thought these estimates were too low. For example, the Council of Economic Advisors stated that the EPA's ozone cost figures "understate the true costs by orders of magnitude."⁴ Analysts outside the federal government put the cost of both rules in excess of \$100 billion annually.⁵

Although EPA claims public health benefits justify the costs, several analysts criticized these assertions.⁶ Even EPA's own Clean Air Scientific Advisory Committee raised several concerns about the science underlying the rules, and it did not endorse the standards chosen by the agency.⁷

Congressional bills were introduced to block implementation of the proposed rules.⁸ These bills enjoyed substantial bipartisan support, and represented the first serious congressional challenge to major Clean Air Act regulations. However, the bills were ultimately withdrawn when it became clear that they lacked the two-thirds support necessary to override an expected presidential veto.

Despite the controversy, EPA finalized the rules on July 18, 1997.⁹ The rules were immediately challenged in court by more than 40 parties, including both large and small businesses and several state governments. In a blockbuster verdict, the U.S. Court of Appeals invalidated the rules on May 14, 1999.¹⁰ EPA appealed the case to the U.S. Supreme Court, which released its decision on February 27, 2001.¹¹

¹ *Federal Register* 61, no. 241 (13 December 1996): 65,637, 65,715.

² National Black Chamber of Commerce, "New Rules Will Crush Efforts to Rebuild, Revitalize Inner Cities, Minority Leaders Tell Administration," 5 June 1997, press release; American Farm Bureau Federation, "Flawed Air Standards Would Choke Agriculture," 22 July 1997, press release.

³ Environmental Protection Agency, *Regulatory Impact Analysis for Proposed Ozone and Particulate Matter National Ambient Air Quality Standards* (Washington, D.C.: U.S. EPA, December 1996).

⁴ Letter from Alicia Munnell, Council of Economic Advisors, to Sally Katzen, Office of Management and Budget, 10 December 1996.

⁵ See Anne E. Smith et al., *Costs, Economic Impacts, and Benefits of EPA's Ozone and Particulate Standards* (Los Angeles: Reason Public Policy Institute, June 1997), 2.

⁶ See Kay Jones, *Is EPA Misleading the Public about the Health Risks from PM 2.5?* (Washington, D.C.: Citizens for a Sound Economy Foundation, May 1997).

⁷ George T. Wolff, CASAC Chair, *The CASAC Review of the Ozone and PM Standards*, written testimony before the House Subcommittees on Health and Environment and Oversight and Investigations, 10 April 1997.

⁸ H.R. 1984 and S. 1084, 105th Congress (1997).

⁹ *Federal Register* 62, no. 138, (18 July 1997): 38,652, 38,856.

¹⁰ *American Trucking Association v. Environmental Protection Agency*, 175 F.3d 1027 (D.C. Cir. 1999).

¹¹ *Whitman v. American Trucking Association*, 531 U.S. (2001).



In most respects, the Supreme Court's decision is a victory for EPA. Although there still are important implementation details to be worked out by the U.S. Court of Appeals, the decision will likely allow EPA to go forward with new standards. It is up to Congress to ensure that unnecessarily costly and scientifically unjustified standards are not implemented.

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