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THE RENEWABLE OXYGENATE REQUIREMENT: A BOON FOR THE ENVIRONMENT OR A BOONDOGGLE FOR THE ETHANOL INDUSTRY?

I. INTRODUCTION

This note will discuss the ongoing legal and political controversy concerning the addition of oxygenates to automobile gasoline. The 1990 Amendments to the Clean Air Act (CAA)¹ established the Reformulated Gasoline (RFG) program² to help combat air pollution in the nine worst affected metropolitan areas in the nation.³ Oxygenates⁴ are added to gasoline to make combustion in the automobile engine more complete so that less highly toxic carbon monoxide (CO) is released in exhaust fumes.⁵ This note will examine the Environmental Protection Agency's (EPA's) Renewable Oxygen Requirement (ROR), which required that thirty percent of the oxygenates added to RFG be derived from a "renewable" The debate surrounding this requirement primarily concerns whether ethanol, considered a "renewable" oxygenate because the corn from which it is derived can be grown year after year, should be used instead of, or in preference to, other oxygenates. 8 Other oxygenates that will be mentioned throughout this note are methyl-tertiary butyl ether (MTBE), which is derived from oil and/or natural gas⁹ and is thus considered "non-renewable" and ethyl-tertiary butyl ether (ETBE), which is derived from ethanol. 10 and like ethanol itself, is considered renewable.

- 1. Clean Air Act of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (1990).
- 2. 42 U.S.C. § 7545(k) (1994).
- 3. See infra notes 45-52 and accompanying text.
- 4. While the very inexact manner in which chemical terms are (mis)used in the documents cited and discussed here is technically incorrect, in this note for the sake of consistency, the words will be (mis)used in the way they are universally (mis)used in the legal, legislative, newspaper, and other documents.
 - 5. See infra notes 65-67 and accompanying text.
 - 6. See infra notes 71-104 and accompanying text.
- 7. See Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258, 39,259 (1994) (to be codified at 40 C.F.R. pt. 80) (explaining how ethanol is derived primarily from corn by a fermentation process).
- 8. See Gary Lee, Behind Fuel Additive Decision, a Debate Over Corn or Natural Gas, WASH. POST, Aug. 8, 1994, at A3 (comparing ethanol and methanol as oxygenates).
 - 9. See 59 Fed. Reg. at 39,259.
 - 10. See id.

The preliminary legal issue is whether the EPA had the statutory authority to establish and enforce the ROR. This legal question, in turn, is dependent on the scientific question of whether the use of ethanol in RFG actually reduces pollution. With regard to the effects of oxygenates, there are two aspects that must be considered: (1) which oxygenate is most effective in reducing emissions of carbon monoxide and (2) the added complication that the addition of oxygenates to gasoline affects its volatility, or tendency to evaporate. This evaporation of volatile organic compounds (VOCs) from gasoline leads to the formation of smog via a photochemical reaction that takes place in the atmosphere.

This note will also briefly examine the enormous political undertones and ramifications of the dispute pitting farmers and politicians from farming communities, Archer Daniels Midland (ADM), ¹⁵ and a series of senior politicians seeking election or reelection, against a most unlikely alliance of environmental groups and the might of the oil and petrochemical industry. ¹⁶ In the middle of the warring factions, sit the Environmental Protection Agency, the Clean Air Act as amended, ¹⁷ and the Court of Appeals for the District of Columbia Circuit. ¹⁸ This note will briefly touch on the inextricably intertwined political, legal, and legislative battles over tax breaks for the ethanol industry. Part II of this note will examine the history of clean air legislation and the developments that led to the RFG program¹⁹ in the 1990 Amendments to the CAA. ²⁰ Part III

^{11.} See infra notes 71-104 and accompanying text.

^{12.} The ROR was struck down, in large part, because the EPA conceded that the ROR would actually increase pollution. See infra notes 186-204 and accompanying text.

^{13.} See Regulation of Fuels and Fuel Additives, 58 Fed. Reg. 68,343, 68,345 (1993) (to be codified at 40 C.F.R. pt. 80); see also Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258, 39,260 (1994) (to be codified at 40 C.F.R. pt 80).

^{14.} See infra note 126.

^{15.} ADM is the nation's largest producer of ethanol and a major contributor to both Democratic and Republican coffers. The highly publicized, criminal price fixing investigation of ADM will not be discussed in this note. See generally Jill Abramson & Phil Kuntz, Antitrust Probe of Archer-Daniels Puts Spotlight on Chairman Andreas's Vast Political Influence, WALL St. J., July 11, 1995, at A18. See also Harlan S. Byrne, Against the Grain: Federal Price-Fixing Probe Puts Unwanted Spotlight on Archer-Daniels, BARRON'S, July 17, 1995, at 12.

^{16.} See infra notes 76, 77, 96, 100, 114-20, 122 and accompanying text.

^{17. 42} U.S.C. §§ 7401-7671(q) (1988 & Supp. V 1993).

^{18.} See infra note 188.

^{19.} See infra notes 28-34 and accompanying text.

^{20.} See infra notes 45-52 and accompanying text.

will examine the Renewable Oxygenate Requirement.²¹ Part IV will examine the basis for the Court of Appeals' decision in striking down the ROR.²² Part V will briefly discuss developments since that decision and the direction the controversy is currently taking.²³

The analysis presented will show that the EPA was legally wrong to promulgate the ROR.²⁴ The ROR, by the EPA's own admission, could actually lead to an increase in pollution,²⁵ clearly the very antithesis to the Clean Air Act's purpose. In addition, the EPA was wrong to require the use of ethanol without a firm scientific underpinning.²⁶ Finally, the EPA was wrong to use its authority for essentially political purposes, using the "environmental" nature of the measure as a pretext.²⁷

II. DEVELOPMENTS LEADING TO THE 1990 AMENDMENTS TO THE CLEAN AIR ACT

The history of clean air legislation, from the original Air Pollution Act of 1955,²⁸ through the Clean Air Act (CAA) of 1963,²⁹ the 1967 Amendments,³⁰ and the 1970 Amendments,³¹ has been extensively discussed by many authors.³² In 1970, President Nixon created the EPA

- 21. See infra notes 71-104 and accompanying text.
- 22. See infra notes 186-236 and accompanying text.
- 23. See infra notes 237-51 and accompanying text.
- 24. See American Petroleum Inst. v. U.S. Envtl. Protection Agency, 52 F.3d 1113 (D.C. Cir. 1995) (holding that the EPA was not authorized to adopt ROR requiring that 30% of oxygen in RFG be derived from renewable sources).
- 25. See Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258, 39,260 (1994) (to be codified at 40 C.F.R. pt 80).
 - 26. See infra notes 76-77 and accompanying text.
 - 27. See infra notes 86-87 and accompanying text.
 - 28. Air Pollution Act of 1955, Pub. L. No. 84-159, 69 Stat. 322 (1955).
 - 29. Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 393 (1963).
 - 30. Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 481 (1967).
 - 31. Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 5356 (1970).
- 32. See generally Joseph R. Dancy, The Impact of the Clean Air Act's Ozone Non-Attainment Areas on Texas: Major Problems and Suggested Solutions, 47 SMU L. REV. 451 (1994); Henry A. Waxman, An Overview of the Clean Air Act Amendments of 1990, 21 ENVTL. L. 1721 (1991) [hereinafter Overview]; Henry A. Waxman, et al., Cars, Fuels, and Clean Air: A Review of Title II of the Clean Air Act Amendments of 1990, 21 ENVTL. L. 1947 (1991) [hereinafter Cars, Fuels, and Clean Air]; Henry A. Waxman, et al., Roadmap to Title I of the Clean Air Act Amendments of 1990: Bringing Blue Skies Back to America's Cities, 21 ENVTL. L. 1843 (1991) [hereinafter Bringing Blue Skies Back].

by executive order³³ and gave it responsibility for air pollution control, which had previously been the charge of the then Department of Health, Education, and Welfare.³⁴ Section 108 of the CAA³⁵ required the EPA to formulate a list of air pollutants which "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." Following the listing of a pollutant, the EPA was required to determine air quality criteria reflecting "accurately the latest scientific knowledge" concerning all possible public health effects of the pollutant.³⁷ Section 109 required the EPA to establish National Ambient Air Quality Standards (NAAQS), which are "numerical standards representing minimally acceptable air quality . . . [which] all areas of the country are required to attain and maintain." Once the EPA had promulgated criteria and air quality standards, states were each required to draw up and implement plans to achieve and maintain the NAAQS.³⁹ The EPA was given power to prohibit fuels or fuel additives by section 211(c) if their use endangered public health or welfare. 40 In addition, section 211(c)(4)(A) provided for Federal preemption of all local regulations regarding fuel or additives.41

^{33.} See Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15,623 (1970) (creating the EPA), reprinted in 84 Stat. 2086 (1970).

^{34.} See generally Lois Ember, EPA at 25, 73 CHEMICAL & ENGINEERING NEWS 16 (1995); Lois Ember, EPA Administrators Deem Agency's First 25 Years Bumpy but Successful, 73 CHEMICAL & ENGINEERING NEWS 18 (1995); Bette Hileman, Environmental Leaders Give EPA Mixed Reviews on its Performance, 73 CHEMICAL & ENGINEERING NEWS 30 (1995); Elisabeth M. Kirschner, Industry Sees Maturation, Contradiction in EPA's Quarter-Century History, 73 CHEMICAL & ENGINEERING NEWS 24 (1995); Wil Lepkowski, Government Seeks New Balance in Environmental Protection, 73 CHEMICAL & ENGINEERING NEWS 45 (1995); Rebecca L. Rawls, Environmental Scientists Fault EPA for its Shifting, Short-Term Research Focus, 73 CHEMICAL & ENGINEERING NEWS 38, (1995).

^{35.} See 42 U.S.C. § 7408(a)(1) (1988 & Supp. V 1993).

^{36.} Id.

^{37.} See id. § 7408(a)(2).

^{38.} See id. § 7409.

^{39.} See Catherine V. Greco, State Implementation Plans Under the 1990 Clean Air Act: Can New York Conform?, 11 PACE ENVIL. L. REV. 869, 873 (1994); Steve Novick & Bill Westerfield, Whose SIP is it Anyway? State-Federal Conflict in Clean Air Act, 18 Wm. & MARY J. ENVIL. L. 245, 246 (1994).

^{40.} See Clean Air Act Amendments of 1990 § 211(c), 42 U.S.C. § 7545(c) (1994).

^{41.} See id. § 211(c)(4)(A), 42 U.S.C. § 7545(c)(4)(A).

Because of widespread failure to meet the NAAQS by the deadline called for in the 1970 Amendments, ⁴² Congress enacted the 1977 Amendments. ⁴³ These extended the deadline for those regions that had failed to achieve the NAAQS (hereinafter nonattainment areas) until December 31, 1982, with extension to December 31, 1987, for those states unable to meet the ozone and carbon monoxide standards by the earlier date. ⁴⁴

A. The 1990 Amendments to the CAA

Even the new deadlines for attainment of the NAAQS passed without many regions achieving the required standard of air quality. Nonattainment was especially severe with regard to particulates, carbon monoxide, and ozone, and this led to the 1990 Amendments to the CAA. Following more than a decade in Congress, the Amendments were finally cobbled together in the final days of the 101st Congress in the fall of 1990. The 1990 CAA Amendments were then signed into law by President Bush on November 15, 1990.

The immediate goal of Title II of the Amendments was to cut VOC emissions by fifteen percent by 1995, through the use of RFG. 48 Cars and

^{42.} See Leigh Ann Karr Epperson, The South Coast Basin: The Long-Awaited FIP and the Aviation Industry, 60 J. AIR L. & COM. 917, 919-20 (1995) (discussing the EPA's Federal Implementation Plan (FIP) which was intended to achieve the NAAQS for Southern California); Alexander K. Wang, Southern California's Quest for Clean Air: Is EPA's Dilemma Nearing an End?, 24 ENVTL. L. 1137, 1138-39 (1994) (discussing Southern California's failure to achieve the NAAQS).

^{43.} Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (1977). See generally The Clean Air Act Amendments of 1977: Expedient Revisions, Noteworthy New Provisions, 7 ENVIL. L. REP. 10,182 (1977).

^{44.} See Patrick Del Duca & Daniel Mansueto, Indirect Source Controls: An Intersection of Air Quality Management and Land Use Regulation, 24 LOY. L.A. L. REV. 1131, 1141 n.55 (1991).

^{45.} See R. Shep Melnick, Pollution Deadlines and the Coalition for Failure, in Environmental Politics: Public Costs, Private Rewards 91-94 (Michael S. Greve & Fred L. Smith, Jr. eds., 1992).

^{46.} See Overview, supra note 32, at 1723-54.

^{47.} See Michael Ross, Bush Hails Arrival of New Era in Signing Clean Air Act: Environment Bill Sets Turn-of-the-Century Deadlines for Deep Cuts in Emissions. 'Strong Ecology and a Sound Economy Can Coexist,' President Says, L.A. TIMES, Nov. 16, 1990, at A40; Michael Weisskopf, Bush Signs Sweeping Air Pollution Controls Into Law, WASH. POST, Nov. 16, 1990, at A6.

^{48.} See generally Overview, supra note 32, at 1766-70.

trucks account for fifty percent of VOCs and sixty-seven percent of CO.⁴⁹ The Amendments provided for tougher standards for nonattainment areas, extra motor vehicle emission requirements, and requirements that states demonstrate incremental progress toward the required standards.⁵⁰

In addition, Congress established the reformulated gasoline (RFG) program in section 211(k) of the 1990 Amendments.⁵¹ Congress directed the EPA to establish the RFG program to reduce emissions of VOCs and toxic air pollutants (primarily CO), taking into account the "cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements."⁵²

B. Gasoline, generally.

Crude oil comprises primarily hydrocarbons, compounds containing only hydrogen and carbon.⁵³ In addition, it contains small amounts of sulfur, nitrogen, oxygen, and trace amounts of various metals that vary depending on the source of the oil.⁵⁴ Crude oil contains four major types of hydrocarbons: paraffins, naphthenes, olefins, and aromatics.⁵⁵ These types of compounds must be separated before use.⁵⁶ Oil refining is the global term given to this separation and the chemical conversion of the various compounds.⁵⁷ The process of "cracking" converts larger molecules into smaller and more volatile substances.⁵⁸ Fractional distillation is used to separate the components based on their volatility.⁵⁹

^{49.} See generally id. at 1768, 1768 n.208 (citing Walsh, Global Trends in Motor Vehicle Use and Emissions, 15 ANN. Rev. Energy 217, 218 (1990)).

^{50.} See generally Bringing Blue Skies Back, supra note 32.

^{51.} Clean Air Act Amendments of 1990 § 211(k), 42 U.S.C. § 7545(k) (1994).

^{52. 42} U.S.C. § 7545(k)(1).

 $^{53.\,}$ Ralph J. Fessenden & Joan S. Fessenden, Organic Chemistry 101 (2d ed. 1982).

^{54.} See id.; D.S.J. JONES, ELEMENTS OF PETROLEUM PROCESSING 4-5 (1995).

^{55.} See Jones, supra note 54, at 3-5; FESSENDEN & FESSENDEN, supra note 53, at 101.

^{56.} See JONES, supra note 54, at 6-7.

^{57.} See generally JONES, supra note 54, at 1-7; FESSENDEN & FESSENDEN, supra note 53, at 101.

^{58.} See JONES, supra note 54, at 26-27.

^{59.} See generally JONES, supra note 54, at 51.

Theoretically, in the internal combustion engine of an automobile, ⁶⁰ all of the hydrocarbons in gasoline would be completely oxidized to carbon dioxide (CO₂) and water (H₂O). ⁶¹ Nevertheless, despite considerable progress in improving the efficiency of combustion and the addition of catalytic convertors, ⁶² "mobile sources"—that is motor vehicles—are still responsible for seventy percent of the nation's carbon monoxide pollution, ⁶³ and fifty percent of volatile organic compound (VOC) emissions. ⁶⁴ Congress recognized that it had to take action to reduce carbon monoxide levels in nonattainment areas, and therefore instituted the RFG program.

C. Reformulated Gasoline (RFG)

The primary aim of the RFG program was to reduce carbon monoxide emissions in car exhaust fumes by adding extra "oxygen" to the combustion mix, in the form of oxygenates, to achieve more complete

^{60.} In the internal combustion engine, during the downstroke of each piston, a regulated amount of fuel and air passes into the cylinder. During the upstroke of the piston, this fuel-air mix is compressed and then at the point of maximum compression, the mix is ignited by the spark plug. The piston is then forced down by the energy released in the (controlled) explosion. Different fuels containing different ratios of the hydrocarbons combust with different degrees of efficiency. A major problem is the tendency for the fuel/air mix to ignite simply as a result of the high temperature and pressure resulting from the compression within the cylinder, even without the spark from the spark plug. Such pre-ignition causes engine "knock" and can severely damage the engine. Great efforts have therefore been made to reduce or eliminate this by the formulation of gasoline and by various additives. It has long been known that branched chain alkanes cause much less knock than straight chain alkanes. As a result, the petrochemical industry produces the preferred branched chain molecules which have higher octane ratings from straight chain molecules by the process of catalytic cracking and catalytic reforming. See generally JOHN B. HEYWOOD, INTERNAL COMBUSTION ENGINE FUNDAMENTALS 1 (1988).

^{61.} See id. at 81-83, 145-54. See also Fessenden & Fessenden, supra note 53, at 100.

^{62.} The catalytic converter, coming *after* the combustion chamber, does not, of course, affect the actual efficiency of combustion, but does contribute to the oxidation of any products leaving the engine in the exhaust and so leads to fewer pollutants in the exhaust. The catalyst in the converter is platinum- and palladium-based and is "poisoned" by lead compounds. This and numerous health concerns were the reasons for removing lead from gasoline. *See generally HEYWOOD*, *supra* note 60, at 649-55.

^{63.} See Cars, Fuel, and Clean Air, supra note 32, at 1951 & n.9.

^{64.} See id. at 1950 & n.6.

combustion.⁶⁵ "Oxygenates" are oxygen-containing organic compounds, such as ethanol, MTBE, and ETBE.⁶⁶ Congress mandated that RFG should be at least two percent oxygen by weight⁶⁷ (to increase the efficiency of combustion), not more than one percent benzene by volume⁶⁸ (to prevent the addition of (carcinogenic) benzene to increase the octane rating of the gasoline), and contain no heavy metals⁶⁹ (as a general pollution control measure).⁷⁰

III. THE RENEWABLE OXYGENATE REQUIREMENT (ROR)

As mentioned before, Congress had mandated that RFG contain two percent oxygen by weight.⁷¹ However, what started the ethanol controversy was that in December 1993, the EPA promulgated a proposed rule⁷² requiring that thirty percent of the oxygenates for reformulated gasoline in those markets that had failed to achieve the NAAQS be produced from "renewable" sources.⁷³ The publication of this proposed rule⁷⁴ led to a fifteen-month public debate between the protagonists that finally ended in April 1995 when the Court of Appeals for the D.C. Circuit struck down the rule.⁷⁵ The following section discusses the major developments during that fifteen-month period.

In May 1994, the Washington Post reported on a Department of Energy draft research report prepared by the Argonne National Laboratory that noted that ethanol caused more pollution than MTBE when used as a

^{65.} See Overview, supra note 32, at 1771. Of course, the reaction mix already contains some oxygen from the air in the cylinder. See generally HEYWOOD, supra note 60

^{66.} See Cars, Fuels, and Clean Air, supra note 32, at 1988.

^{67.} See 42 U.S.C. § 7545(k)(2)(B) (1994).

^{68.} See id. § 7545(k)(2)(C).

^{69.} See id. § 7545(k)(2)(D).

^{70.} See Cars, Fuels, and Clean Air, supra note 32.

^{71.} See 42 U.S.C. § 7545(k)(2)(B).

^{72.} See Regulation of Fuels and Fuel Additives, 58 Fed. Reg. 68,343 (1993) (to be codified at 40 C.F.R. pt. 300).

^{73.} See id.

^{74.} See id.

^{75.} See infra notes 186-236 and accompanying text.

gasoline additive. The report had been discussed at the May 12, 1994 hearings of the Senate Energy Committee. 77

The EPA announced the final version of the ROR on June 30, 1994⁷⁸ although it was not published in the *Federal Register* until August 2, 1994.⁷⁹ The final rule noted that ethanol had captured approximately thirty percent of the oxygenate market⁸⁰ under the oxygenated fuels program of the CAA,⁸¹ which seems to have been the origin of the thirty percent

77. A Washington Post editorial concerning the Senate Energy Committee hearings suggested that neither RFG (with or without ethanol) nor the earlier scheme to get the oldest and most polluting cars off the road, (see Robert D. Hershey, Jr., President's Plan Seeks to Create a Market for Cars That Pollute, N.Y. TIMES, Mar, 19, 1992, at D5) was going to reduce smog levels significantly and argued that electric cars and nuclear power were probably the answer. Environmental Corn, WASH. POST, May 16, 1994, at A18. This editorial brought a rapid reply from Senators Tom Daschle (Dem. S. Dakota) and Tom Harkin (Dem. Iowa) in a letter to the editor of the Washington Post regarding the editorial. See Tom Daschle & Tom Harkin, Corn Alcohol as Fuel, WASH. POST, Jun. 7, 1994, at A18. The letter strongly defended both RFG and ethanol.

The Post's assertion that oxygenated additives do not help clean the air is wrong. Oxygenates such as ethanol already reduce carbon monoxide 15% to 20%, helping to clean up winter smog in many cities. Oxygenates reduce the ozone-forming emissions from gasoline by diluting the aromatic hydrocarbons and olefins in gasoline, which cause environmental and health problems.

- Id. The Washington Post, however, had the last word on the subject. In reply to Senators Daschle and Harkin, an Op/Ed piece made one major point: If all the Senators had said was true, then why did ethanol need an EPA mandate—it would surely be the oxygenate of choice and be able to compete on its merits. See Robert McNally, Another Helping of Corn, WASH. POST, June 25, 1994, at A19. The piece also attacked the fifty-four cents per gallon Federal subsidy on ethanol and the added state tax exemptions in many states. The piece complained generally that six months before the start of the RFG program (January 1, 1995), it had still not been decided what the program meant in terms of which oxygenates would be used when and where. See id.
- 78. See Gary Lee, EPA Backs Ethanol for Fuel; Oil Industry Decries Advantage to Agriculture, WASH. POST, July 1, 1994, at A1; E.P.A. to Require Cleaner-Burning Gas in Polluted Areas, N.Y. TIMES, July 1, 1994, at A19; EPA Will Give Approval to Ethanol Requirement, WALL ST. J., June 30, 1994, at B6.
- 79. See Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258 (1994) (to be codified at 40 C.F.R. pt. 80).
 - 80. See id. at 39,261.
- 81. This program is separate and distinct from the RFG program. It required that gasoline sold during the winter months in certain cities contain oxygenates. See 42 U.S.C. § 7545(m) (1994). See generally Mark Emond, Widespread Health Complaints About RFG, MTBE Raises Concerns Over Program's Fate, 87 NAT'L PETROLEUM NEWS 35 (1995) (reviewing reports of alleged health effects of MTBE and the upheaval caused by

^{76.} Daniel Southerland, U.S. Study Questions Ethanol's Effect on Pollution, WASH. POST, May 13, 1994, at F1.

figure. The final version of the plan required that thirty percent of the oxygenates in RFG be renewable. To soften the impact, and to reduce the risk of skyrocketing ethanol prices because of shortages, the plan was to be phased in over two years. The plan would require that in 1995, fifteen percent and in 1996, thirty percent of the oxygenates in RFG would be renewable oxygenates. RFG would be required in New York, Philadelphia, Baltimore, Chicago, Houston, Los Angeles, Milwaukee, San Diego, and Hartford. The EPA's announcement brought a stronglyworded editorial from the Washington Post that summarized much of the argument against the ROR in three sentences.

The misuse of the environmental laws as patronage, to benefit narrow economic interests is a mistake. Environmental protection is expensive and difficult at best. If people begin to suspect that the rules are being tilted to reward certain favored constituencies for reasons that have nothing to do with health and purity, the administration will have jeopardized the support it needs for the essential work ahead.⁸⁷

In the same vein, a few days later a *New York Times* editorial, citing David Montgomery, an energy economist, made a rather different point.⁸⁸ The point was simply that only about thirty percent of the money would

New Jersey Governor Christine Whitman's decision to end the northern New Jersey oxygenate season two months early on March 1, 1995). See also Suzanne McGee & Allanna Sullivan, New York Merc Sues to Block New Fuel Plan, WALL ST. J., May 12, 1995, at C1 (discussing a law suit filed by the New York Mercantile Exchange (NYMEX) against New Jersey for its decision to end the northern New Jersey oxygenate season two months early).

- 82. See 59 Fed. Reg. at 39,261. Effectively this meant ethanol. In the proposed rule, the EPA conceded "the absence of bio-methanol capacity" (i.e., the absence of capacity to produce methanol in a renewable manner, as opposed to producing it from natural gas and/or oil), and acknowledged that the "renewable oxygenates would likely be ethanol based." 58 Fed. Reg. at 68,346. Furthermore, in the final rule, the EPA conceded that "large amounts of additional ETBE capacity cannot be expected for 1995," noting that capacity would expand slowly, via the conversion of MTBE plants. 59 Fed Reg. at 39,274.
- 83. See 59 Fed. Reg. at 39,266 (discussing the introduction of the plan over two years).
 - 84. See id.
 - 85. See infra note 125.
 - 86. See Editorial, Corn for Commuting, WASH. POST, July 4, 1994, at A18.
 - 87. Id.
 - 88. See Editorial, This Clean Air Looks Dirty, N.Y. TIMES, July 8, 1994, at A26.

ever get to the farmer; ⁸⁹ the refiners and others in the ethanol industry would keep the rest. ⁹⁰ Thus, if subsidizing agriculture was the goal of this measure, the ROR was not a very efficient way to do it. ⁹¹

In response to the EPA's announcement, the oil industry trade groups went to the Court of Appeals for the D.C. Circuit, ⁹² seeking an injunction to prevent the ROR from going into operation. ⁹³ Charles J. DiBona, President of the American Petroleum Institute, ⁹⁴ stated, "We are suing the EPA because its ethanol mandate is neither legal nor rationally defensible. The decision was not based on any environmental or economic interests, but was instead the product of special interest politics." ⁹⁵

There was also a legislative attempt to prevent the EPA from implementing the ROR. However, it also failed. 6 On August 3, 1994, with the Senate vote tied at fifty, Vice President Al Gore cast the deciding vote rejecting an amendment proposed by Louisiana Senator J. Bennett Johnston (Dem.), which would have prevented the EPA from implementing the ROR. 97

The final version of the ROR, published in the Federal Register, 98 mandated that thirty percent of the oxygen in RFG be derived from renewable sources. 99 This delighted the farmers and ADM and horrified the oil/petrochemical industry and scientists and environmentalists

- 89. See id.
- 90. See id.
- 91. See id.
- 92. See infra note 188.
- 93. See Daniel Southerland, Oil Industry Fights EPA on Ethanol, Clean Gasoline Ruling Termed Product of Special Interests, WASH. POST, July 14, 1995, at D11; Petroleum Industry Attacks EPA Backing of Ethanol in a Suit, WALL ST. J., July 14, 1994, at B5.
- 94. The API is an industry organization based in Washington, D.C. Its membership comprises approximately 300 corporations in the petroleum and allied industries. ENCYCLOPEDIA OF ASSOCIATIONS 344-45 (Sandra Jaszczak ed., 31st ed. 1995).
 - 95. Southerland, supra note 93.
- 96. The amendment was to have been attached to an appropriations bill for veterans. See Joan McKinney, Johnston Loses Battle to Block Ethanol Plan, BATON ROUGE ADVOC., Aug. 4, 1994, at 1A; see also Key Senate Votes, CONG. Q. WKLY. REP., Dec. 31, 1994, at 13.
 - 97. See id.
- 98. See Regulation of Fuel and Fuel Additives, 59 Fed. Reg. 39,258 (1994) (to be codified at 40 C.F.R. pt. 80).
 - 99. See id.

concerned with air pollution. 100 The EPA justified the ROR by saying that it would help to conserve fossil energy resources; that it had the potential to provide global warming benefits by encouraging the production of corn; and that it would maintain the benefits of the RFG program. 101 The final rule also included increased incentives for ETBE (the ethanol-derived ether) use during the summer months when ethanol's volatility would be a problem. 102 As the EPA acknowledged, ethanol actually adds to the volatility of gasoline; indeed they even stated that its use would have to be limited to the winter months. 103 Doubtless anticipating the political and legal firestorm ahead, the EPA also went to considerable lengths in the final rule to justify its position that it had legal authority to establish the ROR. 104

In a further move, the oil industry, in the form of the American Petroleum Institute, ¹⁰⁵ returned to the Court of Appeals for the D.C. Circuit on September 13, 1994, and their emergency motion for a stay of the ROR, pending judicial review, was granted. ¹⁰⁶ The EPA noted that the RFG program would still go into effect on January 1, 1995, simply without ethanol having the *guaranteed* thirty percent share of the oxygenate market. ¹⁰⁷

On January 1, 1995, RFG was required to be sold at gas stations in the nonattainment areas. 108 Distributors had in fact been selling it since the

See Regulation of Fuel and Fuel Additives, 59 Fed. Reg. 7,716, 7,716 (1994) (to be codified at 40 C.F.R. pt. 80). A survey conducted by and reported in Octane Week noted that most gasoline refiner-marketers were choosing MTBE to be the oxygenate in RFG to be sold from January 1, 1995. Ethanol was popular in the midwest and on the west coast. Getty was reported to be the only company planning to use ethanol on the east coast. See Refiners Choosing MTBE to Meet RFG Oxygen Requirements, OCTANE

^{100.} See Michael Parrish, U.S. Ethanol Industry Dealt Blow by Court, L.A. TIMES, Apr. 29, 1995, at D1.

^{101.} See 59 Fed. Reg. at 39,262, 39,278.

^{102.} See id. at 39,260, 39,262.

^{103.} See id. at 39,260.

^{104.} See id. at 39,263-39,266; see also infra notes 128-36 and accompanying text.

^{105.} See supra note 94.

^{106.} See American Petroleum Inst. v. U.S. Environmental Protection Agency, No. 94-1502, 1994 WL 80326, at *1 (D.C. Cir. Sept. 13, 1994).

^{107.} See Frank Swoboda & Daniel Southerland, Court Bars EPA From Mandating Ethanol Use, WASH. POST, Sept. 14, 1994, at A8; Editorial, The Stink of Ethanol, DET. NEWS, Sept. 23, 1994, at 10A.

^{108.} Retail sale of reformulated gasoline will begin on January 1, 1995, as will the provisions for the "simple model" certification, the anti-dumping program for conventional gasoline, and the associated enforcement procedures.

beginning of December, 1994.¹⁰⁹ In addition to the nine metropolitan carbon monoxide nonattainment areas required to use RFG, ¹¹⁰ Boston and Washington, D.C., opted in to the scheme.¹¹¹ Several localities also opted back out, leading to plentiful supplies of RFG despite earlier fears of shortages.¹¹² A series of reports of customers complaining about health effects allegedly linked to RFG appeared in newspapers across the country.¹¹³ Following extensive protests in Milwaukee, ¹¹⁴ the EPA announced that it would allow regular gasoline to be sold in the city, ¹¹⁵ but refused to suspend the RFG program in its entirety as Wisconsin Governor Tommy Thompson had requested.¹¹⁶ Wisconsin then sought to ban the use of MTBE and ETBE in RFG.¹¹⁷ Wisconsin state senator Mary Panzer

WK., Oct. 10, 1994, at 1.

- 110. See infra note 125.
- 111. See Lee, supra note 78 at A9.
- 112. See id; see also EPA Says Mandate Won't Harm Supplies of Reformulated Gas, WALL ST. J., Jan. 3, 1995, at 14. A survey by the American Automobile Association reported in National Petroleum News showed that the introduction of RFG had been smooth and without shortages, but that it had led to price rises. See Reformulated Gasoline Arrives Without Shortages, Price Spikes, 87 NAT'L PETROLEUM NEWS 21 (1995); Wald, supra note 109.
- 113. See Eldon Knoche, Big Crowd Rips EPA Gas Rule 400 Angry Residents Turn Out to Challenge Reformulated Fuel, MILWAUKEE J. & SENTINEL, Feb. 21, 1995, at 1A; Agis Salpukas, New Gas Arouses Grass-Roots Ire, N.Y. TIMES, Feb. 18, 1995, at 37; Rogers Worthington, Motorists Denounce New Gasoline. EPA Officials Hear Stories of Illness, Car Malfunctions, CHI. TRIB., Feb. 21, 1995, at 3; see also Don Behm, Danger of Reformulated Gas is Anything but Clear, MILWAUKEE J. & SENTINEL, Mar. 20, 1995, at B1 (noting that the alleged health effects were largely unsubstantiated). But see Mike Boyer, Criticism of RFG Evaporating at the Pumps, CINCINNATI ENQUIRER, May 29, 1995, at D1 (noting that much of the concern regarding RFG in Northern Kentucky had dissipated, but that some customers were, however, driving to Ohio to buy regular gasoline); Andrew Melnykovych, Debate Over New Gas is Sputtering; For All the Complaints on RFG, Price Remains the Principal Issue, COURIER-J., Mar. 20, 1995 at 1A.
- 114. See Knoche, supra note 113, at 1A; see also Susan Bruninga, Air Pollution: RFG Program Should Have Been Halted in Wisconsin, State Air Official Says, DAILY ENV'T REP., Mar. 7, 1995, at 44.
- 115. See Gary Lee, EPA Allows Regular Gasoline as Alternative in Milwaukee, WASH. POST, Feb. 25, 1995, at A2.
- 116. See Wisconsin Loses Bid to Escape Regulation on Reformulated Gas, WALL St. J., Feb. 27, 1995, at B7.
- 117. See State May Ban MTBE, ETBE, 32 U.S. OIL WK. 1 (1995); see also Wisconsin, DAILY ENV'T REP., Mar. 21, 1995, at 54.

^{109.} See generally Matthew L. Wald, Gasoline Prices to Rise in Many Areas, N.Y. TIMES, Nov. 9, 1994, at A18 (discussing the introduction of RFG).

introduced a bill prohibiting sales of gasoline containing more than two percent by weight MTBE or ETBE or a combination thereof between October 1 and April 15.¹¹⁸ The bill would also require labeling at the pumps.¹¹⁹ The Wisconsin Senate Environment and Energy Committee later voted to approve a ban on reformulated gasoline.¹²⁰

The Court of Appeals for the D.C. Circuit, struck down the ROR on April 28, 1995, because it was "not directed toward the reduction of VOCs." Because of this finding, the court held that the EPA "lacked the authority to promulgate the ROR under section 7545(k)(1)." 122

IV. THE BASIS FOR THE COURT OF APPEALS' DECISION

This section will briefly consider section 211(k) of the Clean Air Act (CAA) which established the RFG program and the ROR itself. In addition, the *Chevron* case and what has become known as *Chevron* doctrine, and the decision of the Court of Appeals for the D.C. Circuit in *American Petroleum Institute v. EPA* will be examined in more detail.

A. Section 211(k) of the CAA

As noted above, section 211(k) of the CAA required the EPA to establish the RFG program. ¹²³ The goal of the section was to reduce emissions of

^{118.} See State May Ban MTBE, ETBE, supra note 117.

^{119.} See id.

^{120.} See Steven Walters, Senate Panel OKs Reformulated Gasoline Ban, MILWAUKEE J. & SENTINEL, Mar. 9, 1995, at 5A.

^{121.} American Petroleum Inst. v. U.S. Envtl. Protection Agency 52 F.3d 1113, 1119 (D.C. Cir. 1995).

^{122.} Id. at 1121. See also Casey Burko, Court Blocks Ethanol Rule, CHI. TRIB., Apr. 29, 1995, at 1; Farmers Lose in Ruling Over Corn Additive—Court Blocks Ethanol Mandate, ST. LOUIS POST-DISPATCH, Apr. 29, 1995, at 6A; Court Says U.S. Can't Require Ethanol as a Gasoline Additive, N.Y. TIMES, Apr. 29, 1995, at 12; Daniel Southerland, Clinton Mandate on Cleaner Gas Rejected; Court Dismisses Requirement of Corn-based Ethanol as Additive, WASH. POST, Apr. 29, 1995, at C1; Wrong Righted/Court Overturns EPA Mandate on Corn-based Ethanol, Hous. Chron., May 1, 1995, at 18; EPA's Corn Bias, SACRAMENTO BEE, May, 11, 1995, at B6; A. Blakeman Early, Keep Pork-Barrel Politics out of the Air Cleanup, Hous. Chron., May 23, 1995, at 17; Cindy Skrzycki, The Regulators: Refiners' Ethanol Victory, WASH. POST, May 12, 1995, at F1; Ben W. Bolch & Harold Lyons, Alcohol Haze. Argument Against Ethanol in Gasoline, 47 NAT'L REV. 34 (1995).

^{123.} See supra notes 51-52 and accompanying text.

ozone-forming volatile organic compounds (VOCs) and carbon monoxide. As the dispute between the EPA and the American Petroleum Institute focused on the first two sentences of the section, it is germane to quote them here.

Within 1 year after November 15, 1990, the [EPA] Administrator shall promulgate regulations under this section establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas. Such regulations shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements. 127

B. The Renewable Oxygenate Requirement

Undoubtedly anticipating a legal battle, the EPA was careful to justify the ROR and to set out its basis for believing that it had the power to promulgate such a requirement. Based on the text of the statute, the

124. Through the amended Clean Air Act of 1990, Congress mandated that EPA promulgate new regulations requiring that gasoline sold in certain areas be reformulated to reduce vehicle emissions of toxic and ozone-forming compounds. This document finalizes the rules for the certification and enforcement of reformulated gasoline and provisions for unreformulated or conventional gasoline.

Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 7,716, 7,716 (1994) (to be codified at 40 C.F.R. pt. 80).

- 125. In 1990, the nonattainment areas were Baltimore, Chicago, Hartford, Houston, Milwaukee, New York, Philadelphia, San Diego, and Los Angeles. *See Car, Fuels, and Clean Air, supra* note 32, at 1983 (citing COMMITTEE ON ENERGY AND COMMERCE, REPORT OF THE CLEAN AIR ACT AMENDMENTS OF 1990, H.R. REP. No. 490, 101st Cong., 2d Sess. pt. 1, at 230 (1990)).
- 126. VOCs contribute to the production of ozone via a photochemical reaction with nitrogen oxides (collectively referred to as NO_x). See Cars, Fuels, and Clean Air, supra note 32, at 1950-51.
 - 127. 42 U.S.C. § 7545(k)(1) (1994).
- 128. See Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258, 39,263-66 (1994) (to be codified at 40 C.F.R. pt. 80).

EPA stated that the final rule¹²⁹ was a "reasonable exercise of the discretionary authority granted the agency under section 211(k)(1) of the Act."¹³⁰ The EPA interpreted the first sentence of the section to be a broad grant of power to establish the RFG program that was to operate in nonattainment areas, ¹³¹ noting that, "[o]n its own terms, the first sentence stands as a general grant of authority to establish any reasonable requirement for reformulated gasoline, with no explicit restriction on this authority other than a one year deadline for agency action."¹³²

Significantly, the EPA then interpreted the second sentence to detail the results sought by Congress, ¹³³ and not to place limits on the RFG program established in the first sentence. ¹³⁴ The EPA based its interpretation on a statutory construction basis by analogy with other sections of the CAA. ¹³⁵ Specifically, the EPA compared the structure of

133. The plain meaning of the second sentence of section 211(k)(1) corroborates EPA's view on it authority to issue this rule. This provision requires promulgation of regulations that require a certain result. The result desired by Congress is clear—the greatest achievable reductions, taking into consideration cost, energy, environmental and other impacts. There is no indication that EPA's authority is limited to establishing emissions reduction standards. In fact, this provision would authorize EPA to adopt all reasonable requirements designed to achieve the required result. The regulation adopted today is designed to ensure that the emissions reduction requirements for reformulated gasoline are achieved in a manner that reasonably optimizes the energy, cost, environmental, and other impacts of this program.

Id.

134. See id.

135. The first sentence of section 211(k)(1) both grants authority to the agency and establishes a deadline for agency action. This structure is not at all uncommon, and was employed by Congress in several similar provisions adopted in 1990.

*** The general framework of section 211(k) is also not unique—a grant of broad general authority in (k)(1) followed by several detailed provisions that ensure certain minimum actions are taken. This is consistent with the approach taken by Congress in various other provisions of Title II of the Clean Air Act. For example, Congress

^{129.} See id.

^{130.} Id. at 39,263.

^{131.} See id.

^{132.} Id.

section 211(k) to sections 202(a) and 211(c)(1) of the CAA. The EPA noted that in both cases, "Congress granted EPA broad, general authority" in sections 202(a), and 211(c)(1), and that these were "supplemented by detailed provisions providing specific actions that Congress expected in these areas." 136

C. Chevron, U.S.A. v. National Resources Defense Council¹³⁷ and the Chevron Doctrine¹³⁸

Chevron involved the review of EPA regulations, issued in connection with the 1977 Amendments to the CAA ¹³⁹ and concerning air pollution, primarily by heavy industry. The Court of Appeals for the D.C. Circuit vacated the regulations. ¹⁴⁰ Certiorari was granted and the Supreme Court reversed, stating that the EPA's regulation was based on a "permissible" construction of the statute, ¹⁴¹ and in so doing, created a new two-part test for the examination of administrative agency decisions by federal courts. ¹⁴² The decision has been described variously as a "far reaching development," ¹⁴³ "a revolution in administrative law," ¹⁴⁴ and a "kind of Marbury, or counter-Marbury, for the administrative state." ¹⁴⁵ There have been almost as many law review articles and notes written about Chevron and its significance to administrative law and with regard to federalism and

granted EPA broad, general authority to regulate motor vehicles and their fuels, as in section 202(a) and section 211(c)(1). These grants of broad, general authority were then supplemented by detailed provisions providing specific actions that Congress expected in these areas.

Id.

- 136. Id. at 39,263.
- 137. 467 U.S. 837 (1984), reh'g denied, 468 U.S. 1227 (1984).
- 138. See infra notes 143-46.
- 139. See supra notes 42-44 and accompanying text.
- 140. See National Resources Defense Council v. Gorsuch, 685 F.2d 718 (D.C. Cir. 1982).
 - 141. See Chevron, 467 U.S. at 866.
 - 142. See id. at 842-43 (outlining the two-part test).
- 143. Abner J. Mikva, How Should Courts Treat Administrative Agencies?, 36 Am. U. L. REV. 1, 6 (1986).
- 144. Kenneth J. Starr, Judicial Review in the Post-Chevron Era, 3 YALE J. ON REG. 283, 307 (1986).
- 145. Cass R. Sunstein, Law and Administration After Chevron, 90 COLUM. L. REV. 2071, 2075 (1990).

the separation of powers¹⁴⁶ as there have been citations to the case.¹⁴⁷ It will only be discussed briefly here.

In *Chevron*, the Supreme Court decided that if a statute is silent or ambiguous with regard to an issue, the court is to determine whether the agency's rule is based on a "permissible" construction of the statute. ¹⁴⁸ In *Chevron*, the Supreme Court decided that the EPA's interpretation was permissible and reversed the decision of the Court of Appeals, ¹⁴⁹ explaining that:

When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute. 150

Thus, in addition to being "the leading case on the subject . . . of deference to agencies on statutory issues," 151 the case also involved the

^{146.} See generally supra notes 143-45; Quincy M. Crawford, Chevron Deference to Agency Interpretations that Delimit the Scope of the Agency's Jurisdiction, 61 U. CHI. L. REV. 957 (1994); Paul E. McGreal, Some Rice with your Chevron?: Presumption and Deference in Regulatory Preemption, CASE W. RES. L. REV. 823 (1995); Christopher J. Nowicki, A Step Back from Chevron? An Analysis of Kelley v. EPA, 9 ADMIN. L.J. AM. U. 221 (1995); Richard J. Pierce, The Supreme Court's New Hypertextualism: an Invitation to Cacophony and Incoherence in the Administrative State, 95 COLUM. L. REV. 749 (1995); Mark Seidenfeld, A Syncopated Chevron; Emphasizing Reasoned Decision Making in Reviewing Agency Interpretations of Statutes, 73 TEX. L. REV. 83 (1994); Russell L. Weaver, Some Realism About Chevron, 58 Mo. L. REV. 129 (1993).

^{147.} The decision was cited 600 times within three and a half years of it being written, and as of September 1997, the case has been cited over 6200 times, according to Westlaw's Keycite service.

^{148.} See Chevron, 467 U.S. at 842-43.

^{149.} See id. at 866.

^{150.} Id. at 842-43.

^{151.} Ronald M. Levin, Judicial Review of Administrative Action in a Conservative Era, 39 ADMIN. L. REV. 353, 356 (1987).

CAA and achievement of the NAAQS. The 1977 Amendments to the CAA¹⁵² required states that had not achieved the NAAQS set out in 1970 Amendments to the CAA,¹⁵³ to establish a permit program regulating "new or modified major stationary sources" of air pollution.¹⁵⁴ This meant primarily heavy industry; factories, foundries, chemical plants, and the like.¹⁵⁵ Stringent conditions had to be met before the EPA would issue a permit to allow new or modified major stationary sources of pollution to operate in nonattainment areas.¹⁵⁶

The EPA regulations issued in 1981¹⁵⁷ allowed states to consider stationary sources on a plant-wide basis rather than in terms of individual buildings and machines. This became known as the "bubble" concept because pollution-emitting devices at a single facility were considered to be encased in a single "bubble" and their polluting effects were combined. Respondents challenged this interpretation, because it allowed polluters to modify several devices and/or add new pollution-emitting devices, as long as the total level of emissions from the plant-wide bubble was not increased. Respondents argued that the goal of the amendments was to effect a *reduction* in pollution, not simply the maintenance of air quality. The Court of Appeals agreed with this argument and held that while the "bubble" concept was applicable to regulations concerning the *maintenance* of air quality, it was not

^{152.} See supra notes 42-44 and accompanying text.

^{153.} Pub. L. No. 91-106, 84 Stat. 1676 (requiring that the NAAQS be achieved by 1975).

^{154.} See 40 C.F.R. § 51.18(j)(1)(i)-(ii) (1983) (defining "stationary source").

^{155.} See id.

^{156.} See 1977 Amendments to the CAA § 172(b)(6), 42 U.S.C. § 7502(b)(6) (1988).

^{157.} Requirements for Preparation, Adoption and Submittal of Implementation Plans and Approval and Promulgation of Implementation Plans, 46 Fed. Reg. 50,766 (1981) (to be codified at 40 C.F.R. pts. 51 & 52).

^{158.} See Chevron, 467 U.S. at 840 (citing 40 C.F.R. § 51.18(j)(1)(i)-(ii)).

^{159.} See Jack L. Landau, Chevron, U.S.A. v. NDRC: The Supreme Court Declines to Burst EPA's Bubble Concept, 15 ENVTL. L. 285 (1985).

^{160. 42} U.S.C. § 7607(b)(1); see also infra note 188.

^{161.} See Chevron, 467 U.S. at 841-842 (citing National Resources Defense Council v. Gorsuch, 685 F.2d 718 (D.C. Cir. 1982)).

^{162.} See Gorsuch, 685 F.2d 718 (D.C. Cir. 1982).

^{163.} See Alabama Power Co. v. Costle, 636 F.2d 323 (D.C. Cir. 1979); ASARCO Inc. v. EPA, 578 F.2d 319 (D.C. Cir. 1978).

appropriate with regard to regulations aimed at *improving* air quality, which the rule aimed at nonattainment areas clearly was. 164

The Supreme Court stated that error in the Court of Appeals' reasoning was that it adopted a "static . . . definition of the term 'stationary source.'"165 The Supreme Court noted that the legislation, and moreover the legislative history, was ambiguous with regard to the meaning of the term. 166 Thus, having decided that the Court of Appeals conducted an inappropriate review, the Supreme Court set about answering the second question—whether the EPA's rule was based on a "permissible" construction of the statute. The Court did this by an examination of the 1970 Amendments, 168 specifically section 109 concerning the NAAQS, 169 section 110¹⁷⁰ directing the states to develop plans¹⁷¹ to achieve the NAAQS, and section 111 which contained the definition of a "stationary source." The court further noted the failure of Congress in 1976 to agree on measures to address nonattainment of air quality standards by the industrialized States. 173 Additionally, the Court referred to the EPA's Emissions Offset Interpretive Ruling of December 1976, 174 which was a stop-gap measure until Congress acted with regard to the nonattainment areas. 175 The court then examined the 1977 Amendments to the CAA, 176 specifically 42 U.S.C. §§ 7501-7508 which dealt with nonattainment areas and the definition of "major stationary source."177 The statute required nonattainment States to develop plans to achieve the NAAQS as quickly as possible. 178 The deadline for attainment

^{164.} See Chevron, 467 U.S. at 841-842 (citing Gorsuch, 685 F.2d at 726).

^{165.} Id. at 842.

^{166.} See id. at 841-42 (quoting Gorsuch, 685 F.2d at 726 n.39), 851-52.

^{167.} See id. at 842.

^{168.} See supra notes 31-32 and accompanying text.

^{169.} See supra note 38 and accompanying text.

^{170. 42} U.S.C. § 7410 (1994) (requiring states to develop implementation plans, SIPs).

^{171.} See generally supra note 39 (discussing SIPs).

^{172.} See 42 U.S.C. § 7411 (1994) (defining "stationary source").

^{173.} See Chevron, 467 U.S. at 847 n.19 (noting that both houses of Congress had passed comprehensive bills but that the conference report was rejected by the Senate).

^{174.} Id.

^{175.} See id. at 847-48.

^{176.} See id. at 848-49; supra notes 42-44 and accompanying text.

^{177.} See Chevron, 467 U.S. at 850-51.

^{178.} See id. at 849.

of the NAAQS was set for December 31, 1982¹⁷⁹ and in the worst cases December 31, 1987.¹⁸⁰ In addition, there was an ongoing requirement to make "reasonable further progress" (*i.e.*, incremental annual improvements) in the meantime.¹⁸¹ Furthermore, the Amendments discussed the issuing of "permits for the construction and operation of new major stationary sources."¹⁸² The Court noted that nowhere did the statute explicitly address the bubble concept in connection with new stationary sources of pollution, nor did the legislative history in either House of Congress.¹⁸³ However, the Supreme Court concluded that the EPA's construction was reasonable, given that there was no clear statement in the statute or in the legislative history.¹⁸⁴ As a result, the Supreme Court reversed the Court of Appeals.¹⁸⁵

V. AMERICAN PETROLEUM INSTITUTE V. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY¹⁸⁶

Applying the two-part *Chevron* test,¹⁸⁷ the Court of Appeals for the D.C. Circuit¹⁸⁸ held that the section of the CAA establishing the RFG program,¹⁸⁹ "precludes the adoption of RFG rules that are not directed toward reduction of VOCs and toxic emissions, and, since the statute is unambiguous, EPA improperly interpreted the section as giving it the broader power to adopt the ROR." ¹⁹⁰

^{179.} See id.

^{180.} See id.

^{181.} See §§ 172(B) & 171(1) of the 1977 Amendments; see also 42 U.S.C. § 7501 (defining "reasonable further progress") (1988); see generally supra notes 42-44 and accompanying text.

^{182.} Chevron, 467 U.S. at 850.

^{183.} See id. at 851.

^{184.} See id. at 859-64, 866.

^{185.} See id. at 842.

^{186. 52} F.3d 1113 (D.C. Cir. 1995).

^{187.} See supra notes 137-46 and accompanying text.

^{188.} Pursuant to 42 U.S.C. § 7607(b)(1), petitions for review of any action of the EPA relating to air pollution must be filed in the United States Court of Appeals for the District of Columbia.

^{189. 1990} Amendments to the CAA \S 211(k)(1), 42 U.S.C. \S 7545(k)(1) (establishing the RFG program) (1994).

^{190.} American Petroleum Institute, 52 F.3d at 1119.

Circuit Judge Sentelle wrote for a unanimous panel. ¹⁹¹ The opinion first examined section 211(k) of the Clean Air Act ¹⁹² which established the RFG program, and required the EPA to promulgate regulations for RFG to be used in cars in nonattainment areas. ¹⁹³ It was further noted that the same section required the reduction of emissions of ozone-forming volatile organic compounds (VOCs), again through reformulated gasoline. ¹⁹⁴ The addition of oxygenates to gasoline and the various oxygenates in use were then briefly discussed. ¹⁹⁵ The court then considered the history of the proposed rules and rules promulgated with regard to the RFG program generally ¹⁹⁶ and then specifically regarding the ROR. ¹⁹⁷ The court noted:

[the] EPA stated that the oxygenate requirements of the RFG program also provided the potential to expand the market for ethanol and other renewable oxygenates, although it noted that the VOC emission performance standards of the RFG program raised the concern that ethanol would be unable to compete due to volatility problems. Accordingly, EPA determined that ethanol would have to be blended with special reduced-volatility blendstocks in the summer or that it would have to be converted to ETBE in order to meet the RFG program's emission restrictions. Nevertheless, EPA set a minimum thirty percent market share for renewable oxygenates, based on the market share ethanol obtained under the oxygenated fuel program¹⁹⁸ for the winter months. 199

The court then turned to and listed the petitioners' arguments.²⁰⁰ The first argument was that the EPA lacked the statutory authority to impose the ROR because the ROR apparently violated the CAA itself and would

^{191.} See id. at 1115.

^{192.} See 42 U.S.C. § 7545(k) (1994).

^{193.} See American Petroleum Institute, 52 F.3d at 1115 (quoting § 7545(k)(1)). See generally supra notes 65-70 and accompanying text.

^{194.} See American Petroleum Institute, 52 F.3d at 1115.

^{195.} See id.

^{196.} See id. at 1115-16.

^{197.} See id.

^{198.} See supra note 81.

^{199.} American Petroleum Institute, 52 F.3d at 1116 (citing Regulation of Fuels and Fuel Additives, 59 Fed. Reg. at 39,262 (1994)) (emphasis added).

^{200.} See id. at 1116-17.

undermine one of the stated objectives, that of reducing VOCs. ²⁰¹ Second, the petitioners argued that the ROR was arbitrary and capricious because it interfered with California's RFG program. ²⁰² The court did not consider this argument further. The court then considered the petitioners' argument that the primary objectives of the RFG program were set forth in section 7545(k)(1) as reducing emissions of VOCs and carbon monoxide via the reformulation of gasoline. ²⁰³ Because the EPA's stated goal of promoting renewable oxygenates was different from those specified in section 7545(k)(1), petitioners argued that the EPA had overstepped its authority. ²⁰⁴

The court noted that section 7545(k)(1) states that the RFG program should seek to achieve the greatest reduction in emissions while "taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements." Petitioners argued that these factors were expressly to be considered and were not independent goals. The court also noted the argument that there was nothing in the section of the statute or in the legislative history to suggest that Congress intended the EPA to take up its own goals and factor these into the formulation and promulgation of its rules.

The court discussed petitioners' final argument that under 42 U.S.C. § 7545(c)²⁰⁸ the EPA had the authority to control or prohibit the manufacture and sale of fuel or additives that will contribute to air pollution.²⁰⁹ Before prohibiting any such fuel or additive, the EPA is required to publish a finding that the prohibition will not cause the use of any other additive that will produce worse emissions.²¹⁰ Petitioners' argued that the EPA had not published the required finding that the prohibition of non-ethanol oxygenates would not make the situation worse.²¹¹

^{201.} See id.

^{202.} See id. at 1116. See generally Tara A. Stanton, The Battle Over the Electric Car: The Big Three vs. the Northeastern States, 8 Tul. Envtl. L.J. 553 (1995) (discussing California's RFG program).

^{203.} See American Petroleum Institute, 52 F.3d at 1117.

^{204.} See id.

^{205.} Id.

^{206.} See id.

^{207.} See id.

^{208.} See id.

^{209.} See id. (citing 42 U.S.C. § 7545(c)(2)(A),(B)).

^{210.} See id. (citing 42 U.S.C. § 7545(c)(2)(C)).

^{211.} See id. at 1117.

The opinion then considered the EPA's arguments which were based largely on section 7601(a)(1) of the CAA²¹² and the *Chevron* case.²¹³ Section 7601(a)(1) of the CAA gives the EPA the authority to promulgate such regulations as required to carry out its functions under the Act.²¹⁴ In *Chevron*, the Supreme Court set out the following two-stage review process²¹⁵ when considering cases against administrative agency regulations: (1) if Congress's intent was clear, the court must give effect to that;²¹⁶ and (2) if a statute was silent or ambiguous with regard to an issue then the question for the court to determine is whether the agency's rule is based on a permissible construction of the statute.²¹⁷

The EPA used the argument already rehearsed in the text of the ROR itself. ²¹⁸ The EPA stated that the first sentence of 7545(k)(1) provided broad authority, ²¹⁹ that the second sentence was not a limit on that authority, ²²⁰ and that under *Chevron*, the agency's interpretation of the statute must be given deference. ²²¹ The court concluded that the plain meaning of section 7545(k)(1) prevented the EPA from adopting any regulation contrary to the goals of reduced VOC and toxic air pollutant emissions stated in the second sentence of the section. ²²² Citing *Sierra Club v. EPA*, ²²³ the court noted that, "EPA cannot rely on its general authority to make rules necessary to carry out its functions when a specific statutory directive defines the relevant functions of EPA in a particular area." ²²⁴ Furthermore, the court refused to accept the EPA's position that because Congress had not explicitly limited EPA's authority to create the

^{212.} See 42 U.S.C. § 7601(a)(1) (1994).

^{213.} See supra notes 137-84 and accompanying text.

^{214.} See 42 U.S.C. § 7601(a)(1).

^{215.} See supra notes 137-85 and accompanying text.

^{216.} See id.

^{217.} See id.

^{218.} See American Petroleum Institute v. EPA, 52 F.3d 1113, 1118 (D.C. Cir. 1995); see also supra notes 128-36 and accompanying text.

^{219.} See American Petroleum Institute, 52 F.3d at 1118.

^{220.} See id.

^{221.} See id.

^{222.} See id. at 1119.

^{223. 719} F.2d 436, 455 (D.C. Cir. 1983), cert. denied, 468 U.S. 1204 (1984).

^{224.} American Petroleum Institute, 52 F.3d at 1119.

ROR, that such a power was to be implied and that, once such a power was implied, the EPA's rule was to be given deference.²²⁵

The court noted that, "EPA cannot use the general rulemaking authority under section 7601(a)(1) as justification for adding new factors to a list of statutorily specified ones." Furthermore, the court noted that it "must not be guided by a single sentence of a statute but must look to the provisions of the whole law and to its object and policy." The court disagreed with EPA's interpretation of the second sentence, noting that the overall goal of the section was to improve air quality and that the factors listed in the second sentence were subordinate to this goal. 228

225. In effect, EPA argues that because Congress has not explicitly limited its authority to promulgate a renewable oxygenate requirement, its interpretation of section 7545(k)(1) thus passes Chevron's first step, and this court must then defer to its expansive interpretation of the section under Chevron's second step. To suggest, however, "that Chevron step two is implicated any time a statute does not expressly negate the existence of a claimed administrative power (i.e., when the statute is not written in 'thou shalt not' terms), is both flatly unfaithful to the principles of administrative law . . . and refuted by precedent." Railway Labor Executives' Ass'n v. National Mediation Bd., 29 F.3d 655, 671 (D.C. Cir. 1994) (in banc), cert. denied, 514 U.S. 1032, 115 S. Ct. 1392, 131 L. Ed. 2d 243 (1995). Thus, we will not presume a delegation of power based solely on the fact that there is not an express withholding of such power. Ethyl Corp. v. EPA, 51 F.3d 1053, 1060-61 (D.C. Cir. 1995). [emphasis added].

Id. at 1120.

226. *Id.* at 1119 (citing Natural Resources Defense Council v. Reilly, 976 F.2d 36, 41 (D.C. Cir. 1992), "the court observed that the general grant of rulemaking power to EPA cannot trump specific portions of the CAA").

227. Id. (citing United States Nat'l Bank of Oregon v. Independent Ins. Agents of Am., 113 S. Ct. 2173, 2182 (1993) (The "court must not be guided by a single sentence of a statute but must look to the provisions of the whole law and to its object and policy.")).

228. Section 7545(k)(1) authorizes the adoption of regulations to achieve the greatest reduction in emissions of VOCs and toxics and the consideration of nonair-quality factors listed in the section is only to ensure that any emission reduction steps do not have inordinate economic, environmental, or energy effects. The overriding goal is air quality, and the other listed considerations are subordinate to that goal. Once EPA has taken the factors into consideration in the context of attaining the greatest reduction in VOCs and

Finally, the court analyzed the petitioners's argument regarding section 7545(c), that by prohibiting the use of non-ethanol oxygenates in thirty percent of the RFG market, the EPA had not published the required finding that the prohibition of non-ethanol oxygenates would not make the air pollution situation worse. Citing Amoco Oil Co. v. EPA, 230 the court concluded that with regard to a fuel additive already in commercial use the EPA had to follow section 7545(c) and that section 7545(k)(1) did not grant any "independent source of authority to control or prohibit" a gasoline additive. 231

Thus, the court concluded that the EPA had overstepped its regulatory authority on several bases and struck down the ROR.²³² The court decided the case²³³ by a straightforward application of the well-established *Chevron* doctrine.²³⁴ In determining whether the EPA's interpretation was reasonable, the court weighed heavily the EPA's own admission that the ROR could actually lead to increased VOC emissions²³⁵ and decided that the plain meaning of section 7545(k)(1) precluded the measure.²³⁶

toxics emissions achievable, the statute does not authorize it to use these factors as a basis for imposing any additional restrictions on RFG, even if the additional restrictions would yield some benefit among the factors to be taken into consideration. Accordingly, since EPA must consider factors such as "energy requirements" only as subordinate concerns to clear goals of the RFG program, it lacks the authority to promulgate the ROR, which advances the use of renewable oxygenates not in furtherance of, and perhaps at the expense of, reductions in VOCs and toxics emissions.

Id. at 1120.

- 229. See id. at 1117.
- 230. See Amoco Oil Co. v. EPA, 501 F.2d 722 (D.C. Cir. 1974).
- 231. See American Petroleum Institute, 52 F.3d at 1121.
- 232. See id.
- 233. See id. at 1117-19.
- 234. See supra notes 137-85 and accompanying text (regarding the Chevron doctrine).
- 235. See American Petroleum Institute, 52 F.3d at 1119 (citing Regulation of Fuels and Fuel Additives, 59 Fed. Reg. at 39,268 (1994)).
 - 236. See id. at 1119.

VI. EVENTS SINCE APRIL 28, 1995 AND THE CURRENT STATE OF THE DEBATE.

Since the American Petroleum Institute decision, the debate regarding the use of ethanol in RFG has shifted in favor of more tax breaks to encourage the use of ethanol, but little else has changed.²³⁷ The EPA recommended,²³⁸ and the Department of Justice sought,²³⁹ a rehearing by the full Court of Appeals, despite political criticism.²⁴⁰ Furthermore, the American Corn Growers Association stated that the appeal was "divisive" and "counterproductive."²⁴¹ The Department of Justice was rebuffed: on July 5, 1995, the court refused the request for a rehearing.²⁴² EPA Administrator Carol Browner said that the Clinton administration was "considering its legal options and will continue to explore other ways to promote the use of renewable fuels like ethanol."²⁴³ There were reports that the EPA was considering an appeal to the Supreme Court,²⁴⁴ though ultimately no appeal was filed.

Politically, there have been many developments with regard to tax breaks for ethanol and ETBE. *PR Newswire* carried excerpts from a letter written by Dean Kleckner, President of the American Farm Bureau

^{237.} It was noted that little had changed in the aftermath of the court decision: ethanol was still being used as the oxygenate in some RFG and would continue to be used. After ROS Overrule, Renewables Backers Seek Other Avenues, 10 OCTANE WK. 1 (1995). The article also noted that they key reason for using ethanol, the fifty-four cents per gallon Federal excise tax exemption, was still in force. Id. Demand for ethanol had been high in the Milwaukee and Chicago areas because of the controversy over the health effects of MTBE. Id. See generally supra note 113.

^{238.} See Maureen Lorenzetti, Ethanol Holds on to a Blessed Life, 73 PLATT'S OILGRAM NEWS 1 (1995); EPA Plans to Challenge Ruling Adverse to Ethanol, HOUS. CHRON., June 4, 1995, at 9D; EPA Will Appeal Ethanol Decision, St. Louis Post-Dispatch, June 3, 1995, at 14A.

^{239.} See Susan Bruninga, Air Pollution: DOJ Decides to Seek Rehearing of Renewable Oxygenate Standard, DAILY ENV'T REP., June 13, 1995, at 113; EPA Plans to Challenge Ruling Adverse to Ethanol, HOUS. CHRON., June 4, 1995, at 9D.

^{240.} EPA Effort to Appeal Renewable Oxy Ruling Receives Flak From Congress, ENERGY REP., June 12, 1995, at 1.

^{241.} Corn Growers Say EPA Appeal Divisive and Counterproductive, ENERGY REP., June 19, 1995, at 1 (discussing the American Corn Growers Association's "Oxyfuels 2000" plan which called for a general expansion in the use of ethanol and ETBE, encouraged by further tax credits and exemptions for the fuels).

^{242.} See Court of Appeals Refuses to Rehear ROS, OCTANE WK., July 10, 1995, at 1.

^{243.} *Id*.

^{244.} See EPA Mulls Supreme Court Petition after Appeals Court Denies Rehearing, ENERGY REP. July 17, 1995, at 1.

Federation, to President Clinton. The letter asked that the administration continue its commitment to ethanol in RFG, and asked that the Treasury Department finalize its proposal to extend the Federal Excise Tax Exemption to ETBE. The American Corn Growers Association stated that the EPA's appeal was counterproductive and that they would prefer to move forward in other ways, such as the tax credit for ETBE. Torn growers renewed their efforts to secure the tax credit for ETBE following a letter by ten senators from the Senate Finance Committee to the EPA that such a matter should be decided by Congress and legislation, not by the EPA. The American Corn Growers Association believed that, "the future for the ethanol industry lies in the expansion of ETBE. A favorable ruling by [the] Treasury would be the culmination of many years of hard work on this important issue for corn growers." On August 4, 1995, the Treasury approved an expansion of the ethanol tax break, the first property of the ethanol of the ethanol tax break, the first property of the ethanol of the ethanol tax break, the first property of the ethanol of the ethanol tax break, the first property of the ethanol of the ethanol tax break, the first property of the ethanol of

VII. CONCLUSION

In promulgating the renewable oxygenate requirement, the EPA was wrong both with regard to its power to establish the requirement²⁵² and with regard to the merits of the issue.²⁵³ Furthermore, the EPA was pushing the envelope with regard to the former and actually conceded the

^{245.} See Leading Farm Organization Asks President Clinton for Competition in Gasoline Additive Market, Cites 'Serious Health Considerations' for MTBE, PR NEWSWIRE May, 24, 1995, at 1.

^{246.} See id.

^{247.} See Maureen Lorenzetti, Ethanol Lobby Fights to Turn the Tide on RFG Ethanol Mandate, Platt's Int'l Petrochemical Rep., June 22, 1995, at 1; Maureen Lorenzetti, Ethanol, Loser in Court, Looks to Taxes, Wants Existing Subsidies Altered, Platt's Oilgram News, June 23, 1995, at 1.

^{248.} See Timothy Noah, Administration Considers Wider Ethanol Subsidies, WALL St. J., June 15, 1995, at 1.

^{249.} Laurie Lande, U.S. Corn Growers Lobbying for Greater Ethanol Tax Break, Dow Jones Int'l News Service, June 26, 1995, at 1.

^{250.} See George Gunset, Tax Step Helps ADM; Probe Panel Shrinks, CHI. TRIB., Aug. 5, 1995, § 2, at 1; Timothy Noah, Clinton Expands Ethanol Tax Break in Move Likely to Help Archer-Daniels, WALL St. J., Aug. 7, 1995, at A9D; Wooing the Ethanol Vote is Costly, CHI. TRIB., Aug. 12, 1995, at 18.

^{251.} See id.

^{252.} See supra notes 224-28, 231-36 and accompanying text.

^{253.} See supra notes 76-77 and accompanying text.

latter in the text of the ROR itself.²⁵⁴ The EPA was apparently bowing to the farmers's lobby, primarily for the benefit of President Clinton's reelection campaign, as several commentators have noted. For example, a Sacramento Bee editorial stated that:

The rule mandating ethanol was not about clean air but about doling out economic benefits to farm states for the political advantage of President Clinton and farm-state legislators in Congress. The EPA rule carved out a 30 percent market share for the corn-based additive, giving it a competitive advantage over methanol, a petroleum-based product.²⁵⁵ Corn farmers in the Midwest stood to gain an estimated \$1.5 billion annually under the rule.²⁵⁶

MTBE, the other major oxygenate used in RFG, has been unfavorably received in the last year, with allegations that it is carcinogenic and has induced sickness.²⁵⁷ The public health issue seems to be largely a red herring raised by the ethanol industry and its supporters to muddy the waters.²⁵⁸ The flames of the allegations, of course, are being fanned by an insatiable media and a poorly informed public.²⁵⁹ The MTBE public health issue remains unresolved. Studies are being conducted to resolve the question and, perhaps even more, to calm public uneasiness with MTBE.²⁶⁰ However, given that the complaints have only arisen in selected areas,²⁶¹ appeared to have been generated and fueled by a media frenzy, and dissipate once the media has lost interest,²⁶² it is unclear whether or

^{254. 59} Fed. Reg. 39,258, 39,260 (1994).

^{255.} MTBE is produced from natural gas (methane) and/or methanol (methanol itself is not used as an oxygenate). On this point, it is actually debatable whether the ROR did give ethanol a great advantage over the other oxygenates. Ethanol had actually captured 30% of the market before the ROR. See supra note 80. The key reason for ethanol's success is and was the tax break—fifty-four cents per gallon. See Regulation of Fuels and Fuel Additives, 59 Fed. Reg. 39,258, 39,261 (1994).

^{256.} EPA's Com Bias, SACRAMENTO BEE, May 11, 1995, at 1.

^{257.} See generally supra note 113 and accompanying text.

^{258.} See Behm, supra note 113, at B1.

^{259.} See Boyer, supra note 113, at D1 (suggesting that the media was largely responsible for the fuss).

^{260.} See Behm, supra note 113, at B1 (noting that one of the authors of the scientific papers reporting that MTBE could be carcinogenic in animal testing, stated that his studies did not mean that there was an increased risk of cancer in humans exposed to minute amounts of MTBE through contact with RFG).

^{261.} See supra note 113 and accompanying text.

^{262.} See Boyer, supra note 113, at D1.

not the fears are valid.²⁶³ In addition, nationalist fears are being pandered to by the argument that MTBE is produced from oil and gas, a large amount of which the United States imports, whereas ethanol and ETBE can be derived from home-grown corn.²⁶⁴

The oil industry, although obviously acting essentially out of self-interest, had both the science and the environmentalists on its side. The very existence of such an unlikely alliance should at least raise red flags if not cause the circuit breakers to trip. It should surely cause one to examine the issue more closely.

The ethanol tax breaks should be recognized for what they are; subsidies to agriculture and, above all, the ethanol industry. They should not be cloaked in the respectability of an environmental measure, nor presented to the electorate on that basis. By the EPA's own statement in the text of the ROR, the use of ethanol in RFG could actually increase VOC pollution. What sort of an "environmental" measure is that?

The question of which oxygenate should be added to RFG requires more independent scientific research and discussion in the peer-reviewed scientific literature and other forums. The question does not need more ill-informed and biased political measures. The research will probably have to be government-funded and conducted at national laboratories or universities to avoid the obvious challenge that research funded by either the oil or ethanol industries would be tainted. However, even on the basis of current knowledge, the use of MTBE and ETBE should be encouraged. There really is no reason why RFG should not be required nationwide. Furthermore, there is no justification for the ethanol volatility waiver. ²⁶⁸ The technology exists to convert ethanol to the much less volatile ETBE.

Supporting the use of renewable fuels is sensible and laudable, providing there is sufficient scientific evidence to justify their use. The 1977 Amendments to the CAA required the air quality criteria to "reflect accurately the latest scientific knowledge." That is a perfectly reasonable standard with regard to reformulated gasoline and ethanol too.

William M. Brown

^{263.} See Behm, supra note 113, at B1.

^{264.} See Edwin S. Rothschild, The Real Reason Mobil Opposes Ethanol Rule, N.Y. TIMES, Oct. 1, 1994, at 22 (letter to the editor).

^{265.} See generally Parrish, supra note 100, at 1.

^{266.} See Editorial, supra note 88, at A26.

^{267.} See supra note 25 and accompanying text.

^{268.} See 42 U.S.C. § 7545(h)(4) (1994).

^{269.} See supra note 82.

^{270. 42} U.S.C. § 7408(a)(2) (1994).