The Mobile Source Air Toxics Rule: How Does the Greatest Reduction Become No Reduction

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In Sierra Club v. EPA the Court of Appeals for the D.C. Circuit held that the EPA had acted within the Clean Air Act's statutory mandate in promulgating the Mobile Source Air Toxics Rule despite the fact that the rule did not actual require any reduction in emission levels. By allowing an excessive consideration of cost, a continued deferral of rulemaking, and a perpetual search for more information, the court failed to ensure that emissions be reduced through technological innovation as the statute directs. The decision is insufficient in its scrutiny of the rule's relation to the statutory mandate, and thereby establishes a dangerous erosion of technology forcing standards.

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INTRODUCTION

In 1990 Congress overhauled the Clean Air Act (CAA), adding a requirement that the EPA study mobile source-derived emissions, known as Mobile Source Air Toxics (MSATs), and develop a regulatory program that would attain the “greatest degree of emission reduction achievable.” Part of the motivation behind the changes was the Environmental Protection Agency’s (EPA) poor track record in following the emission reduction directions of Congress. After conducting studies for ten years, the EPA issued its final MSAT rule in 2001, which ultimately did not require the nation’s oil refineries to produce fuels any cleaner than they already were. In Sierra Club v. EPA, environmentalists alleged the rule’s inadequacy in light of the congressional mandate. The Court of Appeals for the D.C. Circuit, however, rejected the environmental petitioners’ claims and let the EPA’s rule stand virtually in its entirety, frustrating Congress’ attempts, both here and in the future, to strengthen the effectiveness of the Clean Air Act.

1. Mobile sources include cars, trains, airplanes, etc.
3. See infra notes 13-14, 148-149 and surrounding text.
This note will examine the court's rejection of the challenges posed by the environmental petitioners and will critique the holding for its effect on overall clean air regulation and for the disregard of the congressional intent behind the amendments. Section I will examine the history of mobile source emissions controls and the mechanics of the new MSAT rule. Section II will describe the Sierra Club v. EPA opinion as it addressed the challenges posed by the environmental petitioners. Section III will look at three major problems with the outcome of the MSAT rule. First, the court's failure to recognize the importance of technology-forcing standards, such as those embodied in the CAA, weakened this significant regulatory tool. Second, the court's definition of the term "reductions" added unnecessary confusion to a crucial phrase in pollution regulation statutes. Third, the court ignored legislative history of the Act, which indicated Congress did not want to simply maintain the existing level of MSATs found in vehicle emissions. The note concludes that the Sierra Club v. EPA opinion should be narrowly limited to situations in which a regulated industry undergoes drastic technological changes, and that the court's rationale should not be allowed to swallow Congress' intent in urging the EPA to issue the strictest possible emissions controls.

I. OVERVIEW OF THE CAA AMENDMENTS AND MSATS

A. Emissions from Mobile Sources are Responsible for a Large Portion of the Nation's Toxic Pollutant Emissions

Mobile source emissions include emissions from cars, trucks, airplanes, marine vessels, etc. Mobile sources emit several pollutants shown to cause harm to human health and welfare, and they are the single largest source of air pollution in the country. They are responsible for a large portion of the nation's criteria pollutant emissions, including CO, NOx, VOCs, lead and sulfur dioxide. Additionally, mobile sources are responsible for another variety of emissions known as "hazardous air pollutants," or HAPs. Of the many pollutants the EPA has classified as HAPs, a subgroup of twenty-one pollutants emitted by mobile sources

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5. This note focuses on the rule's implications for fuel production and does not cover the details of the vehicle control requirements as they were relatively minor.

6. Id.


8. The EPA has set National Ambient Air Quality Standards for six principal pollutants (sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, and lead), which are called "criteria" pollutants. See, ENVTL. PROT. AGENCY, WHAT ARE THE SIX COMMON AIR POLLUTANTS?, at http://www.epa.gov/air/urbanair/6poll.html (last updated Mar. 23, 2004); see also REITZE, supra note 7, at 33-36.

9. REITZE, supra note 7, at 269.
are of particular concern due to their potential health impacts, these are referred to as Mobile Source Air Toxics. Motor vehicles are responsible for about 21% of the nation's HAPs, and are the single largest source of the following significant HAPs: benzene (76%), acetaldehyde (70%), and 1,3-butadiene (60%). It is this category of pollutants which are the focus of the Mobile Source Air Toxics Rule that the EPA promulgated following a congressional mandate to reduce toxic emissions from mobile sources.

B. Congress's Amendments to the Clean Air Act Sought to Force the EPA to Address Mobile Source Emissions

In 1990 Congress amended the CAA, instituting major changes in the U.S. regulation of air pollution from transportation sources. While Congress retained the basic structure of the 1970 Clean Air Act, it rejected the former approach of guiding the EPA with broad goals and policy statements, imposing instead a significant number of detailed requirements for the EPA to follow. Members of Congress had been frustrated with the EPA and states' failure to effectively implement the 1977 amendments, so the 1990 changes aimed to reduce the discretion of the EPA and the states by providing more specific mandates with aggressive deadlines.

Title II of the 1990 amendments strengthened mobile source emission limits by setting more stringent requirements in four major areas: 1) imposing stricter controls on conventional vehicles; 2) new requirements for the clean up of gasoline and diesel fuels; 3) 'clean-fuel' vehicle programs; and 4) "a first-time program to control emissions from non-road vehicles such as trains, ships, and construction equipment." Congress had regulated the production of new vehicles and the components of fuels before, but the 1990 amendments are said to have

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11. See generally, WILLIAM F. BROWNELL, CLEAN AIR HANDBOOK 16-26 (1998); REITZE, supra note 7, at 9-29.
13. See id. at 153-154; Waxman, supra note 7, at 1744-45. The debate in the Senate about the Mobile Source Air Toxics rule (the focus of this note) demonstrates this particularly well. Comments by Senators Lautenberg and Lieberman both clearly demonstrated a mistrust of the EPA to follow through in its mandate to protect clean air. Senator Lautenberg asked: "Why, Mr. President, am I insisting that we mandate EPA to carry out a function that will assure us of their interest and action? Because we learned from experience. Since 1970, 7 of these materials have been regulated when, in fact, the list goes beyond the 191 that we are discussing today. That has been EPA's record of inaction. That has been EPA's record of carelessness." 136 CONG. REC. S2430, S2435-36 (1990). See also infra note 128.

tripled the amount of mobile source regulation that existed in the 1970 CAA. These new statutory mandates placed the EPA under pressure to quickly develop and implement a variety of new mobile source emission control regulations.

Section 202(l)(1) of the 1990 amendments specifically named three mobile source pollutants—benzene, 1,3-butadiene, and formaldehyde—to be regulated and directed the EPA to identify others (now known as Mobile Source Air Toxics). Benzene is a “known . . . human carcinogen by all routes of exposure” and has been shown to cause various other non-cancerous physical conditions including problems with the health of the blood stream. 1,3-butadiene is also a known carcinogen and is thought to cause reproductive health problems in women. Formaldehyde is a probable human carcinogen and also causes a multitude of other non-cancerous health problems, such as soreness of the eyes, nasal, and respiratory passages, and aggravation of asthma. Congress attempted to reduce these and other health problems caused by MSATs through regulations of the manufacturing of vehicles and the refining of fuels.

While the amendments required both vehicle-based and fuel-based regulations, they had particularly strong mandates for changes in the fuel quality, and thus direct implications for refineries and other fuel producers. CAA section 202(l) required the EPA to produce a study on MSATs and then promulgate “reasonable requirements to control

15. REITZE, supra note 7, at 277.
18. Id.
19. Id. at 55.
20. Id. at 62-63. While these are the three Mobile Source Air Toxics (MSATs) specifically addressed by Congress in CAA §202(l), the EPA identified twenty others in the rulemaking for this section, most of which pose similar serious threats to human health and welfare. See generally id. at 50-83 (Chapter 3: Health Effects of Mobile Source Air Toxics). Included in the list of MSATs chosen by the EPA were the elements of diesel exhaust. While the listing does not actually trigger any specific emissions requirements, the trucking industry challenged the listing fearing its potential effects on the listing if it was followed by future actions. The court in Sierra Club v. EPA, however, rejected this challenge as premature. 325 F.3d 374, 382-383 (D.C. Cir. 2003).
21. The reformulated gasoline program and the sulfur reduction programs along with the MSAT rule all imposed requirements on the development of cleaner fuel, amongst others. See, e.g., CAA §211(c), (f), and (k); 59 Fed. Reg. 7716 (Feb. 16, 1994); 65 Fed. Reg. 6698 (Feb. 10, 2000).
hazardous air pollutants from motor vehicles and motor vehicle fuels.22 Other elements of the overall amended CAA required specific controls for certain pollutants such as CO, NOx, and hydrocarbons, but only section 202(l) specifically focused on programs to reduce the three MSATs highlighted by Congress.23 The legislative history shows these pollutants were of particular concern to Congress due to their carcinogenicity.24 Congress made the decision themselves that the health risks warranted regulation, it was up to the EPA to decide how to best manage that risk.

C. Before Issuing the Final MSAT Rule in 2001 the EPA Conducted Studies to Determine Which Toxins to Regulate and at what Levels

Pursuant to section 202(l)'s requirements, EPA conducted a study of MSATs in 1993 and did a follow-up study in 1999.25 Although the agency was supposed to have completed the rulemaking for the MSATs under section 202(l) by May of 199526 it did not issue a preliminary rule until August of 2000,27 with the final rule coming shortly thereafter, in March 2001.28 The EPA explained this delay by saying it was busy addressing the regulations required by the CAA for other pollutants.29

23. “[T]he Administrator shall complete a study of the need for, and feasibility of, controlling emissions of toxic air pollutants which are unregulated under this chapter and associated with motor vehicles and motor vehicle fuels... The study shall focus on those categories of emissions that pose the greatest risk to human health or about which significant uncertainties remain, including emissions of benzene, formaldehyde, and 1, 3 butadiene.” 42 U.S.C. 7521(l)(1) (emphasis added); CAA § 211 is the relevant section for the majority of controls on mobile source fuel; Henry A. Waxman, Gregory S. Wetstone & Philip S. Barnett, Cars, Fuels, And Clean Air: A Review of Title II of the Clean Air Act Amendments of 1990, 21 ENVTL. L. 1947, 1970 n.91 (1991) [hereinafter Waxman Review of Title I] (discussing the § 202(l) provisions, also suggesting in footnote 91 that “unregulated under this chapter” should be read narrowly as some of these pollutants are actually regulated elsewhere in the CAA as a whole).
24. See, e.g., 136 CONG. REC. S2430, S2431 (1990) (statement of Sen. Lautenberg) (Congress was aiming to lower “cancer deaths from air toxics by 75 percent.”)
29. REITZE, supra note 7, at 278. The other major regulations included those for Reformulated Gasoline (RFG) and reduced sulfur content in gasoline. See 59 Fed. Reg. 7716 (Feb. 16, 1994); 65 Fed. Reg. 6698 (Feb. 10, 2000); see generally Brief for Respondent United States Environmental Protection Agency at 11-13 [hereinafter, EPA Brief].
The final regulations developed a “Toxic Performance Requirement” (TPR) for gasoline that requires no immediate new reductions in MSATs, but requires that refineries produce gasoline that results in no greater emissions when burned than were present in the fuel content for 1998-2000. The final rule lists twenty-one MSATs but regulates only five of them: benzene, formaldehyde, 1,3-butadiene, polycyclic organic matter and acetaldehyde. The rule also allows refineries to “aggregate” the five MSATs being regulated, meaning they can choose the levels of the different pollutants in a way most economical for them, so long as the combined total emissions do not exceed a pre-defined emissions cap. In essence, refineries can trade increases in one (or more) of the five pollutants with reductions in one (or more) of the others instead of having a specific level they must achieve for each pollutant.

At the time of the rulemaking, some refineries were voluntarily “over-complying,” by reducing the benzene content of their fuels beyond what existing regulations required and often selling the excess for a profit on the open market. The EPA’s new MSAT rule capitalized on this over-compliance by counting these existing reductions as the reductions required for the current rule, and, in essence, adopting the actual 1998-2000 MSAT emission levels as the new required levels. The EPA reasoned that the maintenance of these levels helped to reduce the need for new capital investment or changes at refineries, thereby not imposing new costs. Arguing if the program was to require new investments at the refineries, that the economic burden “would be inconsistent with our

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31. Id. This is a refinery specific rule in that it does not set a limit for the industry as a whole. Instead, each refinery’s limit is determined by what its emissions were during the measurement period between 1998 to 2000.
32. Id. at 17,234.
33. Id. at 17,246 (“By focusing on the five toxic compounds modeled by the Complex Model instead of only benzene, the mass emissions of air toxics placed under anti-backsliding constraints is substantially increased. Also, by focusing on emissions instead of fuel content, the new rule will establish an appropriate performance requirement while simultaneously providing some additional flexibility to regulated entities.”); see also Sierra Club, 325 F.3d at 379.
34. Id. at 17,245; Sierra Club v. EPA, 325 F.3d 374, 379 (D.C. Cir. 2003).
35. Id..
36. Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. at 17,245 (“we believe that these refineries that have overcomplied have done so primarily because it was economically advantageous. In most cases, the financial incentive to overcomply is due to proximity to a market for chemical benzene.”); Sierra Club, 325 F.3d at 378-79.
38. Id. This maintenance of the 2000 baseline applies regardless of whether the individual refinery was actually in over-compliance.
39. Id.
finding that an anti-backsliding program at negligible cost is the most stringent program that we can justify in the near term.\textsuperscript{40}

The EPA's primary ecological justification behind requiring no new emissions reductions from fuels was that the array of other programs put into place following the 1990 amendments,\textsuperscript{41} although designed "primarily" to reduce non-MSAT pollutants, would also incidentally result in "substantial" reductions in MSATs.\textsuperscript{42} "By 2020, we project these programs will reduce the levels of on-highway emissions of benzene by 73 percent, formaldehyde by 76 percent, 1,3-butadiene by 72 percent, and acetaldehyde by 67 percent from 1990 levels."\textsuperscript{43} Because so many of these programs were requiring major modifications at the refineries, and because the EPA claimed it was not entirely sure of the technological changes that would be implemented in response to them, it argued it could not justify imposing any long-term changes at the time of the rulemaking, and that no short-term changes were possible at all.\textsuperscript{44}

II. THE SIERRA CLUB V. EPA DECISION

Following the promulgation of the final rule, several parties filed challenges to the rulemaking in the D.C. Circuit Court of Appeals pursuant to 42 U.S.C. § 7607(b)(1).\textsuperscript{45} The Sierra Club, the Natural Resources Defense Council, and Public Interest Research Group, Environmental Systems Products, Inc.\textsuperscript{46} (the "environmental

\textsuperscript{40} Id.
\textsuperscript{41} "These include our reformulated gasoline (RFG) program... our Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and standards for non-road vehicles and equipment, such as locomotives, recreational marine engines, and aircraft. We have also proposed heavy-duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements... Finally, certain other mobile source control programs have been specifically aimed at reducing toxics emissions from mobile sources (e.g., our lead phase-out programs)." Id. at 17,232.
\textsuperscript{42} Id.
\textsuperscript{43} Id.
\textsuperscript{44} Id. at 17,230; The EPA implemented the short term period from 1 to 2 years, during which the environmental petitioners agree it would be hard to require any changes in technology at the refineries. It is not clear if the refineries chose this short lead time because that was ideal for the TPR program they required, or if it did not matter since they did not believe any new requirements were possible at any time with the information they had at the time of the rulemaking. See infra, section II.5.
\textsuperscript{45} 42 U.S.C. § 7607(b)(1) is the judicial review provision which requires that challenges to the rulemakings made pursuant to the CAA amendments be filed directly in the D.C. Circuit Court of Appeals.
\textsuperscript{46} The environmental groups and Environmental System Products, Inc. (ESP) all filed together. ESP is a "provider of motor vehicle air pollutant emission testing services and testing equipment." Opening Brief of Sierra Club, United States Public Interest Research Group and Natural Resources Defense Council (Petitioners in 01-1228) and Environmental Systems Products, Inc. (Petitioner in 01-1231) at 3 [hereinafter Sierra Club Opening Brief]. The Clean Air Task Force also filed an amicus brief in support of the environmental petitioners. Sierra Club v. EPA, 325 F.3d 374, 376 (D.C. Cir. 2003).
petitioners") and the states of New York and Connecticut argued various provisions were not strict enough in their reduction of MSATs.\textsuperscript{47} The International Truck and Engine Corporation (ITEC) also challenged the action,\textsuperscript{48} but limited its objections to the listing of diesel exhaust as an MSAT,\textsuperscript{49} and did not otherwise object to the actual emissions limits imposed by the regulation.\textsuperscript{50} This note will focus on the environmental petitioners' challenges to the lack of new emissions controls for fuel and will not address the on-board vehicle controls or the diesel exhaust challenges raised by the other parties.

The environmental petitioners challenged the validity of EPA's final rule on five grounds. First, they argued the study, which the EPA was required to prepare under the statute and on which the MSAT rule was to be based, was inadequate and did not meet the statutory mandate.\textsuperscript{51} Second, they argued the MSAT rule failed to meet Congress' intent that CAA regulations be "technology-forcing," and the EPA inappropriately weighed industry cost too heavily in determining what level of emissions reductions it would require.\textsuperscript{52} Third, they argued that due to the final rule's "aggregation policy," the new regulations would not implement Congress' direction that emissions of benzene, formaldehyde and the other named MSATs be reduced.\textsuperscript{53} Fourth, they argued the new rule failed to achieve the "greatest degree of emission reduction achievable,"\textsuperscript{54} as required by the CAA.\textsuperscript{55} And, finally, they argued the lead time the EPA chose for implementing the new rule was arbitrarily short and its selection precluded the consideration of more aggressive reductions.\textsuperscript{56}

The Court of Appeals rejected all of the environmental petitioners' claims, upholding the EPA's rule under what it termed "the familiar [Administrative Procedure Act] standard of 'arbitrary and capricious.'"\textsuperscript{57}

Under the APA, where an agency has promulgated a rule pursuant to its statutory authority, courts are to "hold unlawful and set aside

\textsuperscript{47} Sierra Club, 325 F.3d at 376, 379-80. The state petitioner's challenges were primarily oriented towards on-board vehicle emissions controls, whereas the environmental petitioners looked mostly at the controls on emissions from fuel.

\textsuperscript{48} Id. at 376. The Alliance of Automobile Manufacturers, the American Petroleum Institute, the Association of International Automobile Manufacturers, Inc., and the Engine Manufacturers Association all filed as intervenors along with the ITEC. Final Joint Brief for Intervenors at ii.

\textsuperscript{49} The EPA listed diesel fuel as one of the twenty-one MSATs, but chose to not regulate it at this time. See id. at 377, 383; Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. 17,230, 17,249 (Mar. 19, 2001).

\textsuperscript{50} Sierra Club, 325 F.3d at 382-383.

\textsuperscript{51} Id. at 377.

\textsuperscript{52} Id. at 378.

\textsuperscript{53} Id. at 379.


\textsuperscript{55} Sierra Club, 325 F.3d at 379.

\textsuperscript{56} Id. at 380.

\textsuperscript{57} Id. at 377-80.
agency action, findings, and conclusions found to be... arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." The Supreme Court in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.* 59 construed this standard to require a two step process. When an agency is interpreting a statute it is charged with administering, a court first determines whether Congress has directly spoken to the issue in question. If Congress' intent is clear, the court must follow that intent. If Congress' intent is not clear, the court then assesses whether the agency's interpretation of the statute is reasonable, and not "arbitrary, capricious, or manifestly contrary to the statute." The *Sierra Club* court disposed of petitioners' first two arguments on statutory grounds, finding the literal wording of the CAA did not support their contentions. It then rejected petitioners' other arguments under the second step of *Chevron*, finding the EPA's promulgation of the MSAT rule was not arbitrary and capricious, but reasonable and rationally based upon the facts with which the agency was presented.

A. The Adequacy of the EPA's Study Did Not Affect the Validity of the MSAT Rule

The first requirement under CAA section 202(l) is that the EPA prepare a study examining "the need for, and feasibility of, controlling emissions of toxic air pollutants which are unregulated under this chapter and associated with motor vehicles and motor vehicle fuels" and then review the "means and measures for such controls." Following the creation of this study, section 202(l)(2) then requires the Administrator to, "based on the study... promulgate (and from time to time revise) regulations... containing reasonable requirements to control hazardous air pollutants from motor vehicles and motor vehicle fuels." The environmental petitioners argued the studies the EPA prepared did not "contain the statutorily required information on the 'feasibility of' and 'means and measures for' controlling MSATs," and thus the new regulations were not truly "based on" an adequate study.

The court rejected the notion that the validity of the final rule turned on the adequacy of the underlying study. First, it found nothing in the

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60. Id. at 842-43.
61. Id.
62. Id. at 844.
65. Sierra Club Opening Brief at 7, 23.
66. Id. at 23.
statute required the rule be based "exclusively" on the study, and, at any rate, petitioners had not proposed any "method of review for determining whether a rule was or was not 'based on' a study." More importantly, the court found the rule was to be based on criteria other than the studies. While section 202(l)(1) required the study to assess "feasibility" and "means and measures," section 202(l)(2) imposed specific requirements for the MSAT rule itself, which the court found either duplicated or went beyond those criteria mandated for the study. Specifically, section 202(l)(2) requires the EPA, in formulating the MSAT rule, to consider "the availability and costs of the technology, and noise, energy, and safety factors, and lead time," elements which the court believed were essentially "feasibility" and "means and measures" factors. According to the court, then, this requirement set the standard from which the rule should be judged, and the adequacy of the study itself therefore did not affect the rule's validity.

B. The "Technology-Forcing" Requirement Was Only One Factor to Be Weighed in Promulgating the MSAT Rule

Various portions of the CAA are "technology-forcing," which means the statute is intended to push the regulated industry to develop new and improved ways of reducing pollution rather than relying on the argument that no superior methods currently exist. According to the petitioners, the TPR adopted by the EPA did not comply with this standard as it did not drive any evolution in refinery technology. Although the court and the EPA conceded Congress intended the rule to be technology-forcing, the court found the degree to which a new regulation would enhance technological innovation was only one factor among many the EPA could consider in promulgating the rule.

The statute's technology-forcing language directs the agency to consider "the availability and costs of the technology, and noise, energy,

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68. Id.
69. Id.
71. Sierra Club, 325 F.3d at 377.
72. Id.
74. Sierra Club Opening Brief at 15; Sierra Club, 325 F.3d at 378. See Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. 17,230 (Mar. 29, 2001) ("[T]he new baseline requirements do not require refiners to install new equipment or use technologies beyond what they were using in the baseline period (1998-2000). . . . We are not setting additional vehicle-based air toxics controls at this time. . . . because the technology-forcing Tier 2 light-duty vehicle standards and those standards being developed in response to our recent proposal for heavy-duty engine and vehicle standards represent the greatest degree of toxics control achievable at this time considering existing standards, the availability and cost of the technology, and noise, energy, and safety factors, and lead time").
75. Sierra Club, 325 F.3d at 378.
and safety factors and lead time, but, according to the court, does not resolve how the EPA should weigh these factors. The environmental petitioners argued that, in placing so much emphasis on the potential economic burden to the refineries, the EPA was inappropriately considering cost as paramount, and was thus reading the technology-forcing mandate out of the Act. The court, however, concluded the statute placed no constraint on the extent to which the agency could consider cost, and that the petitioners had offered no compelling evidence to the contrary.

C. The Anti-Backsliding TPR Was Consistent with Congress's Intent Because It Did "Apply To" Benzene and Formaldehyde.

As described above, the anti-backsliding TPR created a cap on emissions, but allowed refineries to decide which of the five named pollutants to reduce, so long as their total aggregate emissions did not rise. According to the environmental petitioners, this method of aggregation posed a problem because the statute states the regulations shall "at a minimum, apply to emissions of benzene and formaldehyde." By allowing aggregation, a refiner could choose to increase the emissions of benzene and/or formaldehyde (or any of the others) so long as it offset the increases with decreases in one or more of the other pollutants. Thus, the regulations did not actually require reductions in benzene or formaldehyde, especially at those refineries that were in over-compliance during the initial measurement period.

The court found, however, that the regulations literally complied with the statute because they did apply to benzene and formaldehyde. The court said it could visualize a hypothetical situation in which it might seem reasonable to value the health effects of some of the pollutants over others, and in which maintaining or even increasing benzene or formaldehyde emissions might thus be acceptable. It therefore held the

77. Sierra Club, 325 F.3d at 378.
78. See Sierra Club Opening Brief at 17 n.11; Sierra Club, 325 F.3d at 378. In the final rule the EPA had found that the only program they could impose in the near term, at a negligible cost, would be the TPR. Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. at 17,230, 17,245 (Mar. 29, 2001). See supra note 40 and accompanying text.
79. Sierra Club, 325 F.3d at 378.
80. See supra notes 30-35 and accompanying text which explain the program.
82. See supra notes 30-35 and accompanying text.
83. Sierra Club, 325 F.3d at 379.
84. Id. As the environmental petitioners pointed out, however, the aggregation formula would allow exactly the opposite of what the court suggests. Instead of requiring that the formula of pollutants chosen be based on concerns for human health, it allows the refineries to just pick the formula that is most profitable, regardless of whether one pollutant is more dangerous than another, so long as they stay within the overall limit.
agency's decision to "allow companies to trade benzene or formaldehyde increases against less costly reductions in other toxics" was neither capricious nor contrary to the statutory language. 85

D. Maintaining Current Emissions Controls May Be Considered the Greatest "Reduction" Achievable

Rather than requiring an aggressive cap on emissions, the EPA's new MSAT regulations only required each refinery to not exceed the level of emissions they were achieving in 1998-2000. 86 CAA section 202(1)(2), however, directed the EPA to implement the "greatest degree of emission reduction achievable." 87 Therefore, the environmental petitioners contended the adoption of an anti-backsliding rule did not attain this goal. They argued a tougher cap on benzene emissions was achievable, given that such a cap was already in place in "seventeen States and with respect to thirty percent of the gasoline consumed in America." 88 Further, D.C. Circuit precedent stated achievability should be judged by the standard of "capable of being met," 89 and that the evidence showed a more restrictive standard could have been met by the refineries. 90

Although they agreed with the EPA's argument that a benzene cap would create "varying challenges," petitioners contended this was irrelevant because "challenges" do not equal a lack of achievability, especially when the regulations are supposed to be technology-forcing. 91 Petitioners also argued that accepting the EPA's position would ultimately mean clean air regulation would be impossible, since virtually all CAA standards impose "varying challenges" on the regulated industry. 92

Although the court never directly addressed the merits of the EPA's "varying challenges" argument, it concluded the term "greatest reduction achievable" could be reasonable interpreted to support the EPA's position. 93 In response to the Petitioners' argument that the anti-backsliding rule would not "reduce" emissions, the court noted the statute did not set any historical baseline from which reductions were to

85. Id.
86. Id. at 378 (citing Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. 17,230, 17,245 (Mar. 29, 2001)).
88. Sierra Club Opening Brief at 15.
89. Nat'l Lime Ass'n v. EPA, 672 F.2d 416, 431 n.46 (D.C. Cir. 1980).
90. Sierra Club Opening Brief at 7-10.
91. See supra section II.2.
92. Sierra Club Opening Brief at 17.
93. Sierra Club, 325 F.3d at 379.
be measured.94 While the court did not identify an appropriate starting point for measuring reductions, it implied that the EPA was free to set emissions restrictions based on the projected increases that would otherwise occur if no restrictions were in place.95 So long as such projected increases were not "purely hypothetical," a regulation could allow higher than historic emissions levels and still be considered a "reduction."96

E. The EPA's Choice of a Short "Lead Time" Was Permissible

The environmental petitioners devoted a substantial portion of their argument to the question of how much lead time—i.e., the time given refineries to comply with the new regulations—the agency should have put in place in promulgating the MSAT rule. The EPA claimed that, because it did not know what changes the refineries would make in response to other new regulations, it could not project far enough into the future to impose long term requirements and thus it chose a short lead time of between one and two years.97 The environmental petitioners strongly objected to this approach, arguing the choice of such a limited lead time precluded the selection of a more stringent emissions cap or other technology-forcing standard.98 The court rejected this argument, however, finding the EPA had evaluated its options and decided on the TPR prior to setting a lead time.99 Thus, the choice of lead time did not affect the choice of regulation; rather, the agency reasonably chose the TPR because for a period of time it would be ignorant as to what technological fixes would be available to the refineries.100 Hence, the EPA's decision not to "sock" the refineries with "drastic additional regulations that could interfere with planning on investments and other compliance matters" was not arbitrary and was within the acceptable range of behavior suggested by the statute.101

94. Id.
95. Id.
96. Id.
97. EPA Brief at 23-24; Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. 17,230, 17,253 (Mar. 29, 2001). According to EPA, it was "not adopting long-term controls (i.e., controls that require longer lead time to implement) at this time because we lack the information necessary to assess appropriate long-term controls . . . . We do not believe, however, that we could reasonably adopt further controls to be implemented in this near-term time frame." 66 Fed. Reg. at 17,253. Lead time is the time from which the regulation is enacted to the time the refineries must meet the standards.
98. See Sierra Club Brief at 17-18.
100. Id.
101. Id.
III. ANALYSIS

Congress passed Title II of the 1990 CAA Amendments with the intent that the EPA be held to stricter compliance with the Act’s pollution reduction mandates. In section 202(l), Congress specifically intended to reduce cancer-causing toxins like benzene and 1,3-butadiene and thus directed the EPA to study and regulate these emissions. Yet by accepting the EPA’s justification for failing to impose reductions in MSAT emissions, the Sierra Club court undermined this legislative purpose. The opinion created a dangerous precedent for future cases involving technology-forcing statutes by allowing the EPA to defer action based on “unknowns” and potential economic burdens to the regulated industry, which are inherent components of the technology-forcing equation. By concentrating so heavily on linguistics, the court divorced the language from the true meaning and by deferring so readily to the EPA’s justifications, the court failed to discern and implement the purposes of Title II.

A. The Court’s Approach May Negatively Impact Future Technology-Forcing Statutes

The court’s rationale for not forcing further evolutions in refinery technology at this time demonstrates a significant misunderstanding of why technology-forcing standards exist as a regulatory tool in the first place. The court accepted three main arguments to explain why the EPA was not required to create stricter pollution controls through the MSAT rule: first, the agency did not have enough information currently available in order to create a more stringent regulation; second, the agency had promised to revisit the MSAT rule within a year or two; and third, the agency did not want to economically overburden the industry during a time of technological uncertainty. Given the forward-thinking nature of the technology-forcing standard, however, such arguments are unpersuasive, and the court’s approach threatens to erode the effectiveness of this important statutory tool.

1. Lack of Information is a Hindrance Inherent in the Pursuit of Information

The first, and possibly most crucial, argument is that the EPA did not want to impose more stringent MSAT emissions controls on the refineries because it did not know what technologies would be put into place in response to the other recently enacted programs. The court

102. See supra note 13 and accompanying text.
103. See supra note 24 and accompanying text.
104. See supra note 74.
found this approach reasonable, and thus did not examine why the agency lacked such information to begin with. Yet, that question is significant because, as noted above, section 202(i) required the EPA to prepare a study that should have addressed the impact of the other programs. The court's approach also conflicts with the purpose of technology-forcing standards: to push for the creation of innovative pollution reduction technologies, despite potentially high costs to the regulated industry. In *Whitman v. American Trucking Associations, Inc.*, Justice Breyer pointed out that throughout the CAA's history Congress has pushed technological and economic limits to protect human health. He noted the current 1990 amendments have held to that tradition by adopting technology-forcing standards which push for emissions reductions, even if achieving those reductions is costly to the implementing industry.

The EPA has already capitalized on the opportunity provided by the *Sierra Club* court to water down another technology-forcing standard by using the "lack of information" argument in its briefs in a recent case filed against the agency by the Bluewater Network. In that case, the EPA was to promulgate a rule pursuant to CAA section 213(a), which directs the agency to develop a technology-forcing standard for reducing NOx emissions in non-road engines, taking into consideration the same factors that are highlighted in the MSAT rule.

105. *Sierra Club*, 325 F.3d at 380.

106. See NRDC v. Thomas, 805 F.2d 410, 429 n.30 (D.C. Cir. 1986). Note that these technology-forcing standards do not require the agency to operate in a vacuum; rather, they require the agency to study the issue first and to try to gain as much information as it can to regulate in the interest of public health.

107. 531 U.S. 457, 490-91 (2001) (Breyer, J., concurring). Technology-forcing standards are used regularly in other environmental statutes such as the Clean Water Act and RCRA. See NRDC v. EPA, 822 F.2d 104, 124 (D.C. Cir. 1987) ("The essential purpose of this series of progressively more demanding technology-based standards was not only to stimulate but to press development of new, more efficient and effective technologies. This policy is expressed as a statutory mandate, not simply as a goal."); Edison Elec. Inst. v. EPA, 996 F.2d 326, 335 (D.C. Cir. 1993) (finding that EPA's interpretation of a portion of RCRA is "consistent with RCRA's status as a highly prescriptive, technology-forcing statute."). The act "was clearly intended to provide draconian incentives—such as the prohibition of all forms of land disposal for specified wastes—for the rapid development of adequate treatment and disposal capacity."); for a list of different technology-forcing standards in the 1990 amendments see Henry A. Waxman, *An Overview of the Clean Air Act Amendments of 1990*, 21 ENVTL. L. 1721, 1748-52 (1991).

108. *Whitman*, 531 U.S. at 490-91; see also Weyerhaeuser Co. v. Costle, 590 F.2d 1011, 1025 (D.C. Cir. 1978) (finding that Congress's "intent ... was to rely on EPA's ingenuity ... to force each industry on its own to develop the technology necessary.")


110. Id. at 2-3. The statute in *Bluewater* states that: "Such standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles to which such standards apply, giving appropriate consideration to the cost of applying such technology within
The facts of that case are similar to the situation in *Sierra Club v. EPA*: the EPA promulgated a rule\(^\text{111}\) that imposed no real emission reductions on the industry and instead opted to “consider” taking action in a rulemaking scheduled for a later date.\(^\text{112}\) The EPA argued there were “unresolved technical issues” and that new information would likely become available in the next few years.\(^\text{113}\) Thus, they argued “the adoption of long-term standards should be deferred until 2007” in order for the “the engine manufacturers to make further progress in resolving the outstanding technical issues” and to allow more time for “data and information to become available regarding the limited number of engines currently using this technology.”\(^\text{114}\) In its brief the EPA relied almost exclusively on *Sierra Club* for the idea that it may issue a short-term standard that requires no new reductions instead of a stricter, long-term standard, while it waits for additional information to become available.\(^\text{115}\)

The EPA’s reliance on this lack-of-knowledge rationale is perhaps even more alarming in *Bluewater*, a case in which the unknowns are those inherent in the normal development of innovative technology, and in which, unlike in *Sierra Club*, the industry itself is *not* undergoing a major technical shift. As in *Sierra Club*, however, the statute in question required the agency to study the issue prior to formulating the regulations, which implies the agency should already have gathered the information it claimed to lack.\(^\text{116}\)

Past case law on this issue does not support the trend in “fear of unknowns” that may be developing. For example, in *NRDC v. Reilly*, the D.C. Circuit rejected a lack-of-information argument with respect to a new technology required under section 202(a)(6) of the CAA, stating: “It is the nature of technology-forcing sections that technical problems . . . are ironed out in the course of the statutorily spurred process of research and development.”\(^\text{117}\) Similarly, the court in *NRDC v. EPA* noted: “In the

\(\text{111}\) 68 Fed. Reg. 9746 (Feb. 28, 2003); *see supra*, note 109.

\(\text{112}\) The manufacturers were already complying with an international standard that required reductions in emissions beyond those required in the US, and this rule capitalized on that in a similar way that the EPA capitalized on the refiners’ over-compliance in *Sierra Club v. EPA*. *See Bluewater Brief, Bluewater Network v. EPA, 2003 WL 23146719 at 14 (D.C. Cir., filed Dec. 24, 2003) (No. 03-1120) [hereinafter Bluewater Brief] (“EPA has established Category 3 NOx emissions standards that do not reduce emissions or improve air quality because, as EPA has conceded, ‘manufacturers are already achieving and certifying to these standards.’”)*


\(\text{114}\) *Id.*

\(\text{115}\) *See supra*, note 109.

\(\text{116}\) 42 U.S.C. § 7547(a)(1).

\(\text{117}\) NRDC v. Reilly, 983 F.2d 259, 269 n.12 (D.C. Cir. 1993) (rejecting the EPA’s finding that it could not require on-board refueling vapor recovery systems due to the infancy of the technologies). *See also* Nat’l Petrochemical & Refiners Ass’n v. EPA, 287 F.3d 1130, 1136 (D.C.
absence of theoretical objections to the technology, the agency need only identify the major steps necessary for development of the device, and give plausible reasons for its belief that the industry will be able to solve these problems in the time remaining." The EPA's lack-of-information arguments in Sierra Club and Bluewater are contrary to such directives. Indeed, they threaten to dissolve the whole idea of a technology-forcing standard, since an agency will only have concrete information as to the effect of a technology if that technology already exists.

2. **Deadlines are Central to Speeding Up Innovation**

The second essential element of a "technology-forcing" standard is the time limit that accompanies it. Without a target date for achievement, the rule loses its push for innovation. As was stated long ago in *Union Electric Company v. EPA*, deadlines are "central to the regulatory scheme of technology-forcing." The *Sierra Club v. EPA* opinion, however, weakened the need to push for innovation within a reasonable time frame. The rule the EPA promulgated was already six years late, and the court's acceptance of the provisional TPR means the agency will not promulgate any real restrictions on section 202(f) toxics until at least this year or next, nearly ten years after its statutory deadline. In its rulemaking and brief the EPA repeatedly reminded the public and the court that it was "committed to promulgating a final rule by April 1, 2004," but this date has come and gone and, as of the date of publication,
not even a preliminary rule has been issued.\textsuperscript{121} Further, it is not clear from the rule, or the opinion, that EPA will actually end up requiring any tougher standards; all the agency promised is that it would take a look at the issue again in 2003-04, not that it would implement any further emissions reductions.\textsuperscript{122} The situation is similar in the \textit{Bluewater} case, where the deadline was November 1992, and the EPA is now seeking to extend it until 2007.\textsuperscript{123} If the goal of the technology-forcing statutes is to speed along innovation, allowing such perpetual delay renders this important statutory tool utterly ineffective.

3. \textit{Cost Hurdles Must be Considered, but Should not be Paramount}

There is, of course, always a need to balance desires for emissions reductions with economic and social welfare, but the statutory history and case law support the primacy of clean air over economic concerns.\textsuperscript{124} The D.C. Circuit recently endorsed this view in \textit{Husqvarna v. EPA}.\textsuperscript{125} In that case the court, in examining a section of the CAA requiring a balancing of factors nearly identical to those listed in section 202(t), held "that the overriding goal of the section is air quality and the other listed

\begin{itemize}
  \item \textsuperscript{121} EPA Brief at 40 (In its brief the EPA promised to have the rule completed by April, but the final rule only says by July of 2004); 66 Fed. Reg. at 17,234 (the Technical Analysis Plan that the agency will implement "will allow [the EPA] to take full advantage of what is collectively learned and provide a solid basis for future action, including a future rulemaking, to be completed no later than July 1, 2004.")
  \item \textsuperscript{122} See \textit{ supra} note 120.
  \item \textsuperscript{123} See \textit{Bluewater} Brief at 8-9, \textit{ supra} note 112

(What EPA calls 'Tier 2' is not a new standard, but is only a plan to 'consider' the application of a stricter standard in the future . . . . The new regulation provides only that EPA 'will promulgate final Tier 2 standards for Category 3 engines on or before April 27, 2007,' but makes no guarantee that such standards will differ from the Tier 1 standards or reduce NOx emissions . . . . EPA is now nearly 11 years behind the November 1992 CAA deadline for issuing a NOx standard for Category 3 marine diesel engines that achieves emissions reductions.)

  \item \textsuperscript{124} See \textit{Husqvarna} v. EPA, 254 F.3d 195, 200 (D.C. Cir. 2001) (rejecting the industry petitioner's argument that the EPA should not have "plac[ed] primary significance on the 'greatest reductions achievable,'" and should not have "consider[ed] cost, noise, energy and safety factors as important but secondary factors"). \textit{Husqvarna} was applying the standard set forth in 42 U.S.C. § 7547(a)(3) which is very similar to the language the court in \textit{Sierra Club} was reviewing:

Such standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles to which such standards apply, giving appropriate consideration to the cost of applying such technology within the period of time available to manufacturers and to noise, energy, and safety factors associated with the application of such technology.

\textit{Id.}
  \item \textsuperscript{125} \textit{Husqvarna}, 254 F.3d at 200.
considerations, while significant, are subordinate to that goal.” Yet the court in *Sierra Club* came to a contrary conclusion, holding the technology-forcing standard is merely one factor to be considered and the EPA may weigh those factors as it wishes. Indeed, the court was unconcerned that the EPA weighed one particular factor—potential cost to the regulated industry—over the others, which dilutes the purpose of a technology-forcing standard.

It is also helpful to look back to the atmosphere surrounding the 1990 Amendments and remember that Congress was specifically aiming to reduce the discretion given to the EPA, because the agency had failed in the previous decade to take the serious action needed to implement effective air quality regulations. Many specific mandates in the CAA (particularly in Title II) direct the agency to consider the cost, lead time, safety, and other factors, but this should not be taken to mean the EPA can consider only one factor to the exclusion of others. By allowing “negligible costs” to dominate the balance, the *Sierra Club* court seems to have done just this, thereby negating Congress’ mandate for advancement in pollution control technology.

The factual situation in *Sierra Club v. EPA* was unusual in that the refineries were already being required to make significant technical changes at the time the EPA was to promulgate its MSAT regulations, and the court deferred to the agency’s technical expertise in this area. The opinion should be limited, however, to such rare factual scenarios where truly intense change is occurring in an industry. When future courts are faced with agency rules that do not create technical pushes despite a congressional direction to do so, they should keep in mind that waiting perpetually for additional information to become available and

126. *Id.; see also NRDC v. EPA*, 655 F.2d 318, 328 (D.C. Cir. 1981) (“Congress intended the agency to project future advances in pollution control capability. It was ‘expected to press for development and application of improved technology rather than be limited by that which exists today.’”); *NRDC v. Thomas*, 805 F.2d 410, 429 n.30 (D.C. Cir. 1986) (holding that the statute at issue allowed the EPA to push for a technology not yet available in order to meet the statutory goals of being technology-forcing.)

127. *Sierra Club v. EPA*, 325 F.3d 374, 378 (D.C. Cir. 2003). While the court cited *Husqvarna v. EPA* for the idea that the statute is technology-forcing, it ignored the discussion in that same case suggesting that cost considerations are subordinate to the concerns for clear air. *Id.; Husqvarna*, 254 F.3d at 200.

128. “Unfortunately, the history of the Clean Air Act demonstrates that we cannot rely on EPA to follow through on even its mandatory obligations.” 136 CONG. REC. S2430, S2436 (statement of Sen. Lieberman). *See also*, supra notes 11-13 and accompanying text.

129. *See, e.g.*, 42 U.S.C. § 7521(k) (“greatest degree of emission reduction achievable by means reasonably expected to be available for production during any model year to which the regulations apply, giving appropriate consideration to fuel volatility, and to cost, energy, and safety factors associated with the application of the appropriate technology.”); 42 U.S.C. § 7521(a)(3)(A)(i); 42 U.S.C. § 7547(a)(3), (a)(5).

130. *See Sierra Club*, 325 F.3d at 378.

131. *Id.* at 380.
costs to come down will likely result in an erosion of the value of this tool to promote advancement in pollution control.

B. Are No Reductions Really Reductions?

As noted, the phrase "greatest emissions reductions achievable" is not unique to CAA section 202(l). Instead, this language is commonly used throughout the Act to indicate Congress’s intent that the EPA push for increasingly more stringent regulations. The Sierra Club court thought it odd that the environmental petitioners would construe the word "reductions" to mean reductions beyond those currently required, stating: "this errs at the outset by assuming that the emissions level prevailing at some historic point of time is the only permissible baseline against which 'reductions' might be measured." The court apparently meant that, since current emissions controls were already achieving "reductions" in MSATs, so long as the new regulations maintained those controls, reductions would still be achieved. Yet this approach would seem to render section 202(l) irrelevant; if the old controls were sufficient, there would have been no reason for Congress to require new controls.

Yet because Congress did require new controls, the obvious inference is that it intended the EPA to further reduce MSATs, not just to maintain their levels indefinitely. As the legislative history discussed below highlights, Congress was working to reduce cancer rates through the reduction of HAPs and other carcinogens, and it formulated section 202(l) to achieve this end. Nothing in the legislative history or prior case law indicates emissions reductions being achieved by current controls can be substituted for reductions required by new emissions controls, and it is unclear how the Sierra Club court came up with its novel approach. As the next section illustrates, however, the court seemed uncertain about how the various sections of the 1990 amendments are to interact, and this uncertainty may have adversely affected its judgment with respect to the "reductions" argument.

C. Legislative History Shows the MSAT Rule Was to Be Considered Separate from the Other Fuel Based Programs

Throughout its opinion the court deferred to the EPA’s decisions, finding they complied with the strict language of the statute and that

132. See supra note 129.
133. Sierra Club, 325 F.3d at 379.
134. See supra note 24.
135. Nat’l Petrochemical & Refiners Ass’n v. EPA, 287 F.3d 1130, 1134 (D.C. Cir. 2002) (upholding a rule promulgated by the EPA that achieved the greatest degree of emissions reduction achievable by measuring from the current level.)
MSAT "reductions" were indeed occurring. The court did not spend much time, however, evaluating the EPA's arguments for why these "paper" reductions were acceptable. In justifying its decision not to impose more stringent controls through the MSAT rule, the EPA, in the rule itself and in its brief before the court, repeatedly emphasized the MSAT reductions that would occur due to other fuel programs recently put in place. Although the court did not address this issue directly, it is worth examining the EPA's approach to understand how far the agency's final rule appears to depart from congressional intent.

The parties all agreed that some of the other fuel and vehicle control programs the EPA was in the process of implementing would result in reductions in MSATs. However, it is unclear how this fact could have relieved the agency of its duty under section 202(l) to additionally reduce these pollutants. In promulgating the new MSAT rule, the EPA reasoned that MSATs were already being incidentally reduced through other programs designed primarily to reduce emissions of NOx, VOCs, PM10, and sulfur dioxide, and thus there was no need to reduce them further through the regulation. The requirements of these other programs are distinct, however, from those of section 202(l). For example, the Reformulated Gasoline (RFG) program only required emissions reductions in so-called "non-attainment" zones—those areas of the country that already have the worst air quality. But the problem with relying on the RFG program for making the reductions required by section 202(l) is that the RFG benefits will only be fully realized in the few areas of the country where RFG fuel will be used. In contrast, Congress did not put any such geographic limitations on the reductions sought in section 202(l), presumably intending instead that carcinogenic MSATs be reduced nationwide.

In 1991, Henry Waxman, one of the major advocates for a strict clean air bill in the House at the time of the 1990 amendments, co-authored an article which looked specifically at the changes to Title II.


137. Sierra Club v. EPA, 325 F.3d at 380.

138. For a full discussion of the programs the EPA is relying on, see the final rule section analyzing these programs, titled "Description of Emission Control Programs." Control of Emissions of Hazardous Air Pollutants from Mobile Sources, 66 Fed. Reg. 17,230, 17,239-40 (Mar. 29, 2001).

139. CAA §211(k) (this program requires reductions in certain pollutants in "non-attainment" areas which are those areas of the country that are not in compliance with the air quality standards for the region).


141. Waxman Review of Title II, supra note 23.
The article included a section in which the authors highlighted the differences between the MSAT and RFG programs:

First, section 202(l) requires EPA to issue rules that require the greatest achievable reductions in emissions nationwide. By contrast, section 211(k) [the RFG provision] requires toxic reductions in only nine ozone nonattainment areas. Even if the opt-in provision is used by every eligible area, toxic reductions under section 211(k) would occur only in nonattainment areas under section 211(k). Section 202(l) thus reflects the policy judgment that all persons—not just those residing in nonattainment areas—deserve protection from toxic emissions. 142

Congress debated this issue during the formulation of the 1990 amendments and specifically retained section 202(l) over the objections of those legislators who believed it was either redundant or overly burdensome to industry. 143 During debate in the Senate, 144 various senators argued, as the EPA did in Sierra Club, that the other programs being put into place would require reductions in MSATs and thus that additional requirements were not necessary. 145 Some were concerned that section 202(l) would make the overall bill too expensive. 146 However, the provision's proponents noted the President's goal of reducing cancer deaths from air toxics by seventy-five percent, and that section 202(l) was necessary to achieve that goal unless much greater costs were imposed on the nation's small businesses. 147

At the time, although the EPA had made a preliminary decision to issue a rule to regulate MSATs, some senators did not trust the EPA to follow through. 148 Senators Lautenberg and Lieberman both cited EPA's poor record in implementing prior amendments, urging that the current bill should be designed to ensure the agency was held to its word. 149

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142. Id. at 1970.
143. See infra notes 144-150.
144. 136 CONG. REC. S2430 (Mar. 8, 1990).
145. See, e.g., id. at S2434 (Senator Durenberger noted that: "there are already many specific provisions in the bill to control air toxics from mobile sources" and thus argued against the addition of the MSAT rule); Id. at S2434-35 (Senator Bacus also cited the Urban Buses program that would reduce air toxics, and the RFG program to argue that the MSAT rule was not necessary). The Senators attempted to persuade others to vote against it by threatening that the amendment was a "deal breaker." Id.
146. Id. at S2432, S2439, S2442-43, S2445.
147. "We must also bear in mind that the effect of insulating motor vehicles' toxic emissions from control is to increase the burden on the smaller stationary sources in each of the States represented in this body. Every firm using carcinogenic solvents or paints, every gas station, every dry cleaner, every owner of a wood stove, all of them and others will have to shoulder a greater burden to make up for letting toxic emissions from motor vehicles off the hook." 136 CONG. REC. S2430, S2433 (statement of Sen. Gore).
149. "Why, Mr. President, am I insisting that we demand that we mandate EPA to carry out a function that will assure us of their interest and action? Because we learned from experience.
Ironically, despite the passage of the 1990 amendments with section 202(l) intact, the senators' fears were realized: the EPA delayed the MSAT rule for years and eventually created new regulations that did not push for the needed reductions in air toxins.

A similar debate occurred on the floor of the House, this time between Congressman Sharp and Congressman Waxman. Sharp interpreted section 202(l) as not allowing for any changes in fuel composition beyond what was already required by the RFG provision—an interpretation which would have essentially rendered section 202(l) meaningless. Waxman disagreed with Sharp, explaining how the MSAT rule was distinct from the RFG requirement. Ultimately, the MSAT rule made it through both houses and into the final version of the 1990 Amendments, and this debate over the distinctiveness of section 202(l)'s requirements shows there was awareness that MSAT reductions were to be considered as a separate mandate from the RFG and other programs.

Yet despite this awareness and Congress's overall desire to force the EPA to take more decisive action, the EPA ignored these concerns in making the MSAT rule. Instead of taking the difficult steps necessary to protect the public from air toxics, the EPA did not increase emissions controls, yet claimed to comply with the statute. And instead of taking into account congressional intent and the plain purposes behind the 1990 amendments, the Sierra Club court has further watered-down the requirements of the CAA and the EPA's responsibility to protect human health.

Since 1970, 7 of these materials have been regulated when, in fact, the list goes beyond the 191 that we are discussing today. That has been EPA's record of inaction. That has been EPA's record of carelessness." 136 CONG. REC. S2430, S2435 (statement of Sen. Lautenberg); "Unfortunately, the history of the Clean Air Act demonstrates that we cannot rely on EPA to follow through on even its mandatory obligations. In this case, if EPA does truly follow through on its commitment, at worst Congress will have placed a superfluous word in the legislation. If EPA fails to act, we will have saved thousands of lives by adopting Senator Lautenberg's amendment." Id. at S2436 (statement of Sen. Lieberman).


151. Rep. Sharp submitted comments that indicated that he believed that the mobile source rule was "not intended to create a second reformulated gasoline that is different from or meets more stringent standards than the gasoline required under 211(k). Nor may such rules conflict with, change, or nullify the antidumping rules under 211(k)(8)." 136 CONG. REC. H12,857 (daily ed. Oct. 26, 1990) (statement of Rep. Sharp).

152. Waxman responded: "contrary to Mr. Sharp's statements, this provision has not been rendered irrelevant by the reformulated gasoline provision. For one thing, it applies to all hazardous air pollutants—not just the five pollutants defined as toxic in section 211(k). For another, it applies nationwide—not just in severe ozone nonattainment areas. The purpose of section 206 is to require additional reductions in emissions of hazardous air pollutants, beyond those required by the reformulated gasoline provisions, where such reductions are achievable." 136 CONG. REC. E3700 (daily ed. Nov. 2, 1990) (statement of Representative Waxman). See also discussion supra notes 140-142 and accompanying text.
Deciding what the perfect balance is between reductions in hazardous air pollutants and the costs of making those reductions is something that plagues every decision the EPA makes. In *Sierra Club v. EPA*, the court accepted the EPA's decision that maintenance of the status quo with respect to MSAT regulation was justified in light of the economic burden on industry that further regulation would entail. Yet such a position contravenes the effectiveness of section 202(1) as a technology-forcing standard, the impetus behind which is to ensure that cost not play a paramount role in deciding what emissions reductions are appropriate. The rule the EPA promulgated, and the court approved, implemented an emissions "reduction," but will not actually remove any more pollutants from the air than current controls. The court justified this counterintuitive result through a strict, and sometimes unique, interpretation of the statutory language and its own precedent, deferring to the agency under rules of administrative review. Yet, as the EPA's position in *Bluewater* suggests, the court has opened up a potentially fatal hole—allowing for continued time delays due to an unending lack of information—in enforcing technology-forcing provisions.

Two questions should be asked in light of this decision. First, will the EPA, in its promised but already delayed second rulemaking, actually implement a program that will seek to push the refineries towards the "greatest reduction achievable?" Or, will it yet again defer real decisions until a later date, thereby deleting the meaning of this phrase? Second, will other courts follow in the *Sierra Club* court's steps in allowing the EPA to water down each of the elements of technology-forcing standards so that the tool no longer will mean the EPA must push for innovation, but instead just retain the status quo? The answer to these questions may play a large role in how clean air is regulated in the new century, and may force Congress to go back and once again tighten its reins on the EPA.