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COMMENTS

The Clean Air Act: Economic and Technological Feasibility in Setting Standards Under Section 112

In January 1985, the Environmental Protection Agency (EPA) withdrew an amendment regulating national emission standards for the potent cancer-causing air pollutant vinyl chloride.¹ The Natural Resources Defense Council (NRDC) challenged EPA's withdrawal in the United States Court of Appeal for the District of Columbia.² NRDC argued that section 112 of the Clean Air Act,³ under which EPA regulates hazardous pollutants such as vinyl chloride, permits EPA to consider only health factors in setting emission standards.⁴ Because EPA relied on nonhealth factors in withdrawing the proposed amendments, NRDC asked the court to vacate EPA's action and remand the case for further proceedings.⁵

EPA, on the other hand, argued that it could consider technological and economic feasibility in setting emission standards for hazardous air pollutants under section 112. EPA claimed that section 112 vested it with "considerable discretion" and that its choice to consider nonhealth factors in setting emission standards was entitled to great deference so long as its choice to consider these factors was reasonable.⁶

The court agreed with EPA and found that the statute gave the agency discretion in setting standards.⁷ The court also found that section 112 was ambiguous in specifying how EPA was to exercise that discretion.⁸ Citing *Chevron U.S.A. v. Natural Resources Defense Council, Inc.*⁹ the court affirmed EPA's action, finding the agency's decision to consider economic and technological feasibility to be reasonable.¹⁰

By upholding EPA's decision to use economic and technological feasibility considerations in setting emission standards under section 112 the court radically departed from settled judicial precedent interpreting parallel provisions within the Clean Air Act.¹¹ The decision promotes lax

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1. 50 Fed. Reg. 1184 (1985). Studies showed that vinyl chloride cause angiosarcoma of the liver, a rare form of liver cancer. See 40 *id.* 59,532 (1975).

2. *Natural Resource Defense Council, Inc. v. EPA*, 804 F.2d 710 (D.C. Cir. 1986) [hereinafter *NRDC*]. 42 U.S.C. § 7607(b) (1982) permits any person to file a petition in the D.C. Circuit for review of EPA action under § 5112 of the Clean Air Act.

3. 42 U.S.C. § 7412 (1982).

4. *NRDC*, 804 F.2d at 711. In withdrawing the proposed regulatory amendments, the EPA stated that certain aspects of the amendments imposed unreasonable costs and that "no . . . control technology has been demonstrated to significantly and consistently reduce emissions to a level below that required by the current standard." 50 Fed. Reg. 1182, 1184 (1985).

5. *NRDC*, 804 F.2d at 711.

6. Brief for Respondent at 12, *NRDC* (No. 85-1150).

7. *NRDC*, 804 F.2d at 727.

8. *Id.* at 711.

9. 467 U.S. 837 (1984).

10. *NRDC*, 804 F.2d at 711.

11. *Id.* at 731 (Wright, J., dissenting). As a general principle of administrative law an agency may neither engage in cost-benefit analysis nor consider economic and technological

emission standards and adversely affects public health in that it permits more airborne carcinogens to enter the environment. Currently there are four similar cases pending before the D.C. Circuit, each involving similar challenges to EPA action concerning benzene and radionuclides under section 112 of the Clean Air Act.¹²

This comment examines the legislative history of section 112 and parallel provisions of the Clean Air Act to show that Congress never intended EPA to consider economic and technological feasibility in promulgating emission standards for hazardous air pollutants, except under the limited circumstances spelled out in the statute. It will also examine the relevant case law to show that both the D.C. Circuit as well as the Supreme Court have interpreted the Clean Air Act as precluding EPA from considering such factors. The comment concludes that EPA's decision to consider feasibility in withdrawing the proposed regulations defeats the Clean Air Act's purpose of forcing industries to develop pollution control technology.

BACKGROUND

Congress enacted the Clean Air Act¹³ in 1970 to establish a joint state and federal program to control and reduce air pollution.¹⁴ Section 101(b) of the Act¹⁵ provides that "[t]he purposes of this subchapter are . . . to protect and enhance the quality of the Nation's Air resources so as to promote the public health and welfare . . . of its population." Protection of public health is absolute under the Act even though there are no emission levels below which pollution does no harm.¹⁶ Section 112 precludes trade-offs between health and other concerns such as economic and technological feasibility.¹⁷

The Clean Air Act attempts to achieve the goal of clean air primarily by setting standards for ambient air.¹⁸ Sections 108¹⁹ and 109²⁰ give EPA authority to promulgate primary and secondary national ambient air qual-

feasibility in setting health standards unless it has explicit statutory authority to do so. See, e.g., *American Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490, 510 (1981); *Union Electric Co. v. EPA*, 427 U.S. 246, 257 n.5 (1975).

12. The benzene cases are *NRDC v. Thomas*, No. 84-1387 (D.C. Cir. filed 1984) and *EDF v. Thomas*, No. 84-1524 (D.C. Cir. filed 1984). The radionuclides cases are *NRDC v. Thomas*, No. 84-1123 (D.C. Cir. filed 1984) and *American Motors Corp. v. EPA*, No. 85-1285 (D.C. Cir. filed 1984).

13. The Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (1970) [hereinafter the Act]. Congress amended the Act in 1977, Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (1977), and in 1981, Steel Industry Compliance Extension Act of 1981, Pub. L. No. 97-73, 95 Stat. 139 (1981) (codified as amended at 42 U.S.C. §§ 7401-7626 (1982) & Supp. III 1985)).

14. See Schoenbrod, *Goals Statutes or Rules Statutes: The Case of the Clean Air Act*, 30 U.C.L.A. L. Rev. 740, 745 (1983).

15. 42 U.S.C. § 7401(b) (1982).

16. Schoenbrod, *supra* note 14, at 743.

17. *Id.*; see also *NRDC*, 804 F.2d at 731 (Wright, J., dissenting).

18. 42 U.S.C. §§ 7408-7410 (1982).

19. *Id.* § 7408.

20. *Id.* § 7409.

ity standards (NAAQS). Section 110 of the Act²¹ requires that each state develop a state implementation plan (SIP) which ensures that the nation will meet and maintain the Act's ambient air standards. Within nine months after the EPA promulgates or revises a standard, each state must formulate plans to achieve a standard in accordance with eleven criteria outlined in section 110(a)(2).²² The states then submit their plans to the EPA for its approval.

Section 112 of the Clean Air Act²³ complements the ambient air quality program by establishing highly protective federal standards for the most toxic air pollutants which are not covered by the NAAQS.²⁴ Under section 112(b)²⁵ EPA must publish a list of hazardous air pollutants. Within 180 days of listing such pollutants, EPA must propose an emission standard for each pollutant.²⁶ The standard takes effect immediately for new plants and ninety days later for existing plants.²⁷ To date EPA has listed only seven hazardous air pollutants, which include asbestos, beryllium, mercury,²⁸ benzene,²⁹ radionuclides³⁰ and vinyl chloride.³¹

A strict interpretation of section 112 requires EPA to promulgate a standard that totally eliminates emissions of airborne carcinogens. A zero-emissions standard comports with the Clean Air Act's policy of forcing industry to develop pollution control technology.³² Because the vinyl chloride industry has not developed this technology, EPA's promulgation of a zero-emissions standard would shut down the industry. The legislative history of the Clean Air Act indicates that Congress intended

21. *Id.* § 7410.

22. *Id.* § 7410(a)(2).

23. *Id.* § 7412.

24. *Id.* § 7412(b)(1)(A). Section 7412(a)(1) defines hazardous air pollutant as "an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator causes, or contributes to, air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness."

25. *Id.* § 7412(b)(1)(A).

26. *Id.* § 7412(b)(1)(B). An emission standard is defined in § 302(k) of the Act as a "requirement established by . . . the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis. . . ." *Id.* § 7602(k). Section 112(e)(1) permits EPA to set a "design, equipment, work practice, or operational standard" if it is not feasible to prescribe or enforce an emission standard." *Id.* § 7412(e)(1). Infeasibility is restricted by § 112(e)(2) to three circumstances: (1) where the pollutant cannot be ducted through a centralized smokestack, control device, or other conveyance, (2) where use of such a conveyance "would be inconsistent with any Federal, State, or local law," or (3) where it is economically or technologically impracticable to measure emission rates, quantities, or concentrations. *Id.* §§ 7412(e)(1) to -(3).

27. *Id.* § 7412(c)(1)(B)(i).

28. Asbestos, beryllium and mercury were listed as hazardous air pollutants on March 29, 1971. 36 Fed. Reg. 5931 (1971). EPA set final emission standards in these pollutants on April 6, 1973. 38 *id.* at 8820 (1973) (codified at 40 C.F.R. §§ 61.32, .52, .147 (1986)).

29. 42 Fed. Reg. 29,332 (1977). EPA promulgated final emission standards on June 6, 1984. 49 *id.* at 23,498 (1984) (codified at 40 C.F.R. § 61.110 (1986)).

30. 44 *id.* at 76,738 (1979).

31. 40 *id.* at 59,532 (1975). EPA listed vinyl chloride as a hazardous air pollutant on December 24, 1975. *Id.* at 59,477 (1975).

32. See Note, *Forcing Technology: The Clean Air Act Experience*, 88 YALE L.J. 1713 (1979).

such a result.³³ EPA, however, has never interpreted section 112 in this manner.³⁴ Rather, the agency reads the statute as allowing for consideration of economic and technological feasibility in setting hazardous pollutant emission limits.³⁵

In 1975, EPA designated vinyl chloride as a hazardous air pollutant to which no known level of human exposure was safe.³⁶ The agency finally promulgated vinyl chloride standard in 1976.³⁷ Because exposure to vinyl chloride is unsafe at any level, EPA could have set a standard which allowed for "no measurable emissions."³⁸ The agency declined to promulgate a zero-emissions standard because it found that such a standard would economically disrupt the industry.³⁹ Instead, EPA designed its 1976 standard to reduce emissions to a level achievable by the use of best available control technology.⁴⁰ The agency determined that this standard would reduce emissions by ninety-five percent and increase the cost of vinyl chloride resin by 7.3 percent.⁴¹ EPA found that a standard which reduced emissions by ninety-five percent assured that the cost of achieving the standard was "not grossly disproportionate to the amount of emission reduction achieved."⁴² Though control technology existed which could have reduced emissions even more, EPA refused to require the industry to implement it because the agency believed that the technology's cost would be grossly disproportionate to its benefits.⁴³

When EPA promulgated this standard, it determined that 4.6 million people lived within a five-mile radius of vinyl chloride factories.⁴⁴ The agency estimated that the people living in this radius were exposed to vinyl chloride in concentrations that ranged from one part-per-million (ppm) to thirty-three ppm.⁴⁵ The lowest level of vinyl chloride exposure at which the agency conducted tests was 50 ppm.⁴⁶ This low level of exposure was sufficient to cause liver cancer in rats and mice.⁴⁷ Upon promulgating the 1976 vinyl chloride standard, the Environmental Defense Fund (EDF) sued EPA to force a stricter emission standard.⁴⁸ EDF argued that section 112 required a stricter standard because EPA ignored experiments which in-

33. See *infra* text accompanying note 72.

34. Doniger, *Federal Regulation of Vinyl Chloride: A Short Course in the Law and Policy of Toxic Substances Control*, 7 *ECOLOGICAL L.Q.* 497, 571 (1978).

35. Telephone interview with Earl Salo, Attorney for EPA (Jan. 9, 1987).

36. 40 *Fed. Reg.* 59,477 (1975).

37. 41 *id.* at 46,560 (1976).

38. See *infra* text accompanying note 77.

39. 44 *Fed. Reg.* 58,660 (1979).

40. 40 *id.* at 59,535 (1975). The agency rejected approaches that called for either zero-emissions standards or a standard based on cost-benefit analysis. 41 *id.* 46,561-62 (1976).

41. 40 *id.* at 59,543-44 (1975).

42. 41 *id.* at 46,562 (1976). EPA stated that it could consider costs to a limited extent. *Id.*

43. 40 *id.* at 59,536 (1975).

44. 40 *id.* at 59,533.

45. *Id.*

46. *Id.* at 59,532.

47. *Id.*

48. Doniger, *supra* note 34, at 581 & n.438 (citing *Environmental Defense Fund v. Train*, No. 76-2045 (D.C. Cir. filed Nov. 19, 1976; settled & dismissed June 24, 1977)).

licated that vinyl chloride was far more lethal than the agency believed.⁴⁹ EDF cited experiments which showed that rats developed cancer after being exposed to as little as one ppm.⁵⁰ The case was never litigated, however, because EDF and EPA reached a settlement agreement in 1977.⁵¹ EPA agreed to propose an amended standard designed to force the vinyl chloride industry to achieve a zero-emissions standard.⁵² The amendment, which EPA proposed in 1977, would have reduced emissions to five ppm at existing plants within three years.⁵³

Unfortunately, EPA never adopted the 1977 amendment proposed under the settlement agreement with EDF. The agency decided to withdraw the proposed amendment⁵⁴ because it was technologically and economically unjustified.⁵⁵ In its notice of withdrawal, EPA stated that its new standard would be based on levels already achieved by the vinyl chloride industry.⁵⁶ Thus, EPA plans to use feasibility in determining the standard to set under section 112's "ample margin of safety" provision.

The last sentence of section 112(b)(1)(B) was the focus of dispute in *NRDC v. EPA*.⁵⁷ That subsection provides that "[t]he Administrator shall establish any such standard at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutants."⁵⁸ The NRDC argued that the legislative history of section 112 clearly demonstrated that under this section EPA could consider only protection of public health in setting emission standards for hazardous air pollutants.⁵⁹ The court, however, examined the legislative history and found that "Congress did not preclude consideration of economic and technological considerations"⁶⁰

49. *Id.*

50. *Id.*

51. *Id.* at 582.

52. 42 Fed. Reg. 28,156 (1977).

53. *Id.*

54. 50 *id.* 1182 (1985).

55. *Id.* at 1183. The agency stated that the "current VC standard was based on judgments concerning the costs and benefits of the standard to society. The standard is not designed to eliminate VC exposure risk entirely. Rather, it strikes a balance between public health protection and the cost of that protection." *Id.*

56. *Id.* at 1184. The agency stated:

Because the proposed 5 ppmv emission limit was not based on data from a control technology different from that analyzed for the current standard and because 10 ppmv represents the lowest level of control which has been consistently achieved, the EPA withdraws the proposed 5 ppmv limit and affirms the original 10 ppmv limit. If such a technology had been identified, it could have been the basis of a revised standard. However, during the review study no more advanced technology was identified, even though additional data on incinerators . . . were obtained. Although these data indicate that incinerators are capable of reducing emissions below 10 ppmv, 10 ppmv represents the lowest level of control which has been consistently achieved.

Id.

57. 804 F.2d 710 (D.C. Cir. 1986).

58. 42 U.S.C. § 7412(b)(1)(B) (1982).

59. *NRDC*, 804 F.2d at 716.

60. *Id.* at 723.

Legislative History of Section 112

Section 112 began as section 115 of Senate Bill 4358 and section 112 of House Resolution 17255.⁶¹ The Senate bill's strict provisions prohibited emissions of hazardous pollutants for all sources for which no safe level of exposure existed and permitted consideration only of health factors.⁶² The Senate bill defined a hazardous air pollutant in almost identical terms as the final law.⁶³ The bill required the Secretary of Health, Education and Welfare⁶⁴ to set emissions standards necessary to protect public health. The Senate Report stated that the Administrator "would be required to publish a proposed prohibition of emissions of such agents or combinations of such agents from any stationary source."⁶⁵ Senator Muskie, the principal proponent of the Act, told the Senate that "[t]he committee was presented with strong evidence that any level of emissions of certain pollutants may produce adverse effects that cannot be tolerated."⁶⁶ A summary of the provisions of the conference agreement presented by Senator Muskie clearly showed that the requirement to protect public health with an ample margin of safety "could mean, effectively, that a plant would be required to close because of the absence of control techniques. It could include emission standards which allowed no measurable emission."⁶⁷

Section 112 of the House Resolution on the other hand, prohibited emissions of extremely hazardous air pollutants from only new sources. The bill required the Administrator to set standards for new sources of pollutants which substantially endangered public health. For these pollutants, the Administrator could consider economic and technological factors. Section 112(b)(1) of the House bill provided that "[i]f emissions are extremely hazardous to health, no new source of such emissions shall be constructed or operated, except where (and subject to such conditions as he deems necessary and appropriate) the [Administrator] makes a specific exemption with respect to such construction."⁶⁸ Had Congress enacted this version, it would have limited regulation of hazardous pollutants to new sources and would have permitted EPA to make specific exemptions from prohibitions on the basis of nonhealth considerations.

Congress, however, did not enact this language. Instead, the final legislation followed the Senate Bill, rejecting the provision contained in the House bill. Unlike the House version, the final legislation also applied

61. See S. 4358, 91st Cong., 2d Sess. § 6(b), 116 CONG. REC. 32,375 (1970).

62. See *id.*; H.R. 17255, 91st Cong., 2d Sess. § 5(a), 116 CONG. REC. 19226 (1970).

63. S. 4358, *supra* note 61, § 6(b), at 32,375.

64. The EPA had not yet been created.

65. S. REP. NO. 1196, 91st Cong., 2d Sess. 20 (1970), reprinted in ENV'TL POL'Y DIV., CONG. RES. SERV., LIBR. OF CONG., A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1970, SER. NO. 93-18, 93d Cong., 2d Sess. 420 (prepared for Senate Comm. on Pub. Works) [hereinafter LEGISLATIVE HISTORY]

66. See LEGISLATIVE HISTORY, *supra* note 65, at 227.

67. 116 CONG. REC. 42,385 (1970).

68. H.R. 17255, § 5, 91st Cong., 2d Sess. (1970) (as reported by the House Comm. on Interstate and Foreign Commerce), reprinted in LEGISLATIVE HISTORY, *supra* note 65, at 921 (proposing new § 112(b)(1)).

these health requirements to existing, as well as new, sources. The final Act did, however, contain three limited exceptions: (1) a ninety-day delay in applying the new standard to existing sources; (2) grant of a two-year waiver for existing sources; and (3) a two-year Presidential waiver upon a Presidential finding that the technology to implement the new standard is unavailable and the operation of the source is necessary for national security.⁶⁹

Thus, the final version of section 112 was clearly based on the Senate bill. Section 112 regulates all emissions, as did the Senate bill, while the House bill would have regulated only new sources. The final version, like the Senate bill, contains no provision giving EPA broad discretion to grant exceptions from emission standards.

Because the final version closely resembles the Senate bill insofar as it prohibited economic and technological feasibility considerations, one can infer that the Act does not allow consideration of these factors in setting standards under Section 112. As the dissenting opinion pointed out in *NRDC v. EPA*,⁷⁰ "[i]t would be odd to discover a 'rule' of statutory construction that indicated that final bills resembling the version of one house are to be evaluated according to the legislative history of the other house's version."⁷¹

ANALYSIS

Congressional prohibition of economic and technological feasibility reflects the "technology-forcing" policy of the Clean Air Act. In passing the Act, Congress set seemingly unattainable goal to force industry to develop and implement pollution control technology.⁷² This policy may require EPA to set zero emission standard for all nonthreshold pollutants,⁷³ despite unavailability of technology and or the cost of compliance. In *Union Electric Co. v. EPA*,⁷⁴ the Supreme Court held that under the Clean Air Act, a coal-fired power plant either had to comply with EPA approved emission standards or shut down.⁷⁵ The Court stated:

[T]he 1970 Amendments to the Clean Air Act were a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution These requirements are of a "technology-forcing character" . . . and are expressly designed to force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible.⁷⁶

69. H.R. REP. NO. 1783, 91st Cong., 2d Sess. § 112, at 46-47 (1970), reprinted in LEGISLATIVE HISTORY, *supra* note 65, at 196-97 (report of conference committee).

70. 804 F.2d 710, 727 (D.C. Cir. 1986).

71. *Id.* at 733-34 (Wright, J., dissenting).

72. See generally Note, *supra* note 32.

73. A nonthreshold pollutant has no safe human exposure level. See Graham, *The Failure of Agency-Forcing: The Regulation of Airborne Carcinogens Under Section 112 of the Clean Air Act*, 1985 DUKE L.J. 100, 117 n.111.

74. 427 U.S. 246 (1976).

75. See *infra* text accompanying note 113.

76. *Union Electric*, 427 U.S. at 256-57.

The Court thus found that Congress intended to promote rapid innovations in pollution control technology.⁷⁷ In withdrawing the proposed amendments to its vinyl chloride standard, EPA undercut this policy and decided the industry could never achieve a zero emissions standard.

The agency's decision is speculative because it has never set a standard which would have forced the industry to try to eliminate vinyl chloride emissions. Its withdrawal of the 1976 amendment reflects more than a refusal to force technology. In scrapping the amendments, the agency stated that it would not even require the industry to use presently available pollution control technology.⁷⁸ EPA took this position even though its own studies demonstrated that current technology could substantially reduce vinyl chloride emissions during certain phases of the manufacturing process.⁷⁹ In some instances, even the vinyl chloride industry has been more optimistic than EPA about its ability to reduce emissions.⁸⁰ EPA's decision to relax its vinyl chloride standard could destroy the industry's incentive to improve control technology. By allowing feasibility and cost-benefit analyses to enter its calculations, EPA undermines the technology-forcing policy underlying the Clean Air Act and frustrates congressional intent.⁸¹

Despite EPA's reluctance to regulate hazardous air pollutants in accordance with the strict mandate of section 112, the agency cannot interpret the statute in a way that simply reflects its views of what constitutes good social policy. EPA expressed the view that zero-emission standards for vinyl chloride "would produce massive social dislocations"⁸² because few industries could comply with such standards. The agency's concern however is speculative since it has never set a zero-emission standard. Further, Congress contemplated some closure of industries unable to comply with regulations promulgated under section 112.⁸³ In *Tennessee Valley Authority v. Hill*,⁸⁴ the Supreme Court stated that "the wisdom or unwisdom of a particular course consciously selected by Congress is to be put aside in the process of interpreting a statute."⁸⁵ At issue in *Hill* was whether the Endangered Species Act of 1973⁸⁶ prevented the operation of a federal dam, constructed by the TVA. Operation of the dam would have destroyed a critical habitat of the snail darter,⁸⁷ which the Secretary of

77. See, e.g., Note, *supra* note 32, at 1713. EPA accepted technology-forcing in the electric utilities and copper smelting industries. In both cases, these industries developed technology to achieve emission standards promulgated under the Clean Air Act. *Id.* at 1714.

78. 50 Fed. Reg. 1184 (1985).

79. For example, one vinyl chloride plant used an incineration method to reduce emissions to 0.26 ppm. Another plant used a control system that recovered 99.99 percent of vinyl chloride from exhaust vents. Still another plant developed a system which reduces vinyl chloride to less than 1 ppm from VC concentrations containing between 10 and 10,000 ppm. See Brief for Petitioner at 32 n.51, *NRDC* (No. 85-1150).

80. *Id.* at 33 n.53.

81. See, e.g., *Union Electric*, 427 U.S. at 268.

82. 44 Fed. Reg. 58,660 (1979).

83. See *supra* text accompanying note 76.

84. 437 U.S. 153 (1978).

85. *Id.* at 194.

86. *Id.* at 156.

87. *Id.* at 165.

the Interior had listed as an endangered species.⁸⁸ The TVA argued that the Endangered Species Act could not be interpreted to prevent operation of a dam in which Congress had spent \$100 million. The Court disagreed and concluded that the Act "require[d] precisely that result."⁸⁹

The Court's holding expressed the proposition that Congress, not an administrative agency, is responsible for deciding what objectives constitute good social policy. This proposition makes sense since Congress, unlike an administrative agency, is directly accountable to its constituency and is able to amend a law if it determines that the law promotes undesirable social consequences. Because EPA has never required the vinyl chloride industry to implement zero-emission standards, Congress cannot know whether section 112's mandate realistically solves hazardous air pollution. If regulations based on a strict interpretation of the statute were to promote the "social dislocation" envisioned by EPA, Congress could amend section 112 to allow EPA to consider economic and technological feasibility if technology-forcing proved unworkable. Until Congress makes that choice, however, EPA is statutorily obligated to set emissions standards without consideration of feasibility. EPA's consistent refusal to do so means the agency is acting beyond its statutory authority and thus amounts to government by an administrative agency.

In *Chevron, U.S.A. v. Natural Resources Defense Council, Inc.* the Supreme Court held that when the intent of Congress is unclear on a particular issue, the courts may reverse an agency's interpretation of a statutory provision only if it is "impermissible" or "unreasonable."⁹⁰ 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."⁹¹ In *NRDC v. EPA*⁹² the D.C. Circuit purported to follow *Chevron*. The Court found that the language of section 112 was not so unambiguous that it revealed a clear congressional intent to make it a "health," rather than a "technology-based," provision.

The court flatly rejected NRDC's position that EPA could consider only health factors under section 112(b)(1)(B) because the statute gave EPA discretion in the area of *scientific uncertainty*.⁹³ To have accepted NRDC's position would have meant that "no such discretion would be necessary, [because] deciding how much uncertainty to allow from a strictly health-based perspective would always lead to the same answer—none."⁹⁴ Even when EPA was uncertain about the health effects of a hazardous air pollutant, it would still be required to prohibit any emission because the statute's focus on health would preclude discretion to consider factors other than health.⁹⁵ The court therefore held that when there

88. *Id.* at 161.

89. *Id.* at 172-73.

90. 467 U.S. 837, 839-40 (1984).

91. *Id.* at 482-83.

92. 804 F.2d 710 (D.C. Cir. 1986).

93. *Id.* at 716.

94. *Id.*

95. *Id.*

is scientific uncertainty regarding the "ample margin of safety" provision, the EPA may consider economic and technological feasibility in setting emission standards for hazardous air pollutants. In other words, Congress did not preclude consideration of nonhealth factors "in the range of emissions where health effects are uncertain."⁹⁶

The court reasoned that Congress must have intended this result because, as "the Administrator has no way of knowing health effects in the range of uncertainty, such considerations . . . seem natural . . . choices to inform the Administrator's decision whether he has amply provided for a reasonable degree of safety from the unknown."⁹⁷ Thus, only when EPA has *absolute* scientific knowledge that a substance endangers the public in trace amounts may the agency ignore economic and technological feasibility and prohibit emissions of that pollutant.⁹⁸

The court also found NRDC's reading of section 112's legislative history to be "strained."⁹⁹ NRDC argued that because the final version of section 112 resembled the Senate bill, Congress must have deliberately eliminated the feasibility considerations in the House bill.¹⁰⁰ The court, however, found the legislative history ambiguous with respect to what EPA could consider in setting hazardous air pollutant standards. The court read the legislative history as supporting an inference that EPA could consider nonhealth factors in setting these standards.¹⁰¹

Because section 112 did not restrict EPA to health factors and was "ambiguous" concerning other factors which EPA could consider in "providing for an ample margins of safety to protect the public health," the court refrained from imposing its own construction on the statute.¹⁰² Instead, the court *merely* bowed to the Supreme Court's mandate in *Chevron*¹⁰³ and upheld the agency's construction of section 112 because that construction was a "reasonable one."¹⁰⁴

Prior to *NRDC v. EPA*, EPA acknowledged that a literal reading of section 112 might require zero-emission standards for nonthreshold pollutants.¹⁰⁵ EPA, however, has never issued zero-emission standards. In the two cases where it has regulated nonthreshold pollutants—*asbestos* and *vinyl chloride*—the agency rejected zero-emission standards in favor of standards based on available technology.¹⁰⁶ Prior to *NRDC v. EPA*,

96. *Id.* at 723.

97. *Id.* at 722.

98. *Id.*

99. *Id.* at 717.

100. *Id.*

101. *Id.* at 719.

102. *Id.* at 722 (quoting *Chevron U.S.A. v. NRDC*, 467 U.S. 837, 843 (1984)).

103. 467 U.S. 837 (1984).

104. *NRDC*, 804 F.2d at 722.

105. *Graham*, *supra* note 73, at 123.

106. *Id.* (citing Final Vinyl Chloride Emission Standards, 41 Fed. Reg. 46,560-62 (1976) (codified at 40 C.F.R. §§ 61.60 to .71 (1981) (proposed Oct. 21, 1976); Final Emission Standards in Asbestos, Beryllium, and Mercury, 38 Fed. Reg. 8820, 8820-22 (codified at 40 C.F.R. §§ 61.01 to .53 (1986) (proposed Apr. 6, 1973)).

the agency's legal position in promulgating these standards had never been judicially tested.¹⁰⁷ Thus, *NRDC* posed a question of first impression. As the following analysis will show, however, there is no support for the majority's conclusion that EPA could consider nonhealth factors in setting emission standards under section 112.

SUPREME COURT PRECEDENT

In *Union Electric Co. v. EPA*, the Supreme Court considered whether the EPA had authority under section 110(a)(1) of the Clean Air Act¹⁰⁸ to reject an SIP because it was economically or technologically infeasible. In that case, Union Electric, a coal-fired utility company, could not meet new sulfur dioxide emission standards which the state of Missouri had promulgated pursuant to section 110(a)(1). After EPA notified the company that its sulfur dioxide emissions were violating Missouri's emission standards, Union Electric sued to overturn EPA's approval of these standards, arguing that the standards were economically and technologically infeasible. The Supreme Court rejected Union Electric's argument and held that EPA could never consider economic and technological infeasibility in evaluating state emission standards because section 110 contained no provisions allowing for such consideration.¹⁰⁹ The Court noted that, "[w]here Congress intended the Administrator to be concerned about economic and technological infeasibility, it expressly so provided."¹¹⁰

The majority in *NRDC v. EPA*, found the Supreme Court's rule in *Union Electric* inapplicable to section 112 because that case decided only that EPA was not required to consider economic and technological feasibility. The majority inferred that EPA might retain discretion to consider such factors if it so chose.¹¹¹ The majority's reasoning was specious because the Supreme Court held in *Union Electric* that "[t]he mandatory 'shall' makes it quite clear that the Administrator is not to be concerned with factors other than those specified."¹¹² The Court held that under section 110, "economic or technological infeasibility *may not be considered* . . ." ¹¹³ Because section 112(b)(i)(B) contains no provision allowing EPA to apply economic and technological feasibility, the majority's attempt in *NRDC* to distinguish *Union Electric* is a distinction without a difference.

107. *Id.* at 131.

108. 42 U.S.C. § 7410(a)(1) (1982). Section 110(a)(1) requires each state to devise, subject to EPA approval, an implementation plan providing for attainment of NAAQS, both primary standards (those necessary to protect the public health) and secondary standards (those necessary to protect the public welfare).

109. *Union Electric*, 427 U.S. at 265. The Court reiterated this rule in *American Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490 (1981). In *Donovan*, the Court held that, "[w]hen Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute." 452 U.S. at 510.

110. *Union Electric*, 427 U.S. at 257 n.5. Section 110(a)(2) lists eight criteria which EPA must consider in approving a state implementation plan. 42 U.S.C. § 7410(a)(1) (1982). Because economic and technological feasibility was not listed as a criterion, the Court concluded EPA could not consider this factor in evaluating a SIP.

111. *NRDC v. EPA*, 804 F.2d 710, 727 (D.C. Cir. 1986).

112. *Union Electric*, 427 U.S. at 257.

113. *Id.* at 265 (emphasis added).

D.C. CIRCUIT PRECEDENT

The D.C. Circuit Court of Appeals has twice before interpreted the Clean Air Act's margin of safety requirement.¹¹⁴ In both cases the court found that this requirement unambiguously precluded EPA from considering economic and technological feasibility in setting emission standards. In *NRDC v. EPA*, however, the D.C. Circuit considered the same requirement but reached the opposite conclusion.

In *Hercules, Inc. v. EPA* a pesticide manufacturer challenged EPA regulations restricting discharges into the nation's watercourses of two toxic substances.¹¹⁵ These regulations required the manufacturer to reduce its discharge of endrin to 0.005 pounds per day.¹¹⁶ Velsicol¹¹⁷ sued to invalidate EPA's endrin regulations on the ground that EPA abused its discretion when it failed to consider economic and technological feasibility in promulgating those regulations.¹¹⁸ The D.C. Circuit upheld the regulations because section 307(a) of the Clean Water Act,¹¹⁹ under which the EPA promulgated the regulations, did not require EPA to consider those factors.¹²⁰

Although this case involved a challenge under the Federal Water Pollution Control Act,¹²¹ the court's decision was influenced by similarities between the regulatory schemes of that Act and the Clean Air Act.¹²² More importantly, the court found that the Clean Air Act "distinguished between pollutants subject to technology-based regulations under section 111 and hazardous substances, subject to health-based regulations under section 112. Recognizing that 'certain pollutants' required special treatment because of risk to health, Congress enacted section 112, dealing with hazardous pollutants, *without* provision for considerations of feasibility."¹²³

The majority in *NRDC v. EPA* failed to see how its prior observation in *Hercules* strengthened NRDC's claim that the "ample margin of safety" provision of section 112 prohibited consideration of economic and tech-

114. See *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130 (D.C. Cir. 1980), *cert. denied*, 449 U.S. 1042 (1980); *Hercules, Inc. v. EPA*, 598 F.2d 91 (D.C. Cir. 1978).

115. *Hercules*, 598 F.2d at 97. The substances were toxaphene and endrin. The EPA regulated discharges of these toxins pursuant to § 307(a) of the Federal Water Pollution Control Amendments of 1972. 33 U.S.C. § 1317(a) (1982).

116. *Hercules*, 598 F.2d at 98.

117. The court considered two challenges brought by pesticide manufacturers—*Hercules, Inc.* and *Velsicol*. The court consolidated the two cases. *Id.* at 97.

118. *Id.* at 110.

119. 33 U.S.C. § 1317(a) (1982).

120. *Hercules*, 598 F.2d at 111. Section 307(a) enumerated six criteria which EPA could consider in setting discharge standards for toxic water pollutants. Because none involved economic and technological criteria, the court agreed with EPA and rejected the manufacturer's argument. The court's interpretation was reinforced by § 307(a)(4) which required "EPA to set standards providing 'an ample margin of safety' without any mention of feasibility criteria." 33 U.S.C. § 1317(a) (1982).

121. 33 U.S.C. §§ 1251-1376 (1982).

122. *Supra* note 11.

123. *Hercules*, 598 F.2d at 112 (emphasis added).

nological feasibility.¹²⁴ The court instead found that *Hercules* merely stood for the proposition that the ample margin of safety language did not *require* economic and technological considerations.¹²⁵ This interpretation is incorrect given the D.C. Circuit's conclusion in *Hercules* that "Congress deliberately selected only health and environmental factors for EPA considerations."¹²⁶ The majority's effort to read the rule in *Hercules* as permitting EPA to consider nonhealth factors under the "ample margin of safety" provision is thoroughly unconvincing.¹²⁷

As in *Hercules*, the D.C. Circuit reached the same result in *Lead Industries Association v. EPA*.¹²⁸ There, the Lead Industry Association challenged EPA's promulgation of primary air quality standards for lead under section 109 of the Clean Air Act. Section 109(b)(1) requires EPA to set primary air quality standards that "allow an *adequate* margin of safety . . . to protect the public health."¹²⁹ The association argued that section 109 required EPA to consider economic and technological feasibility in determining the appropriate margin of safety to set under section 109(b)(1).¹³⁰ The D.C. Circuit rejected this argument and held that section 109(b)(1)'s "adequate margin of safety" requirement prohibited EPA from considering these factors in setting primary ambient air quality standards.¹³¹ The court stated that "[w]here Congress intended the Administrator to be concerned about economic and technological feasibility, it expressly so provided."¹³² Following the *Union Electric* rule the court concluded that nothing in section 109(b)'s "language suggested that the Administrator is to consider economic and technological feasibility in setting ambient air quality standards."¹³³

Though the court's holding in *Lead Industries* appears to compel the conclusion that section 112 precludes similar considerations, the majority in *NRDC v. EPA* thought otherwise. The majority found this rule inapplicable because "the court in *Lead Industries* based its holding on struc-

124. *NRDC v. EPA*, 804 F.2d 710, 726 (D.C. Cir. 1986).

125. *Id.*

126. Petition for Rehearing at 5, *NRDC* (No. 85-1150).

127. The court in *Hercules* stated:

[T]he congressional selection of factors is a legislative determination that the need of the public and the environment for protection from toxic chemicals is more important than the problems of stringent regulation. This congressional determination is a rational response to the dangers presented by toxic substances. The meaning of the statute being clear, it is not this court's prerogative to impose considerations of feasibility.
598 F.2d at 112.

128. 647 F.2d 1130 (D.C. Cir. 1980), *cert. denied*, 449 U.S. 1042 (1986).

129. 42 U.S.C. § 7409 (1982). At issue in *Lead Industries* was a statutory scheme requiring EPA to regulate air pollutants whose emission "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." *Id.* § 7408(a)(1)(A); see also *Lead Industries*, 647 F.2d at 1136. Under 42 U.S.C. § 7408(a)(2) EPA must publish "air quality criteria for the pollutants listed. The EPA then prescribes primary and secondary ambient air standards based on these criteria." *Id.* § 7409.

130. 42 U.S.C. § 7409(b)(1) (1982).

131. *Lead Industries*, 647 F.2d at 1148.

132. *Id.*

133. *Id.* at 1148-49.

tural aspects of the ambient air pollution provisions not germane here."¹³⁴ Unlike section 112,¹³⁵ section 109(b)'s ambient air standards¹³⁶ must be based on so-called 'air quality criteria, which section 108¹³⁷ defines as comprising several elements, all related to health."¹³⁸ The majority stated that these "air quality criteria" under section 108 excluded economic and technological considerations. Thus, the court in *Lead Industries* must have reasoned that such criteria also "foreclosed reliance on such factors in setting ambient air quality standards. . . ."¹³⁹ Because sections 112, by contrast, is not based on specific, enumerated, health criteria, the statute's mandate "to provide an ample margin of safety to protect the public health," may well demonstrate a congressional intent for the EPA to consider nonhealth criteria in providing for this ample margin of safety.

The majority's tortured distinction in *Lead Industries*, makes the *adequate* margin of safety provision under section 109 more protective of health than section 112's *ample* margin of safety. Unlike the pollutants regulated under section 109, the pollutants regulated under section 112 are carcinogenic.¹⁴⁰ The decision in *NRDC v. EPA*, means that the agency now has more discretion to regulate highly toxic air pollutants than it has in regulating less toxic air pollutants.¹⁴¹

DISCRETION AND EXCEPTIONS UNDER SECTION 112

Section 112(b)(1)(B) provides that "[t]he Administrator shall establish any such standard at the level which in his *judgment* provides an ample margin of safety to protect the public health. . . ."¹⁴² The majority found that the Administrator's judgment under section 112(b)(1) necessarily includes discretion to consider economic and technological feasibility.¹⁴³ It stated that if health were the only factor EPA could consider in establishing standards, the Administrator's discretion under section 112(b)(1)(B) would disappear because "any decision informed solely by health . . . would require a prohibition of any emissions."¹⁴⁴ Thus to give the word judgment meaning, Congress must have intended EPA to consider nonhealth factors in establishing standards.

The dissenting opinion in *NRDC v. EPA* showed that not only does EPA have discretion under section 112, but also that the majority's interpretation reads two subsections out of the statute. For example, section 112 gives EPA discretion to determine whether a hazardous pollu-

134. *Id.* at 724.

135. 42 U.S.C. § 7412 (1982).

136. *Id.* § 7409(b).

137. *Id.* § 7408.

138. *NRDC*, 804 F.2d at 724.

139. *Id.*

140. *Id.* at 737 (Wright, J., dissenting) (citing U.S. COMPTROLLER GEN., DELAYS IN EPA'S REGULATIONS OF HAZARDOUS AIR POLLUTANTS 8-11 (1983)).

141. *Id.* at 731.

142. 42 U.S.C. § 7412(b)(1)(B) (1982) (emphasis added).

143. *NRDC*, 804 F.2d at 716.

144. *Id.*

tant has a safe level of exposure. If the agency decided that such a pollutant had a safe level of exposure, EPA could permit emissions to that extent.¹⁴⁵

The absence of feasibility language in section 112(b)(1)(B)¹⁴⁶ is important when compared to other provisions in section 112 which allow for economic and technological feasibility. Section 112(e)(2) restrictively defines "not feasible" as including situations where control techniques are unavoidable or measurement methodology is impracticable "due to technological or economic limitations."¹⁴⁷

Section 112 has two subsections which permit feasibility considerations under special circumstances. Section 112(b) allows EPA to devise an operational standard whenever it is infeasible to impose an emission standard.¹⁴⁸ Section 112 also is an exception in that section 112(c)(2) allows for a Presidential waiver from enforcement of an emission standard if the President determines that the regulation is technologically impossible to achieve and that the industry subject to the regulation is necessary to national security.¹⁴⁹ These two subsections would be meaningless unless Congress intended to preclude EPA from considering feasibility under section 112. In other words, if EPA could always consider feasibility under section 112, Congress would have had no reason to allow for certain limited economic and technological feasibility exemptions. EPA, however, withdrew its 1977 proposed regulations of vinyl chloride, not because it found that it was impossible to prescribe an emission standard, but because it decided that best available technology was insufficient to achieve the proposed standard.¹⁵⁰

CONCLUSION

The majority in *NRDC v. EPA* laboriously searched to detect an ambiguity in section 112. Upon finding an ambiguity where none previously existed, the majority improperly used the Supreme Court's holding in *Chevron* to permit EPA to use economic and technology feasibility in deciding to withdraw proposed regulations of a deadly carcinogen. The Supreme Court's holding in *Chevron* requires lower federal courts to defer to an agency's interpretation of a statute only when that statute is ambiguous and the agency's statutory interpretation is reasonable. Even though section 112 unambiguously prohibits consideration of the factors EPA used in withdrawing its proposed regulations for vinyl chloride, the *NRDC* majority's decision contravened the Supreme Court's holding in *Chevron* and permitted EPA to go beyond its statutory authority in converting an otherwise "health-based" statute into a "technology-based"

145. *Id.* at 736. (Wright, J., dissenting) (citing S. REP. NO. 1196, 91st Cong., 2d Sess. 20 (1970)).

146. 42 U.S.C. § 7412(b)(1)(B) (1982).

147. *Id.* § 7412(e)(2).

148. *Id.* § 7412(b)(1)(B).

149. *Id.* § 7412(c)(2).

150. 50 Fed. Reg. 1184 (1985).

one.¹⁵¹ The decision not only undermines congressional intent, but conflicts with the D.C. Circuit's own precedent as well as with the Supreme Court's.

Given the clarity of Congress' intent to prohibit the factors EPA used in withdrawing its 1977 amendment, NRDC is in a strong position to prevail on rehearing.¹⁵² To uphold EPA's action would allow it to substitute its judgment of what constitutes proper public policy for that of Congress. Only Congress has the authority to decide whether EPA may consider cost-benefit and feasibility factors in promulgating standards under the Clean Air Act. Congress, however, clearly removed such factors from EPA's consideration under section 112. Thus, the agency's consideration of these factors in deciding to withdraw its 1977 amendments is contrary to Congress' intent. The thrust of section 112 is to force industries to achieve zero emission standards for nonthreshold pollutants. EPA's cost-benefit and feasibility approach in regulating airborne carcinogens reflects the agency's intent to promulgate lax standards. This approach will result in decreased regulation of the vinyl chloride industry at the expense of public health.

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151. *NRDC*, 804 F.2d at 738 (Wright, J., dissenting).

152. On January 28, 1987, the United States Court of Appeals for the District of Columbia granted NRDC's Petition for Rehearing. *NRDC v. EPA*, 810 F.2d 270 (D.C. Cir. 1987) (per curiam).