

1982

Goal Statutes or Rules Statutes: The Case of the Clean Air Act

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30 UCLA L. Rev. 740 (1982-1983)

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GOALS STATUTES OR RULES STATUTES: THE CASE OF THE CLEAN AIR ACT*

David Schoenbrod†

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Many people have endeavored to assist me by proposing various approaches to an intellectual landscape long familiar to me as an advocate. I wish to thank specifically, for their comments on drafts, Professors Ralph Brown, Paul Chevigny, John Costonis, Samuel Estreicher, Thomas Franck, John Johnston, Sylvia Law, Arthur Murphy, Earl Murphy, William Nelson, Burt Neuborne, John Peschel, Steven Reiss, Lawrence Sager, John Sexton, John Slain, Richard Stewart, and Diane Zimmerman, as well as attorneys Eric Goldstein, Angus Macbeth, and Ross Sandler. I am also grateful to Michael Bardee for his particularly able research assistance.

The New York University Law Center Foundation Faculty Research Program provided generous support that allowed me to complete this research.

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I. INTRODUCTION

I believed in the 1970 Clean Air Act¹ as a valuable reform and worked for its implementation when I was an attorney for the Natural Resources Defense Council. Now, after several years of reflection and the benefit of hindsight, I think that the 1970 Act was a mistake because it is based upon an important misconception about how statutes can work to achieve their goals.

The Act ordains that its environmental goals must be achieved.² It purports to realize those goals not by stating rules of conduct for polluters but by mandating a process under which entities other than Congress must promulgate controls to achieve the goals. The 1970 Act is, in the first instance, a law that regulates government rather than sources of pollution. It requires government—both federal and state—to take certain actions by certain dates. The Environmental Protection Agency (EPA) must identify all harmful pollutants, classify them on the basis of prevalence and impact, and then ensure that emissions are subjected to federal and/or state controls to the extent necessary to protect health and welfare.³ Every step is framed in terms of “shall.”⁴ If a duty should go unfulfilled, private citizens have specific authority to enforce the Act in federal district court.⁵

The Act's regulatory system allows controls to vary from region to region and source to source so that mandatory goals can be achieved with some sensitivity to economic costs and other concerns.⁶ This regulatory system is not the only conceivable legislative approach to air pollution. In contrast, for example, Congress might enact rules that require all sources of a certain type wherever located to reduce their emissions to a given rate. Limitations on legislative time would, however, require that such rules be more general than the fine-tuned controls promulgated under the Act. Such legislated rules might seem undesirable because they would reduce emissions in areas where the air was already clean enough and may well not clean the air enough in areas with heavy concentrations of sources. Furthermore, whatever the desired degree of cleanliness in the air, the controls crafted by dele-

1. The Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 [hereinafter cited as 1970 Act], comprehensively restructured prior law. *See infra* notes 14-33 and accompanying text. The Act, with subsequent amendments, is codified at 42 U.S.C. §§ 7401-7626 (Supp. IV 1980). *See generally* D. CURRIE, AIR POLLUTION §§ 1.08-.12 (1981).

2. For a description of the Act, see *infra* § II(A)-(B).

3. *See infra* § II(A).

4. *See, e.g.*, Natural Resources Defense Council v. Train, 545 F.2d 320, 324-25 (2d Cir. 1976).

5. *See infra* note 163.

6. *See infra* text accompanying note 128.

gates could theoretically allocate the reductions in emissions among sources with an eye towards minimizing economic costs, social impacts, and inequities.

The Act makes the protection of public health an absolute goal even though there is no threshold of emissions below which pollution does no harm.⁷ Thus, the Act generally precludes trade-offs between health and other concerns such as economic or technological feasibility.⁸ This approach has been subject to criticism. Bruce Ackerman and William Hassler, for example, recently suggested that the Act could be more efficient if EPA had even more flexibility to impose controls and if the Act's goals were made less absolute.⁹ Ackerman and Hassler would refine the Act by changing its health goal from complete to more relative protection, such as saving a given number of lives from air pollution.¹⁰ The Reagan Administration and some major industries also view the mandate to achieve an absolute health goal as a source of inefficiency, but they would refine the Act by giving EPA and the states more discretion as to how much should be done to achieve the Act's goals.¹¹

In my view, both the 1970 Act and the proposals to make it more efficient try to be too refined. As will be shown, the Act's process is extremely complex, creating high transaction costs for governments and businesses. The Act's enforcement also requires more data about pollution effects and controls than science can provide, thereby allowing manipulation that undercuts achievement of the Act's ultimate goals, wastes resources, and creates inequities. Finally, the Act fails to allocate among sources the burden of cleaning the air or even to decide, in meaningful terms, how clean the air should be. The legislation's backers can take credit for bestowing environmental benefits while distancing themselves from the costs and leaving an issue that is critical to the nation's health and economy chronically unresolved.

The efficiency promised by the 1970 Act and the proposals to make it more efficient are thus overshadowed by the difficulties encountered in implementing this sophisticated legal scheme. It would be better for Congress to forego the theoretical benefits of fine-tuned pollution controls and instead itself prescribe emission limits for major industries. Statutes must be judged not only by the theoretical desirability of the duties that they would impose, but also by the costs, feasibility, and fairness of the process for

7. *See infra* text accompanying notes 136-140.

8. *See infra* text accompanying notes 112-114.

9. Ackerman & Hassler, *Beyond the New Deal: Coal and the Clean Air Act*, 89 *YALE L.J.* 1466, 1566-71 (1980).

10. *Id.* at 1568-69.

11. *See infra* text accompanying note 56.

converting statutory language into enforced duties. Stating rules of conduct in the statute itself forces the legislature to make the key decisions.

A. *The Problem For Congress in 1970*

Southern California smog kept children home from school and threatened worse. From Boston to Washington, a summer long siege of "daily pollution alerts" left "little doubt . . . that the country was facing an air pollution crisis."¹² A Senate Committee found that the problem was "more severe, more pervasive, and growing at a more rapid rate than was generally believed."¹³

By 1970, it was clear that decisions about air pollution had to be made at the federal level. Neither air pollution nor industries in search of profitable locations were confined by state boundaries. A federal decision would, however, require politically difficult choices. Any set of pollution controls would be criticized as going too far or not far enough. Nothing pointed to any particular level of controls as especially efficient or fair. The situation called for compromises that would satisfy no one.

Congress was in no position to pass the buck. It had already enacted a series of statutes that handed the problem to states and various federal agencies. Congress in 1955 declared that air pollution was a problem for state and local governments and offered them federal advice, research results, and, if requested, investigations.¹⁴ Legislation in 1963¹⁵ enriched the federal research effort, offered the states the inducement of federal grants, and authorized federal action against pollution sources, but only in narrowly defined circumstances and after the completion of "bizarre" conference procedures.¹⁶ Legislation enacted in 1965 directed federal officials to regulate emissions from new vehicles after considering feasibility and other factors.¹⁷ Congress attempted a comprehen-

12. 116 CONG. REC. 42,381-82 (1970) (remarks of Sen. Muskie).

13. S. REP. NO. 1196, 91st Cong., 2d Sess. 1 (1970) [hereinafter cited as 1970 Senate Report].

14. The Air Pollution Control Act of 1955, Pub. L. No. 84-159, 69 Stat. 322, authorized the Secretary of Health, Education and Welfare (HEW) to conduct research on air pollution and to provide states with financial and technical assistance for such research.

15. The Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (1963), established additional research and technical assistance programs and allowed HEW to spur states to abate specific pollution problems endangering health or welfare.

16. W. RODGERS, ENVIRONMENTAL LAW 210 (1977).

17. Automotive emissions first received federal attention in Pub. L. No. 86-493, 74 Stat. 162 (1960), which required the Surgeon General to study such emissions and report the findings to Congress. Subsequently, the Motor Vehicle Air Pollution Control Act, Pub. L. No. 89-272, 79 Stat. 992 (1965), required HEW to promulgate federal standards controlling the emission of pollutants from new motor vehicles, taking into account technological feasibility and economic costs.

sive approach in the 1967 Act, which directed each state to adopt air quality goals (state ambient air standards) consistent with federal assessments of the effects of various pollutants and then to adopt a plan to achieve the state air quality goals.¹⁸ A federal agency would take action if the state failed to do so, but this was "hardly a credible, regulatory scheme."¹⁹ By 1970, some state and local governments had instituted tough controls,²⁰ but federal officials had not acted aggressively.²¹ Only one federal enforcement action had reached court.²²

The statutes prior to 1970 gave the states and federal officials wide discretion to balance environmental and other goals. That legislation drew mounting criticism in the 1960s. Some legal scholars argued that broad delegations made it hard for agencies to tackle controversial issues.²³ Others saw vague mandates as a device to lull citizen concern while the regulated captured the regulators.²⁴ Many Americans felt governmental processes involving broad discretion were unable to cope with an environmental emergency of potentially lethal dimension,²⁵ an attitude that fit the distrust generated by the Vietnam War, urban riots, and other crises.²⁶

18. The Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485 (amending the Clean Air Act), sought to establish a systematic federal approach. It required HEW to designate air quality criteria describing the effects of pollutants. Based on these criteria, the states were to develop state ambient air standards and adopt plans for their implementation in each region. HEW was authorized to fulfill non-complying states' duties, but the procedures were cumbersome and time-consuming. *See, e.g.*, H.R. REP. NO. 1146, 91st Cong., 2d Sess. 3, *reprinted in* 1970 U.S. CODE CONG. & AD. NEWS 5356, 5360.

19. W. RODGERS, *supra* note 16, at 211.

20. *See, e.g.*, J. KRIER & E. URSIN, POLLUTION & POLICY 184-89 (1977). *Cf.* D. Costle, EPA Administrator, Remarks at the Meeting of the Air Pollution Control Association in Montreal, Canada 2 (June 23, 1980) (transcript on file at *UCLA Law Review*). *See generally* U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, A DIGEST OF STATE AIR POLLUTION LAWS (1967).

21. 1970 Senate Report, *supra* note 13, at 36; H.R. REP. NO. 1146, 91st Cong., 2d Sess. 3, *reprinted in* 1970 U.S. CODE CONG. & AD. NEWS 5356, 5360; 116 CONG. REC. 42,381-82 (1970) (remarks of Sen. Muskie); Note, *The Clean Air Amendments of 1970: Better Automotive Ideas from Congress*, 12 B.C.L. REV. 571, 578 (1971). For example, federal regulation of new vehicles before 1970 had required reductions in emissions but had not pushed manufacturers as far as then-existing technology allowed. Currie, *Motor Vehicle Air Pollution: State Authority and Federal Pre-emption*, 68 MICH. L. REV. 1083, 1086 (1970).

22. W. RODGERS, *supra* note 16, at 214.

23. *See infra* text accompanying notes 64-66.

24. *See infra* note 27.

25. Ackerman & Hassler, *supra* note 9, at 1474-79.

26. [T]he crisis in confidence which afflicts too many Americans [is] marked by self-doubt, by a fear that our problems may be greater than our capacity to solve them, that our public and private institutions may be inadequate at a time when we need them most.

116 CONG. REC. 32,900 (1970) (remarks of Sen. Muskie).

Senator Edmund Muskie, who sought to be the champion of a new and electorally powerful environmental movement,²⁷ declared that his 1970 Act guaranteed the achievement of clean air goals by directing officials to take specified actions by specified deadlines²⁸ (action-forcing procedures).²⁹ The 1970 Act, according to Muskie, its chief author, "intends that all Americans in all parts of the country shall have clean air to breathe within the 1970's."³⁰ Dirty air would be made healthy by a date certain, and places with pristine air would not be allowed to deteriorate.³¹ These promises were framed as literal commitments rather than objectives of the legislation.³² The Act, in Senator Muskie's words, "faces the air pollution crisis with urgency and in candor. It makes hard choices"³³

The action-forcing statute seemed to avoid compromise by stating an absolute duty to achieve a set of goals—the protection of health, welfare, and natural air quality. But Congress did not decide what the Act's mandatory environmental goals meant and how the burden of achieving them would be allocated. The Act did not control what makes air dirty except for emissions from new cars.³⁴ Instead, the action-forcing procedures in the statute

27. Muskie was accused in a Ralph Nader study of selling out on clean air in "preoccupation with the 1972 [Presidential] election." J. ESPOSITO, *VANISHING AIR* 287 (1970). Nader wrote of the air issue in terms of "liberation," "chemical . . . warfare," "the corporate powers that turn nature against man," and the collapse of the federal program "starting with Senator Edmund Muskie." Nader, *Foreword to J. ESPOSITO, supra*, at vii–ix.

Muskie's opening statement introducing his bill on the Senate floor later in 1970 co-opted almost all but the last mentioned of Nader's charges. *Compare id. with* 116 CONG. REC. 32,900–01 (1970) (remarks of Sen. Muskie) on (i) loss of faith in government; (ii) non-enforcement of existing pollution laws; (iii) pollution not price of progress; (iv) maximum use of technology regardless of profit; and (v) man's violence to nature. Muskie seems to parallel Nader, who wrote:

The deep loss of popular belief that government is capable of protecting and advancing the public interest against this airborne epidemic and its corporate sources reflects a broader absence of confidence.

Nader, *supra*, at vii.

28. 116 CONG. REC. 32,902 (1970) (remarks of Sen. Muskie).

29. The term "action-forcing" has commonly been used to describe the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321–4361 (1976). *See, e.g.*, *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669, 707 n.3 (1973) (Douglas, J., dissenting) (quoting Sen. Jackson); L. CALDWELL, *ENVIRONMENT: A CHALLENGE TO MODERN SOCIETY* 219 (1970). Ackerman & Hassler, *supra* note 9, at 1470, describes the Clean Air Act as "agency forcing." "Action-forcing" describes the Clean Air Act even more aptly than it does NEPA. Moreover, the Act's procedures and deadlines apply to states as well as EPA. For these reasons, I call the Act "action-forcing."

30. 116 CONG. REC. 42,381 (1970) (remarks of Sen. Muskie).

31. *See infra* §§ II(A), (D).

32. 116 CONG. REC. 42,381 (1970) (remarks of Sen. Muskie).

33. *Id.*

34. 1970 Act § 202 (current version at 42 U.S.C. § 7521(b) (Supp. IV 1980)).

sought to make a newly created EPA³⁵ and the states decide how to regulate conduct so as to fulfill the promises on schedule.³⁶

There was a sense about the "environment" in 1970, as with the current concern about nuclear war, that something had to be done, but there was little consensus as to the substance of reform. The Act skirted disputes of substance and erected an elaborate procedure that served the emotional needs of the public and the political needs of public officials.³⁷ Government had made the protection of natural air quality an objective in itself.³⁸ It purported to outlaw death from air pollution.³⁹ The 1970 legislation was enacted by overwhelming votes in both the Senate and House⁴⁰ and was joyfully embraced by President Nixon⁴¹ as well as its sponsors.

35. EPA was established by President Nixon in Reorg. Plan No. 3 of 1970, 35 Fed. Reg. 15,623, *reprinted in* 42 U.S.C. § 4321 app. (1976) *and in* 84 Stat. 2086 (effective Dec. 2, 1970).

36. *See infra* § II(A).

37. *See infra* §§ II(D), V(A), (C). As Senator Muskie said to his colleagues on the floor:

The legislation we take up today provides the Senate with a moment of truth

This legislation will be a test of our commitment and a test of our faith

116 CONG. REC. 32,900 (1970) (remarks of Sen. Muskie). Muskie quoted President Nixon for the proposition that

Man . . . has been too cavalier in his relations with nature. Unless we arrest the deprivations that have been inflicted so carelessly on natural systems . . . we face the prospect of ecological disaster.

Id. at 32,901.

38. *See infra* § II(D).

39. Louis Jaffe opened an article written in the early 1970s about statutory responses to environmental concerns with a warning that:

The air is filled with prophecies of doom. . . . We must take stock and steady our nerves. We must perhaps learn to accept that we, our society, and even our world are mortal.

Jaffe, *Ecological Goals and Ways and Means of Achieving Them*, 75 W. VA. L. REV. 1 (1972).

We are smart enough to know that individuals cannot avoid death, but not smart enough to stop trying. Lewis Thomas wrote:

We like to think, hiding the thought, that with all the marvelous ways in which we seem to lead nature around by the nose, perhaps we can avoid the central problem if we just become, next year, say, a bit smarter.

L. THOMAS, *THE LIVES OF A CELL* 55-56 (1974).

40. The Senate version of the act passed unopposed, 116 CONG. REC. 33,120 (1970) (for: 73, against: 0); the House version provoked a lone dissenting vote, *id.* at 19,244 (for: 375, against: 1). The conference report was agreed to by both the Senate and House without opposition. *Id.* at 42,395 (Senate), 42,524 (House).

41. President's Remarks Upon Signing the Bill Into Law (Dec. 31, 1970), *reprinted in* SENATE COMM. ON PUBLIC WORKS, 93D CONG., 2D SESS., A LEGISLATIVE HISTORY OF THE CLEAN AIR AMENDMENTS OF 1970, at 105 (Comm. Print 1974).

B. *The Act's Failure*

The 1970 Act seemed to allow the setting of ambitious goals because, if Congress itself had to choose specific pollution controls, the costs of achieving the goals would come to the fore. Whether or not such a stratagem was necessary or proper, it backfired. The Act defused the pressure on Congress but was technically, legally, and politically too imprecise to overcome the counterpressure that later arose against the imposition of controls. Decisions about the issues of substance, as will be shown,⁴² were transferred from congressional debate to fora that were often less capable of environmental protection.

The Act conferred on everyone an absolute right to healthy air in the 1970s, but it gave the corresponding duty only to EPA, which had just been born with legal duties far in excess of its political power and administrative resources.⁴³ Once EPA's congenitally pierced veil is passed, the citizen with an absolute right to breathe clean air can hold no one on earth to account in law. The Clean Air Act was incantation.⁴⁴ EPA does not currently recognize many harmful pollutants and tempers health standards for recognized pollutants.⁴⁵ The health standards that have been promulgated are nonetheless violated in areas which "tend to be large population centers."⁴⁶

Whether the Act's goals were achieved is, however, the wrong question. The failure to achieve the stated goals was inevitable. Human activity must produce emissions, and any conceivable level of emissions creates risk.⁴⁷ Also inevitable was progress to-

42. See *infra* § III(B). See also *infra* text accompanying note 425.

43. See *infra* §§ II(B)-(C).

44. An attribute of law, according to Pospisil, is that rights are connected to duties and duties to rights. If, for instance, one has a right and no one has a duty to satisfy it, the only recourse is to heaven, which is in Pospisil's words, "religious taboo," not law. L. POSPISIL, ANTHROPOLOGY OF LAW 81-87 (1971).

The legislature avoided the "hard choices" about what makes the air dirty by playing back the public's guilt. The statute's meaning, according to Senator Muskie, depends upon the "willingness of the people to make tough decisions." 116 CONG. REC. 32,901 (1970) (remarks of Sen. Muskie). Every politician could be on the side of goodness. One member of Congress, William Fitz Ryan, did object that the 1970 House bill, like its unanimously passed 1967 predecessor, would not be effective because it was "too noncontroversial." *Id.* at 19,202. No one replied.

45. See *infra* § II(C)(5)-(6).

46. D. Costle, *supra* note 20, at 2.

47. Placing supreme priority on the Act's goals of protecting health, welfare, and natural air quality, over and above other social concerns, made no sense if taken literally. Health and the prevention of significant deterioration of air quality are themselves relative concepts. Moreover, in addition to absolute priority on air quality—a warlike attack on pollution as the 1970 Senate Report conceived it, *supra* note 13, at 1—our government had previously declared a "War on Poverty" and would soon declare the "moral equivalent of war" on energy problems. Absolute priorities were being placed on these and other problems, usually without deciding which was

wards controlling pollution since the public's demand for regulation at the federal, state, and local level was already beginning to show results. The failure was in the obstacles that the 1970 legislation put in the way of progress. The Act undercut the law's ability to encourage better control technology, created uncertainties for industries and inequities between firms, and produced an administrative regime that was impossible to implement and enforce. According to then EPA Administrator Douglas Costle "the system is so cumbersome and problematical that it almost literally forces us to focus on the trees instead of the forest."⁴⁸ Firms often found it cheaper to hire lawyers and computer technicians to show compliance on paper than to reduce emissions.⁴⁹ The Act also, by forestalling resolution in Congress, has strained other institutions of government, including the courts.⁵⁰

This Article will argue that the very structure of the 1970 legislation made these problems all but inevitable. There have been charges from the Act's inception that the Administration (whether under Nixon, Ford, or Carter) has implemented the Act with too little or too much zeal.⁵¹ Even the Reagan Administration, for example, has had to take note of the public's environmental concerns.⁵² Some of EPA's harshest critics acknowledge that the agency has attracted unusually able employees.⁵³ The fundamental problem with the Act is not in EPA's administration, at least until 1981, or in any particular detail or technicality of the statute.

Some criticize the Act for mandating the achievement of environmental objectives regardless of other circumstances.⁵⁴ There

really absolute. So to fault the Clean Air Act for its failure to achieve its literally stated goals is to fall prey to a mystification, no less than to conclude that emissions have been controlled too much on the basis of the Act's seemingly absolute commitment to protect health regardless of feasibility.

48. D. Costle, *supra* note 20, at 9-10.

49. *Id.* at 10.

50. *See infra* § IV(C).

51. *See* J. QUARLES, CLEANING UP AMERICA 90, 200-01 (1976).

52. EPA had proposed to weaken its regulation of lead in gasoline as part of the Reagan Administration's program to reduce the cost of regulation, but then strengthened the regulation, 47 Fed. Reg. 49,322 (Oct. 29, 1982), in response to a public outcry. N.Y. Times, Aug. 1, 1982, at A1, col. 5. *See also The Hard Politics of Lead* (editorial), N.Y. Times, Aug. 10, 1982, at A18, col. 1.

53. Ackerman & Hassler, *supra* note 9, at 1469 ("Yet the people who shaped the 1979 decision are remarkable for their high intelligence and conscientiousness. Their failure to make sensible policy is a symptom of organizational, not personal, breakdown—a failure to give decisionmakers bureaucratic incentives to ask the hard questions raised by any serious effort to control the environment.").

54. *E.g.*, J. KRIER & E. URSIN, *supra* note 20, at 321-45; L. LAVE & G. OMENN, CLEARING THE AIR: REFORMING THE CLEAN AIR ACT 45-46 (1981); Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, 78 MICH. L. REV. 155, 158 (1979); Currie, *Federal Air Quality Standards and Their Implementation*, 1976 AM. B. FOUND. RESEARCH J. 365, 408. *See also* Alexander, *A Simpler Path to a*

is merit in this charge, but it alone is not a sufficient diagnosis of the Act's failure. The Act's sponsors knew that absolute health protection was a concept without substance.⁵⁵ Moreover, the Act gave abundant opportunities, which have been used, to balance silently the risks of emissions with the costs of their control. Even major industries and the Reagan Administration now argue for maintaining the 1970 Act's goal of protecting health regardless of cost; the key for them is flexibility in deciding when and how to impose controls to achieve the mandatory goals.⁵⁶

Another prominent criticism of the Act is that its procedures are too cumbersome.⁵⁷ This charge also has merit. But what is the remedy? The procedures that are attacked as hobbling decision under the Act were put there to cure the inaction that seemed to have resulted from more flexible statutory designs.⁵⁸

The criticisms of the Act as having goals that are too absolute or procedures that are too cumbersome tend to emphasize the difference between action-forcing statutes and broad delegation statutes.⁵⁹ They do not tell the whole story of the Act's inability to

Cleaner Environment, FORTUNE, May 4, 1981, at 234; *Ideology and Clean Air*, N.Y. Times, March 15, 1982, at A16, col. 1 (editorial); MacAvoy, *The E.P.A. Could Be Expendable*, N.Y. Times, Dec. 21, 1980, at F2, col. 3.

The sources in this and the following note contain a far richer lode of insights than the stark propositions for which they are cited. My purpose is to highlight the difference between my framework for analysis and that of previous work. Henderson & Pearson, *Implementing Federal Environmental Policies: The Limits of Aspirational Commands*, 78 COLUM. L. REV. 1429 (1978), is closest to my work in its view of the process, but is still quite dissimilar in its analytic framework. Henderson and Pearson, as I, are concerned with the problems that arise when the law is used to try to realize hopes without adequate regard to the process of implementation. While my analytic tool is the distinction that I will draw between goals statutes and rules statutes, their focus for analysis is "aspirational commands," by which they mean orders that are vague as to what must be done and instead ask the addressee to try to reach some objective. *Id.* at 1429-30. Their aspirational commands would not include, as far as they present their analysis, goals statutes in the broad delegation mold. For them, the New Source Performance Standards provision of the Clean Air Act is not an aspirational command. *Id.* at 1444 n.59. But, aspirational commands could include "rules," *id.* at 1430, addressed to polluters. Those who make the commands could include judges and agencies, not just the legislature whose work my analysis turns upon. *Id.* at 1543-56, 1564.

55. See *infra* note 139.

56. E.g., *Retain Air Act Deadlines, Drop Sanctions, Industry Representatives Recommend*, 12 ENV'T REP. (BNA) 747, 747-48 (Oct. 16, 1981); N.Y. Times, Aug. 7, 1981, at A12; *U.S. Steel Takes a Stand on Clean Air*, FORBES 144 (July 5, 1982) (advertisement). For a useful critique of the Reagan Administration's use of cost/benefit concepts, see Costle, *Environmental Regulation and Regulatory Reform*, 57 WASH. L. REV. 409, 416-20 (1982) (advertisement).

57. E.g., Currie, *Federal Air-Quality Standards and Their Implementation*, *supra* note 54, at 409-09; Pedersen, *Why the Clean Air Act Works Badly*, 129 U. PA. L. REV. 1059 (1981).

58. See *supra* note 27.

59. Ackerman & Hassler, *supra* note 9, at 1470. See also *supra* note 54.

translate its goals into enforced controls. This Article offers a diagnosis that emphasizes the Act's similarity in structure to broad delegation statutes and perceives its absolutism and complication as symptoms of this structure. The claim that the Act differs from broad delegation statutes in having made hard choices, which some commentators have credited,⁶⁰ is undeserved. Because, as this Article demonstrates, cumbersome procedures and absolutist goals can still beg the question of what will be done in substance. Commentators from a broad range of perspectives are content to maintain the basic structure in which Congress specifies clean air goals and delegates power to promulgate controls to reach those goals; they would, however, add elements of flexibility—the hallmark of the broad delegation model.⁶¹ This Article argues that Congress itself should promulgate the controls.

C. *Avoiding Decision Through Goals Statutes*

Some statutes, to be called “goals statutes,” announce goals and authorize delegates to promulgate controls on conduct in furtherance of those goals.⁶² “Rules statutes,” on the other hand, state rules of conduct. Pre-1970 air pollution legislation, as well as the 1970 Act (except to the extent that it limited emissions from new cars), were goals statutes because Congress left the choice of permissible conduct to others. Both the action-forcing and the broad delegation varieties of goals statutes confer the power to make policy by allocating duties and rights rather than stating standards of conduct in the statutes. Both seek to overcome a per-

60. See Diver, *Policymaking Paradigms in Administrative Law*, 95 HARV. L. REV. 393, 413 (1981); Stewart, *The Reform of American Administrative Law*, 88 HARV. L. REV. 1667, 1696 n.130 (1975). While the 1977 Amendments in particular have been criticized for sloppy and question-begging drafting, see sources cited *infra* note 421, this Article argues that the Act's ambiguity is endemic to its goals structure.

61. See, e.g., NATIONAL COMMISSION ON AIR QUALITY, TO BREATHE CLEAN AIR 4 (1981) [hereinafter cited as NATIONAL COMMISSION]: “The Commission's recommendations reflect a general conclusion that the structure of the Clean Air Act is sound and needs refinement instead of fundamental changes.”; *id.* at 326 (dissenting statement of Commissioners Ayres, Crocetti, and Sheehan concluding that the Commission should have recommended “more modest alternatives”); D. CURRIE, *supra* note 1, § 33 (the “basic principle . . . is a good one” but is encumbered); Ackerman & Hassler, *supra* note 9 at 1566–71; Pederson, *supra* note 57, at 1063, 1093–109. See also sources cited *supra* note 56.

62. There is a long tradition of awarding franchises under goals statutes. See, e.g., The Interstate Commerce Act (pt. 1), 49 U.S.C. §§ 1–27 (1976); and the Federal Aviation Act of 1958, 49 U.S.C. §§ 1301–1542 (1976). An extreme example as applied to the private economy is the National Industrial Recovery Act of June 16, 1933, § 3, c. 90, 48 Stat. 195, 196, which was struck down in *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935). Recent examples of goals statutes are the Emergency Petroleum Allocation Act of 1973, 15 U.S.C. §§ 751–760h (1976), and the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651–678 (1976) (establishing the Occupational Safety and Health Review Commission).

ceived inability of government to keep the regulatory focus on public rather than special interests: the broad delegation model by conferring wide power on experts,⁶³ and the action-forcing model by imposing on government the duty to achieve mandatory goals.

In a well known article written shortly after the passage of the 1970 clean air legislation, Louis Jaffe argues that "broad delegation" rather than tight control of the agency as to "ends and means" is no way to escape political forces.⁶⁴ For him, broad delegation transfers the political disputes from the legislature to lower visibility fora⁶⁵ where there is an "indisposition of the agency to decide controversial questions."⁶⁶ While rejecting broad delegations as "panacea," Jaffe concludes that delegation does hold "some potential for creative administrative action."⁶⁷ The "reformer"

is most likely to succeed if he secures a specific and firm political judgment from Congress which will resolve, to the degree appropriate formulae permit, the sharp conflicts of interest which are likely to be incapable of resolution by an agency The statutory language may be more or less general in terms; what counts is the statutory history. The key to success is the strong and persistent public opinion which demands a response to a given problem, which is sufficiently organized to press for the detailed legislative solution required, and which will, ultimately, keep the administration on the job of implementing it.⁶⁸

Thus, Jaffe seeks to define a more workable form of goals statute than the broad delegation model.

Jaffe mentions the 1970 Act as a possible application of his prescription for success.⁶⁹ The sponsors of the 1970 Act expressed views similar to Jaffe's. Prior legislation had not done the job because it was subject to continuing erosion in the implementation process.⁷⁰ Congress had to make the "hard choices."⁷¹ The key to success lay in the public opinion that gave rise to the legislation,

63. See, e.g., Ackerman & Hassler, *supra* note 9, at 1470. Ackerman and Hassler initially portray the mandatory goals and "New Source Performance Standards" of the 1970 Act as departures from the New Deal model, while they see the state implementation plan process as a continuation of the prior approach. *Id.* at 1476-78. Yet they acknowledge the elasticity in the New Source Performance Standards, *id.* at 1478, and later note the elasticity in the seemingly mandatory goals, *id.* at 1568.

64. Jaffe, *The Illusion of the Ideal Administration*, 86 HARV. L. REV. 1183, 1188-90 (1973).

65. *Id.* at 1185, 1190.

66. *Id.* at 1194.

67. *Id.* at 1196, 1197.

68. *Id.* at 1198.

69. *Id.*

70. *E.g.*, 116 CONG. REC. 32,901 (1970) (remarks of Sen. Muskie).

71. *Id.* at 42,381.

sentiment that must continue for the Act to succeed.⁷² The Act sought to "generate a sense of urgency" and then harness that urgency through the citizen suit provision and public hearing requirements.⁷³

There could have been no more fervent application of Jaffe's prescription. The key controversy in 1970 centered on the priority between health and other concerns. It is hard to see how the legislative language could have more clearly defined health's priority in Jaffe's terms.⁷⁴ The legislative history, which Jaffe sees as more important than the statutory language, seems to state precisely the requirement to protect health and the kinds of activities that might have to be abandoned to do so.⁷⁵ Furthermore, recent opinion polls and the activity of environmental groups show a high degree of continuing public support for the legislation's implementation.⁷⁶

The Act's abstract level nonetheless left untouched issues which would have necessarily been resolved in generating concrete rules of conduct. First, Congress provided no guidance as to how the costs of achieving the statutory goal should be allocated. Thus, the difficult job of imposing costs to realize the benefit is given to a body with less power than Congress. Under a goals statute, the statutory delegate, such as EPA, is caught between those who inevitably will resist the imposition of costly regulatory burdens and a statutory mandate. Second, when EPA or some other delegate looks for justification in its mandate to achieve the legislated goal, it usually finds that the statute provides insufficient guidance as to the meaning of the goal. Because the legislation was written on the relatively abstract level of social priorities rather than conduct, it is likely to be either spuriously absolute (e.g., protect health regardless of cost), or vacuous (e.g., balance health and cost).

Goals statutes, even those with the supposedly specific action-forcing procedures of the 1970 Act, thus speak in abstractions that generate contention among experts and mask the disparate expectations of lay persons. The problem with the goals statutes that broadly delegate decision-making authority is that they leave key value choices to low visibility decisionmakers fearful of making

72. *Id.* at 32,901.

73. *Id.* See also 1970 Senate Report, *supra* note 13, at 3, 12.

74. NATIONAL COMMISSION, *supra* note 61, at 3.

75. 1970 Senate Report, *supra* note 13, at 1-3, 9-11.

76. *Public Would Support Changes to Act Only if Air Does Not Suffer, Poll Finds*, 12 ENV'T REP. (BNA) 973 (Dec. 11, 1981); *Harris Survey Finds 80 Percent of Public in Opposition to Relaxing Air Regulations*, 12 ENV'T REP. (BNA) 789 (Oct. 23, 1981); *Americans Do Not Want to Weaken Air, Harris Survey Finds*, 12 ENV'T REP. (BNA) 280, 280-81 (June 26, 1981).

controversial choices. This is all the more true of the 1970 Act, which makes decisions invisible by overlooking the need to make them. In a goals statute, the legislature does half of a job: it promises benefits without allocating costs, and it broadcasts rights without assigning duties. The unrealistic goals of the 1970 Act are not the fundamental cause of its difficulties but the result of a statutory structure—the goals structure—that facilitates wishful thinking in public opinion and legislation. The Clean Air Act's incantation of goals and procedures concealed a refusal to make choices about the present.⁷⁷

Goals statutes are especially proper, it is said, for complex industrial problems because entities other than Congress can mold the controls to fit the varied and changing circumstances of the modern world.⁷⁸ This view would seem to apply with special weight to the regulation of air pollution, a technical and complex problem. This Article questions this view by attempting to show that rules statutes provide a better legal model for dealing with air pollution than goals statutes.

A rules statute approach to air pollution could, for example, limit the emissions from cars per mile traveled, limit the emissions from power plants per BTU of energy produced, or tax the quantity of emissions from particular sources. Goals statutes, in contrast, leave selection of the controls on conduct to those who apply the statute. Some examples are authorizing an agency to limit emissions on the basis of the "public interest," the "protection of public health," or "an efficient consideration of health, welfare, and the costs of control"; these terms do not state whose conduct must be curbed or in what way.

The distinction between rules and goals statutes is not easily made, and it will receive more analytical treatment later in this Article. By now, it should be plain that a goals statute may have a goal that is tightly or loosely defined. At the same time, a rules statute may have a rule that is seemingly iron-clad or requires interpretation. Even a rules statute that leaves room for interpretation requires the legislature to make its intentions about the treatment of most situations reasonably clear, while goals statutes allow the legislature to stay on an abstract plane where there may be no formal statement as to the disposition of any situation. Enactment of a rules statute does not mean that the statute may not have goals but rather provides a means for the legislature to pur-

77. Giving a new purpose to the Clean Air Act, such as by replacing "health" by a less absolute goal such as "efficiency," would exchange the totems of the last decade for ones of newer fashion without necessarily making the statute more workable.

78. *Sunshine Anthracite Coal Co. v. Adkins*, 310 U.S. 381, 398 (1940); *Panama Refining Co. v. Ryan*, 293 U.S. 388, 440 (1935) (Cardozo, J., dissenting); B. SCHWARTZ, *ADMINISTRATIVE LAW* 6-7 (1976).

sue a mix of goals without conferring too broad a power on administrative agencies.

A rules statute approach to air pollution, based on compromise and aimed at the biggest health risks, would not deal with all the hazards. It would, however, have a better chance than any goals statute of being enforced and of resolving the uncertainty and delay that have too long hindered economic change, health protection, and the development of better technology for pollution control. Most emissions of major pollutants come from power plants, other large fuel burners, and motor vehicles. Congress ought to be able to prescribe rules for at least these sources.

The enactment of rules statutes to combat air pollution need not deprive regulation of expertise. Congress could look to EPA to propose and enforce rules, as well as to interpret them. In this sense, the approach advocated here for air pollution is not a fundamental challenge to the use of administrative agencies. As to fields other than air pollution, investigation by experts in the various areas may show, I suspect,⁷⁹ that much of what agencies do under the heading of delegation is the interpretation of somewhat vague rules statutes.

The Clean Air Act is an interesting and important lens through which to compare rules statutes and goals statutes. The Clean Air Act Amendments of 1970 were the first application of a new genre of regulatory reform that influenced subsequent statutes in environmental⁸⁰ and other areas.⁸¹ The provisions allowing individuals to sue officials who fail to carry out mandatory duties also served as the model for the "citizen suit" provision now found in many modern statutes.⁸²

Part II discusses the problems with implementing the goals of the Clean Air Act through controls on conduct upon which Con-

79. See *infra* text accompanying notes 282-284.

80. *E.g.*, the Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended in scattered sections of titles 12, 15, 31 and 33 of U.S.C.); the Noise Control Act of 1972, Pub. L. No. 92-574, 86 Stat. 1234 (current version at 42 U.S.C. §§ 4901-4918 and 49 U.S.C. § 1431 (1976 & Supp. IV 1980)); the Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629 (1976); and the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901-6987 (1976).

81. The indicia of this genre of statute are plans, mandatory goals, and deadlines. See, *e.g.*, Education of the Handicapped Act, 20 U.S.C. §§ 1400-1461 (1976 & Supp. IV 1980) (state plans, § 1413); Developmentally Disabled Assistance and Bill of Rights Act, 42 U.S.C. §§ 6001-6081 (1976 & Supp. IV 1980) (state plans, § 6063); and United States Synthetic Fuels Corporation Act of 1980, 42 U.S.C. §§ 8701-8795 (Supp. IV 1980) (specifying a goal of the equivalent of 500,000 barrels per day (bpd) by 1987 and 2,000,000 bpd by 1992, § 8721).

82. See, *e.g.*, the Endangered Species Act of 1973, 16 U.S.C. § 1540(g) (1976); the Energy Policy and Conservation Act, 42 U.S.C. § 6305 (1976 & Supp. IV 1980); the Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6972 (1976 & Supp. IV 1980); and the Outer Continental Shelf Lands Act, 43 U.S.C. § 1349 (Supp. IV 1980).

gress had not decided. Part III suggests that other goals approaches to air pollution would most likely lead to similar problems. Part IV proposes a rules statute alternative, and Part V puts the choice between a rules statute and goals statute approach for clean air into a broader perspective.

II. THE STORY OF THE ACT

A. *What the 1970 Congress Decided*

1. The public shall be protected from every harm

The 1970 Act purported to protect public health and welfare from every harmful pollutant so that "there should be no gaps in control activities."⁸³ The 1970 Act conceives of three categories of harmful air pollutants in descending order of importance:

—*Ambient pollutants* are those that come from numerous sources.⁸⁴ Sulfur oxides, for instance, are emitted from coal and oil-burning facilities and many others.

—*Hazardous pollutants* are those that do not come from numerous sources, and therefore do not fall into the preceding category, but are specially hazardous.⁸⁵ Vinyl chloride, for example, is emitted by relatively few plants and is believed to be a cause of cancer.⁸⁶

—*Other harmful pollutants* are those that neither come from numerous sources nor are especially hazardous and therefore do not fit into the preceding two categories.⁸⁷ Flourides, for example, come primarily from certain aluminum and fertilizer plants and do not critically harm human health, according to EPA.⁸⁸ There is a separate process for each category, with the most embracing planning directed against the ambient pollutants.

a. *The process for ambient pollutants.* The EPA Administrator must list each harmful pollutant found to be emitted by numerous sources.⁸⁹ Within fifteen months of listing, the Administrator must promulgate national ambient air quality stan-

83. 1970 Senate Report, *supra* note 13, at 20. *See also* Natural Resources Defense Council v. Train, 545 F.2d 320 (2d Cir. 1976); 1970 Senate Report, *supra* note 13, at 18-19.

84. 1970 Act § 108(a)(1) (current version at 42 U.S.C. § 7412(a)(1) (Supp. IV 1980)).

85. *Id.* § 112(a) (current version at 42 U.S.C. § 7412(a)(1) (Supp. IV 1980)).

86. 41 Fed. Reg. 46,560, 56,560 (1976) (regulations codified at 40 C.F.R. § 61.60 (1982)).

87. 1970 Act § 111(d)(1) (current version at 42 U.S.C. § 7411(d)(1) (Supp. IV 1980)).

88. 39 Fed. Reg. 37,602 (1974).

89. 1970 Act § 108(a)(1) (current version at 42 U.S.C. § 7408(a)(1) (Supp. IV 1980)). *See also* Natural Resources Defense Council v. Train, 545 F.2d 320 (2d Cir. 1976).

dards for the pollutant.⁹⁰ An ambient standard governs the concentration of a pollutant in the air that the public breathes as distinguished from an emission standard, which governs the rate at which a pollutant flows into the air from a smoke stack or tailpipe.⁹¹ Under the 1970 Act, the ambient air standards establish mandatory goals for emission limits for the controls on conduct to achieve.⁹² The ambient standards are to be national, i.e., achieved throughout the country, unlike the state ambient standards under prior law. National uniformity was supposed to prevent interstate competition for jobs from undercutting the pollution control program.⁹³

The Administrator must set a primary ambient standard at a level below which he judges the pollutant must be kept to safeguard human health⁹⁴ and a secondary ambient standard to protect welfare which is broadly defined to include, for example, impacts on crops, man-made materials, wildlife, soil, and visibility, as well as effects on people involving comfort rather than health.⁹⁵

Within nine months after promulgation of the ambient air quality standards for a pollutant, "each state shall . . . adopt and submit to the Administrator" plans to implement, maintain, and enforce the ambient standards everywhere in the state.⁹⁶ Within another four months, the Administrator must approve or disapprove the state implementation plans; he shall approve a plan if, but only if, it meets requirements that the state identify emission controls, enforcement, monitoring, and other activity to ensure compliance with the ambient standards.⁹⁷

The Act distinguishes existing sources from new sources, and stationary sources (such as factories) from mobile sources (such as cars or trucks). The Act requires federal emission controls on new stationary and mobile sources. The Administrator must establish a list of categories of stationary sources, such as power plants, that "may contribute significantly" to harmful air pollution and then, for each, must promulgate New Source Performance Standards

90. Fifteen months is the sum time available for performing the duties prescribed in the 1970 Act. *Id.* §§ 108(a), 109(a)(1)(b), (a)(2) (corresponding current versions at 42 U.S.C. §§ 7408(a)(2), 7409(a)(1)(b), (a)(2) (Supp. IV 1980)).

91. 1970 Act § 302(1) (current version at 42 U.S.C. § 7602(l) (Supp. IV 1980)).

92. *See infra* note 264.

93. *See infra* note 387.

94. 1970 Act § 109(b)(1) (current version at 42 U.S.C. § 7409(b)(1) (Supp. IV 1980)).

95. *Id.* §§ 109(b)(2), 302(h) (corresponding current versions at 42 U.S.C. §§ 7409(b)(2), 7602(h) (Supp. IV 1980)).

96. *Id.* § 110(a)(1) (current version at 42 U.S.C. § 7410(a)(1) (Supp. IV 1980)).

97. *Id.* § 110(a)(2) (current version at 42 U.S.C. § 7410(a)(2) (Supp. IV 1980)).
See also Train v. National Resources Defense Council, 421 U.S. 60, 65-67 (1975).

that put a ceiling on emissions from new sources that is as low as possible, consistent with economic and technological feasibility.⁹⁸ The Administrator must also prescribe emissions standards for any harmful pollutant from any class of new motor vehicles, again taking account of feasibility.⁹⁹ While this command applies to all harmful pollutants from all classes of new motor vehicles, Congress required a 90% emission reduction for automobiles to be achieved for two specified pollutants in the 1975 model year¹⁰⁰ and another pollutant in the 1976 model year.¹⁰¹

A state may rely on the federal emissions controls on new sources, but states are responsible for making up the difference between what the federal emission controls achieve and what the federal ambient air standards require.¹⁰² So long as the ambient standards are met, the state may limit the emissions from a given source a little, a lot, or not at all.¹⁰³ Put another way, Congress left the states with sole responsibility for the tough problem of placing controls on existing sources—the factories that were already built and employing people and the cars and trucks that were already sold and being driven by voters.

b. *The process for hazardous pollutants.* Hazardous pollutants do not, by definition, come from numerous sources. So the regulatory process for them does without the planning tools of ambient standards and without state plans that take account of exposure to emissions from multiple sources.¹⁰⁴ The Administrator must publish a list of hazardous air pollutants.¹⁰⁵ Within 360 days after listing, the Administrator must establish standards for emissions of the pollutant from new or existing sources to protect health.¹⁰⁶

c. *The process for other harmful pollutants.* The regulatory process for other harmful pollutants is the least exacting. The Act

98. 1970 Act § 111(a)–(b) (corresponding current versions at 42 U.S.C. § 7411(a)–(b) (Supp. IV 1980)).

99. *Id.* § 202(a)(1), (2) (corresponding current versions at 42 U.S.C. § 7521(a)(1), (2) (Supp. IV 1980)). The Administrator may regulate fuels and their refiners, instead of new vehicles and their manufacturers, to curb harmful pollutants as well as to ensure that fuels do not damage emissions control equipment. *Id.* § 211(c)(1) (current version at 42 U.S.C. § 7545(c)(1) (Supp. IV 1980)).

100. *Id.* § 202(b)(1)(A) (current version at 42 U.S.C. § 7521(b) (Supp. IV 1980)) (carbon monoxide and hydrocarbons).

101. *Id.* § 202(b)(1)(3) (current version at 42 U.S.C. § 7521(b) (Supp. IV 1980)) (oxides of nitrogen).

102. *E.g.*, 40 C.F.R. § 51.14(a) (1981).

103. *See infra* text accompanying notes 126–128.

104. *Cf.* 1970 Senate Report, *supra* note 13, at 18.

105. 1970 Act § 112(b)(1)(A) (current version at 42 U.S.C. § 7412(b)(1)(A) (Supp. IV 1980)).

106. *Id.* § 112(b)(1)(B) (current version at 42 U.S.C. § 7412(b)(1)(B) (Supp. IV 1980)).

does not require that the Administrator maintain a list of such pollutants. Rather, these pollutants come to light through the procedures for the promulgation of New Source Performance Standards.¹⁰⁷ If the Administrator establishes a New Source Performance Standard applicable to a pollutant not listed with either the ambient or hazardous pollutants, the Administrator must prescribe regulations to establish a procedure "similar" to that for state implementation plans for ambient pollutants.¹⁰⁸ Each state must then adopt a plan to impose emissions standards on existing sources of that pollutant.¹⁰⁹

2. Neither economic nor technological feasibility should compromise the protection of public health and welfare in the long run

The Act seemed to deal with economic and technological feasibility without compromising its vow to protect public health and welfare. The Act requires the EPA Administrator to consider economic and technological feasibility in establishing standards for new stationary sources¹¹⁰ and new motor vehicles.¹¹¹ But feasibility may not be considered in establishing the ambient air standards and other health and welfare goals¹¹² or in deciding whether these goals shall be met.¹¹³ Feasibility is, however, allowed to affect *when* the goals are met. The Act thus tries to use time to avoid either compromising its ideals or ignoring feasibility.

A state plan must meet the primary (health) standard "as expeditiously as practicable but . . . in no case later than three years from the date of approval."¹¹⁴ Both economic and technological feasibility may justify this three-year delay in protecting health; thereafter, "availability of technology," but not cost, may be taken into account and then only for a limited time.¹¹⁵ Putting the Act's

107. 1970 Senate Report, *supra* note 13, at 18.

108. 1970 Act § 111(d)(1) (current version at 42 U.S.C. § 7411(d)(1) (Supp. IV 1980)).

109. *Id.*

110. *Id.* § 111(a)(1) (current version at 42 U.S.C. § 7411(a)(1)(C) (Supp. IV 1980)).

111. In the instance of new vehicles, Congress takes account of feasibility through the timing of the emission reductions, which take effect "after such period as the administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." *Id.* § 202(a)(2) (current version at 42 U.S.C. § 7521(a)(2) (Supp. IV 1980)).

112. *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1150 (D.C. Cir. 1980).

113. *See, e.g., Train v. Natural Resources Defense Council*, 421 U.S. 60, 64-67 (1975).

114. 1970 Act § 110(f) (current version at 42 U.S.C. § 7410(a)(2)(A) (Supp. IV 1980)).

115. When submitting the state plan, a governor may seek a two-year extension in the attainment date if, in the interim, necessary technology will not be available and

deadlines end to end meant that the primary ambient air standards would be achieved in the 1970s, as promised.

The time schedule for hazardous pollutants is similar in concept, though accelerated because of the particular danger of these pollutants.¹¹⁶ The Act is least precise regarding a deadline for protecting health from "other harmful pollutants."¹¹⁷

"Welfare" receives lower priority than "health." State plans for harmful and widespread pollutants must achieve the secondary ambient standards in a "reasonable time" to be specified in the plan by the state.¹¹⁸ The Act thus allows both economic and technological feasibility to be taken into account for an indefinite time, but theoretically adheres to the principle that welfare will be protected on a schedule.

Given the mandate to meet the primary standards by a date certain, what is to happen if the time to meet health standard runs out? The Act's sponsors said that "[s]ome facilities may be closed"¹¹⁹ and that such threats would induce industry to develop the technology needed to achieve the Act's goals.¹²⁰ This theory has been called "technology-forcing."¹²¹

reasonable alternatives are used. *Id.* § 110(e) (current version at 42 U.S.C. § 7410(e) (Supp. IV 1980)). After the plan is approved, a governor may secure a one-year delay in the plan's compliance date for a particular pollution source if, *inter alia*, the required technology is not available despite the source's good faith efforts. *Id.* § 110(f) (current version at 42 U.S.C. § 7410(f) (Supp. IV 1980)). The 1970 Act provided no further extension. *See, e.g.*, *Train v. Natural Resources Defense Council*, 421 U.S. 60, 89-90 (1975); *Friends of the Earth v. Carey*, 535 F.2d 165, 178-79 (2d Cir. 1976), *cert. denied*, 434 U.S. 902 (1977).

116. From the date of promulgation, new sources must comply with the standard; existing sources must comply within ninety days except that the Administrator may grant an extension of up to two years upon a finding that the technology is not yet available and that health will be protected from imminent danger in the meantime. 1970 Act § 112(c)(1) (current version at 42 U.S.C. § 7412(c)(1) (Supp. IV 1980)). In addition, the President may exempt any source for up to one year on national security grounds. *Id.* § 112(c)(2) (current version at 42 U.S.C. § 7412(c)(2) (Supp. IV 1980)).

117. The Act requires the Administrator to specify procedures that are "similar" to those for the harmful and widespread pollutants. *Id.* § 111(d)(1) (current version at 42 U.S.C. § 7411(d)(1) (Supp. IV 1980)).

118. *Id.* § 110(a)(2)(A)(ii) (current version at 42 U.S.C. § 7410(a)(2)(A)(ii) (Supp. IV 1980)). The Administrator may, moreover, allow an extra 18 months for a state to submit a plan to attain a secondary ambient standard. *Id.* § 110(b) (current version at 42 U.S.C. § 7410(b) (Supp. IV 1980)).

119. 1970 Senate Report, *supra* note 13, at 2. *See supra* note 115.

120. 1970 Senate Report, *supra* note 13, at 2-3.

121. The term first appeared in cases and commentaries in 1975. Note, *Forcing Technology: The Clean Air Act Experience*, 88 YALE L.J. 1713, 1713 n.3 (1979) [hereinafter cited as Note, *Forcing Technology*]. *See, e.g.*, *Train v. Natural Resources Defense Council*, 421 U.S. 60, 91 (1975).

3. Congress will not be responsible for imposing the infeasible controls that the Act requires

“Technology-forcing” and, indeed, the Act’s entire promise of safe air in the 1970s depended on some governmental authority actually imposing controls on sources of pollution sufficient to protect health, regardless of economic or technological feasibility. Congress had not imposed such controls itself. Congress took responsibility only for the 90% reduction in the emissions of three pollutants from new cars.¹²² Congress had not decided whether compliance for new cars was feasible, but it hedged by directing EPA to grant a one-year extension if the manufacturers tried hard and still fell short of the standard¹²³ and by inviting manufacturers to return to Congress if more time was needed.¹²⁴

It was primarily left to the states to make up the difference between the congressionally-directed controls on new sources that take economic and technical feasibility into account¹²⁵ and the absolute congressional promise of clean air in the 1970s. The Act allowed a state to regulate any source it chose, except federally regulated mobile sources,¹²⁶ so long as the state’s plan as a whole would achieve the federally mandated result.¹²⁷ According to Senator Muskie:

State and local authorities would be able to pursue options among a broad array, seeking a possible way of controlling or preventing air pollution that is most responsive to the nature of their air pollution problem and most responsive to their needs. In my judgment, the bill would give the State and local authori-

122. 1970 Act § 202(b)(1) (current version at 42 U.S.C. § 7521(b)(1) (Supp. IV 1980)). See *supra* text accompanying notes 100–101.

123. See *id.* § 202(b)(5) (current version at 42 U.S.C. § 7521(b)(5) (Supp. IV 1980)).

124. 116 CONG. REC. 32,904 (1970) (remarks of Sen. Muskie).

125. The controls that the Act required EPA itself to impose on new stationary sources and new vehicles provide for consideration of economic and technical feasibility. EPA must protect health from hazardous air pollutants regardless of feasibility, but with the added justification that a special danger is coming from a limited number of sources. Few “hazardous” pollutants were expected. 1970 Senate Report, *supra* note 13, at 20.

126. State regulation of emissions from new vehicles was preempted, with limited exception. 1970 Act § 209 (current version at 42 U.S.C. § 7543 (Supp. IV 1980)). Where the Administrator had regulated a fuel, or found such regulation not “necessary,” see *supra* note 99, state regulation was preempted except where “necessary” to achieve an ambient air standard. *Id.* § 211(c)(4) (current version at 42 U.S.C. § 7545(c)(4) (Supp. IV 1980)).

127. See, e.g., *Train v. Natural Resources Defense Council*, 421 U.S. 60 (1975); 40 C.F.R. § 51.2 (1981). The state could, for example, require new stationary sources to emit less pollution than allowed by the federal New Source Performance Standards, require existing factories, residences, trucks, or cars to be retrofitted with pollution control equipment, restrict the movement of vehicles, manage its streets differently, or spend more money on public transportation.

ties sufficient latitude in selecting ways to prevent and control air pollution.¹²⁸

The Clean Air Act's comforting tidings of clean air without undue burden went largely unquestioned,¹²⁹ perhaps because of the abstract nature of the Act. Not surprisingly, the only control on conduct specified in the Act—the required 90% reduction in emissions from new cars—sparked the hottest debate.¹³⁰

After the Act was signed into law and EPA promulgated its first ambient air standards at levels which the Act's sponsors expected,¹³¹ the controls implicit in the Act began to take specific shape for real places, people, and businesses.¹³² Measures needed to achieve the ambient air standards within the statutory timetable included cutting gasoline use in the Los Angeles area by over 80%,¹³³ eliminating 30–40% of the parking in the business areas of Manhattan,¹³⁴ and prohibiting the construction of new plants whose emissions would cause or contribute to violations of the ambient air standards, even if the new plants would meet the New Source Performance Standards.¹³⁵ Such harsh measures were generally not enforced because the Act did not provide an effective response to the inevitable resistance to controls, as the following section will show.

B. *What the 1970 Congress Did Not Decide*

1. What is health?

Congress gave EPA the responsibility for achieving the goals of the Act, but gave no meaningful guidance as to what the goals were. The primary ambient standard was “allowing an adequate margin of safety . . . to protect the public health.”¹³⁶ The stan-

128. 116 CONG. REC. 42,386 (1970).

129. See *infra* text accompanying notes 130, 293.

130. See, e.g., 116 CONG. REC. 33,073–96 (1970). Moreover, the only close votes on the Act involved two proposed amendments regarding a one-year extension in the deadline for reaching the 90% reduction. *Id.* at 33,088 (Sen. Gurney's amendment: for: 22, against: 57); *id.* at 33,089 (Sen. Dole's amendment: for: 32, against: 43).

131. The 1970 Senate Report stated the following levels were necessary to protect the health of persons: carbon monoxide, 8–10 parts per million (ppm); photochemical oxidants, 0.06 ppm; nitrogen oxides, 0.10 ppm. 1970 Senate Report, *supra* note 13, at 25. The standards later promulgated by EPA were: carbon monoxide, 9 ppm; photochemical oxidants, 0.08 ppm; nitrogen dioxide, 0.05 ppm. 36 Fed. Reg. 8186, 8187 (1971).

132. The 1970 Senate Report mentions types of controls that would be required, but without naming the places where they would apply. 1970 Senate Report, *supra* note 3, at 2.

133. 38 Fed. Reg. 2194, 2195 (1973).

134. *Friends of the Earth v. EPA*, 499 F.2d 1118, 1124 (2d Cir. 1974).

135. 1970 Senate Report, *supra* note 13, at 12–13.

136. 1970 Act § 109(b)(1) (current version at 42 U.S.C. § 7409(b)(1) (Supp. IV 1980)).

dard for hazardous pollutants was to provide "an ample margin of safety to protect the public health."¹³⁷ There was no guidance as to the meaning of "adequate" or "ample."¹³⁸ In addition, EPA's duty to "protect the public health" presumed that EPA could demonstrate a threshold in pollution concentration that divides healthy from risky. Congress, however, knew there was no threshold level.¹³⁹ The concept of "welfare" that underlay the secondary ambient standards was equally vacuous.¹⁴⁰

2. What happens if a state does not submit a plan?

By allowing the states to choose the specific form of the controls, Congress got to bear the glad tidings of clean air and left state officials to bear the bad tidings of regulatory impositions. State officials could not be expected to cooperate for long in this version of cooperative federalism. In 1972, when it still was dangerous to appear "anti-environment," states generally did submit plans as required by the Act.¹⁴¹ These plans were based on very rough notions of the relationship between emissions and ambient air quality; some plans reduced emissions more than necessary,¹⁴² others cut corners.¹⁴³ By 1973, state and local officials began to rebel openly against the Clean Air Act as some of its harsher implications became apparent, and many states refused to submit

137. *Id.* § 112(b)(1)(B) (current version at 42 U.S.C. § 7412(b)(1)(B) (Supp. IV 1980)).

138. NATIONAL COMMISSION, *supra* note 61, at 3-4.

139. Reflecting back on the 1970 Act, Senator Muskie later stated:

Our public health scientists and doctors have told us that there is no threshold, that any air pollution is harmful. The Clean Air Act is based on the assumption, although we knew at the time it was inaccurate, that there is a threshold. When we set the standards, we understood that below the standard that we set there would still be health effects. The standard we picked was simply the best judgment we had on the basis of the available evidence as to what the unacceptable health effects in terms of the country as a whole would be.

Clean Air Act Amendments of 1977: Hearing Before the Subcomm. on Environmental Pollution of the Senate Comm. on Environment and Public Works (pt. 3), 95th Cong., 1st Sess. 8 (1977).

140. *See supra* text accompanying note 95.

141. "(A)ny tampering with the strict commands of the Clean Air Act would not be tolerated in the politics of 1972." J. QUARLES, *supra* note 51, at 91.

142. H.R. REP. NO. 1013, 93d Cong., 2d Sess. 30, *reprinted in* 1974 U.S. CODE CONG. & AD. NEWS 3281, 3299 (letter from Russell E. Train, EPA Administrator to Carl T. Albert, Speaker of the House of Representatives (Mar. 22, 1974)).

143. *See, e.g.,* Kennecott Copper Corp. v. Train, 526 F.2d 1149 (9th Cir. 1975) (intermittent controls); Big Rivers Elec. Corp. v. EPA, 523 F.2d 16 (6th Cir. 1975) (intermittent emission limitation system); Natural Resources Defense Council v. EPA, 489 F.2d 390 (5th Cir. 1974) (granting of variances, allowing tall stacks, taking into account economic impact and technological feasibility), *rev'd in part on other grounds*, 421 U.S. 60 (1975).

colorably adequate implementation plans.¹⁴⁴

The authors of the Act, despite their political sophistication, made no realistic provision to cope with the inevitable reaction of state and local officials. Thus began the Act's unraveling.

The Act says that a state "shall adopt and submit" a plan to EPA.¹⁴⁵ As the Supreme Court put it, Congress was "taking a stick to the States."¹⁴⁶ But if a state did not submit a plan, the Administrator was to promulgate a federal plan for the state.¹⁴⁷ So the Administrator, rather than the state, has the duty to adopt a plan; the state has an option to act first rather than a duty. The illusion that the state must submit plans obscured the fact that Congress had delegated responsibility to a federal agency and had done so in a way that made the agency's job all but impossible.

EPA would have to show that the controls on emissions in its state plans were neither more nor less than needed to achieve the ambient air standards.¹⁴⁸ Yet adequate models to translate emissions into reliable predictions of ambient air quality did not, and still do not, exist for most ambient pollutants.¹⁴⁹ For many states, a statutorily sufficient plan would require painful choices about the building of new plants, the operation of old plants, the use of automobiles, the construction of new highways, the location of new shopping centers, and more. A local manifestation of one of these issues could be a celebrated cause. The Act, however, potentially required a new federal agency to make decisions on many issues in many locales of many states at once. The legislative debates gave hardly a hint of any such federal initiative.

A legally adequate plan must not only design, but also must implement and enforce controls. Was EPA to field a force to check smoke stacks and tailpipes and take over land use control, highway construction, and traffic management? Could EPA command the states to carry out such functions? The prevailing view among the circuits, even before *National League of Cities v.*

144. Of the many states required to submit plans to control transportation, only two submitted a plan that EPA could approve. Quarles, *The Transportation Control Plans—Federal Regulation's Collision With Reality*, 2 HARV. ENVTL. L. REV. 241, 244-45 (1977); see also *id.* at 249-50; J. QUARLES, *supra* note 51, at 195.

145. See *supra* note 96 and accompanying text.

146. *Train v. Natural Resources Defense Council*, 421 U.S. 60, 64 (1975).

147. 1970 Act § 110(c) (current version at 42 U.S.C. § 7410(c) (Supp. IV 1980)). A federal requirement that states adopt and enforce implementation plans appeared to be constitutionally questionable prior to *National League of Cities v. Usery*, 426 U.S. 833 (1976). See Dorsen, *The National No-Fault Motor Vehicle Insurance Act: A Problem in Federalism*, 49 N.Y.U. L. REV. 45, 57-58 (1974) (federal coercion of state enforcement constitutionally suspect).

148. Pedersen, *supra* note 57, at 1086.

149. NATIONAL COMMISSION, *supra* note 61, at 95.

Usery,¹⁵⁰ was that, under the Act, EPA must implement on its own what must be done in a federally promulgated plan.¹⁵¹ EPA had neither the resources nor the mandate to do this job.¹⁵²

3. What sources of pollution shall bear the burden?

The illusion that states must submit plans also obscured Congress' failure to provide guidance as to how EPA should allocate the cost of meeting ambient air standards. An implementation plan could, for example: (1) require equal percentage reductions in emissions from all smoke stacks; (2) require reductions in emissions in proportion to each source's contribution to ambient concentrations at the place the ambient standard is violated; (3) require all sources of a particular type to meet the same emissions limit per unit of output; or (4) adjust the clean-up burden so as to minimize total cost, employment effects, or utility bills.

If the plan barely attains the standard, no margin will be left for new facilities that would emit that pollutant, even if the new sources meet the federal New Source Performance Standards. Both property values and future employment will be affected by how much of a margin, if any, is left for new sources and how it is to be allocated.

Still further complications arise when mobile as well as stationary sources emit the pollutant. The Act's authors expected that some states would have to control travel or limit new highways, new housing, or other construction that might stimulate travel.¹⁵³

Congress also failed to provide guidance on allocating costs when sources in several states cause violations of ambient air standards. The Act purports to deal with interstate air pollution by requiring state plans to contain "measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region."¹⁵⁴ There is no hint as to whether "interfere with"

150. 426 U.S. 833 (1976).

151. See *Maryland v. EPA*, 530 F.2d 215 (4th Cir. 1975), *vacated as moot sub nom. EPA v. Brown*, 431 U.S. 99 (1977); *District of Columbia v. Train*, 521 F.2d 971 (D.C. Cir. 1975), *vacated as moot sub nom. EPA v. Brown*, 431 U.S. 99 (1977); *Brown v. EPA*, 521 F.2d 827 (9th Cir. 1975), *vacated as moot*, 431 U.S. 99 (1977); see also *United States v. Ohio Dep't of Highway Safety*, 635 F.2d 1195 (6th Cir. 1980), *cert. denied*, 451 U.S. 949 (1981). *Contra Pennsylvania v. EPA*, 500 F.2d 246 (3d Cir. 1974).

152. J. QUARLES, *supra* note 51, at 252.

153. 1970 Senate Report, *supra* note 13, at 2.

154. 1970 Act § 110(a)(2)(E) (current version at 42 U.S.C. § 7410(a)(2)(E) (Supp. IV 1980)).

means that emissions from one state shall not, by themselves, cause a violation of the standards in another state, or that they may not contribute at all to a violation in another state, or something in-between. These are not questions susceptible to technical resolution. Even if there were answers to them, EPA would encounter problems in assessing the contribution of sources in one state to ambient air levels in another.¹⁵⁵

Congress also did not adequately apportion responsibility between the states' plans and federal controls. The Act's language on New Source Performance Standards, for instance, was unclear as to how stringent these standards need be.¹⁵⁶ Thus, Congress left unsettled the respective scope of federal and state responsibility in imposing controls to meet the ambient air standards. The Act thus did not decide how to allocate the costs of control among polluters. It also did not decide how to allocate responsibility for these unhappy choices among the states and between the states and EPA.

The Act's failure to deal with the allocation of duties undercut the pivotal concept of "technology-forcing," which depends on the imposition of tough emission limits to prod development of better ways to control pollution. The Act instead created reasons for firms and industries to avoid developing new technology.¹⁵⁷ A firm or industry that developed means to control emissions would likely incur additional costs because EPA would supposedly have to tighten the applicable New Source Performance Standards, which are to reflect the best feasible technology.¹⁵⁸ In addition, states would tend to place more of the burden of reducing pollution on industries with better means to reduce emissions.

C. *The Deflation of the Clean Air Act*

The 1970 Act's national mandate to protect health and welfare was challenged not only by the public reaction to the controls that it implicitly imposed, but also by new public concerns about energy, the OPEC oil embargo of 1973, an economic downturn,

155. See *supra* note 149; *infra* notes 188-189.

156. See *infra* text accompanying note 267.

157. H.R. REP. NO. 1013, 93rd Cong., 2d Sess. 33, reprinted in 1974 U.S. CODE CONG. & AD. NEWS 3281, 3300 (letter from Russell E. Train, EPA Administrator, to Carl T. Albert, Speaker of the House of Representatives (Mar. 22, 1974)). La Pierre, *Technology-forcing and Federal Environmental Protection Statutes*, 62 IOWA L. REV. 771, 774 (1977). See also H.R. REP. NO. 294, 95th Cong., 1st Sess. 187, reprinted in 1977 U.S. CODE CONG. & AD. NEWS 107, 1265-66 (coal-fired power plants could meet standards by burning low sulfur coal instead of using new, more effective technology).

158. See 1970 Senate Report, *supra* note 13, at 17. See also Henderson & Pearson, *supra* note 54, at 1449 (discussing disincentive for technological development in provision to reduce emission from new cars).

and what seemed like endless inflation. The tide was ebbing away from absolute environmental commitments and flowing towards efforts to balance environmental with other concerns. The Energy Supply and Environmental Coordination Act of 1974¹⁵⁹ emphasized holding down the cost of air pollution control, although without literally lifting the duty to achieve the ambient standards.¹⁶⁰ There was also a drawing away from the national designs that had been in vogue during Lyndon Johnson's "Great Society." For example, national land use legislation seemed likely in the late 1960s but died in the early 1970s, partly because of resistance to an enlarged national role in what were seen as state and local matters.¹⁶¹ Yet, the 1970 Act put EPA in charge of a scheme central to land use decisions.¹⁶²

The 1970 Act created an embarrassment, legal as well as political. It had promised that EPA would protect health and made the promise legally enforceable through a citizen suit provision.¹⁶³ The Clean Air Act changed radically as EPA and, ultimately, Congress reacted to the Act's impossible promise, though they did not admit that the promise would not ultimately be realized.

While action-forcing was supposed to trigger action to the extent needed to achieve the Act's goals, it also generated a series of practices which tried to picture palatable controls as adequate to reach the Act's goals. The following Table diagrams this for ambient pollutants, the most important category. The left column presents the Act's theory, according to which the action-forcing procedures would transform the legislative goal of health protection into the imposition of sufficient controls on sources. The right column presents the administrative practices and legislation, which will be described, that were used to avoid imposing unpalatable controls. While the theory was to have worked from top to bottom, making the goals control the conduct, the practices of

159. Pub. L. No. 93-319, 88 Stat. 246 (current version at 15 U.S.C. §§ 792-798 (Supp. V 1981) and scattered sections of 42 U.S.C. (Supp. IV 1980)).

160. *E.g.*, 42 U.S.C. § 7410(a)(3)(B), (c)(2) (Supp. IV 1980).

161. J. QUARLES, *supra* note 51, at 211-12.

162. Provisions having the most impact on land use include those dealing with prevention of significant deterioration (PSD), *see infra* § II(D), nonattainment areas, 42 U.S.C. §§ 7501-7508 (Supp. IV 1980), and indirect sources, *id.* § 7410(a)(5). Indirect sources are facilities, such as parking lots and shopping malls, which attract mobile sources of pollution, i.e., cars, buses, etc.

163. "To assure that Federal and State agencies aggressively pursue their responsibilities and to supplement their capacities," 1970 Senate Report, *supra* note 13, at 3, the Act provided that private citizens could sue either officials or polluters in federal district court for failure to fulfill duties and, in the court's discretion, receive an award of attorneys' fees." 1970 Act § 304 (current version at 42 U.S.C. § 7604 (Supp. IV 1980)).

avoidance worked in the opposite direction with the economically, technically, and politically feasible conduct leading to redefined goals, as will be shown.

Table
Action Forcing Under The 1970 Act
The Example of Protecting Health From Harmful
Widespread Pollutants

Theory	Practice
<p>The goal: health.</p> <p style="text-align: center;">↓</p> <p>Identify each harmful, widespread pollutant.</p> <p style="text-align: center;">↓</p> <p>Determine ambient air quality needed to protect health, regardless of feasibility.</p> <p style="text-align: center;">↓</p> <p>Monitor ambient air quality in each air quality region.</p>	<p>The goals of the Act substantially achieved on paper.</p> <p style="text-align: center;">↑</p> <p>Avoid listing new pollutants.</p> <p style="text-align: center;">↑</p> <p>Set ambient standards with eye to feasibility.</p> <p style="text-align: center;">↑</p> <p>Approve plans with otherwise inadequate emission reduction by:</p> <p style="padding-left: 20px;">not monitoring worst locations, manipulating air quality projections, taking credit for illusory emission reductions, or postponing compliance deadlines.</p>
<p style="text-align: center;">↓</p> <p>Calculate reduction in emissions needed to meet ambient standard in each air quality region.</p> <p style="text-align: center;">↓</p> <p>Adopt limits on emissions needed to meet ambient standards.</p> <p style="text-align: center;">↓</p> <p>Firms develop and apply technology to comply or shut down.</p> <p style="text-align: center;">↓</p> <p>The goal is realized.</p>	<p style="text-align: center;">↑</p> <p>Adopt limits on emissions to extent palatable.</p> <p style="text-align: center;">↑</p> <p>Discretion in enforcement.</p> <p style="text-align: center;">↑</p> <p>The problem: an impossible Act.</p>

The Act's deflation stems from the bind in which the Act placed EPA and the states. The Act ordered them to protect health. On the other hand, the EPA Administrator could be fired by the President,¹⁶⁴ and state officials were accountable to state legislatures and the electorate. EPA and state officials were thus

164. J. QUARLES, *supra* note 51, documents the constant importance of this possibility during the Nixon administration. There have been instances during the Carter Administration as well of the White House apparently requiring EPA personnel to put political loyalty above statutory duty.

under an absolute health mandate from the 1970 Act and conflicting commands from other sources.

This bind could not readily be escaped on the basis that the 1970 Act was the law of the land under the Supremacy Clause.¹⁶⁵ The Act did not, as has been shown, really command the states; it commanded only EPA. For EPA, today's law of the land could readily enough be amended or the Agency's budget could be cut. Much of what EPA did to shrink its mandate can be explained by a desire to preserve a portion of its power and make the most of its limited resources rather than by bad faith. Indeed, an initiative by EPA in 1982 to enforce a portion of the Act strictly has been criticized by environmental groups as a technique of the Reagan Administration to prompt Congress to pass weakening amendments.¹⁶⁶

1. Discretion in enforcement

When the adopted state implementation plans imposed stronger controls on emissions than authorities were later willing to enforce, the state or EPA could either not enforce the controls, or write compliance schedules that allowed sources to postpone action or to do less than the plan required.¹⁶⁷ Discretion in enforcement, while not abolished in the 1970 Act, could readily be carried to the point of conflict with the action-forcing theory. That theory ultimately rested on making good the threat to comply or shut down so as to reach the ambient standards. When a plan was being drafted, easing controls on one source would require tightening controls on other sources to the extent needed to meet the ambient air standards. But, in the context of enforcing the plan, easing controls on one source would trigger no immediate requirements to tighten controls on the others.¹⁶⁸ Discretion in enforcement thus provided a low visibility way out of the action-forcing theory.¹⁶⁹

165. U.S. CONST. art. VI, cl. 2.

166. *E.g.*, Shabecoff, *Mrs. Gorsuch as a Crusading Tiger? Critics Wonder Why*, N.Y. Times, Dec. 26, 1982, § 4, at 13, col. 1. Compare *infra* text accompanying notes 207-211.

167. 1970 Act § 113(a)(4) (current version at 42 U.S.C. § 7413(a)(4) (Supp. IV 1980)). See *Union Elec. Co. v. EPA*, 427 U.S. 246, 264-69 (1976).

168. Citizens could petition for a revision of the state implementation plan on the basis that events had made it inadequate to attain the ambient air standards, 1970 Act § 110(a)(2)(H) (current version at 42 U.S.C. § 7410(a)(2)(H) (Supp. IV 1980)), but this remedy was largely theoretical because it would take much time and resources to gather up the various low-visibility enforcement actions and shoulder the burden of proving in litigation that the existing plan was now inadequate.

169. The 1977 Amendments recognized the importance of this enforcement discretion and provided formal methods for what, in essence, became the easing of controls on a case-by-case basis. See Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 159-76.

2. Avoidance of unpalatable controls

Discretion in enforcement was not, however, an ideal solution for states because EPA might insist on enforcing the plans as written. Private parties, moreover, could invoke the citizen suit provision.¹⁷⁰ It was obviously preferable to avoid having unpalatable controls in a plan in the first place. While state officials in 1972 felt political pressure to honor the Act,¹⁷¹ subsequent circumstances gave impetus to a reaction against the Act's requirement to put tough controls in state plans to the extent needed to comply with ambient air standards.

First, the controls on transportation needed to achieve the ambient air standards in many areas imposed a burden directly on state and city officials, as managers and regulators of transportation systems, and on citizen-motorists rather than on large industrial concerns. EPA, anticipating a backlash against transportation controls, ruled that states could omit such controls from their initial plans.¹⁷² The Court of Appeals for the District of Columbia Circuit later held this delay on transportation controls to be illegal.¹⁷³ When states had to submit transportation control plans in 1973, many states submitted no plan, and only two submitted a plan that EPA approved.¹⁷⁴ State obedience to the Act was no longer expected.

A federal district court in California ordered the Agency to promulgate controls on transportation in Los Angeles.¹⁷⁵ EPA then issued a plan requiring rationing of gasoline,¹⁷⁶ but public reaction impelled EPA to drop rationing from its plan in a statement acknowledging that the statute gave it no authority to delete the strategy.¹⁷⁷ The demise of the Los Angeles gas-rationing strategy was followed by administrative and then legislative actions that avoided the use or enforcement of particularly unpalatable pollution control strategies.¹⁷⁸

170. 1970 Act § 304(a)(1) (current version at 42 U.S.C. § 7604(a)(1) (Supp. IV (1980))).

171. See *supra* notes 141-142.

172. 36 Fed. Reg. 15,486 (1971); 37 Fed. Reg. 10,842, 15,080, 23,085 (1972).

173. *Natural Resources Defense Council v. EPA*, 475 F.2d 968 (D.C. Cir. 1973).

174. Quarles, *supra* note 144, at 245 n.22.

175. *Riverside v. Ruckelshaus*, 4 Env't Rep. Cas. (BNA) 1728 (C.D. Cal. 1972). EPA had to promulgate federal transportation controls in other states, too. But before these plans were ripe for enforcement, Congress had enacted the 1977 amendments that extended the statutory deadline for meeting the ambient air standards into the 1980s. See *infra* text accompanying notes 392-394.

176. J. QUARLES, *supra* note 51, at 200-202.

177. 41 Fed. Reg. 45,565 (1976). See also *EPA Revokes Gas Rationing Rules Because of Adverse Consequences*, 7 ENV'T REP. (BNA) 920, 930-31 (Oct. 22, 1976).

178. Here are two examples. First, the 1970 Act prohibited a state that could not demonstrate compliance by the statutory deadline from allowing any new source of

Second, some of the controls that were enforced began to impose real costs. For example, requirements in many plans that electric utilities burn low sulfur oil or natural gas instead of high sulfur oil or coal cumulatively caused shortages for the less polluting fuels.¹⁷⁹ These controls consequently became more expensive for rate-payers than might originally have been anticipated, particularly when the first OPEC oil embargo in 1973 raised the price of oil generally and cut certain supplies of relatively low sulfur oil.¹⁸⁰

3. Approval of inadequate plans

EPA could do relatively little about those states that submitted inadequate plans or failed to submit plans altogether. The Agency was unable for years to promulgate functioning plans for some states.¹⁸¹ Accordingly, EPA bent over backwards to approve whatever plans the states submitted. It used the following techniques:

a. *Avoid monitoring worst locations.* Although the Act required states to attain and maintain the ambient air standards, EPA, states, and industry found, to their mutual advantage, that

pollution. No new factories meant no new jobs. The state could not allow a new factory even if it shut down an old source that polluted more than the new one because the Act's deadlines were to be met regardless of economic impact. So neither source could operate. Compliance with the statute bowed to political reality; EPA eventually announced an "off-set policy" that allowed the new plant if the builder could show that other sources in the area would reduce their emissions to levels below those required in the state implementation plan. 44 Fed. Reg. 3274 (1979) (codified at 40 C.F.R. § 51 app. S (1982)). Environmentalists criticized the policy, *EPA Hails New 'Bubble Policy' as Money-Saving Regulatory Reform*, 10 ENV'T REP. (BNA) 1591 (Dec. 7, 1979); *Industry Likes EPA's 'Bubble Policy' But Environmentalists Criticize it*, *id.* at 1645 (Dec. 14, 1979), but did not bring suit to challenge its promulgation. Thus, sources of pollution that can reduce their emissions more than required by existing plans have an economically valuable commodity that they can sell to industries that wish to locate in the area. Another example of legislative avoidance of unpalatable pollution control strategies is the Energy Supply and Environmental Coordination Act of 1974, 42 U.S.C. § 7410(c)(2)(B)-(D) (Supp. IV 1980), which forbade the Administrator to impose parking surcharges and allowed him or her to suspend limits on parking supply. The 1977 Amendments, § 108(3), (d)(3) (current version at 42 U.S.C. § 7410(a)(5), (c)(4), (5) (Supp. IV 1980)), generally extended the past practice as to parking and gas rationing, forbade federal imposition of controls on new construction in order to avoid the traffic that it would generate, and effectively removed requirements as to toll bridges.

179. H.R. REP. NO. 1013, 93d Cong., 2d Sess. 30, *reprinted in* 1974 U.S. CODE CONG. & AD. NEWS 3281, 3299 (Letter from Russell E. Train, EPA Administrator, to Carl T. Albert, Speaker of the House of Representatives (Mar. 22, 1974)).

180. *See* Ackerman & Hassler, *supra* note 9, at 1484 (burning low sulfur coal was cheaper than installing scrubbers); H.R. REP. NO. 1013, 93rd Cong., 2d Sess. 34, *reprinted in* 1974 U.S. CODE CONG. & AD. NEWS 3281, 3302 (letter from Russell E. Train, EPA Administrator, to Carl T. Albert, Speaker of the House of Representatives (Mar. 22, 1974) (discussing allocation of low sulfur fuels)).

181. *E.g.*, Pedersen, *supra* note 57, at 1084 n.81.

the facts were pliable. EPA thus covertly acquired a broad discretion that the Act purportedly had denied it.

The measurement of existing air quality involves a high degree of variation. The Act requires states to deal with the worst concentration of pollution so as to make the air safe everywhere.¹⁸² Determining what is the worst concentration can raise a host of issues that may sound trivial but can radically change the cost of compliance: whether the monitor is placed near or away from a big factory or a busy street, three feet from the ground (like a child's nose) or on a roof top, or one side of the street rather than the other.¹⁸³ According to a leading expert in air quality monitoring, such variability makes the concept of ambient air levels "really silly" as the reference point for a control program.¹⁸⁴ With such a measure, the state and EPA can make things easier for themselves by not searching too hard for the worst concentrations of air pollution.

An adequate number of monitors and some consistent practice in the choice of their location would obviously be needed to give a modicum of meaning to the concept of "national ambient air quality standards." Yet the National Commission on Air Quality found that "existing air monitoring data varies substantially from area to area, generally because of a lack of EPA guidance in the past on monitor siting and data handling, and inadequate state and local resources."¹⁸⁵ New York City, for example, had only three street level monitors for a critical traffic-generated pollutant through years of controversy over its transportation control plan, although the agencies responsible found that forty-five monitors were needed and that the three in operation were unreliable.¹⁸⁶ The National Commission on Air Quality found that state and local governments and industry scrutinize air quality measurements to avoid "overcontrol" of emissions and that there is a "tendency for undercontrol of sources."¹⁸⁷

182. 1970 Act § 110(a)(1) (current version at 42 U.S.C. § 7410(a)(1) (Supp. IV 1980)).

183. See, e.g., *South Terminal Corp. v. EPA*, 504 F.2d 646, 663 (1st Cir. 1974) (petitioners challenged the location of a monitor as too close to the street curb); EPA Internal Memorandum from Robert Kenney to Richard G. Kozlowski on Lead Ambient Air Quality, reported in *Washington Post*, July 11, 1982, at A6, col. 1 (ambient lead levels often underestimated because monitors were located too high, too far or upwind from roadways, or in areas with little traffic); See also NATIONAL COMMISSION, *supra* note 61, at 74; *N.Y. Times*, May 26, 1981, at A1, col. 1.

184. *N.Y. Times*, May 26, 1981, at B8, col. 1 (quoting Dr. Edward Ferrand).

185. NATIONAL COMMISSION, *supra* note 61, at 13.

186. NATURAL RESOURCES DEFENSE COUNCIL, AN ASSESSMENT OF NEW YORK CITY'S TRANSPORTATION SERVICE AND ITS IMPACT ON BUSINESS AND HEALTH 35-36 (E. Goldstein ed. 1977).

187. NATIONAL COMMISSION, *supra* note 61, at 4.

The findings of the National Commission that tend to throw doubt on the basic

b. *Manipulate air quality projections.* Translating a plan's emissions reductions into predictions of future air quality also involves much uncertainty. For most pollutants, there are no workable ways to make the prediction.¹⁸⁸ For others, the margins of error are large. The states and EPA frequently use a computer-modeling technique that maximizes emissions from each major source on a factory-by-factory, smokestack-by-smokestack basis within the constraint of meeting the ambient air standard on paper, even though the technique can have a margin of error over 100%.¹⁸⁹ Modeling also requires accurate data on weather patterns and emissions inventories which often are not available.¹⁹⁰ The uncertainties provide room for manipulation.¹⁹¹ As one EPA Deputy General Counsel has written, "[w]hen modelling results began to show that in many cases not only the suggested new pattern of emissions but the existing one as well violated air quality requirements—thereby suggesting a legal duty to impose more control—the EPA significantly revised its modelling requirements."¹⁹²

c. *Take credit for illusory emission reductions.* According to the National Commission on Air Quality, "some states took credit for emissions reductions that state and local officials conceded were not likely to be rigorously implemented in many instances and which, if implemented, would provide a considerably smaller emissions reduction than estimated in the revised plans."¹⁹³ An analysis, sponsored by the National Commission, took a single implementation plan and asked how much of its claimed emission reductions were likely to be achieved: "[A]bout one-third is a definite yes; another one-third is a definite no; and the final third is

structure of the Act are of particular interest because Congress established the Commission, key members of Congress were Commissioners, and its "general conclusion" was "that the structure of the Clean Air Act is sound and needs refinement instead of fundamental changes." *Id.* at 4.

188. "Sulfur dioxide is the only pollutant for which accurate models exist for calculating the amount by which emissions must be reduced to meet the standards." *Id.* at 96.

189. *See, e.g.*, Northern Plains Resource Council v. EPA, 645 F.2d 1349, 1363 (9th Cir. 1981) (data in one instance indicated a 238% margin of error); Mision Indus. v. EPA, 547 F.2d 123, 128 (1st Cir. 1976) (EPA conceded a possible random error as high as 150% for the annual average of pollutant emissions and 200% for short-term concentrations).

190. NATIONAL COMMISSION, *supra* note 61, at 13, 97.

191. Then EPA Administrator Costle stated:

Modeling is becoming elevated to the same high art of gamesmanship as lawyering, and often a company finds it cheaper to hire modelers and lawyers than to put in pollution control equipment.

D. Costle, *supra* note 20, at 10.

192. Pedersen, *supra* note 57, at 1080 n.70 (change of modeling policy in one context).

193. NATIONAL COMMISSION, *supra* note 61, at 117.

possible."¹⁹⁴

4. Postponing the deadline for attainment of the ambient air standards

The 1970 Act required the primary ambient standards to be achieved within three years of the adoption of the state plans,¹⁹⁵ which meant 1975 for the initial group of ambient standards. EPA could grant an extension of up to two years in special circumstances,¹⁹⁶ an extension which was routinely allowed,¹⁹⁷ so that 1977 became the actual deadline. As 1977 approached, it became increasingly evident that the deadlines would not be met in many locales.¹⁹⁸

In 1976 and 1977, as in 1981 and now in 1982, press reports seemed to say that the Act would "expire" unless Congress renewed it.¹⁹⁹ But the Act's substantive authority is not subject to lapse.²⁰⁰ Renewal was and is a euphemism for postponement of deadlines. The 1977 Amendments to the Clean Air Act extended the deadline for meeting primary air standards. Congress thus used time, as it did with the 1970 Act, to mediate the infeasibility of its absolute promises. In areas where the primary standard had not yet been attained, the state had to submit a revised plan that, *inter alia*, showed "reasonable further progress" towards meeting the standards in each year to the end that the standard would be attained by 1982.²⁰¹ An extra five years, until 1987, could be given for compliance with the ambient standards for certain pollutants emitted primarily by vehicles if the state submitted a plan to, *inter alia*, use "reasonably available" funds on public transportation

194. Schechter & Plakins, *South Coast Air Quality Management Plan: Implementation and Enforcement Issues* in 3 NATIONAL COMMISSION ON AIR QUALITY LOS ANGELES REGIONAL STUDY—SIP PROCESS REVIEW 4-53 (Energy and Environmental Analysis, Inc. 1980).

195. See *supra* text accompanying note 114.

196. See *supra* text accompanying note 115.

197. Pedersen, *supra* note 57, at 1073 n.43.

198. According to the National Commission, the failures to meet the deadlines were caused by:

- The inadequacy of certain state regulations;
- Noncompliance by individual sources, coupled with inadequate or unsuccessful federal and state enforcement;
- Failure of automobiles in use to meet federal exhaust emission regulations; and
- The overall complexities of air pollution control

NATIONAL COMMISSION, *supra* note 61, at 15 (describing failures by 1975).

199. See *supra* note 166.

200. The budget authorization needs renewal but has been routinely extended. Pedersen, *supra* note 57, at 1059 n.2.

201. Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 172(a)(1), (b), 91 Stat. 685 (corresponding current versions at 42 U.S.C. § 7502(a)(1), (b) (Supp. IV 1980))[hereinafter cited as 1977 Act].

rather than highways to the extent needed to meet "basic travel needs" by mass transit.²⁰² If the state did not submit a plan which EPA approved, no major stationary source could be located in the area,²⁰³ and the state could become ineligible for certain federal grants.²⁰⁴ From the perspective of clean air objectives, the 1977 Amendments gave the states more time in return for new inducements for state action.

Although the 1977 Amendments' sanctions for the states' failure to submit adequate plans were a change from the 1970 Act,²⁰⁵ hardly any states submitted plans or had them approved on schedule.²⁰⁶ EPA strove to limit its use of its sanction authority for fear that Congress would amend the Act to remove that authority altogether.²⁰⁷ The denial of federal grants was largely discretionary,²⁰⁸ and so EPA had flexibility. It chose to apply this sanction to only two states whose transgressions were particularly blatant.²⁰⁹ Although the ban on construction was not discretionary, its practical effect was largely circumvented.²¹⁰ EPA, as under the 1970 Act, bent over backwards to approve state plans.²¹¹

202. 1977 Act §§ 110(a)(3)(D), (c)(5)(B), 172(a)(2), (b)(11) (corresponding current versions at 42 U.S.C. § 7410(a)(3)(D), (c)(5)(B), 7502(a)(2), (b)(11) (Supp. IV 1980)).

203. 1977 Act §§ 172(a)(1) (current version at 42 U.S.C. § 7502(a)(1) (Supp. IV 1980)).

204. 1977 Act §§ 176(a), 316(a) (current versions at 42 U.S.C. §§ 7506(a), 7616(a) (Supp. IV 1980)).

205. Compare *supra* text accompanying notes 146-147 with text accompanying notes 201-203.

206. NATIONAL COMMISSION, *supra* note 61, at 16-17, 116.

207. EPA *Outlines Policy to Avert Sanctions for Nonapproval of SIPs*, 10 ENV'T REP. (BNA) 225 (June 15, 1979); EPA *to Interpret Liberally Policy For 1982 State Implementation Plans*, 12 ENV'T REP. (BNA) 575, 575-76 (Sept. 11, 1981). When EPA announced an intention to read the statute more literally, thus threatening to apply sanctions to many states, environmental groups charged the Reagan Administration with trying to scare Congress into enacting the Administration's proposals to amend the Act. N.Y. Times, May 1, 1982, at 15. See also NATIONAL COMMISSION, *supra* note 61, at 16.

208. Among the elements of a fund cut-off is a finding by the EPA Administration that a governor is not making "reasonable efforts" towards submitting an appropriate plan. 1977 Act § 176(a) (current version at 42 U.S.C. § 7506(a) (Supp. IV 1980)).

209. NATIONAL COMMISSION, *supra* note 61, at 16.

210. One device was to approve insufficient plans on the condition that the state would remedy the insufficiencies. "Conditional approvals" are not recognized in the language of the statute and seems to read significant administrative discretion into a critical part of a statute that still purports to be "action-forcing." *Id.* at 17. Conditional approvals have, however, been upheld. See, e.g., *Connecticut Fund for the Env't, Inc. v. EPA*, 672 F.2d 998, 1005-07 (2d Cir. 1982); *City of Seabrook v. EPA*, 659 F.2d 1349 (5th Cir. 1981). Nevertheless, the court in *Connecticut Fund* said that conditional approval did not allow EPA to lift the ban on construction.

211. Even the National Commission on Air Quality reported:

[The agency] approved virtually all states' projections that they would meet the air quality standards even though federal, state, and local officials privately acknowledge that such projections often were based on

Another device to avoid confrontation over states' unwillingness to adopt plans that would cure violations of ambient air standards was to take areas previously found to be in violation of the standards and redesignate them as having an "unclassified" air quality status on the theory that there were no adequate air quality data. EPA has approved such redesignations of some forty areas.²¹² According to the National Commission, the advantage of having an "unclassified" status has resulted in an incentive for states not to develop the data needed to get out of that indeterminate status.²¹³

5. Setting the ambient air standards to balance health and economic considerations

The Act forbids the Agency to consider economic costs in setting the primary ambient standards, even though the absence of a threshold for pollution's health effects means that the standards must inevitably constitute a balance between health and the costs of protecting health. The upshot is a fiction. EPA says that it does not consider the costs of compliance when it sets the primary ambient standards, and judicial review proceeds on the theory that EPA should not and has not considered costs of compliance.²¹⁴ But EPA prepares a formal analysis of the cost of compliance at the same time that it sets the standards,²¹⁵ and, as Senator Muskie stated in 1977, the ambient standards represent "pragmatic judgment."²¹⁶

6. Leaving harmful pollutants off the lists

The Act requires the Administrator to deal with all harmful emissions, whether as an "ambient," "hazardous," or "other harmful" pollutant.²¹⁷ The legislative history mentioned several dozen pollutants to be covered and predicted that many more

imprecise emission inventories and inadequate projection techniques, and that they often were overly optimistic.

NATIONAL COMMISSION, *supra* note 61, at 17.

212. *Id.* at 109.

213. *Id.* at 108. The Commission noted a study that estimated that "61 percent of all new coal-fired powerplant generating capacity sited during the 1980's will be located in counties that are unclassified for sulfur dioxide because of insufficient monitoring." *Id.*

214. *See supra* note 112.

215. Exec. Order No. 12,291, 3 C.F.R. 127 (1982), *reprinted in* 5 U.S.C. § 601 app. at 136-38 (Supp. V 1981). This order by President Reagan revoked a similar order by President Carter, Exec. Order No. 12,044, 3 C.F.R. 152 (1979), *reprinted in* 5 U.S.C. § 553 app. at 107-09 (Supp. IV 1979).

216. 123 CONG. REC. 18,463 (1977).

217. *See supra* text accompanying notes 83-88.

would be included as information developed.²¹⁸ Designating pollutants as harmful under certain sections of the Act triggers EPA's duties. EPA can thus nip its duties in the bud by not designating pollutants.

EPA has not listed the majority of pollutants that it acknowledges to be harmful²¹⁹ and has generally avoided listing pollutants as "ambient" or "hazardous," thereby avoiding the Act's more telling provisions to prod health protection. As to the "ambient" category, the 1970 Act itself effectively listed five pollutants, and the 1970 Act's sponsors expected EPA to list another five within one month of enactment, with more to follow thereafter.²²⁰ One month after the 1970 Act was signed into law, EPA listed a sixth pollutant.²²¹ It thereafter refused to list other pollutants, claiming that listing is within the Administrator's discretion. Finally, EPA was ordered to list a seventh pollutant, lead, in a decision that held that listing of pollutants found by EPA to be harmful and widespread is mandatory.²²² EPA has nonetheless continued a policy of not listing additional ambient pollutants.²²³

The Act's requirement to take particularly fast, unbending action against hazardous air pollutants has prompted decisions not to list some of the most significant hazards for fear of the action-forcing consequences.²²⁴ Out of the dozens of candidate pollutants, only seven hazardous pollutants have been listed, and standards have been promulgated for only four of those seven.²²⁵ In most cases, congressional or judicial prodding was needed to get EPA to take action.²²⁶

The Act thus began with an action-forcing theory in which official recognition of pervasive danger would prompt action. Instead, the Act produces practices in which the legal duty to take protective action has prompted decisions not to recognize the danger.

7. A Defense of the 1970 Act

The National Commission on Air Quality tries to defend ac-

218. 1970 Senate Report, *supra* note 13, at 10-11, 18-21.

219. NATIONAL COMMISSION, *supra* note 61, at 76-79; *see also* D. Costle, *supra* note 20, at 5.

220. 1970 Senate Report, *supra* note 13, at 10-11, 18-21.

221. 36 Fed. Reg. 1515 (1971) (ambient standard for nitrogen dioxide), codified at 40 C.F.R. § 50.11 (1982).

222. *Natural Resources Defense Council v. Train*, 545 F.2d 320 (2d Cir. 1976).

223. *See* NATIONAL COMMISSION, *supra* note 61, at 8.

224. *Id.* at 10.

225. *Id.* at 10, 76-77.

226. *Id.* at 10, 76.

tion-forcing under the 1970 Act by claiming progress.²²⁷ However, the Commission's claims are misleading in two respects. First, the largest reduction—in carbon monoxide—did not come from the action-forcing mechanism of state plans or ambient air standards, as the Commission suggests,²²⁸ but primarily from the controls on new cars,²²⁹ the one rule enacted by Congress in the 1970 Act. The state plans have produced at best minimal improvements in mobile source pollution.²³⁰

As to stationary sources, the Commission reports that average annual sulfur *ambient* concentrations are down 20% from 1973 to 1978.²³¹ But *emissions* of that pollutant were reduced far less, if at all, during that period.²³² The discrepancy between ambient concentrations and emissions may be due to the manipulation of air quality monitoring. Moreover, some states have achieved the ambient sulfur dioxide standard in their regions by building taller smokestacks that disperse the sulfur emissions rather than reduce them, thereby increasing acid rain in downwind states.²³³ Former Administrator Costle, even in trying to defend the 1970 Act, acknowledged that sulfur concentrations decreased more from 1964 to 1972 than afterwards and that most of the overall improvement was due to state activity in the late 1960s "switching from coal to oil and gas."²³⁴ The irony of this is that Congress, in 1970, took the position that the states were laggards to which Congress had to

227. Congress provided for state governments to have primary responsibility for developing implementation plans for attaining the standards and broad discretion in how those implementation plans should be designed. Significant improvements in air quality resulted from implementation of controls under the 1970 Act. For example: Between 1973 and 1978 average annual concentrations of sulfur dioxide decreased by 20 percent, of suspended particulates by 7 percent, and of carbon monoxide by 33 percent.

Id. at 15.

228. *Id.*

229. *Id.* at 28-29, 111.

230. *Id.* at 18, 131. Of the few transportation control plan strategies that have been implemented, the type with the most significant impact on air quality is "inspection and maintenance" of the emission control devices on vehicles. The use of this strategy had hardly gotten off the ground when the 1977 Amendments made its implementation a rule for states that wished to postpone attainment of the ambient standards for mobile source pollutants until after 1982. 1977 Act § 72(b)(11)(B) (current version at 42 U.S.C. § 7502(b)(11)(B) (Supp. IV 1980)).

231. NATIONAL COMMISSION, *supra* note 61, at 15.

232. *Id.* at 112 (reporting a 9% reduction from 1970 to 1978). Some, if not all, of this reduction must be credited to activity that was underway before the 1970 Act.

233. 175 stacks over 500 feet in height have been built since 1970. NATIONAL COMMISSION, *supra* note 61, at 238.

234. D. Costle, *supra* note 20, at 2. See also L. LAVE & G. OMENN, *supra* note 54, at 1 ("The myth of success came from the dramatic gains of the 1950's and 1960's, partially sustained during the past decade through the 'good luck' of a limping economy and continuing substitution of oil and natural gas for coal.").

take a stick. In fact, Congress waved a big stick and took the credit.

A second reason that the Commission misleads is that it assumes implicitly that the alternative to the Clean Air Act was no Act at all. That assumption is not realistic. There was potent public pressure for action to cope with a perceived air pollution problem.²³⁵ Some improvement in air pollution levels since 1970 does not show that a goals statute is an advisable approach any more than it disproves the contrary hypothesis that the enactment of a goals statute siphoned off the political pressure in a way that worked the least possible protection for public health and welfare. The National Commission's defense of the Act on the basis of claimed progress in dealing with air pollution also fails to deal with the question whether more pollution control benefits could have been achieved at lower costs²³⁶ and with less administrative complexity.²³⁷

D. *The Goal of "Preventing Significant Deterioration" of Air Quality*

Before investigating whether goals statutes or rules statutes provide a more useful approach, it is necessary to look briefly at another goal of the Act. In its purposes section, the Act draws upon the unquestionable goals of health, wealth, and prosperity to justify a more controversial goal, the protection of natural air quality.²³⁸ The Act's sponsors agreed with Barry Commoner who holds that "Nature Knows Best."²³⁹ Proponents of the Clean Air

235. See *supra* § I(A). See also *infra* note 430.

236. Ackerman & Hassler, *supra* note 9, at 1469. Compare Smith & Randle, *Comment on Beyond the New Deal*, 90 YALE L.J. 1398 (1981), with Ackerman & Hassler, *Beyond the New Deal: Reply*, 90 YALE L.J. 1412 (1981).

237. See *supra* note 57.

238. See *infra* notes 249-254 and accompanying text.

239. B. COMMONER, THE CLOSING CIRCLE 41 (1971). For Commoner, people who affect nature in ways they think are safe will come to no good. Commoner is, in Charles Meyers' words, "the biologist who extracts from scientific principles a code for human conduct." Meyers, *An Introduction to Environmental Thought: Some Sources and Some Criticisms*, 50 IND. J. 426, 441 (1975). Meyers shows that Commoner's "laws of ecology" appear to be scientific principles, but are "normative, and therefore debatable propositions." *Id.*

Commoner emphasizes the difficulty of predicting the consequences of human action: "Like the Sorcerer's apprentice, we are acting with dangerously incomplete knowledge." B. COMMONER, SCIENCE AND SURVIVAL 28 (1966). But since nature is mute, Commoner's view implies a sorcerer who can tap nature's secrets to assume the power to allocate the privilege of emission. Power, in this view, should be in the hands of the ecologist. B. COMMONER, THE CLOSING CIRCLE, *supra*, at 292.

Commoner's dictate that we should be commanded by nature reversed the idea that the earth was put here for man's domination. "[M]ultiply and replenish the earth and subdue it," said *Genesis* 1:28; ecologists repeat the statement without "and subdue it." S. FOX, JOHN MUIR AND HIS LEGACY (1981). Yet, there is a link between the

Act spoke as if the only opposition to their project of protecting "nature" from people could come from those propelled by greed and politics.²⁴⁰ There is, however, another ecological vision that disputes the separation of man and nature.²⁴¹ The dispute over "man" and "nature" has implications for law and power. Professor Charles Meyers observed that while Aldo Leopold, the most eloquent of naturalists, "may recognize that his cherished wilderness values may not be shared by the majority, and while his writings may constitute an appeal to individuals to know themselves and change their ways, the environmental movement itself [as represented by Commoner] would go further to protect society from itself."²⁴²

If Commoner's separation of people and nature is accepted, people are in trouble. People cannot avoid some emission of air pollutants. The supporters of the Clean Air Act skirted this tension in two ways. First, they spoke as if "we" have to breathe "their" pollution: "industry" pollutes, and the "people" want to do something about "corporate resistance."²⁴³ Few people thought about emissions from their home furnaces, for instance, as "pollution." The Act's sponsors did allude to people needing to do without some luxuries,²⁴⁴ but the guilt was put upon "them,"

view of Commoner and that of *Genesis*. Both see people as separate from nature; humans sin in presuming to know of good and evil.

240. See, e.g., 116 CONG. REC. 42,383 (1970) (remarks of Sen. Muskie).

241. See generally Meyers, *supra* note 239, at 427-39, 452 (discussing Deist thinking and related perspectives). This alternative perspective challenges the very notion of natural air quality. Why is the decomposition of a fallen log in the forest natural and good, but its consumption in a furnace unnatural and bad? If the telling difference is the involvement of man, just what is it about man that is unnatural? According to Lewis Thomas:

We are part of the system. One way to put it is that the earth is a loosely formed, spherical organism with all of its working parts linked in symbiosis. We are, in this, neither owners nor operators; at best, we might see ourselves as motile tissue specialized for receiving information—perhaps, in the best of all possible worlds, functioning as a nervous system for the whole being.

L. THOMAS, *supra* note 39, at 122. In this view, "we cannot stop this controlling," it is in us; it is "natural." From a different tradition, but similar spirit, are the words of Chief Seattle:

This we know. The earth does not belong to man; man belongs to the earth. All things are connected like the blood which unites one family. All things are connected.

Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life; he is merely a strand in it.

Chief Seattle's Message of 1854, *reprinted in* E. DVORKIN, J. HIMMELSTEIN & H. LESNICK, *BECOMING A LAWYER* 209 (1981).

242. Meyers, *supra* note 239, at 452.

243. 116 CONG. REC. 32,901 (1970) (remarks of Sen. Muskie).

244. *Air Pollution—1969: Hearings before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works* (pt. 1), 91st Cong., 2d Sess. 1 (1970) (statement of Sen. Muskie).

not "us." Second, the Act's supporters believed that a vigilant system could forgive our inevitable sins and protect us from peril.²⁴⁵ Mandatory goals were a fit response to such images as the "space ship earth," a planet whose life forms were seen as pervasively endangered by its human inhabitants.²⁴⁶ "Spaceship earth" suggested that everybody had a duty to do as much as possible to clean up the planet. According to Barry Commoner, "[i]f we are to survive, ecological considerations must guide economic and political ones."²⁴⁷

The purported emergency justifying the environmental movement's claim to power may have been more emotional than environmental. Aldo Leopold wrote long before the Earth Days of the late 1960s about what he called the "professional conservationist" who tries to make people "want what he has to give." "And why does he call himself a conservationist? Because the wild things he hunts for have eluded his grasp, and he hopes that by some necromancy of laws, appropriations, regional plans, reorganizations of departments, or other forms of mass wishing to make them stay put."²⁴⁸

The Act aims "to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population."²⁴⁹ While similar language was in the Act prior to 1970,²⁵⁰ the 1970 Act seemed to give force to the notion that reducing emissions should be a goal independent of the goal of protecting "health" and "welfare," which the Act broadly defined to incorporate a range of concerns including scenic vistas, wild life, and soil productivity.²⁵¹ The 1970 Act specifically authorized states to do better than meet the ambient air standards.²⁵² There were also requirements with a more direct bite. The New Source Performance Standards, based on the use of advanced control technology, had to be met whether or not they would be necessary to meet the ambient air stan-

245. See *supra* note 37 (statements by Senator Muskie and President Nixon). Lewis Thomas said, however,

It would be a better world if this were not true, but the fact is that diseases do not develop just because of carelessness about the preservation of health. We do not become sick only because of a failure of vigilance.

L. THOMAS, *supra* note 39, at 96-97.

246. Boulding, *The Economics of the Coming Spaceship Earth*, in ENVIRONMENTAL QUALITY IN A GROWING ECONOMY 3-14 (H. Jarrett ed. 1966).

247. B. COMMONER, *supra* note 239, at 292.

248. A. LEOPOLD, SAND COUNTY ALMANAC AND OTHER ESSAYS 258 (1966).

249. 1970 Act § 101(b)(1) (current version at 42 U.S.C. § 7401(b)(1) (Supp. IV 1980)).

250. Clean Air Act, Pub. L. No. 88-206, §1(b)(1), 77 Stat. 392, 393 (1963).

251. See *supra* text accompanying note 95.

252. 1970 Act § 116 (current version at 42 U.S.C. § 7416 (Supp. IV 1980)).

dards.²⁵³ There are, moreover, emphatic statements in the legislative history that the 1970 Act would not allow any "significant deterioration" of existing air quality that was better than the ambient standards.²⁵⁴

As with the promise of protecting health and welfare, the 1970 Act failed both to define the dimensions of the promise to prevent "significant deterioration" and to decide how the burden of achieving the promise would be allocated.²⁵⁵ At least Congress had created the ambient air standard process to cope with the "health and welfare" goal. There was no analogous process geared to "significant deterioration." EPA decided that "significant deterioration" was hortatory rather than mandatory. A district court held that EPA must require that state implementation plans include an element to prevent significant deterioration, a unanimous Court of Appeals affirmed without opinion, and so did an evenly divided Supreme Court.²⁵⁶

What thereafter transpired with "significant deterioration" echoes the experience with the Act's health and welfare promise. The symbolic commitment to nondeterioration was preserved through administrative and legislative devices that tended to reduce its substance.²⁵⁷

253. 1970 Senate Report, *supra* note 13, at 2.

254. *See, e.g.*, 1970 Senate Report, *supra* note 13, at 2. *See also Air Pollution—1970: Hearings before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works* (pt. 1), 91st Cong., 2d Sess. 132-33, 143 (1970); *Hearings on Air Pollution Control and Solid Waste Recycling Before the Subcomm. on Public Health and Welfare of the House Comm. on Interstate and Foreign Commerce*, 91st Cong., 2d Sess. 280 (1970) (statements of Robert Finch, Sec. of HEW, presented by John Venneman, Under Sec. of HEW).

255. Could a clean region allow air pollution to increase toward the ambient air standard by a lot or a little? Did the meaning of "significant" vary from place to place? Which potential new sources of emissions could build and which could not? Would existing sources have to reduce their emissions, even if they did not harm public health or welfare, to make room for emissions by new homes or industry?

256. *Sierra Club v. Ruckleshaus*, 344 F. Supp. 253 (D.D.C.), *aff'd*, 4 Env't Rep. Cas. (BNA) 1815 (D.C. Cir. 1972), *aff'd by an equally divided Court sub nom. Fri v. Sierra Club*, 412 U.S. 541 (1973).

257. EPA engaged in a two-year rulemaking process that produced a long, complex regulation seeking to define "significant deterioration" and determine how states were to prevent it. 39 Fed. Reg. 42,510-17 (1974). Congress incorporated a more complex version of the EPA regulation into the 1977 Amendments. 1977 Act §§ 160-169(A) (current version at 42 U.S.C. §§ 7470-7491 (Supp. IV 1980)). The chief feature is that there shall be three classes of clean areas with the least deterioration of air quality allowed in Class I areas, more in Class II, and the most in Class III. The amount of deterioration deemed to be insignificant for each type of area was expressed in terms of changes in ambient air levels. The regulations required that certain types of areas, such as large national parks, be included in Class I, *id.* § 7472, and otherwise allowed the states broad discretion in deciding how various part of their states would be classified. *Id.* § 7474. Finally, major new sources may locate in

III. THE CLEAN AIR ACT AS A GOALS STATUTE

Many of the Act's problems stem from its structure as a goals statute. Section A of this Part defines the difference between goals statutes and rules statutes and identifies those aspects of the Act that fall in each mold. Section B links the Act's goals structure to specific problems of implementation. Section C argues that similar problems will tend to arise so long as air pollution is approached through a goals statute, whether of the action-forcing or broad delegation variety, or some other type.

A. *Distinguishing Goals Statutes and Rules Statutes*

A rules statute, as already posited, enacts rules of conduct.²⁵⁸ A goals statute empowers a delegate of the legislature to promulgate controls on conduct in line with legislatively expressed goals. The distinction pivots on the meaning of "rules."²⁵⁹ I use "rule" as a definition that demarcates permissible from impermissible conduct in the future. This definition must be stated in terms extrinsic to the decisionmaker rather than incorporating the decisionmaker's judgment. The extrinsic basis of a rule combined with the intention to apply it to cases as they arise over the indefi-

such areas only if they meet emissions limitations geared to a higher standard of effort than those required by the New Source Performance Standards. *Id.* § 7475.

Practice differed from promise in ways reminiscent of the promise to protect health and welfare. For some examples:

—prevention of significant deterioration now applies to only two pollutants, NATIONAL COMMISSION, *supra* note 61, at 149;

—the supposedly better emission limits on new sources in clean air areas have proved to be little different than those required under the New Source Performance Standards;

—"deterioration" does not include increased emissions from many types of sources, *id.* at 25; and

—"deterioration" does not include increases in pollution from facilities whose construction began before January 6, 1975.

For another example, the 1970 Act provided no principles upon which to allocate the theoretically limited right to increase emissions in clean areas. Under the 1977 Amendments, EPA and the states have generally chosen to use a system of first-come, first-served. This avoids the sticky problems of weighing all manner of land uses and predicting future needs. It also means that one can say "yes" to all applications for the time being, thereby eventually using up the allowance for growth and creating pressure for statutory amendments.

258. See *supra* text accompanying note 62.

259. "Rule" means different things to different people. Compare, e.g., Kennedy, *Legal Formality*, 2 J. LEGAL STUD. 351, 356 n.11 (1973) (rules as ironclad), with 1 F. HAYEK, *LAW, LEGISLATION AND LIBERTY: RULES AND ORDER* 17-19 (1973), and 2 *id.* at 158 n.4 (1973) (rules constantly developing but never fully developed).

This Article's distinction between "rules" and "goals" is similar to Hart's and Sacks' distinction between "rules and standards," on the one hand, and "practices and policies" on the other, except that their definition of "standards" may include "standards" that lack the extrinsic meaning to meet my view of "rules." H. HART & A. SACKS, *supra* note 261, at 155-60.

nite future gives rules a generality and fairness that have wide appeal.²⁶⁰

Statutes that forbade burning coal or keeping pigs in a medieval city, for instance, would be rules statutes because they define what may and may not be done. In contrast, statutes that empowered a commissioner to regulate what trades may be carried on or what fuels may be burned within the city, with the aim of reducing odor and soot to generally acceptable levels, would be goals statutes because the commissioner rather than the statutes would choose, among the alternatives, what conduct would be forbidden. Both the rules statutes and goals statutes in these examples have essentially the same goals, but the goals serve different purposes in the statutory scheme. In a rules statute, the goal, often stated in a purposes section, is not the legislative act but rather is the act's *objective* which may be used to interpret the rules that are enacted. In contrast, in a goals statute, the goal serves as a *command* and provides the mandate under which the legislature's delegate controls conduct. A rules statute thus can state goals as a preamble and probably should do so since an explicit statement of purposes is a better aid to interpretation than a collection of often conflicting statements in the legislative history.

Whether a statute works to define permissible conduct depends on the context.²⁶¹ A statute prohibiting "unreasonable" emissions may have a reasonably clear meaning in a society where customs as to polluting activities are fairly well settled, but not otherwise.²⁶² In contrast, a statute that called on a decisionmaker to frame controls to achieve precisely stated, albeit conflicting, goals to the extent practicable would be a goals statute.²⁶³ Unless there is a consensus as to how the competitive objectives are to be balanced and how the burdens are to be allocated, the imposition of controls will depend, in the final analysis, on the official's judgment.

260. The word "rules," with its root in the word for ruler or straightedge, connotes even application of an observable standard. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1986 (revised ed. 1968). These characteristics of rules have basic appeal. See L. POSPISIL, *supra* note 42, at 78-81, 240-41.

261. Statutes, or other language for that matter, have meaning only in context. H. HART & A. SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW 1156-57, 1219, 1411, 1415-16 (tent. ed. 1958).

262. Posner's theory that common law doctrines such as nuisance served the goal of efficiency, R. POSNER, ECONOMIC ANALYSIS OF LAW 44-47 (2d ed. 1977), is not to the contrary, even if it is an accurate description of what courts did. If courts really did decide on the basis of whether changes from the *status quo* created more benefits than costs, that would not only serve the goal of efficiency but provide an extrinsic criteria by which to gauge future conduct.

263. For judicial treatment of such a statute, see *Consumers Union v. Sawhill*, 525 F.2d 1068 (Temp. Emer. Ct. App. 1975).

The portion of the 1970 Act which provides for ambient air standards and requires their attainment through state implementation plans is a goals statute. The goal is the attainment of the ambient standards.²⁶⁴ This portion of the statute contains no rule of conduct; it does not prohibit a source from violating the ambient air standards,²⁶⁵ nor would such a prohibition have much meaning because violations of ambient standards are usually attributable to emissions from many sources. Rather, controls on conduct are to be established by the states or EPA.²⁶⁶

The section of the 1970 Act which provides for New Source Performance Standards is also a goals statute. The standards to be set by the Administrator are to reflect "the degree of the emissions limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated."²⁶⁷ Since the statute is silent on the degree to which cost is to be taken into account, this section does not establish a rule of conduct for new sources to be interpreted by the Administrator; rather, it requires the Administrator to promulgate rules based on some unspecified balance between the competing aims of holding down costs and emissions. The Administrator is not supposed to rely upon customs or the best current practice in the industry because the Act's technology-forcing thrust was to change past practices.²⁶⁸

The 1970 Act did contain one section that at least superficially was a rules statute: the section that required auto manufacturers to reduce emissions of certain pollutants from new cars by 90% within a certain time.²⁶⁹ Congress, however, provided that the Administrator might allow a one-year extension to the manufacturers.²⁷⁰ Moreover, central to the legislative debate and enactment of the section were commitments from Senator Muskie that, if auto manufacturers still could not reduce the emissions by 90%

264. "The establishment alone of air quality standards has little effect on air quality. Standards are only the reference point for the analysis of factors contributing to air pollution and the imposition of control strategies and tactics. This program is the implementation plan." 1970 Senate Report *supra* note 13, at 11-12.

265. *Id.*

266. This portion of the Clean Air Act is a goals statute not simply because it has a seemingly quite specific goal whose attainment is mandated through "action-forcing" procedures. If the Act instead established the goal of achieving "reasonable" reductions in emissions and mandated that the states or EPA control conduct towards that end, it would be a goals statute because, like the 1970 Act, controls on conduct would be established outside the statute.

267. 1970 Act § 111(a)(1)(c) (current version at 42 U.S.C. § 7411(a)(1)(C) (Supp. IV 1980)).

268. *See infra* note 358.

269. *See supra* text accompanying notes 99-101.

270. *See supra* text accompanying notes 123-124.

after a one-year extension, they could return to Congress for further relief.²⁷¹

Reducing auto emissions 90% was, read literally, a rules statute. When read as if conditioned by the express commitment of the Act's authors to amend the requirements if the manufacturers made a real effort to comply, the section was not a rule because there was lacking an intention to apply the 90% requirement in the future;²⁷² Congress was not about to shut down Detroit and had not concluded that accomplishing the 90% reduction was feasible.²⁷³ For these very reasons, the leading judicial interpretation of the 90% reduction requirement dealt with the requirement primarily as a question of policy rather than one of rule interpretation.²⁷⁴

The analogous provision in the 1977 Amendments presented a different story. Congress considered what the auto industry could feasibly do²⁷⁵ and set minimum standards that the industry was seriously expected to meet.²⁷⁶ To this extent, the 1977 Amendments contained an unambiguous rules statute.

Rules statutes, in defining permissible versus impermissible conduct, set priorities between goals, such as health protection and the cost of reducing emissions; they also allocate the costs or benefits of reducing emissions between groups. While goals statutes may purport to make these choices, they do not define conduct, and they thus speak at a more abstract level than rules

271. See *supra* note 124 and accompanying text.

272. See L. FULLER, *THE MORALITY OF LAW* 81-82 (2d ed. 1969) (one "way not to make law" is a lack of "congruence between official action and declared rule").

273. 116 CONG. REC. 32,905-06 (1970) (remarks of Sens. Griffin and Muskie).

274. *International Harvester Co. v. Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973). The EPA Administrator had denied auto manufacturers' applications for a one-year extension on the basis that the manufacturers had not met one of the statutory prerequisites for extension, a showing that compliance with the emissions reduction requirement was not feasible. The court ruled, in essence, that until manufacturers produced a car that met the statutory requirement, the burden was upon the Administrator to show that such a car could be produced. There is nothing in the statutory language to support such a shifting of the burden of proof away from the applicant. Stewart, *Regulation, Innovation, and Administrative Law: A Conceptual Framework*, 69 CALIF. L. REV. 1256, 1304 (1981); Wright, *The Courts and the Rulemaking Process: The Limits of Judicial Review*, 59 CORNELL L. REV. 375, 381-83 (1974). The court seemed to be saying rather, in the guise of burden of proof, that Congress could not have seriously meant, as a matter of policy, to take the risk of a rule that left this burden on the industry. See Ackerman & Hassler, *supra* note 9, at 1558-59.

275. H.R. REP. NO. 294, 95th Cong., 1st Sess. 237-44, reprinted in 1977 U.S. CODE CONG. & AD. NEWS 1077, 1316-23.

276. 1977 Act § 201(a) (current version at 42 U.S.C. § 7521(b) (Supp. IV 1980)). Unlike the 1970 Act, the 1977 Act allowed for administrative postponement on the grounds of feasibility for only one of the three named automotive pollutants (carbon monoxide), and then only for the final reduction in emissions (to take place in 1980), but not for earlier reductions. This final reduction for carbon monoxide might be considered a goals statute.

statutes, which must state their choices in extrinsically meaningful terms. This relative concreteness of rules statutes makes them better able to deal with air pollution, as this Article will show.

It is first necessary, however, to consider whether the difference between rules and goals is more apparent than real because all rules need interpretation and all goals reflect some choices. There is a level at which this is true. Such a seemingly precise rule as the required 90% reduction in auto emissions needs an interpretation as to what constitutes a 90% reduction within the meaning of the statute.²⁷⁷ A prohibition against burning coal will occasion litigation as to whether the ban applies during an emergency shortage of other fuels, or whether lignite and peat are "coal" within the meaning of the statute. Some theorists have in fact argued that no written rule can explicitly answer the entire question with which it purports to deal.²⁷⁸ Moreover, interpreting rules often involves reference to their objectives, i.e., their goals, thereby arguably further undercutting the distinction between rules and goals statutes.

The distinction between rules and goals, however, has substance. It was traditionally thought that an interpreter of a rule did not fill in a gap, but rather made manifest a part of the rule that had previously been latent.²⁷⁹ In contrast, the legislature or policymaker was said to create a new dictate. While this traditional account may make rules sound too much like Platonic forms stowed in a legal freezer for judges to defrost, there is a truth in the traditional account because the rule interpreter and the policymaker ought to base their decisions on different sorts of rationales. The rule interpreter should, as a matter of principle, focus upon indications of the legislature's choice of standards applicable to individuals in situations like that at hand, while the policymaker should focus on the consequences of his choice upon society.²⁸⁰

Even if the difference between arguments of principle and policy is described as one of style rather than substance, the distinction between rules statutes and goals statutes still has force. A rules statute requires the legislature to express itself on what is permissible and impermissible in a range of situations, while a goals statute allows the legislature to deal solely with objectives. For instance, the requirement to meet an ambient air standard might lead to a given source having to shut down, to reduce emis-

277. *Natural Resources Defense Council v. Ruckelshaus*, 359 F. Supp. 1028 (D.D.C. 1972).

278. Dworkin, *Is Law a System of Rules?*, in *ESSAYS IN LEGAL PHILOSOPHY* 52 (R. Summers ed. 1968). See also H. HART & A. SACKS, *supra* note 261, at 156.

279. I F.A. HAYEK, *supra* note 259, at 83-84.

280. Dworkin, *"Hard Cases,"* 88 HARV. L. REV. 1057, 1058-60 (1975).

sions 50%, or to do nothing different, depending upon the choices made by a state or the EPA. In contrast, a rules statute, even one requiring much interpretation, reflects choices because it establishes extrinsic standards. Accordingly, one can say that in using the values inherent in the statute's manifest choices, the rule interpreter is expressing the legislature's latent choice.

Rule interpretation is also self-limiting in that a rule interpreter may not ordinarily change an interpretation, while the administrator of a goals statute is supposed to shift the controls to meet changing times.²⁸¹ Accordingly, gaps in rules tend to get filled, thereby reducing the room for further interpretation.

To say that the distinction between rules and goals is substantial is not to say that it is a bright line. It may be a slippery slope. If, for instance, a prohibition against "unreasonable" emissions is a rule within a society with well-settled customs, this prohibition loses its standing as a rule by degrees if the customs of that society gradually dissolve.

Whether a statute is a goals statute or a rules statute may also depend on the judicial and administrative milieu in which it is applied. Take, for instance, the prohibition on "unfair methods of competition" in the 1914 Federal Trade Act.²⁸² The proscription was meant to allow the Federal Trade Commission to interpret and enforce an existing common law cause of action, albeit more freely than the courts of that time.²⁸³ While the rule was loosely textured and left the Commission scope for interpretation, just as common law concepts such as "offer and acceptance" leave courts room for interpretation, there would still be major categories of conduct that clearly would or would not be "unfair methods of competition" in 1914. The statute left the Commission an entirely smaller and different kind of power than one that would have authorized the Commission to issue such regulations as further the ultimate goals of the Act. Similarly, the "just and reasonable" standard for establishing public utility rates was understood to do more than tell the utility commission to think about the goals of the regulatory scheme in considering the profits that a utility should have an opportunity to earn; there was a benchmark for

281. H. HART & A. SACKS, *supra* note 261, at 155-70.

282. 15 U.S.C. § 45(a)(1) (1976).

283. *See* FTC v. Gratz, 253 U.S. 421, 427 (1920) (interpreting the provision as not prohibiting "practices never heretofore regarded as opposed to good morals . . . or as against public policy"); H. HART & A. SACKS, *supra* note 261, at 169-70, 1140-41. *See also* FTC v. R.F. Keppel & Bro., 291 U.S. 304 (1934). *R.F. Keppel* has been characterized as holding that "section 5 of the FTC Act and its prohibition of 'unfair methods of competition' were to be interpreted liberally in light of developing commercial practices and community standards." G. ROBINSON, E. GELLHORN & H. BRUFF, *THE ADMINISTRATIVE PROCESS* 436 (2d ed. 1980).

utility profits based upon comparability to earnings on similar investments.²⁸⁴ It may be, however, that the Federal Trade Act and public utility statutes have been used increasingly as goals statutes in recent decades in which there have been greater investments of power in administrative agencies.²⁸⁵

The inability to distinguish between rules statutes and goals statutes in ironclad fashion does not undercut the use I propose for the distinction.²⁸⁶ The action-forcing procedures of the Clean Air Act that are goals statutes and the rules alternatives that I will suggest are exemplars of their types. More generally, rules statutes have important characteristics that are not critically undercut by the need to interpret such statutes. These characteristics, all flowing from the comparatively concrete way in which rules statutes express choices, are: (1) the making of compromises in the course of enactment; (2) the tendency to create controls on conduct that are general in scope and relatively simple to administer; and (3) the need for the legislature to take responsibility for the costs as well as the benefits of its program. Goals statutes' lack of these characteristics have hampered efforts to deal with air pollution.

B. *The Problems With Legislating Clean Air Goals*

The 1970 Act tried to deal with the past failure of broad delegations to fulfill expectations by establishing precise goals, not

284. *E.g.*, *Smyth v. Ames*, 169 U.S. 466 (1898). "The controlling principle came to be known as the rule of *Smyth v. Ames*" L. JAFFE & N. NATHANSON, *ADMINISTRATIVE LAW: CASES AND MATERIALS* 43 (1976). The comparable earnings method for calculating required utility revenues of course provides "only a very rough approximation of the amount one would have to pay shareholders to put up capital were the industry in a competitive, rather than a regulated, environment." Breyer, *Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives, and Reform*, 92 HARV. L. REV. 547, 563 (1979).

285. According to L. JAFFE & N. NATHANSON, *supra* note 284, at 43-44, the "rule of *Smyth v. Ames*" was set aside by *FTC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) for an "'end result' rule." As to trade practices and the FTC, Gellhorn and Robinson speak of "the recent efforts of the FTC, with apparent judicial sanction, to expand its power to police 'unfair or deceptive practices' into a general mandate to safeguard the American public against a wide assortment of consumer ills." Gellhorn & Robinson, *Perspectives on Administrative Law*, 75 COLUM. L. REV. 771, 776 (1975). They, more generally, argue that with fading emphasis on questions of legislative delegation and on the foundation of agency powers in legislation, "many commentators and all too many administrators and courts seem to overlook this seeming obvious point in the course of affirming broad and protean administrative powers which go far beyond anything that is discernible within the creative statutes." *Id.* at 775.

286. This Article suggests a "policy" in favor of rules statutes, at least in the case of air pollution. A "rule" against "goals statutes" would require a clearer distinction than a "policy." I plan to undertake further analysis of the rule statute-goal statute distinction in the context of a further article on the non-delegation doctrine. *See infra* § V(C).

rules.²⁸⁷ As such, the Act treated the symptom, administrative drift, rather than the cause, the controversiality of promulgating controls on conduct. Dealing with the symptom made the underlying cause of the regulatory malaise even worse. Congress not only left core conflicts unresolved, but also made it appear that the legislation had resolved them. This illusion undercut EPA's legitimacy. Moreover, the procedures that Congress used to construct the illusion multiplied the workload. All this made it difficult for EPA, the states, business, and environmental groups to do what was still necessary to resolve the conflicts under the Act—join issue, complete the procedures, reach decisions, and enforce them.

1. Inability to join issue

If the legislature had enacted rules of conduct, it would have had to confront the inevitable trade-offs between health risks and pollution control costs. The Act, however, obscured the central issue by simply mandating that "health" be protected.²⁸⁸ Thus, Congress avoided the kind of controversial decisions that Jaffe's theory would suggest that the legislature itself must make.²⁸⁹ The upshot was there was no effective mechanism to settle these issues. The great power that the Act ostensibly gave to the Administrator substantially rested, both in statutory language and in Congress' explanations to the public,²⁹⁰ upon health being an objective concept, capable of actual demonstration in the field of air pollution. Because it was not, the health protection club that the Act supposedly gave to the Administrator turned out to be a liability.²⁹¹

287. Ackerman & Hassler, *supra* note 9, at 1476, calls this an "ends-forcing" approach.

288. Dr. Lewis Thomas, in writing about the use of "health" in another governmental context, warned:

Sooner or later, we are bound to get into trouble with this word ["health"]. It is too solid and unequivocal a term to use as a euphemism and this seems to be what we are attempting. I am worried that we may be over doing it, taxing its meaning, to conceal an unmentionable reality that somehow we have agreed not to talk about in public. It won't work. Illness and death still exist and cannot be hidden.

L. THOMAS, *supra* note 39, at 96.

289. See *supra* notes 64-75 and accompanying text.

290. See, e.g., 116 CONG. REC. 42,381 (1970) (remarks of Sen. Muskie).

291. EPA has had to argue that it could not issue standards under the Act unless it could make legislative-type policy judgments and act on hypothesized risks. *Ethyl Corp. v. EPA*, 541 F.2d 1, 20 (D.C. Cir. 1976) (en banc), *cert. denied*, 426 U.S. 941 (1977). See also D. Costle, *supra* note 20, at 19. Davis has characterized *Ethyl Corp.* as dealing with "factual questions that science has not answered." 1 K. DAVIS, ADMINISTRATIVE LAW TREATISE § 6:16, at 525 (2d ed. 1978).

Because EPA is supposed to be setting standards to protect health with a margin of safety, it must look for levels of exposure where health consequences are barely discernible. Accordingly, in the words of one EPA scientist, EPA is "always setting the standards at a level where the data is lousy." Statement of Dr. Roger Cortesi,

EPA must, moreover, hide its balancing of the costs and benefits of pollution control from public scrutiny and judicial review. It may not officially admit that it is considering the cost of control without risking judicial reversal. The Agency is thus vulnerable to charges of being stiff-necked in refusing to acknowledge the reality that some costs are large and some risks are small. The Act pressures industry to take a stance that mirrors that of EPA because the Act requires that health harms be removed at any cost. The result is that public issues involving major risks, costs, and inconveniences frequently are not dealt with directly in administrative decisions and judicial review of these decisions, but are submerged in technicality.²⁹²

It might be argued to the contrary that the problem was not a failure to join issue and make a choice in 1970 but a collapse of resolve in the years that followed. There was indeed a shift in the political climate unfavorable to pollution control, but the policy choice made in 1970 was more apparent than real because it was made at an abstract level. The clean air advantages were not matched against the costs of control. When the 1970 Act was being debated, relatively few people could have had any clear idea of what its formulae, stated in terms of ambient air standards and time schedules for state implementation plans, would logically require by way of controls on conduct. Estimating the Act's consequences would have required interpolating the complex requirements within its text with information about the levels at which EPA was expected to set ambient air standards and the ambient air levels in various locales. One indication of the lack of understanding of the Act's implications is that no one sought judicial review of the primary ambient air standards promulgated in 1971, which had to be achieved by 1977.²⁹³

2. Inability to complete the Act's procedures

A goals statute requires that a delegate go through procedures to decide upon the controls on conduct that a rules statute would already embody.²⁹⁴ EPA has been unable to handle the 1970

transcript of meeting of the Science Advisory Board panel on photo-chemical oxidants, at 1-135 (contained in EPA docket on ozone standard).

292. See *supra* § II(C)(5).

293. There was a challenge to one of the secondary standards, which were of less legal consequence. *Kennecott Copper Corp. v. EPA*, 462 F.2d 846 (D.C. Cir. 1972).

294. A rules statute might provide for interpretative rules to be issued prior to bringing enforcement action. For instance, a statute might require firms to use the best pollution control techniques employed in the industry, as defined by EPA. Such a statute would not be self-executing, but the Agency would have a task that is less complicated and discretionary than the decision that EPA is supposed to make in issuing new source performance standards. See *supra* note 267 and accompanying text; *infra* note 358 and accompanying text.

Act's procedures for translating its goals into controls, partly because the action-forcing procedures were so cumbersome and complex. The Act was to deal with each harmful pollutant by considering its impact at all places and from all sources. Moreover, there were to be separate plans for each pollutant for each air quality region in every state. Many states have multiple "air quality controls regions."²⁹⁵ Furthermore, there may be separate plans in each region to attain the primary standard, attain the secondary standard, maintain them, or prevent significant deterioration of air quality. Massachusetts recently divided itself from one into 351 regions for "prevention of significant deterioration" purposes.²⁹⁶ Finally, the states revise their plans quite frequently,²⁹⁷ and EPA must approve or disapprove each adoption or revision of a plan in a rule-making proceeding.²⁹⁸

The administrative overload imposed upon EPA and the states is felt in many ways. For example:

—EPA is sometimes years behind in approving or disapproving state plan revisions. This delay affects industry's application of the plan and sows confusion as to what version of the plan should be enforced.²⁹⁹

—EPA has established New Source Performance Standards for only a fraction of the industries that Congress expected to be covered. As of 1977, EPA had not strengthened any of the promulgated standards, although Congress expected these standards to be tightened in response to new technology.³⁰⁰

—EPA and the states sometimes do not know what a "plan" requires.³⁰¹ When the defendant in one enforcement suit demanded in discovery to see the "plan," EPA could not produce

295. Air quality control regions may be different for different pollutants and different purposes. By 1977, there were 247 air quality control regions. W. RODGERS, *supra* note 16, at 211.

296. 46 Fed. Reg. 40,190 (1981) (to be codified at 40 C.F.R. pt. 81 (1982)).

297. Pedersen, *supra* note 57, at 1076-77; NATIONAL COMMISSION, *supra* note 61, at 99-102.

298. Pedersen, *supra* note 57, at 1078-79 n.66.

299. Florida has had 19 revisions awaiting EPA action since 1974. NATIONAL COMMISSION, *supra* note 61, at 101-02.

300. Before 1977, EPA had promulgated final standards for twenty-four source categories, NATIONAL COMMISSION, *supra* note 61, at 225, and revised none, Note, *Forcing Technology*, *supra* note 121, at 1715 n.8. Congress, disappointed by EPA's inaction, see H.R. REP. NO. 294, 95th Cong., 1st Sess. 187, reprinted in 1977 U.S. CODE CONG. & AD. NEWS 1077, 1266, responded by requiring EPA to identify and list all remaining categories of sources, and to adopt standards for 25% of those categories within two years of their listing, 75% within three years, and the remainder within four years. 1977 Act § 109(a) (current version at 42 U.S.C. § 7411(f) (Supp. IV 1980)). Since then, EPA has promulgated final standards for seven more source categories and revised two. NATIONAL COMMISSION, *supra* note 61, at 225. However, EPA has not met the deadlines of the 1977 Amendments. *Id.*

301. NATIONAL COMMISSION, *supra* note 61, at 102.

the documents and had to dismiss in a settlement that awarded attorney fees to the defendant.³⁰²

Congress has reacted to the problems caused in part by administrative overload by imposing additional duties on EPA.³⁰³ For instance, the 1977 Amendments dealt with uncertainty about the contents of plans by requiring EPA to "publish" all plans at least annually.³⁰⁴ Compliance with this mandate would be tantamount to publishing the contents of a bank of filing cabinets³⁰⁵ as the filing proceeds. The National Commission report published in 1981 stated that "it is seldom possible to obtain a copy of the current federally approved implementation plan for a given state."³⁰⁶

The Act's procedures are not merely out of proportion to the resources available, but also the procedures require the Agency to exercise skills that do not exist. EPA's duty to check plans and proposals to gauge their impact on air quality rests on a spurious notion of technology's ability to predict air quality for most pollutants subject to ambient air standards. EPA has avoided recognizing harmful pollutants partly because these other pollutants present even greater problems of prediction. The most publicized of these is "acid rain," which results from sulphur and other pollutants going through chemical transformation in the atmosphere resulting in acid deposits hundreds of miles away.³⁰⁷ Acid rain is a serious problem and probably can be alleviated by reducing emissions of these chemicals.³⁰⁸ But EPA cannot employ the Clean Air Act against this hazard because the applicable mechanisms, ambient air standards and state implementation plans, require the translation of health and welfare effects into ambient goals and ambient goals into emission controls on distant sources. EPA Administrator Costle has warned that the Agency is not "smart enough" to do this for acid rain.³⁰⁹

3. Inability to decide

A goals statute requires the legislature's delegate to make de-

302. *United States v. Apache Powder Co.*, Civ. No. 78-058 (D. Ariz. Nov. 21, 1978).

303. *E.g.*, 1977 Act §§ 109(d), 111(f), 122 (current versions at 42 U.S.C. §§ 7409(d), 7411(f), 7422 (Supp. IV 1980)).

304. 1977 Act § 110(h) (current version at 42 U.S.C. § 7410(h) (Supp. IV 1980)).

305. *See* the characterization of the 1979 plan revision in Pederson, *supra* note 57, at 1082.

306. NATIONAL COMMISSION, *supra* note 61, at 14.

307. *See generally, e.g.*, Berle, *Clean Air Act, EPA Shortcomings Cloud the Effort to Halt Acid Rain*, Nat'l L.J., June 9, 1980, at 27, col. 1. *But see* Rahn, *A Statement of New Evidence*, ENVTL. F., May, 1982, at 27.

308. NATIONAL COMMISSION, *supra* note 61, at 42.

309. *Two Former EPA Officials Criticize PSD Regulations*, 10 ENV'T REP. (BNA) 1599 (Dec. 7, 1979).

cisions about controls on conduct. The 1970 Act put EPA and the states in positions where they often were unable to make decisions because of contradictions between what the statute required and the political process allowed.³¹⁰ The abstractness of the Act distanced Congress from responsibility for the logical consequences of its commands and allowed individual Congressmen to criticize EPA for the controls necessary to implement a clean air program for which they voted. EPA was, moreover, cast by the Act in the role of technician, not as a maker of policy, to protect health on the basis of value choices that Congress had made.

EPA has accordingly tried to dispose of issues without seeming to make policy decisions. A realistic sense of its own limited ability to make difficult choices has played a role in EPA's tendency, for example, to avoid listing harmful pollutants, to bend over backwards to approve state plans, and to avoid imposing sanctions on states not submitting adequate plans.

A particularly glaring example of avoidance is that EPA has never acted on the basis that sources contribute to ambient levels in a downwind state. EPA has never issued a regulation interpreting the 1970 Act's ambiguous directive that sources in one state not interfere with another state's achievement of the ambient air standards.³¹¹ While states have petitioned EPA for relief from interstate pollution, the Agency has avoided decision.³¹² To compensate for its failure to remedy this problem, EPA allows states to ignore pollution from other states in determining the adequacy of their plans.³¹³ This is surely a Kafkaesque turn to an Act whose first stated reason for being is that air pollution crosses state and local boundaries.³¹⁴

4. Inability to enforce

To be effective, the controls on conduct stated in the text of a rules statute or generated under a goals statute must be enforced. It is more difficult, as a general matter, to enforce the controls of a goals statute.

Rules statutes tend to impose requirements of more general applicability than goals statutes. Under the Clean Air Act, for instance, different emission limits may apply to different factories within the same industry and region. Conduct controls under rules statutes also tend to endure longer because to change the controls requires legislative rather than administrative action. An

310. See generally W. OPHULS, *ECOLOGY AND THE POLITICS OF SCARCITY* (1977).

311. NATIONAL COMMISSION, *supra* note 61, at 40, 237.

312. *Id.* at 41, 237-39.

313. *Id.* at 20, 141.

314. See 42 U.S.C. § 7401(a)(1) (Supp. IV 1980).

expectation of changing controls is one of the reasons given for delegating the promulgation of controls; rules statutes, on the other hand, may create some expectation of constancy through time.³¹⁵

The Clean Air Act offers numerous opportunities to change the controls applicable to any one source because each control is based upon "a huge number of highly uncertain explorations into modelling, monitoring and meteorological impacts, emissions inventories and so on."³¹⁶ A source conceivably can get relief from a control by convincing the regulator that any one of a large number of measurements or calculations is wrong, has changed, or that policy considerations dictate a different apportionment of clean-up burdens.³¹⁷

The lack of generality and the variability of controls under goals statutes induce sources to contest enforcement at every stage in the hope that some type of relief may be granted before compliance is necessary. Thus, any predisposition to go ahead and comply with the Clean Air Act in order to get it over with must begin to bow to the sense that only a sucker would go along when his competitors might get easier treatment through resistance.³¹⁸

Rules statutes tend to carry more moral suasion, not necessarily because the public has more regard for legislatures than agencies, but because of the type of controls that legislatures are likely to produce. Legislated controls, being more general, can be supported by the argument that no one should be able to disobey a rule applicable to all. Moreover, controls generated by action-forcing statutes such as the Clean Air Act can be draconian, while controls enacted by a legislature will tend to reflect compromises that can be defended as reasonable. Furthermore, enacting rules tends to be seen as defending the community against conduct that is "wrong" as a matter of principle, while allocating burdens under a goals statute can be seen as making private actors serve public policy. The Clean Air Act treats the choice of controls on conduct as a matter of policy, not principle.³¹⁹ The violation of

315. L. FULLER, *supra* note 272, at 77-79 (treats a minimum degree of "constancy through time" as a prerequisite of an effective law). This expectation of constancy may also be connected with a sense of even-handedness.

316. D. Costle, *supra* note 20, at 19; *see also* Pedersen, *supra* note 57, at 1076-77.

317. Pederson, *supra* note 57, at 1073-78.

318. Rickles, *Environmental Rules Mess*, N.Y. Times, July 22, 1978, at A19, col. 3. Non-compliance penalties were provided in the 1977 Amendments in an effort to remedy this problem. 1977 Act § 120 (current version at 42 U.S.C. § 7420 (Supp. IV 1980)). They have been used only rarely, NATIONAL COMMISSION, *supra* note 61, at 39, and are not adequate to solve the problem.

319. An example of the Act's inability to generate standards of legal right and wrong came up in the debate to create a Synthetic Fuels Corporation. In response to concerns that synfuels plants would create environmental problems such as the emis-

policy-based controls is less likely to be considered shameful than the violation of generally applicable controls whose purpose can be widely understood as preventing harm.³²⁰

The authors of the 1970 Act tried to base its "comply or shut-down" enforcement stance on the principle that the "health of people is more important than [what is] technically feasible."³²¹ Knowing, however, that "health" in the environmental context is a relative concept, the authors could not have meant what they said. Neither was such an extreme viewpoint likely to elicit the public support necessary for compliance.³²²

The 1970 Act, by getting ahead of public opinion, helped to

sion of carcinogenic air pollutants, EPA assured Congress that "EPA and DOE both believe that with appropriate controls, synthetic fuel processes can be developed consistently with public health and environmental quality standards." Letter from Charles S. Warren, Director, Office of Legislation, to Sen. William Proxmire (July 25, 1979), reprinted in *Hearings on Energy Financing Legislation Before the Senate Comm. on Banking, Housing, and Urban Affairs*, 96th Cong., 1st Sess. 817 (1979). Yet there are no ambient air standards for these air pollutants, nor is EPA likely to regulate many of them as hazardous pollutants. The EPA "standards" would most likely be New Source Performance Standards, based upon considerations of economic and technical feasibility. EPA must take account of the differences between plants and processes in determining feasibility. *National Lime Ass'n v. EPA*, 627 F.2d 416, 452 n.128 (D.C. Cir. 1980). So it is not just that synfuels plants would have to meet a set of standards, but also that the standards could be shaped to various synfuels processes and plants.

320. Harry Wellington has argued that duties based upon principle, which he calls "strong duties," tend to be enforced more vigorously than duties based only on policy, which he calls "weak duties." Wellington, *Common Law Rules and Constitutional Double Standards: Some Notes on Adjudication*, 83 YALE L.J. 221, 229-235 (1973). See also L. FULLER, *supra* note 272, at 42-43, 92-93; H. PACKER, *THE LIMITS OF THE CRIMINAL SANCTION* 261-67 (1968) ("immorality" and "harm to others" as limits on criminal sanctions).

321. 1970 Senate Report, *supra* note 13, at 2.

322. For the law to be effective, according to Learned Hand, "it must be content to lag behind the best inspiration of its time until it feels behind it the weight of such general acceptance as will sanction its pretension to unquestioned dictation." L. HAND, *The Speech of Justice*, in *THE SPIRIT OF LIBERTY* 15-16 (I. Dilliard 2d ed. 1953).

The characteristics of clean air regulation that undercut compliance involve the lack of attributes that students of law have found distinguish law from power. L. POSPISIL, *supra* note 42, at 78-81, includes as one of the attributes of law an "intention of universal application," which the Clean Air Act lacks because of both its individualized limits and the intention to change those limits. When there is no requirement that law be applied universally, those in authority rule by power not law.

Authoritarian law . . . is not internalized by a majority of the members of a group. A strong minority which supports the legal authority has elevated such a law as an "ideal" and may have simply forced the rest of the people to accept it. In some cases this kind of law is internalized only by the legal authority. An authority may even impose the law for reasons beneficial to himself, without believing in its propriety. In other cases the law owes its authoritarian quality to insufficient time for its internalization; opposing members of the group comply with it only under pressure of the authority and the strong minority who already have internalized it. The majority of the population con-

work a strange transformation. There was in 1970, and is today, a widespread and apparently deep concern about pollution, a concern that could provide real punch to the enforcement of fair and realistic controls. Within a few years, however, the 1970 Act had begun to generate broad-based resistance. One example was the reaction to the proposed shut-off of gasoline in Los Angeles.³²³ For another, when no-lead gasoline was hard to get, many drivers used leaded gasoline in recent model year cars, harming their emission control devices.³²⁴ For still another, many drivers in New York³²⁵ and later in Los Angeles³²⁶ disobeyed rules against their using express traffic lanes designed to speed buses and car pools and reduce the number of vehicles on the roads. Even the report of the National Commission on Air Quality suggests that federal and state officials charged with enforcement routinely manipulated the Act to avoid its requirements.³²⁷ Such experiences reduce the extent to which guilt can help to make a system of law work.

Rules statutes, it is true, can also lack generality or widely accepted purposes and so engender similar compliance problems. However, political and time pressures on the legislature help to discourage these features in rules statutes.

The problems created by the goals structure of the 1970 Act went to the heart of its ability to formulate and enforce a societal choice. This is not to deny that the 1970 Act has had its accomplishments or to say that its goals structure was the only source of the difficulties encountered. The desire to have clean air without giving up any material benefits was another important cause of difficulty. Nevertheless, the goals structure abetted the failure to compromise by casting the legislative act into a form where we did not have to be called to account for the inconsistencies in our wishes.

Another cause of the Act's problems reportedly has been less than stellar administration by EPA.³²⁸ EPA's administration, however, probably compares well with that of other federal agen-

siders the law unjust and feels no guilt in violating it; there is only fear of detection (viz., the U.S. prohibition law of the 1920s).

Id. at 196.

323. See *supra* text accompanying notes 175-178.

324. EPA Conducts Gas Switching Survey, to Back Legislation to Combat Problem, 8 ENV'T REP. (BNA) 1342 (Dec. 30, 1977); Price Spread Increases Leaded Gas Use in Autos Requiring Unleaded Gasoline, 8 ENV'T REP. (BNA) 917 (Oct. 14, 1977); EPA Suspends MMT Ban Enforcement to Avert Shortage of Unleaded Fuel, 10 ENV'T REP. (BNA) 192 (June 8, 1979).

325. N.Y. Times, Apr. 15, 1975, at 39, col. 1 (New York drivers).

326. N.Y. Times, Mar. 16, 1976, at 14, col. 4 (Los Angeles drivers).

327. NATIONAL COMMISSION, *supra* note 61, at 140.

328. See Ackerman & Hassler, *supra* note 9, at 1469.

cies, at least until recently.³²⁹ EPA is a ready target for criticisms of inefficiency. Because it is supposed to be guided by a rigid statute, EPA is not well placed to explain policy choices that it is not supposed to make. Critics of the Agency urge a "creative" reading of the statute that would let the Agency act in a way they believe to be efficient.³³⁰ More important than the statutory constraints, however, are the political constraints surrounding the issues that Congress did not decide.³³¹ Critics that would have the agency do more also tend to focus on a single issue.³³² EPA has many more duties than it can handle even "uncreatively."³³³

C. *The Difficulty of Repairing a Goals Statute*

Treating air pollution through goals statutes of any form would tend to leave fundamental problems.³³⁴ The difficulty stems from the need for goals statutes either to make some goals absolute or to give a delegate of the legislature discretion to choose between goals, i.e., to allocate costs and benefits. Placing absolute priority on a goal is appropriate in relatively few instances. Leaving the delegate with discretion, however, engenders concerns about agency unwillingness to grapple with controversial issues and/or agency capture, concerns seen variously in Jaffe's analysis of the broad delegation model³³⁵ and in the background of the 1970 Act.³³⁶ The problem for the drafter of a goals statute is to find a suitable middle ground between absolutism and open-ended discretion. Courts, it is true, can play a role in controlling agency discretion, but there are doubts about how effective courts can be in any but the test cases and whether a broad judicial role

329. Yet the [EPA] people who shaped the 1979 decision are remarkable for their high intelligence and conscientiousness. Their failure to make sensible policy is a symptom of organizational, not personal breakdown—a failure to give decisionmakers bureaucratic incentives to ask the hard questions raised by any serious effort to control the environment.

Id.

330. *Id.* at 1479.

331. Ackerman and Hassler's "creative" approach to the problem was opposed by eastern coal interests. Whether or not their solution was preferable to EPA's, Ackerman and Hassler do not face up to the political power of eastern coal in mentioning, for instance, that there will always be two senators from West Virginia. *Id.* at 1570. For example, in 1977, the chairmen of the House and Senate committees with jurisdiction over EPA as well as the Senate Majority Leader were from West Virginia.

332. *See, e.g., id.* Most litigation against EPA attacks its performance in a single area.

333. *Illinois v. Costle*, 12 Env't Rep. Cas. (BNA) 1597 (D.D.C. 1979), *aff'd sub nom.* *Citizens for a Better Env't v. Costle*, 617 F.2d 851 (D.C. Cir. 1980).

334. This is not to say, of course, that improvements in the 1970 Act as a goals statute are not possible.

335. *See supra* § I(C).

336. *See supra* § I(A).

does not turn the judge into a super-bureaucrat.³³⁷

The 1970 Act's solution was the product of heavy intellectual firepower, making discretion depend on a multiplicity of independent variables such as whether the goal is health or welfare, what the type of pollutant is, whether the countervailing value is economic or technological feasibility, and a number of other factors. It is hard to imagine Congress controlling discretion in a more intensive way. As shown, however, the states and EPA found ways to respond to priorities other than those of the 1970 Act.

Is there a way to amend the Clean Air Act into a goals statute that works well? The problems with the 1970 Act cannot be solved by making clean air an absolute priority. Neither is it suggested that EPA be given the wide discretion over ends and means in the field of air pollution that agencies operating under a broad delegation model have over social issues with a less far-flung impact. An EPA with such a wide mandate would probably be opposed by all relevant constituencies—industry which would be subject to its discretion; federal agencies and state and local governments whose programs such an EPA might override; and environmentalists who would fear that such an EPA might allow substantial increases in pollution.³³⁸ Rules statutes avoid both absolutism and delegating choices of priorities. Neither is necessary because the rule of conduct in the statute itself expresses the priority.

Another advantage of the rules statute approach is ease in correcting or compromising past choices. For example, when auto manufacturers claimed that they could not comply with the ostensible rule concerning emissions from new cars in the 1970 Act, Congress was able in 1977 to compromise on another set of numbers with which auto manufacturers generally did comply.³³⁹ The compromise limits have reduced emissions of two pollutants by 96% and a third by 76%, compared with pre-1968 vehicles.³⁴⁰

Consider in contrast the problem confronting Congress concerning the goals statute aspect of the 1970 Act making 1977 the

337. See *infra* § V(C); *Ethyl Corp. v. EPA*, 541 F.2d 1, 66-68, 68-69 (D.C. Cir. 1976) (en banc) (Bazelon & Leventhal, J.J., concurring), *cert. denied*, 426 U.S. 941 (1977).

338. The proposed Energy Mobilization Board would have had something of this broad ranging power. Even hedged with safeguards limiting its activities to relatively few projects, it was defeated by a coalition of environmentalists and conservative groups concerned with the autonomy of state and local government interests. See 38 CONG. Q. 3498 (Dec. 6, 1980).

339. NATIONAL COMMISSION, *supra* note 61, at 29. As to the waiver provisions for auto emissions, see *supra* note 276.

340. *Id.* at 29. The devices in use do not function as well as the prototypes, partly because of the lack of an emission inspection program. *Id.* at 31-32.

absolute deadline for compliance with the primary ambient air standards.³⁴¹ Was Congress to give EPA discretion to incorporate considerations of feasibility in the ambient air standards? Or was Congress to give EPA and the states discretion as to when the standards should be reached? Either move would have created vast areas of discretion, all but gutting the action-forcing provisions of the statute. In compromise, Congress tried to walk a tightrope between action-forcing and discretion by requiring each state to adopt a plan that would make "reasonable further progress" each year towards achieving the primary ambient standards in 1982.³⁴² States might take another five years in the case of certain pollutants if various conditions were met.³⁴³ Congress dealt with its dilemma, in other words, by superimposing on the old procedure a new procedure which had embedded within it various areas of compromise and potential discretion. A questionable control on discretion was purchased at a heavy cost in procedural complexity.

The deadline compromise is only one example of Congress avoiding choice in clean air legislation by creating additional layers of procedure.³⁴⁴ As a result, the 1977 Act is about three times longer than the 1970 Act. The complexity makes for repeated errors in legislative drafting³⁴⁵ and makes administrative procedures even more cumbersome than those under the 1970 Act.³⁴⁶ Moreover, the peace purchased by Congress proved transitory. As the new state plans contemplated under the 1977 Amendments were still being adopted and approved, hearings began in 1981 for amendments to the Act in anticipation of the 1982 deadline established by the 1977 Amendments.³⁴⁷ A decade of immense polit-

341. See *supra* text accompanying notes 194-197.

342. See *supra* text accompanying note 201.

343. See *supra* note 202 and accompanying text.

344. See Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 201-03. See also, e.g., *supra* notes 303-304 and accompanying text.

345. See *infra* note 421. See also *Harrison v. PPG Indus.*, 446 U.S. 578 (1980) (construing the phrase "any other final action"); *Adamo Wrecking Co. v. United States*, 434 U.S. 275 (1978) (construing the phrase "emission standard"). The many technical and conforming amendments later enacted, Pub. L. No. 95-190, § 14, 91 Stat. 1393, 1399 (1977), also indicate the complication and imprecision in the 1977 Amendments.

Errors and imprecision in such complex legislation are not limited to the Clean Air Act. The Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1376 (1976), for example, has been called "poorly drafted and astonishingly imprecise," as well as "vague, uncertain and inconsistent." *E.I. DuPont de Nemours & Co. v. Train*, 541 F.2d 1018, 1026, 1027 (4th Cir. 1976), *modified*, 430 U.S. 112 (1977).

346. Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 201.

347. By early 1981, EPA had unconditionally approved complete revisions of SIPs for only 5 states. NATIONAL COMMISSION, *supra* note 61, at 16-17. Later that year,

ical, legislative, administrative, and legal effort has brought little control over discretion other than through procedural complication and uncertainty.

One of the leading comments on the Clean Air Act, by Bruce Ackerman and William Hassler, suggests a way of controlling agency discretion in the clean air field other than the procedural complexity adopted by Congress.³⁴⁸ They propose a statute requiring EPA to reach a goal such as—"achieve ambient air quality improvements that promise to add at least 25,000 years to life expectancies of the American people by 1984."³⁴⁹ They argue that such an approach would give the Agency a goal that is realistically attainable and the flexibility to promulgate the controls that are most efficient, yet avoid the bureaucratic drift that prompted the action-forcing philosophy of the 1970 Act.³⁵⁰ They, like Jaffe³⁵¹ and the authors of the 1970 Act, seek to combine flexibility with the impetus for effective action that flexibility seems to undercut. Unlike the 1970 Act and Jaffe, however, their approach emphasizes the need for a realistic choice within the actual text of the statute. But like the 1970 Act and Jaffe, Ackerman and Hassler put precision in the goals, and not in the rules of conduct, of their proposed statute.

The advantage of the Ackerman and Hassler approach is that it would press EPA to focus on the best way to achieve the Act's goals.³⁵² The disadvantage is the opportunity for the Agency to meet the goal on paper rather than in practice. EPA "would find a way to have its computers declare that its policies save far more" lives than required.³⁵³

The decisive virtue in their approach, they argue, is that Congress would have to face the right question—not whether to protect health, welfare, and other values, but what priority to put on those goals.³⁵⁴ Unfortunately, their approach leaves Congress no way to provide a coherent response. The form of the answer they suggest would have no more definite meaning than telling EPA to make the public five percent more pleased with the environment. The legislature could achieve a more definite meaning if the statute specified, for instance, that emissions of a particular pollutant

hearings were again held on amendments to the Clean Air Act. *See generally Hearings on the Clean Air Act Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. (1981).

348. Ackerman & Hassler, *supra* note 9, at 1568-69.

349. *Id.* at 1568.

350. *Id.* at 1566-70.

351. *See supra* notes 64-75 and accompanying text.

352. Ackerman & Hassler, *supra* note 9, at 1569.

353. *Id.*

354. *Id.* at 1569-70.

were to be reduced by a certain amount.³⁵⁵ But this would sacrifice some of EPA's flexibility and some of the use of agency expertise that are supposed to be advantages of the goals approach. If Congress is going to be that specific, it should go the whole way and enact rules of conduct. After all, legislation that specified a certain reduction in emissions or that required that a certain number of lives be saved, as Ackerman and Hassler suggest, would still promise benefits without allocating the costs of compliance. Such legislation leaves the agency without the concrete guidance that both confines and justifies its mandate.

Whether in the form of the Ackerman and Hassler proposal, the Clean Air Act, or the "broad delegation model," goals statutes are based on an exaggerated vision of the law's capacity to make and realize plans. When the mandate for planning is cast narrowly, as in the 1970 Act, the criticism is made that the results are inefficient and prevent consideration of all the implications. When the mandate for planning is cast broadly "because there is no way of integrating so intricate a system the total effect is," according to Jaffe, "massively irrational."³⁵⁶ Having clung to the model of the goals statute approach, but dissatisfied with its results, we change the mandate, giving discretion and narrowing it, back and forth.³⁵⁷

Goals statutes do not, strictly speaking, have to have all of the faults of the Clean Air Act. One could imagine a goals statute that gave EPA the power to deal with one part of the air pollution problem—say acid rain. The statute might provide criteria to guide EPA's judgment in deciding how much to cut back the emissions that contribute to acid rain and how to allocate the burden of making the cutbacks among major emitters, but it could make clear that the decisions would be made ultimately by the Agency as a matter of policy rather than seeming to be derived from some formula as under the Clean Air Act. Such a statute would not incorporate some of the causes of the Clean Air Act's troubles. Congress would not have imposed impossible complexity, oversold the Act's benefits, or failed to forewarn the public

355. Such an approach has been proposed to deal with acid rain. *Senate Panel Approves Air Act Amendment to Control Acid Rain Through Emissions Cut*, 13 ENV'T REP. (BNA) 419 (July 30, 1982). The goal to be legislated is the reduction of sulfur dioxide emissions from power plants in thirty-one states by eight million tons over twelve years. The goal is to be converted into controls by negotiations among the states. If that fails, the proposal contains a formula allocating the required reduction among the states. Then, within each state, the reductions would have to be allocated among the sources.

356. Jaffe, *supra* note 39, at 2.

357. Jaffe, *supra* note 64, at 1184 ("The current acceptance of the broad delegation model may be viewed as a point on the metronomic course of dominant thought about administrative agencies over the past hundred or so years.").

that EPA would be playing a broad policy role.³⁵⁸ Congress would, in effect, be facilitating the Agency's task by owning up to the fact that the legislation was doing fairly little other than authorizing agency action.

The hope for a simpler, more workable goals statute has two strikes against it. First, Congress does not seem to want to own up to doing little, as evidenced perhaps by its making the Clean Air Act more rather than less complicated over the years. Second, even if Congress were to enact a simpler, less ambitious statute, the agency would still have to contend with the unresolved controversies that make it hard for agencies to take action.

There is an alternative.

IV. RULES STATUTES FOR AIR POLLUTION

The possibility of legislative rules for air pollution is not a new idea. Acts and ordinances have forbidden specially bothersome kinds of emissions for centuries.³⁵⁹ In recent decades, many state and local legislatures have enacted air pollution control rules.³⁶⁰ Indeed, the 1977 Clean Air Act Amendments imposed a rule limiting emissions from new cars. Nonetheless, there is no indication that the 1970 Congress considered a rules statute approach other than for new cars. If the option had arisen, a variety of objections might have been offered: Congress lacks the expertise and time required; national rules would intrude on state interests and be inefficient; a legislature cannot react quickly enough to new information or set controls that force technology; and only mandatory goals can keep the focus on health and make govern-

358. Some of these virtues might be discerned in the technology-based effluent requirements for new and existing point sources of water pollution under the Federal Water Pollution Control Act, 33 U.S.C. § 1311(b)(1)(A) (1976). As with the new source performance standards of the Clean Air Act, *supra* note 267, the technology-based provisions of the water legislation require EPA to set emission standards to reflect not only what industry is doing, but what it could do. But EPA has had to use the statutory authority "to base standards on general control technologies actually in use." Stewart, *Regulation, Innovation and Administrative Law: A Conceptual Framework*, 69 CALIF. L. REV. 1256, 1300 (1981). Thus the technology-based provisions of the air and water acts are written as goals statutes, *see supra* text accompanying note 267, but EPA has, under this broad authority created a rule of its own based upon technology in use. If that is to be the end result, the legislative and administrative process would be more forthright if the legislation itself stated the rule. It should be pointed out as well that Congress in the water legislation did not limit itself to effluent limits, but as in the air act has also included a variety of provisions calling for ambient standards, planning on a grand scale, and utopian goals. 33 U.S.C. §§ 1251(a)(1), 1288, 1312, 1313 (1976).

359. The first smoke abatement law was passed by Edward I in 1273, who prohibited the use of coal as being detrimental to human health. Chass & Feldman, *Tears for John Doe*, 27 S. CAL. L. REV. 349, 352 (1954).

360. *See* U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, A DIGEST OF STATE AIR POLLUTION LAWS (1967).

ment accountable to the people. However plausible these arguments against the rules approach may sound, experience indicates that the goals approach encountered these very difficulties. A rule could cope with them.

Section A of this Part sets out a possible rules statute approach to air pollution designed to meet these difficulties adequately, although not ideally. Section B responds to the specific arguments that a rules statute approach would be contrary to the public interest. Finally, Section C discusses the advantages a rules statute approach would have for courts engaged in statutory interpretation.

A. *A Rules Approach to Air Pollution*

Legislated air pollution rules would use principally two tools: emission limits and taxes.³⁶¹ An emissions limit could take the form of a limit on emissions per unit of output—for instance, so many grams of pollutant per thousand BTUs of energy produced by boilers or, as in the case of the existing Act's limits on new cars, so many grams emitted per mile driven. A tax could be based, for example, on a given payment per gram of pollutant emitted. Emissions limits and taxes could be used in the alternative or in combination. Emissions limits would be most useful for a large number of sources presenting similar problems of control such as new cars or large industrial boilers. A pollutant with sources presenting disparate control problems might be more easily dealt with through a tax. The two approaches could be combined: there could be an emissions limit on industrial boilers which could be exceeded only by the payment of a tax. Economic approaches would be less suitable where emissions cause acute health effects.

Under a rules statute approach, Congress would not try to deal with all risks at once but could enact rules from year to year as needed. If, for instance, Congress had decided to enact rules in 1970, it might have established rules for new cars, electric generating stations, and other industrial boilers in that year and then moved on to other important sources in succeeding years. Under such a scheme, EPA could have an ongoing role of proposing new rules for legislative consideration, interpreting and enforcing the rules enacted, and exercising a power to impose emergency orders on an interim basis when acute risks are discovered.³⁶²

361. There could also be rules concerning, for instance, activity that indirectly increases emissions. There might also be rules requiring the installation of certain types of control equipment, rather than limiting emissions as controlled. Or there might be subsidiary rules requiring the inspection and maintenance of emissions control equipment.

362. EPA in theory has emergency powers. 42 U.S.C. § 7603 (Supp. IV 1980).

Such an incremental approach ought not to preempt air pollution control in fora other than Congress. Where Congress has not established a rule for a type of source, there ought to be no preemption of federal common law or, of course, of state common law.³⁶³ And even where Congress has established a rule, states should be free to impose additional restrictions, except perhaps on new vehicles and vehicle fuel, because tighter state controls generally would not interfere with federal interests and would allow a state response to state concerns. The federal legislation could nonetheless take account of regional differences. A single rule that may be adequate for much of the country may be thought by Congress inadequate to protect health in heavily developed areas or scenic values in places of exceptional natural beauty. Thus, legislative rules could provide for an especially stringent limit in, say, the northeastern states.

Congress, however, does not have the time to deal with all pollution sources or to provide more than gross regional classifications. Political considerations would tend to focus Congress' attention on the biggest problems with the widest interstate implications. Particular pressure for national rules would exist where emissions cause damage across state lines and where states are unable to regulate local air pollution problems effectively for fear of losing industry to other states. In the absence of these situations, however, state or local governments would be better able to regulate the problems that do not receive federal attention.³⁶⁴

A rules statute approach could also allow for the different circumstances of different plants. A plant that is to be replaced in a year or two may not, in the interim, be able to comply with a rule without extensive capital expenditure. Must it shut down now? A new plant might use control methods that would be more costly to put into an existing facility. Congress could deal with such variations in many ways.³⁶⁵ For one example, the statute might provide that a source could exceed the rule if it pays a tax or penalty based on its excess emissions.³⁶⁶ For another, the statute could

363. In *Milwaukee v. Illinois*, 451 U.S. 304 (1981), the Court ruled that the federal common law of nuisance previously applicable to the dispute, *Illinois v. Milwaukee*, 406 U.S. 91 (1972), was preempted by the subsequent enactment of water pollution control legislation that purported to be comprehensive. 451 U.S. at 320. Under the piecemeal approach proposed here, legislation would preempt federal common law only where there is an applicable rule.

364. The lack of multiple sources of emissions decreases interstate competition. Fewer sources also mean, in a judicial context, fewer defendants and fewer problems in proving causation.

365. Possibilities other than those mentioned in the text include an easier rule for preexisting plants or variances.

366. A large literature has emerged on such market-type approaches to emission control as pollution taxes and trading in emissions rights. *See, e.g.*, F. ANDERSON, A.

allow a source to produce excess emissions if the source purchases rights from nearby plants that emit less pollution than allowed.³⁶⁷

Rules cannot offer the precision in result that the goals approach of the Clean Air Act promises—in dealing with all pollutants, taking account of all geographic differences, or squeezing as much pollutant reduction as possible out of each plant. Neither can rules guarantee a given ambient air quality level. More power plants than expected may be built, for instance. But the promised precision of the goals approach is spurious and invites evasion and breakdown.

A rules approach can produce a real solution to a substantial part of the problem that Congress promised to solve entirely. Congress knew in 1970 that more than half of the sulfur oxides come from power generating plants and other large fuel burners.³⁶⁸ A few other sources account for most of the rest.³⁶⁹ It is not unrealistic to think that Congress can make rules for these sources. Power plants, other large fuel burners, and motor vehicles together account for over eight-tenths of carbon monoxide, nitrogen oxides, sulfur oxides, and lead and almost half of the emission of hydrocarbons and particulate matter.³⁷⁰

KNEESE, P. REED, R. STEVENSON & S. TAYLOR, ENVIRONMENTAL IMPROVEMENT THROUGH ECONOMIC INCENTIVES (1977); J. DALES, POLLUTION, PROPERTY AND PRICES (1968); A. KNEESE & C. SCHULTZE, POLLUTION, PRICES AND PUBLIC POLICY (1975); Wolozin, *The Economics of Air Pollution: Central Problems*, 33 LAW & CONTEMP. PROBS. 227, 233-37 (1968); Comment, *Who Owns the Air? The Emission Offset Concept and Its Implications*, 9 ENVTL. L. 575, 586-600 (1979); Comment, *Emission-Offset Banking: Accommodating Industrial Growth with Air Quality Standards*, 128 U. PA. L. REV. 937 (1980).

367. Existing law involves trading of emissions rights through three devices: off-sets, "bubbles," and banking. Drayton, *Getting Smarter About Regulation*, HARV. BUS. REV., July-Aug. 1981, at 38. The rationale of these devices is that industry or, more specifically, the manager on the spot can usually find a more efficient means of reducing total emissions than could EPA's necessarily generalized regulations. *Id.* The trading of emissions rights under a rules statute could be simpler and fairer. A rules statute might allow a firm to sell so many units of emission rights to a buyer located within a specified distance to the seller. The impact on air quality would not need to be computed. Moreover, the availability of units to sell would, under a rules statute, be based on a firm's ability to reduce emissions below an established level. Under current law, the availability of saleable emissions is based upon the allocation of emissions limits made by happenstance in the somewhat ad hoc state plans.

368. Sulfur dioxide emissions from powerplants alone were estimated in 1970 at twenty million tons out of a total of thirty seven million tons. *Air Pollution-1970: Hearings Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works*, 91st Cong., 2d Sess. (1970), reprinted in SENATE COMM. ON PUBLIC WORKS, 93D CONG., 2D SESS., A LEGISLATIVE HISTORY OF THE CLEAN AIR AMENDMENTS OF 1970 (pt.2) 1012 (Comm. Print 1974).

369. E.g., smelting of metallic ores (four million tons) and petroleum refinery operations (less than three million tons). *Id.*

370. U.S. ENVIRONMENTAL PROTECTION AGENCY, NATIONAL AIR QUALITY, MONITORING, AND EMISSION TRENDS REPORT 5-11 (1978); U.S. ENVIRONMENTAL PROTECTION AGENCY, AIR QUALITY CRITERIA FOR LEAD 1-3 (1977).

The goals approach purports to deal with all harmful pollutants but falls short; the rules approach would deal with more pollutants than its statute names because the control techniques used to control one pollutant tend also to reduce emissions of others.³⁷¹

B. *Objections to a Rules Approach*

1. Congress lacks the expertise

Congress is better suited to set controls than an expert agency. Scientific questions are involved, but Congress could direct EPA to prepare reports and recommendations, and interested parties would do the same. Expertise takes one only part way to the decision because the science is full of uncertainty, and, even if there were certainty, the decisionmaker would have to make value judgments as to priorities and the allocation of costs. For these reasons, EPA and the courts have acknowledged that the setting of standards under the Act is a "legislative-type policy" decision.³⁷²

Congress, moreover, does regularly resolve technical conflicts in legislation. Many statutes now formally allow for legislative vetoes of decisions requiring expertise.³⁷³ Through less formal procedures, congressional committees review EPA's significant decisions.³⁷⁴ Congress has added a number of industry-specific provisions to the Clean Air Act.³⁷⁵

But how could Congress come up with rules of conduct if, as has been suggested,³⁷⁶ no one has the scientific ability to project accurately from emissions to ambient concentrations? This difficulty is a reason to have the legislature rather than an agency promulgate controls. The legitimacy of a legislative rule rests not upon the proven truth of the conclusions reached, but upon the balancing of interests in a representative process.³⁷⁷ An air pollu-

371. *E.g.*, U.S. ENVIRONMENTAL PROTECTION AGENCY, PREFERRED STANDARDS PATH REPORT FOR POLYCYCLIC ORGANIC MATTER xii (1974).

372. *E.g.*, *Ethyl Corp. v. EPA*, 541 F.2d 1, 20 (D.C. Cir. 1976) (en banc), *cert. denied*, 426 U.S. 941 (1977).

373. *See, e.g.*, the United States Synthetic Fuels Corporation Act of 1980, 42 U.S.C. § 8724 (Supp. IV 1980). *See generally* H.R. Doc. No. 416, 93d Cong., 2d Sess. 753-819 (1974) (partial compilation of legislative vetoes).

374. *See, e.g.*, *Clean Air Act: Hearings Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce* (pt. 2), 97th Cong., 1st Sess. 83 (1982) (reviewing, in large part, EPA's New Source Performance Standard for coal-fired powerplants).

375. *E.g.*, 42 U.S.C. § 7411(c)(2) (Supp. IV 1980) (parking); *id.* § 7411(i) (country grain elevators); *id.* § 7419 (nonferrous smelters); *id.* § 7425 (use of local coal); *id.* § 7521(a)(3) (heavy-duty vehicles); *id.* § 7545(g) (small refineries); and *id.* §§ 7624(a)-7625 (vapor recovery at gas stations).

376. *See supra* notes 182-194 and accompanying text.

377. Courts are traditionally more deferential to Congress than to administrative

tion control that is legislated rather than administratively promulgated need not be based on particularized air quality objectives. Thus, the 1977 Congress adopted its rule for new cars through a process of political tugging and hauling that was in marked contrast to the reasoned processes that a court would expect of an agency.³⁷⁸ A major advantage of the rules approach is that Congress need not go through the analytical exercises that courts require of agencies, a requirement that taxes the resources of agencies, litigants, and judges.

To say that legislative air pollution rules would not be finely reasoned is not to say that legislating rules would be irrational. The irrationality resides, rather, in trying to apply a too precise approach to a field in which the science is rough.

2. Congress lacks the time

Goals statutes are intended to save the legislature's time. How could Congress handle the volume of decisions that EPA and the states now promulgate?

The Clean Air Act itself manufactures much of the workload. It requires EPA and the states to spend most of their time not setting limits on emissions, but carrying out procedures whose function is to control discretion.³⁷⁹ The Act also multiplies the number of decisions that need to be made because limits differ not just between industries or regions, but between plants in a region and sometimes between smokestacks in a plant.³⁸⁰ The Act then re-multiplies the decisions by the number of steps necessary to implement each control.³⁸¹

The goals approach has also consumed large amounts of Congress' time. The extensive work of 1969 and 1970 merely signalled the beginning of ongoing congressional consideration of air pollution issues. Major legislative activity took place in 1974,

agencies. Compare *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241, 258-59 (1964) ("whether Congress had a rational basis" for its findings, and whether the means chosen are "reasonable and appropriate"), with *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971) (agency's actions can not be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

378. *International Harvester Co. v. Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973), seems to anticipate an elaborately reasoned cost-benefit approach by the agency.

379. The control of discretion is the aim of the entire process for ambient pollutants from listing to the approval of state plans, including the setting of health and welfare standards, air quality monitoring, emissions inventories, and modeling to predict air quality, all with great elaboration. Pedersen, *supra* note 57, at 1062-64, 1076-77, 1082-83.

380. See *supra* text accompanying note 189.

381. The proposals are subjected to hearing at the state level, adoption at the state level, federal rule making proposal, and federal adoption. The controls may then be subject to requests for plan revisions. See generally Pedersen, *supra* note 57.

1976, 1977, 1981, and 1982, with basic issues still far from resolution.³⁸²

Congress would not have the time to enact rules to cover all of the risks, given the many types of pollutants and many types of sources. Nevertheless, those issues, if made the subject of rules, would be decided, not relegated to a long-term administrative process that might never reach resolution. The case of hazardous pollutants reflects problems and strengths inherent in both the rules and goals approach. Despite current law, many of these pollutants remain unregulated. The large number of these pollutants makes their regulation seem like a project more suitable for an agency than a legislature. On the other hand, uncertainty about the costs and benefits of controlling them, as well as the lack of a means to state a standard to guide an agency's trade-offs, would suggest that regulation of hazardous pollutants is probably more amenable to political than administrative decision. Under a rules statute approach, the legislature could minimize its workload by establishing emissions limits for categories of pollutants rather than individual pollutants. Or, it might specify types of control equipment for some industries rather than regulate specific pollutants. Congress would probably leave to state action the large number of pollutants that come from a small number of sources and have primarily intrastate effects.

It may be argued that it is futile to rely on the states to protect health or other environmental values and that national decisions reflect greater concern for these values.³⁸³ Yet the seeming munificence of national decisions may result not so much from being made at the national level, but from Congress making promises rather than implementing them. The clean air experience reflects a definite waning of environmental enthusiasm at the national level when the job turns from promising to acting.³⁸⁴

382. The Energy Supply and Environmental Coordination Act of 1974, Pub. L. No. 93-319, 88 Stat. 246, amended the Clean Air Act. The Clean Air Act Amendments of 1977 involved particularly intensive consideration in 1976 and 1977, as evidenced by eighty-five days of markup in the House alone, 13 ENV'T REP. (BNA) 94, 95 (May 28, 1982), and by a seven volume reprint of the condensed legislative history. SENATE COMM. ON ENVIRONMENT AND PUBLIC WORKS, 95TH CONG., 2D SESS., LEGISLATIVE HISTORY ON THE CLEAN AIR ACT AMENDMENTS OF 1977 (Comm. Print 1978). Similarly intensive legislative activity has taken place in 1981 and 1982. See, e.g., *Clean Air Act: Hearing Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. (1982); *Clean Air Act: Hearings Before the Subcomm. on Energy Development And Applications and the Subcomm. on Natural Resources, Agriculture Research and Environment of the House Comm. on Science and Technology*, 97th Cong., 1st Sess. (1982).

383. The 1970 Act suggests distrust of the states. See *supra* text accompanying note 146.

384. This loss of enthusiasm may even result in a congressional reversal of policy. For example, Congress, in promising to rid the nation of air pollution, mandated

3. National rules would violate principles of federalism

The 1970 Act, like its predecessors, stated that "the prevention and control of air pollution at its source is the primary responsibility of States and local government."³⁸⁵ The 1970 Act in particular conceives of establishing controls to achieve those goals as a state and local task. Under this view, national rules would invade the domain of state and local government. In practice, however, the 1970 Act failed to meet national objectives and intruded upon state and local government.

The most obvious reasons for national air legislation are the interstate flow of air pollution³⁸⁶ and the interstate competition for jobs.³⁸⁷ In fact, however, EPA has been relatively impotent in preventing states from trading health risks for economic advantage and has avoided ruling on interstate flows of air pollution.³⁸⁸ Though it failed to solve these national problems, the Act at least appeared to "commandeer" state police power for nationally ordained goals.³⁸⁹ Even before *National League of Cities v. Usery*³⁹⁰ used the tenth amendment for the first time to strike down Congress' application of its commerce power to the states, most courts of appeal had held that EPA lacked the power to order states to regulate to meet national objectives by interpreting the statute to avoid possible constitutional problems.³⁹¹ After *National League of Cities*, the question of EPA's power to order the states was avoided by: (1) EPA withdrawing certain regulations in a successful attempt to moot cases in which the Supreme Court had granted certiorari;³⁹² (2) Congress in 1977 giving EPA leverage over the states by threatening to punish uncooperative states

transportation control plans, *supra* text accompanying notes 172-174, and indirect land use controls, (requiring approval for construction of facilities likely to draw heavy traffic, e.g., shopping centers and sports arenas). When EPA was required, statutorily or judicially, to implement these politically infeasible programs, Congress pressured EPA to limit or delay transportation control plans, burying proposed national land use legislation. J. QUARLES, *supra* note 51, at 201-12.

385. 1970 Act § 101(a)(3) (current version at 42 U.S.C. § 7401(a)(3) (Supp. IV 1980)).

386. See *South Terminal Corp. v. EPA*, 504 F.2d 646, 677 (1st Cir. 1974); 42 U.S.C. § 7401(a)(2) (Supp. IV 1980).

387. "[M]inimum Federal standards are a must, as they free the 50 states from the necessity of competing for business by lowering their standards." 116 CONG. REC. 33,115 (1970) (remarks of Sen. Prouty). See also *id.* at 32,902 (remarks of Sen. Muskie), *id.* 32,907 (remarks of Sen. Boggs incorporating message from Pres. Nixon), and *id.* 32,922 (remarks of Sen. Dole).

388. See *supra* text accompanying notes 181-192, 311-314.

389. *District of Columbia v. Train*, 521 F.2d 971, 987-88 (D.C. Cir. 1975), *vacated*, 431 U.S. 99 (1977).

390. 426 U.S. 833 (1976).

391. See *supra* note 151.

392. *EPA v. Brown*, 431 U.S. 99, 104 (1977) (Stevens, J., dissenting).

through withholding grants and forbidding construction of new plants;³⁹³ and (3) EPA largely avoiding use of these threatened powers.³⁹⁴

Congress declared the good news through clean air goals, but left the states to declare the bad through imposition of controls. Thus, the Act was neither a fair basis for a federal partnership nor a division of power making each level of government accountable for the chief consequences of its actions. The 1970 Act was a parody of federalism.

A rules approach would provide a better division of national and state responsibilities. National legislators would be more accountable for the costs of the benefits they promised, and state officials could take credit for initiatives to deal with state problems. National rules would concentrate on industries where interstate competition and interstate air flows are a substantial problem, leaving states free to impose additional controls and deal with additional types of sources without having to submit to federal procedures.³⁹⁵

4. Legislated rules would be inefficient

One apparent advantage of a goals statute is efficiency. Compare, for instance, a rule that imposes the same limit on emissions rates from all plants in an industry with a regime that imposes the most stringent controls on the plants that can reduce emissions at the lowest cost. The latter scheme could achieve the same reduction in overall emissions at a lower cost than the former, at least if only the costs of compliance are taken into account. Since delegated authority can craft its controls on a more case-specific basis than can Congress, it would seem that a goals approach would be more efficient. Indeed, the sponsors of the 1970 Act said that state plans should be the primary implementation vehicle partly be-

393. See *supra* notes 201–204 and accompanying text.

394. See *supra* notes 205–213 and accompanying text.

395. Either a rules statute or a goals statute approach encounters a special problem when state or local government can more conveniently implement a control. For instance, vehicle emissions inspection, which preserves the benefit of emissions control devices, is probably best carried out through state safety inspections and licensing instead of through the establishment of a parallel federal procedure in order to minimize inconvenience to motorists and to avoid duplication of governmental effort. The 1977 Amendments in essence imposed a rule upon certain states to implement an emission inspection program. 1977 Act § 172(b)(11)(B) (current version at 42 U.S.C. § 7502(b)(11)(B) (Supp. IV 1980)). A rules statute approach could try the same tack as the 1977 Amendments or else, to avoid constitutional doubts, forbid the state to register any car that was not inspected by either a federal or a state facility. See *District of Columbia v. Train*, 521 F.2d 971, 992–93 (D.C. Cir. 1975). The hope in the latter instance would be that states would, for the convenience of their motorists, establish emission inspections facilities as part of their safety inspections rather than make motorists go to federal facilities.

cause state officials could choose the controls most suitable to the local situation.³⁹⁶

This efficiency argument for the superiority of goals statutes overlooks three factors.³⁹⁷ First, rules statutes can take the form of emission taxes and can allow the trading of emission rights among sources subject to emission limits. Both approaches allow private parties to take into account differences between sources in the costs of control. Second, an administrative scheme selecting controls on a case-by-case basis may well pick a less efficient arrangement than would private firms trading emission rights. Third, the administration of the process to impose case-specific controls will impose costs of its own in terms of the resources devoted to bureaucratic procedures and to litigation, delay, and uncertainty.

EPA, in fact, has allowed the use of various schemes to trade emissions rights among private parties, subject to administrative approval, rather than relying solely on the administrative allocation of controls.³⁹⁸ The Act, however, makes such trading cumbersome.³⁹⁹ It may well be that, taking all costs into account, a rules statute providing for emission penalties or allowing trading of emissions rights would be more efficient than a goals approach.

5. Legislation responds too slowly to new information

A supposed advantage of delegation is that delegated authorities can respond more quickly than Congress to significant new information. Practice under the Clean Air Act, however, has proved far different than theory.

Suppose there were a significant new discovery about a pollutant suggesting that it is much less or much more dangerous than previously thought. Congress might take a year or two to develop and enact a change in the applicable national rule. Under the

396. *See supra* text accompanying note 128.

397. The hypothetical does not exhaust the ways in which a goals statute could theoretically produce more efficient results. If the goal is to reduce emissions of a certain pollutant rather than its emissions from a particular industry, a goals statute could allow an agency to vary the emissions limits not just between plants but between industries to reach a more efficient result. Or, if the goal is to reduce the impact on health from pollution rather than just the one pollutant previously in question, an agency could look to sources of various pollutants. Or, if the goal is to protect health from any danger rather than just from pollution, still a wider and theoretically more efficient range of choices would present themselves. Yet, each enlargement of the definition of the problem increases not only the opportunities for efficiencies but also the transaction costs and the possibilities for mistakes in allocation.

398. *See supra* note 367.

399. Pedersen, *supra* note 57, at 1103-04. Pedersen proposes changes to ease market approaches, but even his proposal would involve significant complications. *Id.* at 1105.

Clean Air Act, however, the same information would require a rule-making procedure to change the applicable national ambient air quality standards, state proceedings to adjust the applicable state plans, and then federal approval or disapproval of each state plan revision.⁴⁰⁰ Even if judicial review of ambient air standards and state plans did not slow down the administrative process, the entire process would take several years and probably far more.⁴⁰¹

The administrative process can react far more quickly than a legislature to narrower questions, such as those regarding control of a single source. Particularized controls, however, are a feature of the goals approach while a rules statute would contain general standards. Questions about a particular application of such general standards could be handled in the enforcement process.

6. A legislature cannot force technology

Government regulation of private industry emissions was problematical for the authors of the 1970 Act. Industry has the most direct information about what emission reductions are feasible. If government regulations were based upon the information that industry wants to provide, however, the regulations would not encourage technological innovation. How then can Congress enact rules to prompt technological innovation?⁴⁰²

The 1970 Act presented mandatory goals as the way to press industry to develop better emissions control technology. Government would avoid trying to figure out what industry could do thorough research and development by taking the position that sources must find a way to comply or shut down. While this threat may have motivated some innovation, the Act, as already noted,⁴⁰³ also gave firms reasons not to spend money developing improved means of emissions control: they would then have to spend more money to install and operate what they had invented. This made the hope of innovation critically dependent on the credibility of the threat to shut down violators. But few sources were shut down.⁴⁰⁴ Claims about feasibility were made and relief often granted by the states in drafting their plans,⁴⁰⁵ by EPA in

400. See 1970 Act §§ 109(b)(1), 110(a)(2)(H) (current version at 42 U.S.C. §§ 7409(b)(1), 7410(a)(2)(H) (Supp. IV 1980)).

401. NATIONAL COMMISSION, *supra* note 61, at 14.

402. Henderson and Pearson note that the authorities are sometimes led to give aspirational commands for lack of the information needed to be specific about what an industry should do. Henderson & Pearson, *supra* note 54, at 1441. But, when Congress seeks to cope with the problem of the industry having the necessary information by delegating authority to an agency to promulgate "non-aspirational rules of conduct," the agency often finds itself in the same fix as Congress. *Id.* at 1438.

403. See *supra* text accompanying notes 157-158.

404. NATIONAL COMMISSION, *supra* note 61, at 267.

405. See *supra* § II(C)(2).

approving state plans,⁴⁰⁶ by the states and EPA in the enforcement process,⁴⁰⁷ and by Congress in both industry-specific relief⁴⁰⁸ and the overall extension of deadlines.⁴⁰⁹ So governmental entities ended up having to make the kind of decisions about feasibility that Congress said they had to avoid in the first place.

The rules approach offers a less dramatic but probably more effective means to stimulate innovations in pollution control. Rules of conduct could be set in advance of what industry can do, and allow deviation from the rules through either taxes on excess emissions or trade-offs between firms.⁴¹⁰ This approach would create cash incentives to develop better technology and would require no particularized governmental findings about what firms could or could not achieve.

7. Mandatory goals are needed to protect health

Despite the inevitability of trade-offs between health and other interests, it might be argued that mandatory air quality goals give environmental interests a tactical advantage. While an air quality goal is set in a single national proceeding focused on health, national emissions rules for dozens of industries might divide the attention of the public and shift some of the focus to the industries' economics.

Goals, of course, help to avoid getting side-tracked. Indeed, long before 1970, federal statutes provided for "air quality criteria."⁴¹¹ These criteria, combined with growing environmental concern in the late 1960s, resulted in significant efforts by some state and local governments to impose emission rules that challenged the technical capacities of economically important industries.⁴¹² The 1970 Act turned the essentially advisory goals of the past into mandatory duties. This might seem effective because, in one fell swoop, Congress wrote environmental goals into law without hav-

406. See *supra* § II(C)(3).

407. EPA may postpone compliance deadlines and states may grant variances allowing noncompliance, depending on, among other things, feasibility. See Currie, *Federal Air-Quality Standards and Their Implementation*, *supra* note 54, at 380-90; Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 155-176.

408. See *supra* note 374.

409. See *supra* § II(C)(4).

410. Stewart, *supra* note 274, at 1326-37, finds that "Emission or Noncompliance Fees or Taxes" as well as "Transferable Pollution or Other Nonperformance Rights" would be superior to "Command-and-Control regulation" in stimulating new pollution control technology. Stewart raises and deals with possible problems in designing and implementing such market incentive approaches.

411. See Clean Air Act, Pub. L. No. 88-206 § 3(c)(2), 77 Stat. 392, 395 (1963).

412. See, e.g., New York City Air Pollution Control Code, Local Law 1971, No. 49 (current version at NEW YORK, N.Y., CHARTER AND CODE ch. 57, pt. II (1975)). See *supra* note 20.

ing to deal with assorted economic, social, and technical counter-arguments. Nevertheless, the Clear Air Act began with a legal mandate for environmental utopia and then was adjusted to reality through a variety of exceptions, legislative and administrative, formal and informal, legal and convenient.

The tactical advantage of mandatory goals is illusory. Far from concentrating the decision into a single simple national proceeding, or even several dozen, the goals approach divides it into thousands of separate proceedings. Functionally, each source is the possible subject of an inquiry, in the course of an enforcement process, into the cost and benefits of making that source take certain compliance action.⁴¹³ Sources can dramatize the cost of control to them and their employees. EPA cannot show that a particular pollutant causes a given quantity of death and disease, let alone show that decreasing emissions at a particular plant will produce a particular benefit.

A rules approach would be clearer and easier. Legislated rules are not expected to be backed up with specific facts or justified in every instance of their application. It is enough that they press in the right direction. The goals approach, far from giving environmental interests a tactical advantage, creates extra burdens and obstructions.

8. Action-forcing procedures make government more accountable

Action-forcing procedures in theory make government more accountable because the states and EPA have a duty to meet clean air goals. Citizens can ensure that duty is properly fulfilled through citizens' suits, judicial review, and participation in public hearings on state plans. In fact, however, action-forcing undercuts accountability.

The action-forcing procedures implied that Congress had finished its work and that EPA and the states could do the rest of the job. It thus shunted public expectations away from a directly accountable, visible forum. The hope that public participation at the hearings on the implementation plans would be politically decisive proved ephemeral. In regard to public participation, Senator Muskie said in 1970 that "[t]hese plans do not involve technical decisions; they do involve public policy choices that citi-

413. Decisions about how to allocate the burden of meeting ambient air standards in state implementation plans and their revisions are meant to take account of compliance costs. See *supra* text accompanying note 128. Costs and benefits are also taken into account in more formal ways. Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 163-65; see also 1977 Act § 172(b)(11)(A) (current version at 42 U.S.C. § 750(b)(11)(A) (Supp. IV 1980)).

zens should make on the State and local level."⁴¹⁴ But, in practice, the hearings often pivoted upon esoteric questions, and effective participation requires more money and expertise than is usually available to public groups.⁴¹⁵ The National Commission found, for this reason, that private industry has more impact on the implementation plan process than do public interest groups.⁴¹⁶

The states and EPA were still subject to citizen suits for failure to carry out mandatory duties, and EPA was subject to judicial review for acting contrary to statute. It was often possible, however, to make duties seem fulfilled through factual assertions that, given judicial deference to agency expertise, are difficult to challenge in court.⁴¹⁷

C. *Rules Statutes Would Extricate Courts from Inappropriate Roles*

Despite the inadequacies of the 1970 Act, there were still many successful suits against EPA, the states, and polluters. In these cases, the courts and private litigants made public policy. The courts said they were not making policy, but only ensuring that the will of Congress was fulfilled. The job of the courts, it was said, was to determine what was legal rather than what was reasonable.⁴¹⁸ Yet, where legislative language and history are debatable, the reasonableness arguments are hard to segregate from questions of statutory interpretation, and the courts are drawn towards a policy-making role. The cases requiring EPA to implement a nondegradation policy,⁴¹⁹ and reversing the agency's denial of a postponement of emissions controls on new cars,⁴²⁰ illustrate judicial policymaking under the Act. Even if the courts

414. 116 CONG. REC. 42,382 (1970) (remarks of Sen. Muskie).

415. NATIONAL COMMISSION, *supra* note 61, at 14, 103-04.

416. *Id.* at 104.

417. *See, e.g.*, cases cited *supra* note 189.

418. *E.g.*, Natural Resources Defense Council v. EPA, 475 F.2d 968 (D.C. Cir. 1973). *See also* Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 557-58 (1978); Tennessee Valley Auth. v. Hill, 437 U.S. 153, 194-95 (1978).

In one case, Justice Powell voted for a result he viewed as unreasonable because the statutory requirements were demonstrated "irrefutably," even though he believed "that Congress, if fully aware of this Draconian possibility, would strike a different balance." Union Elec. Co. v. EPA, 427 U.S. 246, 272 (1976) (Powell, J., concurring).

419. Sierra Club v. Ruckelshaus, 344 F. Supp. 253 (D.D.C.), *aff'd*, 4 Env't Rep. Cas. (BNA) 1815 (D.C. Cir. 1972), *aff'd by an equally divided Court sub nom.* Fri v. Sierra Club, 412 U.S. 541 (1973). *See* Currie, *Federal Air Quality Standards and Their Implementation*, *supra* note 54, at 374-75 (1976); Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clear Air and Clean Water*, 62 IOWA L. REV. 643, 664-68 (1977).

420. International Harvester Co. v. Ruckelshaus, 478 F.2d 615 (D.C. Cir. 1973), discussed *supra* note 274. *See also* Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from the Clean Air Act*, 62 IOWA L. REV. 713, 732-34 (1977); Wright, *The Courts*

might be faulted for exceeding a judicial role in those cases, there are many instances under such a baroque statute when the courts cannot avoid policymaking because of the frequency of intentionally contradictory language or sloppy drafting.⁴²¹

Even when the statutory language is clear, courts must often make policy in formulating remedies. Proponents of the citizen suit provision argued that enforcement would not strain the judiciary and make courts into organs of policy because it would be simple to compare clear-cut statutory duties with what had been done and, if necessary, to order compliance.⁴²² This argument would be true in a case where a plant is violating a numerical emissions limit whose violation can be remedied without delay or loss of jobs. But many of the remedy problems under the Clean Air Act and similar legislation put the courts in the midst of far-reaching policy questions. The consequences of ordering a polluter to comply or shut down may have to be considered.⁴²³

Action-forcing statutes put a particular responsibility on the judge because the statutory duties imposed tend to be unleavened by the compromise ordinarily embedded in a legislated rule of conduct. The court may thus face an impossible task. Judge Gerhard Gesell, for instance, faced a situation under a statute similar to the Clean Air Act where EPA had violated its duty to issue critical regulations by a deadline and still could not comply with reasonable promptitude without using resources needed to comply with other duties and court orders under a whole array of action-forcing statutes.⁴²⁴ Judge Gesell stated from the bench:

Well-meaning statutes are not self-implementing.

. . . .

If the Court could do anything about it, the Court would; but these are not matters within the reach of the chancellor's foot. There is little a court of equity can do.

These are matters of national policy, political priorities; and I would urge upon the parties with everything at my command, that they consider the appropriateness of continuing to rely on courts to accomplish objectives which can only be effec-

and the Rulemaking Process: The Limits of Judicial Review, 59 CORNELL L. REV. 375, 381-83 (1974).

421. The Act's lack of clarity is a recurring theme of Prof. Currie's writing. Currie, *Relaxation of Implementation Plans Under the 1977 Clean Air Act Amendments*, *supra* note 54, at 158-86. See also NATIONAL COMMISSION, *supra* note 61, at 149 (PSD provisions "ambiguous and sometimes contradictory"); Ackerman & Hassler, *supra* note 9, at 1488 (amendment to § 111 "hopelessly incoherent mix of statutory language and legislative history"). See also *supra* note 345.

422. 1970 Senate Report, *supra* note 13, at 36-38; 116 CONG. REC. 33,103 (1970) (remarks of Sen. Muskie).

423. *Weinberger v. Romero-Barcelo*, 102 S. Ct. 1798 (1982).

424. See *Illinois v. Costle*, 12 Env't Rep. Cas. (BNA) 1597 (D.D.C. 1979), *aff'd sub nom.* *Citizens for a Better Env't v. Costle*, 617 F.2d 851 (D.C. Cir. 1980).

tively accomplished in a democracy by resort to the polls, resort to the political processes which the Constitution preserves.

There is little I can do. I have done the most I can. But there are other forums where these issues could be far more properly and effectively ventilated.⁴²⁵

The action-forcing statutes nonetheless mandate that the judge craft a remedy.⁴²⁶

Public interest groups also play a role in deciding to which of its many absolute duties EPA should devote its insufficient resources. This role is exercised in decisions as to which potential suits to pursue and which remedies to propose. Public interest groups, as such, exercise a type of private prosecutorial discretion.

The irony of the action-forcing structure as a means to increase accountability is that the President and Congress, the most directly accountable actors, get off the hook, as they did in 1970, by mandating goals without facing the costs. The federal agency and the states maintain much of the discretion that they would have exercised under the broad delegation model, and considerable discretionary power devolved upon two types of organizations that are unaccountable as policymakers—the courts and public interest groups.

Broad delegation statutes would lessen the power of private litigants but make it hard for courts to hold agencies accountable to the spirit of the statute without the courts themselves dabbling in the policy work consigned to the agency.⁴²⁷ Action-forcing statutes, such as the Clean Air Act, entail complexities that facilitate their weakening through language changes that are “seemingly innocuous.”⁴²⁸ Severing goals from controls vitiates accountability within the legislative process.

V. SOME PERSPECTIVES AND RAMIFICATIONS

For purposiveness means that we are more concerned with the remote future results of our actions than with their own quality or their immediate effects on our own environment. The “purposive” man is always trying to secure a spurious and delusive immortality for his acts by pushing his interest in them forward into time. He does not love his cat, but his cat’s kittens; nor, in truth, the kittens, but only the kittens’ kittens, and so on forward for ever to the end of cat-dom.

—John Maynard Keynes⁴²⁹

425. *Id.*

426. *Friends of the Earth v. Carey*, 535 F.2d 165, 173–74 (2d Cir. 1976), *cert. denied*, 434 U.S. 902 (1977).

427. See generally Stewart, *supra* note 60, at 1781–89.

428. D. Costle, *supra* note 20, at 12.

429. J. KEYNES, *Economic Possibilities for Our Grandchildren*, in *ESSAYS IN PERSUASION* 370 (1933).

A. *Rules Statutes Are a Better Approach to Air Pollution*

Goals statutes do not end the need to make difficult decisions, but allocate decision-making authority to entities that usually have less legitimacy than Congress to make value judgments stick. It might be said in Congress' defense, however, that it wisely let others wrestle with the controversy first in order to "get the ball rolling" and develop understanding through experience. But the major experience that a goals statute engenders in its first year or two is procedural and abstract. Several years passed before the costs of the 1970 Act began to take concrete form in the implementation of controls, and it was not until 1977 that Congress acted on the subject again in a comprehensive way. The 1970 Act was passed at the height of the public concern necessary to overcome special pleadings and reach an answer.⁴³⁰ The special opportunity that Senator Muskie perceived in 1970 to focus public attention on the problem⁴³¹ was thereafter dissipated. This attention could have been better invested in an act that set some rules of conduct whose execution in the near term might have helped to mature public opinion through concrete experience.

The approach taken by the 1970 Act infantilized rather than matured public opinion. It legitimized the conflict in expectations that "health" would be protected, degradation of air quality avoided, and the basic economic needs of the country met. The Act riled passions against "polluters" or, as Ralph Nader called them (or us), "smoggers."⁴³² It set the stage for future disappointment, recrimination, and demagoguery. Even now, after over a decade of experience with the Act, a recent poll of public opinion on air pollution shows that 65% of those sampled believe that the government should protect health at any cost.⁴³³

The country has paid a heavy price for indulging immaturity in statutory form. The conflict between clean air concerns and the inevitability of emissions that Congress failed to resolve had to be

430. Senator Muskie said during Clean Air Act hearings in early 1970:

[F]or the first time in 7 or 8 years there is a tremendous reservoir of public concern and support for effective action in this field. I think our primary challenge is to use that resource in developing the soundest and most effective legislation of which we are capable.

Air Pollution—1970, Part I: Hearings before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 91st Cong., 2d Sess. 129-30 (1970).

431. See *supra* note 430.

432. Nader, *supra* note 27, at viii.

433. *Harris Survey Finds 80 Percent of Public in Opposition to Relaxing Air Regulation*, 12 ENV'T REP. (BNA) 789, 790 (Oct. 23, 1981).

addressed by numerous other official institutions and private players that lacked Congress' authority to resolve public disputes. The Act dictated that resources which might have gone to solve substantive problems go into procedures that required filling in the blanks in a big intellectual machine.

The consequences of the procedural complication wrought by the Act were worse than additive. Reducing emissions from a given source requires many procedural stages, each of which might change from time to time. Success in enforcement often requires keeping all of these ducks in a row. Building a new source presents similar problems.⁴³⁴ Under the goals design of the statute, sources must seek permission for what they intend to do, while under a rules approach, certain conduct would be forbidden and the rest allowed. Since there are a number of statutes requiring permissions, a builder must go through a long, difficult process to get a consistent set of permits for a project.⁴³⁵ In contrast, a builder in a world of rules statutes has the simpler task of designing or locating the project to avoid the prohibitions. Goals statutes are not progressive, but reactionary against both pollution control and economic innovation.

Can it be held that the adverse aspects of the Act's design are justified by its strong support of the clean air goal, that the ends justify the means? It might be argued, after all, that it was the 1970 Act that first made clean air an important national priority. To the contrary—what made clean air a priority was the public support for its protection. The threat that officials and industry felt from growing citizen concern about air pollution was vented into complicated, prolonged procedures that dissipated the push for effective federal and state legislation and preempted or discouraged judicial action. Industry has supported other complicated environmental goals statutes since 1970⁴³⁶ and sought to use the pendency of federal procedures as a shield against more direct

434. See, e.g., Orloff, *Rethinking Environmental Law*, N.Y. Times, May 10, 1981, at F3.

435. Stewart, *supra* note 274, at 1272, suggests that overlapping "command and control" requirements do not often create irresolvable conflicts for innovators, but present the "more serious danger" of "imposing burdens, that while individually tolerable, create severe costs, constraints, delays, or uncertainty." See also *supra* note 363.

436. There was some industry support for the Toxic Substances Control Act. See, e.g., *Markup of Toxic Substances Bill Starts in House Commerce Committee*, 7 ENV'T REP. (BNA) 196, 196-97 (June 4, 1976); *Chemical Company Announces Support of Toxic Substances Control Measure*, 5 ENV'T REP. (BNA) 1730, 1730-31 (Mar. 7, 1975). But see, e.g., *AFL-CIO Official Urges Strengthening of S1776 To Enhance Safety of Workers*, 5 ENV'T REP. (BNA) 1991, 1992 (Apr. 18, 1975); *Proposed Toxic Substances Bill Opposed by Dow Chemical Company*, 5 ENV'T REP. (BNA) 1954, 1954 (Apr. 11, 1975). In practice, that act has been too cumbersome to be effective.

regulation.⁴³⁷ The Act's complexity has also tarred the efforts for cleaner air because of the bureaucratic intricacy inherent in its approach.

The Act, moreover, only appeared to shift power from polluters to breathers. Both polluters and breathers yielded air rights to government. There has been a long tradition of private rights in the use of the air for both emitting and breathing and for public rights in the air.⁴³⁸ The 1970 Clean Air Act operates to eliminate private rights as if the air is literally only the "Nation's air."⁴³⁹ The Clean Air Act gives government the power to decide the allowable quantity of emissions and who is permitted to make them. As Richard Stewart has said of the 1970 Act, "one's liability to regulation becomes a function not of ordered rules but of another's will."⁴⁴⁰ The discretion that the 1970 Act theoretically gave to the EPA Administrator is comparable to the discretion that would be given under the tax laws if the Internal Revenue Commissioner were told to raise a sum of money "sufficient to meet federal needs with an adequate margin of safety" without prescribing the rates and categories of taxation.

Some commentators suggest that problems I blame on the goals structure of air pollution legislation—delay, uncertainty, and protracted litigation—are caused by the litigation process itself and by environmentalists and industries too prone to be litigious and stiff-necked. These commentators have garnered substantial support and spawned a number of groups committed to "alternative means of dispute resolution" to promote compromise for environmental and related conflicts.⁴⁴¹ In support of the hypothesis that the problem is more in the legislation than in the

437. For example, the railroad industry sued EPA to be made subject to additional noise regulation to take advantage of the preemption features of the federal noise legislation. *Association of Am. RRs. v. Costle*, 562 F.2d 1310 (D.C. Cir. 1977).

438. See, e.g., *William Aldred's Case*, 77 Eng. Rep. 816 (K.B. 1611) (plaintiff Aldred awarded damages when defendant built a pigsty next to Aldred's house, fouling the air).

439. 42 U.S.C. § 7401(b)(1) (Supp. IV 1980).

440. Stewart, *Paradoxes of Liberty, Integrity and Fraternity: The Collective Nature of Environmental Quality and Judicial Review of Administrative Action*, 7 ENVTL. L. REP. (ENVTL. L. INST.) 463, 472 (1977).

441. See, e.g., ENVIRONMENTAL MEDIATION: THE SEARCH FOR CONSENSUS (L. Lake ed. 1980); S. MERNITZ, MEDIATION OF ENVIRONMENTAL DISPUTES, A SOURCEBOOK (1980); Fanning, *The World's Newest Profession*, ENVIRONMENT, Sept. 1979, at 33; Straus, *Mediating Environmental, Energy and Economic Trade-offs*, ARB. J., June 1977, at 96; T. Gladwin, *Environmental Mediation and a Contingency Theory of Preferred Third Party Intervention* (Mar. 1982) (Paper No. 81-13, New York University Graduate School of Business Administration, on file at *UCLA Law Review*).

In further research, I hope to explore the question of whether the avoidance or settlement of litigation could be better facilitated by a rules statute approach to environmental legislation.

mindsets of environmental organizations or industry, I offer the following points. First, the primary method of dispute resolution (to which the "alternative" forms are alternative) is the legislative rather than the judicial process. In the clean air area at least, the legislative form of dispute resolution has evaded the issues and left them to institutions with less capacity to deal with controversy. Second, the clean air legislation is stated in such abstract terms that if environmentalists do not take principled and therefore seemingly stiff-necked positions, it is hard to see what protection they are left with under the legislation. Third, the statutes have legitimized conflicting expectations on all sides. Finally, by giving any citizen a right to sue to achieve theoretically absolute goals, it is difficult to bring into one room all of the actors needed to settle a controversy with finality.

B. Are Rules Statutes a Better Approach to Issues Other Than Air Pollution?

The reasons that goals statutes cause trouble in dealing with air pollution are not peculiar to goals statutes in that field.⁴⁴² I hope that persons with interests in other fields will consider the wider applicability of a rules statute approach.

Whether rules statutes ought to be the usual approach of the legislative process to the regulation of the private sector in peacetime is a question beyond the scope of this Article. Nonetheless, several observations may be useful to clear away some misconceptions about rules statutes. First, legislation in many important areas employs statutes that are clearly in the rules mold. When Congress wants to be precise, it can be. The federal income tax,⁴⁴³ the windfall profits tax,⁴⁴⁴ the National Gas Policy Act of 1978,⁴⁴⁵ and the control of emission from new cars are some examples.

Second, rules statutes need not be lengthy or absolutely precise. Recall that the talisman of a rules statute is not ironclad certainty but an extrinsic standard whose application may require interpretation. It may well be that, as broad delegation came to be more acceptable, courts and agencies have come to treat what had

442. One reason that goals statutes do not work well in the air pollution field may seem restricted to that area—the uncertainty of the scientific information linking health effects to ambient concentrations and ambient concentrations to emissions. Such uncertainty is pervasive in the environmental and public health field. Programs to allocate supplies and control prices in the economic field also encounter uncertainty concerning the relationship between price and supply or demand, for example. And beyond matters of pollution and economics, there are many areas where quantification is not even ordinarily used.

443. 26 U.S.C. §§ 1-1564 (1976).

444. 26 U.S.C. §§ 4986-4998 (Supp. V 1981).

445. 15 U.S.C. §§ 3301-3432 (Supp. V 1981).

previously been open-textured rules statutes as goals statutes.⁴⁴⁶ Rules statutes, in short, are not oddities, but indeed are prevalent.

Third, areas that have been governed by goals statutes may, after all, be susceptible to treatment through rules statutes. Air pollution was a prime example of the supposed need for a goals statute approach. In addition, prominent proposals for improvements in regulation would also happen to make a rules approach more feasible.⁴⁴⁷

Fourth, a problem that is not susceptible to treatment in a rules statute may be a reflection not on the legislature's capacity to enact rules, but on society's capacity to cope with the problem in the way that it desires. A propensity to approach problems through rules statutes may help face up to societal vanities before expectations are raised by vain statutes.

It may be useful to think about the use of rules statutes in generic terms, as well as issue-by-issue, because a variety of generic solutions have been proposed to meet complaints that regulation generally costs too much to implement and administer. Some proposals are: (1) regulatory budgets to limit costs that federal agencies can impose on the private sector;⁴⁴⁸ (2) Congressional vetoes;⁴⁴⁹ (3) Presidential oversight of agency decisions;⁴⁵⁰ and (4) the Regulatory Flexibility Act,⁴⁵¹ which requires agencies to prepare a formal analysis of the red tape that would be generated by proposed regulations. These approaches may, however, be part of the problem rather than the cure. One problem with goals statutes is that the enactor gets to take credit for the goal without having to accept responsibility for the costs of compliance and administration. The proposed reforms can be seen as new

446. See *supra* notes 282-284 and accompanying text.

447. Breyer suggested, for example, using taxes rather than price controls and allocations to deal with windfall profits in certain circumstances. Breyer, *Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternative, and Reform*, 92 HARV. L. REV. 549, 590-95 (1979). See also ABA COMMISSION ON LAW AND THE ECONOMY, FEDERAL REGULATION: ROADS TO REFORM ch. 4 (1979).

448. Ross, *Time to Regulate the Regulators—and Place the Blame on Congress*, Nat'l L.J., May 12, 1980, at 24, col. 1, at 25, col. 1. For a thoughtful analysis of the place of regulatory budgets, see Stewart, *supra* note 274, at 1361-64.

449. See *supra* note 373.

450. ABA COMMISSION ON LAW AND THE ECONOMY, *supra* note 447, at 73-88.

451. The recently-enacted Regulatory Flexibility Act, 5 U.S.C. §§ 601-612 (Supp. V 1981), requires agencies to prepare, for each proposed and final rulemaking, a "regulatory flexibility analysis," describing the impact of the rules on small businesses, organizations, and governmental jurisdictions. *Id.* §§ 603-604. Agencies must also periodically review all of their rules having "a significant economic impact upon a substantial number of small entities." *Id.* § 610. The stated purpose for all this analyzing and reviewing is to minimize the regulatory and informational burden on such entities. *Id.* § 601 app.

goals schemes with the goal being, this time, to reduce the costs of regulation. They will engender their own costs of complication.

There is, in a sense, an upward spiral of complication that began with the discretionary regulation of the "broad delegation" model. *This* regulatory power was regulated through action-forcing procedures to avoid agency inaction resulting from too much discretion. *This* regulation was in turn regulated in statutes like the 1977 Amendments to avoid the supposed impossibility of the action-forcing procedures. Now there are proposals to regulate *this* regulation to simplify the complexity that has been created. The proposals for simplification will, when enacted, most likely create even deeper complication.⁴⁵²

C. *Will Congress Enact Rules Statutes?*

With the 1970 Act, Congress served its own political needs and enhanced its own power. It was a master stroke. At a time of growing distrust of government, Congress was on the defensive for failing to protect people from air pollution. Any rules legislated would bring simultaneous charges of allowing too much pollution and costing too much. By declaring itself capable of satisfying all concerns, Congress transformed itself from a caterpillar of government into a butterfly of the people. The Act allowed legislators to be everything to everybody.

First, one could be a national hero by purporting to protect health forever. Who could object without being a kill-joy?⁴⁵³ Second, when the consequences of the law became clear, and the need to incur costs and stop activities in order to comply became apparent, one could then play hero at home by opposing the application of the Act in the local context. Next, as industry and governors came to Washington for relief, and as environmentalists complained that EPA was not doing enough, one could play statesman and dole out compromises requiring EPA to go through new procedures and write new reports. The same politician could play all roles, protector of nature in national forums and savior of the local economy at home.⁴⁵⁴

452. See *Amendment Proposals Would Make Air Act More Difficult to Carry Out*, Barber Says, 13 ENV'T REP. (BNA) 54 (May 21, 1982).

453. According to Senator Muskie, this was not a "political measure," insinuating that any opposition would derive from political or economic greed based upon "false implication." 116 CONG. REC. 42,383 (1970) (remarks of Sen. Muskie).

454. Compare Sen. Eagleton's statement that economic impact was not a factor under the Act, J. QUARLES, *supra* note 51, at 83, and criticism of alleged OMB interference with EPA proposed regulations after the public comment period, *id.* at 87, with his intervention, after the public comment period, in the case of a proposed rule imposing economic costs on an industry in his home state. Joint Appendix, at 2717-21, *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130 (D.C. Cir. 1980). (I appeared in a

In fairness to Congress, it must be noted that the electorate wanted or at least accepted legislation that promised an ideal, albeit unrealistic solution. Political scientists have noted the tendency of legislatures to treat issues requiring trade-offs by generating schemes, however implausible, that make it seem that everybody will be better off.⁴⁵⁵ If the 1970 Congress had been unwilling to pass a demagogic⁴⁵⁶ piece of clean air legislation, then the public may well have elected another Congress that would have. Yet, 1983 is not 1970. Industries and environmental groups are sadder, but wiser, in the knowledge of their vulnerability to mutual frustration. The average voter may be less naive, and Congress's image may be a little more tarnished. Perhaps there is a convergence of interests that may now make possible a rules approach to air pollution. And perhaps a good place to start is acid rain, with legislated limits on sulfur emissions from large power plants and other boilers.

The legislative process alone may not be able to escape the seduction of goals statutes. Perhaps there ought to be a judicial

number of the cases cited in this Article, but I want to specifically acknowledge both my involvement in this controversy as well as that in the following paragraph).

New York City Mayor Edward Koch has said that, as a member of Congress, he voted for placing requirements on state and local officials without sufficient consideration of the implementation problems. "When you are a member of Congress and you are voting a mandate and not providing the funds for it, the sky's the limit." N.Y. Times, Jan. 25, 1980, at B3, col. 2. The predictable switching of position, depending upon whether politicians are promising benefits or having to deliver upon them, was evident in the dispute over implementation of the New York City Transportation Control Plan. See, e.g., *Friends of the Earth v. Carey*, 535 F.2d 165 (2d Cir. 1976). While the New York Congressional delegation joined in the overwhelming endorsement of the 1970 Act, ex-Congressman and later Governor Hugh Carey was found to be in violation of his duties under the plan and the New York City delegation vigorously opposed implementation of some parts of the plan that had previously been adopted by the State and City, particularly a strategy to place tolls on certain bridges to raise funds to subsidize mass transit. The one member who made any public statement that lent any support to implementation of that strategy was Jonathan Bingham, who favored tolls on certain bridges, but not those that connected with his district. *Letter to the Editor from Cong. Bingham*, N.Y. Times, Mar. 8, 1977, at L30, col. 3.

See also J. QUARLES, *supra* note 51, at 166-74. In the words of John Quarles, ex-General Counsel, and Deputy Administrator of the EPA, such a piece of legislation "thus provides a handy set of mirrors—so useful in Washington—by which a politician can appear to kiss both sides of the apple." H.R. REP. NO. 410 (pt. 2), 96th Cong., 1st Sess. 71 (1979) (quoted in dissenting view of Rep. Corcoran).

455. See, e.g., D. KEARNS, LYNDON JOHNSON AND THE AMERICAN DREAM 113 (1976) ("classic American tendency . . . to reduce the possibility for conflict by increasing the supply of resources"); Ingram, Laney & McCain, *Water Scarcity and the Politics of Plenty in the Four Corners States*, 32 W. POL. Q. 298, 302-03 (1979).

456. Demagoguery is the pursuit of power through riling passions and prejudices against something. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 598 (rev. ed. 1968). The demagogue characteristically takes no responsibility for what he supports, but makes extravagant promises of what will be in the future. The 1970 Act was of course against what is undesirable and otherwise tended to avoid choices.

check on the use of goals statutes, such as through a reinvigoration of the doctrine against a delegation of legislative power.⁴⁵⁷ If goal statutes were prohibited, legislators and the electorate would then have to choose between rules statutes or no statute at all. The Supreme Court's long-standing theoretical adherence to the nondelegation doctrine and its seemingly infrequent use may be put in a new light by the Clean Air Act experience.⁴⁵⁸ Broad delegation is supposedly essential for Congress to pursue important social objectives in areas such as pollution control,⁴⁵⁹ but the recent experience suggests that the availability to Congress of a goals statute approach may render Congress incompetent to make hard choices or enact effective solutions.⁴⁶⁰ Felix Frankfurter and James Landis once said the nondelegation doctrine is a "jejune abstraction,"⁴⁶¹ but the clean air experience suggests that delegation undercuts accountability in the legislative process, creates unaccountable power in the executive branch, and strains the judicial role. Finally, it has been argued that there is no way to distinguish delegation from proper legislation without requiring the legislature to do the impossible job of anticipating all questions in advance,⁴⁶² but the distinction between goals statutes and rules statutes may provide a tool to force Congress to face the issues without having to look into a crystal ball.

VI. CONCLUSION

The Clean Air Act experience suggests that Congress should prefer rules statutes to goals statutes in dealing with air pollution. Goals statutes require cumbersome procedures to generate con-

457. I am in the course of writing an article on the delegation issue framed in terms of the rules versus goals distinction rather than efforts to measure the quantum of power conferred.

458. *Panama Ref. Co. v. Ryan*, 293 U.S. 388 (1935), and *Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935), are the only two cases where the Court has explicitly invoked the doctrine to strike down statutes. But, the Court has never explicitly disavowed the doctrine and it was treated as vital by a majority of the Court in a recent case, *Industrial Union Dep't v. American Petroleum Inst.*, 448 U.S. 607 (1980), in which Justices Stevens, Burger, Stewart, and Powell invoked the doctrine to narrowly construe a statute and Justice Rehnquist would have invoked the doctrine to strike down the statute.

459. See Stewart, *supra* note 60, at 1669, 1693-97.

460. "Far from detracting from the substantive authority of Congress, a declaration that the first sentence of § 6(b)(5) of the OSHA constitutes an invalid delegation to the Secretary of Labor would preserve the authority of Congress." *Industrial Union Dep't v. American Petroleum Inst.*, 448 U.S. 607, 687 (1980) (Rehnquist, J., concurring).

461. Frankfurter & Landis, *Power of Congress over Procedure in Criminal Contempts in "Inferior" Federal Courts—A Study in Separation of Powers*, 37 HARV. L. REV. 1010, 1013 n.11 (1924).

462. *E.g.*, Stewart, *supra* note 60, at 1695-97.

trols on conduct, while rules statutes themselves contain standards of conduct. Goals statutes tend to put the issue fortuitously, leaving difficult conflicts unresolved, while the process of formulating rules requires facing the conflicts. Rules of conduct lend themselves to enforcement because they are based on compromise and presumptively ought to be obeyed as a matter of principle as well as legality.

A rules approach to a problem so complex as air pollution would not be simple, but it would be much simpler than a goals approach. Controls under rules statutes would have to be of more general applicability than under a goals statute, if for no other reason than to conserve the legislature's time. Moreover, each application of a rule not only settles that case but also offers guidance to the settlement of other cases, thereby avoiding the need for formal consideration of many particular situations. A goals statute, by contrast, requires the consideration of many sources when the controls are promulgated to achieve the legislated goals. That complex decision is only the beginning. Time will necessarily bring conflict between the promulgated controls and the legislated goals requiring adjustment of the controls in some or all cases. Congress could decide that controls promulgated may not be changed for a specified period of time,⁴⁶³ but such a scheme, although perhaps desirable, adds yet another layer of complication.

Goals statutes can offer seemingly comprehensive solutions, but they often avoid the most pressing aspects of the problem and fail to resolve the problem at large. Rules statutes do not preclude additional legislation and, indeed, make it likely that future legislation can be more mature.

Goals statutes' procedures are the least studied aspects of the legislation prior to enactment and thus tend to be the repository of false resolutions. Unworkable procedures force others to do what the legislature failed to face, and the delegates are without Congress' means to reach resolution.

Finally, goals statutes create relatively unaccountable power—in legislators who might fight to enact the most seemingly pleasing goals, in executive branch officials who might use their discretion to allocate regulatory burdens as a tool in partisan struggles, or in private litigants who might use their substantial power over which public duties are fulfilled to advance private agendas.

The rules statute approach to air pollution would entail the enactment of limits and/or taxes on emissions or emissions-induc-

463. Pederson, *supra* note 57, at 1095.

ing activity. The rules approach would be piecemeal, establishing rules from time to time, some at the federal level and some at the state or local level. The political process being what it is, one could not hope that the priority of action in a rules approach would be altogether logical. It probably will have some rough correspondence to popular perceptions of the risks and costs. Popular desires may shortchange the interests of future generations to some extent. Yet, there is little to suggest that the low-visibility workings of the goals approach have any particular regard for posterity. The supposedly comprehensive Clean Air Act, which was to deal with all risks, has been unable to cope adequately with air pollution problems that pose threats for the present and the future. Rules statutes are an imperfect approach, but far better than the alternative.