Detail and Delegation: A Study in Statutory Specificity

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I. Introduction

The environmental movement is catching its second wind. As at the time of Earth Day in 1970, newspapers and magazines are filled with reports of the many ways in which humanity's depredations of the ecosphere may rebound upon us.[1] Coverage of and

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1. *See, e.g.*, Time, Jan. 2, 1989, at 24 (naming Earth "planet of the year" and summarizing environmental threats); Easterbrook, *Cleaning Up Our Mess*, Newsweek, July 24, 1989, at 26 (suggesting that while U.S. environmental management is better than perceived, environmental protection may become the prime international issue of the next century). For discussions of particular issues, see Gutis, *Beach Waste Raises New Fears*, N.Y. Times, July 17, 1988, § 2, at 1, col. 2; Shabecoff, *Health Risk From Smog is Growing, Official Says*, N.Y. Times, March 1, 1989, at A16, col. 3; Stevens, *With Cloudy Crystal Balls, Scientists Race to Assess Global Warming*, N.Y. Times, Feb. 7, 1989, at C1, col. 1.

public reaction to the recent Exxon Valdez oil spill in Alaska is but a single, albeit dramatic, example,[2] paralleling in its effect on public opinion the massive leak in 1969 from offshore oil drilling operations near Santa Barbara, California. As in the early 1970s, environmental protection has become politically fashionable; for instance, 1988's presidential and vice-presidential candidates vied to portray themselves as environmentalists.[3] Since then, President Bush has appointed William Reilly, the head of an environmental organization, as Administrator of the U.S. Environmental Protection Agency (EPA)[4] and has proposed initiatives to control acid precipitation and otherwise tighten the Clean Air Act.[5]

The renaissance of ecological activism lends increased importance to the problems of designing solutions to environmental concerns. The most basic of these problems lie at the heart of both administrative and environmental law: What are the appropriate institutional responses to environmental problems? What should be the respective roles of courts, legislatures and administrative agencies? Should Congress attempt to specify environmental policy in detail, or should Congress delegate broad power to administrative agencies such as EPA?

2. *See* Time, Apr. 17, 1989, at 56 (summarizing this and other threats to Alaska's ecosystem); [20 Current Developments] Env't Rep. (BNA) 492 (June 30, 1989) (quoting Alaska Governor Steve Cowper as characterizing the spill as possibly "the catalyst which will whip Congress into action on many environmental issues concerning energy"); *Id.* at 672 (August 11, 1989) (summarizing state and federal initiatives in response to the spill).

3. *See, e.g.* 46 CONG. Q. 2054 (July 23, 1988) (reprinting Democratic nominee Dukakis' promise of "an Environmental Protection Agency that is more interested in stopping pollution than in protecting the polluters"); *Id.* at 2355 (Aug. 20, 1988) (reprinting Republican nominee Bush's pledge "to clean the air" and "reduce the harm done by acid rain"); N.Y. Times, Oct. 6, 1988, at B20, col. 1 (transcript of debate between vice presidential candidates); *Bush Vows to Fight Pollution, Install Conservation Ethic*, Washington Post, Sept. 1, 1988, at 1A, col. 1. On the candidates' previous records, see Weisskopf, *Environmental Impact*, Washington Post National Weekly Edition, Oct. 17-23, 1988, at 10; [19 Current Developments] Env't Rep. (BNA) 1174 (Oct. 14, 1988). A cartoon accompanying the Weisskopf piece attributes the candidates' positions to the "White House effect," as opposed to the greenhouse effect.

4. *See* [19 Current Developments] Env't Rep. (BNA) 1771 (Dec. 30, 1988) (summarizing Reilly's background and views).

5. *See President Urges Steps to Tighten Law on Clean Air*, N.Y. Times, June 13, 1989, at A1, col. 3; [20 Current Developments] Env't Rep. (BNA) 427-31 (June 16, 1989) (discussing substance of proposal and reaction to it). It did not take long for environmental groups to accuse the Administration of backtracking. *See* Lancaster, *A Not-Quite-So-Clean Air Act*, Washington Post (National Weekly Edition) (July 17-23, 1989).

Although these questions have long excited academic interest,[6] Congress seems to have little doubt about the proper approach. Environmental statutes have become increasingly intricate and detailed. The Superfund Amendments and Reauthorization Act of 1986[7] and the Hazardous and Solid Wastes Act of 1984[8] are well-known examples: the latter, for instance, goes so far as to specify the required composition and thickness of landfill liners.[9] Similarly, the most recent set of Clean Air Act amendments proposed by the Senate Committee on Environment and Public Works covers over 400 pages and requires a 700-page report to explain it.[10] Detail is now seen as the sine qua non of effective environmental litigation. Thus one ground for environmentalist opposition to President Bush's recommended alternative amendments to the Clean Air Act is that his proposal would allow EPA too much discretion.[11] The accretion of detail has been accompanied by reliance on the judiciary to ensure not only that agencies do not act arbitrarily in carrying out their authority, but also that the specifics of the complex legislative scheme are followed.[12]

Traditionally, the purpose of detailed legislation and stringent judicial review has been to check administrative power to invade

6. Some vintage works are Krier, *The Pollution Problem and Legal Institutions: A Conceptual Overview*, 18 UCLA L. REV. 429 (1971); J. SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION (1971); B. ACKERMAN, S. ROSE-ACKERMAN, J. SAWYER, D.W. HENDERSON, THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY (1974); Jaffe, *Ecological Goals and the Ways and Means of Achieving Them*, 75 W.VA. L. REV. 1, 18-31 (1973).

A related line of commentary focuses on whether market mechanisms would be a better means of solving ecological crisis than the classic "command-and-control" approach of governmental regulation. For a collection of articles on this subject, *see Law and Economics Symposium: New Directions in Environmental Policy*, 13 COLUM. J. ENVTL. L. 153 (1988).

7. Pub. L. No. 99-499, 100 Stat. 1613 (1986).

8. Pub. L. No. 98-616, 98 Stat. 3221 (1984).

9. *Id.*, § 202(a), 98 Stat. at 3234 (inserting § 3004(o)(5)(B) into the Solid Waste Disposal Act, *codified at* 42 U.S.C. § 6924 (Supp. III 1985) (requiring that lower liners on new or expanded landfills and surface impoundments be constructed "of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1 X 10^{-7} centimeter per second").

10. S. 1630, 101st Cong., 1st Sess. (1989), 136 CONG. REC. S27-S82 (daily ed. Jan. 23, 1990), *reported by* S. REP. No. 228, 101st Cong., 1st Sess. (1989). The bill grew to nearly 700 pages by the time the Senate passed it. S.1630, 101st Cong., 2d Sess., 136 CONG. REC. S4363 (daily ed. Apr. 18, 1990).

11. *See* [20 Current Developments] Env't Rep. (BNA) 590-91 (July 28, 1989).

12. *See* R.S. MELNICK, REGULATION AND THE COURTS: THE CASE OF THE CLEAN AIR ACT 5-13 (1983); *cf.* Wooley, *EPA's House of Legal Horror*, ENVTL. F., Jan.-Feb. 1990 at 25 ("If 20 years of experience under the Clean Air Act teaches us anything, it is that EPA cannot be relied upon to carry out the Act unless Congress' commands are expressed in clear, mandatory language, backed by an effective judicial review against agency inaction").

private rights.[13] The complexity of environmental statutes, however, is due instead to the reaction in the 1950s and 1960s against the perceived failures of the classic New Deal regulatory agency, which typically had been granted broad discretion. Critics charged that these agencies were vulnerable to capture by regulated interests and to loss of initiative.[14] Legislative detail thus came to be seen as a means of ensuring effective regulation, rather than a way to protect industry from an overzealous agency.[15] Similarly, EPA's lassitude in the early years of the Reagan Administration helped to persuade Congress that detailed policymaking was needed to give firm guidance to the agency and its overseers in the executive branch.[16]

Detailed environmental legislation might seem a desirable way to ensure that Congress, rather than an unelected bureaucracy or judiciary or an imperial presidency, actually makes the key policy decisions.[17] Yet, as this Article will show, legislative complexity has its costs. It can submerge rather than elucidate policy questions and thus make it impossible for legislature, executive or judiciary alike to address basic policy questions or resolve ambiguity.

This Article will illustrate this thesis in the context of the Prevention of Significant Deterioration (PSD), or nondegradation,

13. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1671-76 (1975); *see* COMMITTEE ON MINISTERS' POWERS, REPORT 53-71, Cmd. 4060 (1932).

14. B. ACKERMAN & W. HASSLER, CLEAN COAL/DIRTY AIR 7-13 (1981); *see, e.g.*, M. BERNSTEIN, REGULATING BUSINESS BY INDEPENDENT COMMISSION, 74-95, 100-02 (1955); Huntington, *The Marasmus of the ICC: The Commission, the Railroads and the Public Interest*, 61 Yale L. J. 467 (1952); Leonard, N. Y. Times, July 24, 1970, Book Review, at 29, col. 2 (reviewing J. ESPOSITO, VANISHING AIR (1970)). For commentary on this criticism, *see* Jaffe, *The Illusion of the Ideal Administration*, 86 HARV. L. REV. 1193 (1973).

15. *See, e.g.*, Muskie & Cutler, *A National Environmental Policy: Now You See It, Now You Don't*, 25 ME. L. REV. 163, 167-69 (1973).

16. *See* Florio, *Congress as Reluctant Regulator: Hazardous Waste Policy in the 1980's*, 3 YALE J. REG. 351 (1985) (summary by a sponsor of RCRA and Superfund Amendments of the motivations for legislative specificity).

17. *See, e.g.*, J. ELY, DEMOCRACY AND DISTRUST 125-34 (1980); T. LOWI, THE END OF LIBERALISM 128-57 (1969); Gewirtz, *The Courts, Congress, and Executive Policy-Making: Notes on Three Doctrines*, 40 LAW & CONTEMP. PROB. 46 (Summer 1976); Schoenbrod, *The Delegation Doctrine: Could the Court Give It Substance?*, 83 MICH. L. REV. 1223 (1985); Schwartz, *Of Administrators and Philosopher-Kings: The Republic, the Laws and Delegations of Power*, 72 NW. U.L. REV. 443, 444-45 (1977); *but see* Davis, *A New Approach to Delegation*, 36 U. CHI. L. REV. 713, 713-22 (1969); Mashaw, *Prodelegation: Why Administrators Should Make Political Decisions*, 1 J. L. ECON. & ORGAN. 81 (1985); Stewart, *supra* note 13, at 1693-97. This is but a sample of the vast literature on the pros and cons of delegation of authority to administrative agencies.

program under the Clean Air Act.[18] PSD is intended to protect clean air—air that exceeds the requirements of Federal ambient air quality standards[19]—from deteriorating to bare compliance with the ambient standards. Originally designed by EPA in 1974 in response to a court order,[20] PSD was codified in somewhat different form by the Clean Air Act Amendments of 1977.[21]

The program requires that each new or expanded "major emitting facility" in "clean air areas" use the "best available control technology" (BACT) to minimize additional air pollution.[22]

18. Sections 160-69, 42 U.S.C. §§ 7470-79 (1982). Unless otherwise stated, all statutory references are to the Clean Air Act.

19. "Ambient standards" or, as they are known officially, National Ambient Air Quality Standards, are national standards set by EPA that control the maximum concentration in the atmosphere of pollutants believed to endanger public health or welfare. *See infra* note 41 and accompanying text.

20. *See infra* notes 39-47 and accompanying text.

21. Pub. L. No. 95-95, § 127, 91 Stat. 685, 731-42 (1977). The program is described in Oren, *Prevention of Significant Deterioration: Control-Compelling Versus Site Shifting*, 74 IOWA L. REV. 1, 13-28 (1989) [hereinafter Oren, *Prevention*]. Other summaries of the program's requirements and evolution include D. CURRIE, AIR POLLUTION: FEDERAL LAW AND ANALYSIS, ch. 7 (1981); F. GRAD, TREATISE ON ENVIRONMENTAL LAW § 2.03 [9] (1987); ENVIRONMENTAL LAW INSTITUTE, LAW OF ENVIRONMENTAL PROTECTION ch. 11.05 (S. Novick ed. 1987); W. RODGERS, ENVIRONMENTAL LAW: AIR AND WATER ch. 3.22-.23 (1986).

22. For discussion of the terms in quotation marks in this and the succeeding textual sentence, see Oren, *Prevention*, *supra* note 21, at 13-20 and the sources cited in the preceding note. The following is intended as a brief précis.

A "major emitting facility" is a stationary source (*i.e.* an industrial plant or factory) in 28 stated categories with the potential to emit one hundred tons per year of an air pollutant regulated under the Act, or any other stationary source with the potential to emit 250 tons per year of a regulated air pollutant. *See* § 169(1), 42 U.S.C. § 7479(1) (1982); Oren, *Prevention*, *supra* note 21, at 13-15. Further discussion of some of the complexities that go into defining the term may be found *infra* in Part III-D and Part IV-B.

The construction or modification of a major emitting facility requires a PSD permit if the facility is located in a "clean air area"—an area that has been classified by the state, with EPA approval, as meeting an ambient standard or as not classifiable due to lack of data about air quality. *See* § 161, 42 U.S.C. § 7471 (1982); Oren, *Prevention*, *supra* note 21, at 19. Since every area of the country meets at least one ambient standard, PSD's scope is nationwide. *Id.* But the program does not apply to emissions from the facility that contribute to violation of an ambient standard; the Act applies other schemes to these emissions. Thus if a source emitting sulfur dioxide and particulate matter locates in an area that violates the ambient standards for particulate matter, the particulate matter emissions are not subject to PSD. *Id.*, at 20.

If a permit is needed, the facility must meet the requirements of § 165(a), 42 U.S.C. § 7475(a) (1982). Among these requirements is that the facility install the "best available control technology" (BACT). BACT must reflect the maximum achievable degree of emission reduction, taking into account costs and energy and environmental impacts. If the facility's category is subject to a new source performance standard (NSPS)—a nationally uniform standard established by EPA at the emissions level that may be met using the "best demonstrated technology", *see* § 111(a), 42 U.S.C. § 7411(a) (1982)—BACT must be

More controversially, PSD establishes "increments" that limit the cumulative increase of several pollutants over the "baseline concentrations" in each clean air area.[23] The size of the increments varies with the area's classification; Class I increments are the most restrictive and Class III the least.[24] For instance, in Class II areas—virtually the entire Nation[25]—the annual average concentration of sulfur dioxide may be increased by no more than twenty micrograms per cubic meter above the baseline concentration.[26] Thus an area with a baseline annual average concentration of fifty micrograms is restricted to a total of seventy micrograms, rather than allowed to increase to the Federal air quality standard of eighty.[27] Smaller increments apply in Class I areas, which are generally national parks or wilderness areas.[28] In contrast, no area carries the lenient Class III designation, although States and Indian tribes are free to give most areas this classification.[29]

set at a level at least equally stringent. *See* § 169(3), 42 U.S.C. § 7479(3) (1982). For recent commentary on the requirement for the best available control technology, see Wilson, Martin & Friedland, *EPA's Standards for "Best Available Control Technology" Under the Clean Air Act*, 20 Envtl. L. Rep. (Envt. L. Inst.) 10,067 (1990).

23. The "baseline concentration" in a clean air area is (subject to some qualifications) the pollutant level on the "baseline date": the date that the first application is made in that area for a construction permit under the PSD program. *See* § 169(4), 42 U.S.C. § 7479(4) (1982); Oren, *Prevention*, *supra* note 21, at 4 n.6, 23, 36, 42. (The evolution of this concept is traced in Part III-B). The "increments" represent the maximum allowable increase in air pollutant concentrations in an area over the baseline concentration. *See* § 163, 42 U.S.C. § 7473 (1982). The statute itself provides increments for sulfur dioxide and total suspended particulates, *id.*; EPA has promulgated increments for nitrogen dioxide, *see* 53 Fed. Reg. 40,646 (Oct. 17, 1988) (to be codified at various parts of 40 C.F.R. § 51.166(c) and 40 C.F.R. § 52.21(c)); *infra* notes 418-441 and accompanying text.

24. *See* § 163(b), 42 U.S.C. § 7473(b) (1982) (setting forth increments for sulfur dioxide and particulate matter); 53 Fed. Reg. 40,646 (Oct. 17, 1988) (to be codified at 40 C.F.R. § 51.166(c) and 40 C.F.R. § 52.21(c)) (increments for nitrogen dioxide).

25. *See* § 162(b), 42 U.S.C. § 7472(b) (1982) (initially classifying most clean air areas Class II). While the State or tribal jurisdiction can re-classify any area Class I, and most areas Class III, *see* § 164(a), 42 U.S.C. § 7474(a) (1982), few redesignations have occurred. *See* Oren, *Prevention*, *supra* note 21, at 25-26; Oren, *The Protection of Parklands From Air Pollution: A Look at Current Policy*, 13 HARV. ENVTL. L. REV. 313, 361-64 (1989) [hereinafter Oren, *Parklands*].

26. *See* § 163(b)(2), 42 U.S.C. 7473(b)(2) (1982) (specifying Class II increments).

27. *See* 40 C.F.R. § 50.4 (1988) (stating the air quality standard for sulfur dioxide).

28. *See* § 162(a), 42 U.S.C. § 7472(a) (1982) (designating certain areas as Class I areas that may not be reclassified). A list of such areas may be found in Oren, *Parklands*, *supra* note 25, at 403-10. In addition, a few Indian tribes have designated their reservations as Class I. *Id.* at 363.

29. 53 Fed. Reg. 3688, 3705 (Feb. 8, 1988); Oren, *Prevention*, *supra* note 21, at 26. The only areas that may not be re-classified Class III are those that carry a mandatory Class I

The present author has extensively argued elsewhere that the increment system is gravely flawed in concept and implementation, and may distort in environmentally counterproductive ways both source location and pollution control technology decisions.[30] Nor does the program accomplish its goal of protecting national parks from air pollution.[31] Thus the PSD program appears to be a poor model for efforts to protect other environmental resources, such as ground and surface water, from degradation.

But PSD may offer other lessons as well. The PSD provisions of the Clean Air Act rank among the most complex of environmental statutes. As a result, court challenges to EPA's initial implementing regulations required extraordinary judicial procedures, including the issuance by the D.C. Circuit of what amounted to a proposed decision and the bifurcation of the final decision into three opinions.[32] EPA's revised regulations required an explanatory preamble of over fifty triple-columned, small-print Federal Register pages.[33] Even these have not proven final; challenges to EPA's regulations still remain unresolved in the administrative or judicial process.[34]

PSD's history therefore provides an opportunity to investigate the consequences of statutory complexity. This Article will demonstrate how an intricate statutory scheme can quickly overtax the decision-making resources of legislature, agency and courts alike. The PSD codification produced an internally inconsistent scheme whose provisions at times bear no relation to administrative realities. One consequence was inadvertent errors that hampered the implementation of the program. Another was

status, *see* § 162(a), 42 U.S.C. § 7472(a) (1982) and certain other "Class II floor" parklands, *see* § 164(a)(1)-(2), 42 U.S.C. § 7474(a)(1-2) (1982).

30. Oren, *Prevention*, *supra* note 21.

31. Oren, *Parklands*, *supra* note 25.

32. *See* Oren, *Prevention*, *supra* note 21, at 12 n. 55; Alabama Power Co. v. Costle, 606 F.2d 1068 (D.C. Cir. 1979) (summary opinion); Alabama Power Co. v. Costle, 636 F.2d 323 (D.C. Cir. 1979) (final opinion).

33. *See* 45 Fed. Reg. 52,676-729 (Aug. 7, 1980).

34. *See* Oren, *Prevention*, *supra* note 21, at 12-13. One new development is worth reporting. EPA has at long last promulgated final regulations pursuant to the "Exhibit A" settlement agreement between it and industry challengers to the rules. *See* 54 Fed. Reg. 27,274, 27,286 (June 28, 1989). EPA had agreed in 1982 to attempt to propose the rules within 90 days, and to take final action within 150 days. Oren, *Prevention*, *supra* note 21, at 12 n. 58. The new rules stop far short of providing the relief for industry originally proposed by EPA. As a result, industry has challenged them in Chemical Manufacturers Ass'n v. EPA, No. 89-1514 (D.C. Cir., filed Aug. 28, 1989).

the transfer of choices that Congress intended to make to EPA or to the judiciary. Both results, ironically, contradict the premise that detail can ensure hegemony of the people's elected representatives. Rather, they show that detail can often muddle accountability, as neither Congress, judiciary nor agency can be held fully responsible for the resulting program. Moreover, the PSD experience shows how detail may provide an opportunity for judicial control. Instead of providing a yardstick for the courts to use in judging EPA's implementation of PSD, the intricacy of the codification drew the judiciary into resolving, in the guise of statutory interpretation, policy disputes beyond its expertise.

Parts II and III of this Article illustrate this thesis by tracing the PSD codification through Congress and by examining some of the key issues in the legislation's implementation.[35] Part IV deals with the attempts of Congress and the judiciary to ensure some flexibility for the agency in deciding interstitial questions. The present author has previously argued that the devices intended to provide flexibility in park protection have failed.[36] Part IV extends this critique to the other attempts by Congress and the courts to afford room for administrative discretion in running the PSD program. In every case, flexibility was disrupted either by the realities of day-to-day administration, or by the rigidity of the remainder of the scheme. The PSD experience carries, therefore, a dual message: that complex legislative schemes can frequently outstrip the capacities of Congress, agency and courts without resolving key policy issues; and that the flaws of complexity cannot readily be remedied by carving out areas of administrative discretion within an intricate scheme.

The history of EPA's implementation of the PSD program also offers lessons about the proper role of the judiciary in overseeing administrative action. On some issues related to the program, the D.C. Circuit took a narrow view of the extent of discretion en-

35. The most exhaustive description of the program's evolution is found in A.S. Meiburg, Protect and Enhance: Lowi's "Juridical Democracy" and the Prevention of Significant Deterioration of Air Quality (1986) (doctoral dissertation submitted to Johns Hopkins University). A shorter account is contained in R.S. MELNICK, *supra* note 12, at 71-113, a quite valuable source notwithstanding the present author's occasional disagreements with it. A revisionist view is presented in McCubbins, Noll & Weingast, *Structure and Process, Politics and Policy, Administrative Arrangements and the Political Control of Agencies*, 75 VA. L. REV. 431 (1989). The present author has critiqued that work elsewhere. Oren, *Clearing the Air: The McCubbins-Noll-Weingast Hypothesis and the Clean Air Act*, 9 VA. ENVTL. L. J. 45 (1989).

36. *See* Oren, *Parklands*, *supra* note 25, at 368-98.

trusted to the agency.[37] Such stringent judicial construction of the underlying statute is analogous in its effects to statutory detail. Both restrict the agency's freedom of action and can impose rigid limits on agency action that cannot be relaxed short of new legislative action, which may be difficult to procure. Hence, the PSD experience may be taken as an endorsement of decisions, such as *Chevron, U.S.A. v. Natural Resources Defense Council,*[38] that assign to agencies rather than to courts the task of filling in gaps within statutory schemes. The PSD experience, though, implies that the benefits of *Chevron* may be limited. Decisions like *Chevron* provide an agency with interstitial flexibility within a complex legislative design. If, as suggested in this Article, such flexibility is of limited usefulness, then *Chevron* provides only a partial answer to statutory complexity.

II. The Roots of Complexity

The origins of PSD's intricacy lie in its history. When Congress incorporated PSD into the Clean Air Act Amendments of 1977, it did not write on a blank slate. Rather, EPA had already promulgated a PSD program of its own in response to *Sierra Club v. Ruckelshaus.*[39]

Sierra Club stemmed from an ambiguity in the Clean Air Act Amendments of 1970,[40] which established the foundations of today's Clean Air Act. The Amendments commanded EPA to establish national ambient air quality standards at levels that would protect public health and welfare, and called for state and federal action to ensure that the standards be met.[41] For instance, states were required to prepare State Implementation Plans (SIPs) for EPA approval that demonstrated in detail how the standards were to be attained and maintained in noncomplying areas.[42]

But the status of areas where air was cleaner than the ambient standards was left unclear. The Amendments did, it is true, in-

37. *See* for instance, the discussion of the "potential to emit" issue in Part III-D.

38. 465 U.S. 837 (1984).

39. 344 F. Supp. 253 (D.D.C.) (Pratt, J.), *aff'd without opinion,* 4 Env't Rep. Cas. (BNA) 1815 (D.C. Cir. 1972), *aff'd mem. by an equally divided court sub nom.* Fri v. Sierra Club, 412 U.S. 541 (1973) (Powell, J. not participating).

40. Pub. L. No. 91-604, 84 Stat. 1676.

41. *Id.*, § 4(a), 84 Stat. at 1678-88 (inserting new §§ 107-114 into the Act, codified as amended at 42 U.S.C. §§ 7407-7414 (1982)).

42. *Id.*, 84 Stat. at 1680-83 (inserting § 110, codified as amended at 42 U.S.C. § 7410 (1982)).

clude some provisions that limit emissions regardless of where a source is located. For instance, the Amendments established limits for emissions from new cars,[43] and authorized EPA to establish emission limits, known as new source performance standards (NSPS), for categories of new stationary sources (factories and the like).[44] But these provisions control the individual emissions of new sources rather than their aggregate air quality impact. Thus an influx of sources into a clean area could cause air quality to deteriorate to the levels of the ambient standards.

The issue was of special concern to environmental groups because the ambient standards cannot practicably be set stringently enough to eliminate all health and welfare effects, and because energy development was expected to increase pollution levels sharply in the West.[45] These groups therefore went to court to force EPA to establish a program to protect clean areas. Their efforts bore fruit in *Sierra Club*, which held that the Clean Air Act barred EPA from approving any SIP that failed to protect clean areas from degradation.[46] The decision was affirmed without opinion by the D.C. Circuit and by an equally divided Supreme Court.[47]

The opinion left it to EPA to define degradation and how it would be measured. EPA responded by crafting a program similar in approach, if not in detail or complexity, to today's PSD program.[48] The agency's rules were greeted unenthusiastically by the major groups concerned with the issue. Industry groups opposed *Sierra Club*, and, with the support of the Ford Adminis-

43. *Id.* at § 6(a), 84 Stat. at 1690 (inserting § 202(b), codified as amended at 42 U.S.C. § 7521(b)(1982)).

44. *Id.* at § 4(a), 84 Stat. at 1683-84 (inserting § 111, codified as amended at 42 U.S.C. § 7411 (1982)).

45. *See* R.S. MELNICK, *supra* note 12, at 80-82; *Nondegradation Policy of the Clean Air Act: Hearing Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works*, 93rd Cong., 1st Sess. 5-13 (1973) (statement of Laurence I. Moss, President of the Sierra Club).

46. 344 F. Supp. at 256. Commentaries include 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, 741-45 (1977); Comment, *The Clean Air Act and the Concept of Non-degradation: Sierra Club v. Ruckelshaus*, 2 ECOLOGY L.Q. 801 (1972).

47. *See supra* note 39 and accompanying text. While the Supreme Court's failure to write an opinion was due to the equal division of the justices, the D.C. Circuit's omission is less explicable. Perhaps the explanation is the perceived need for haste in deciding the government's appeal from the district court decision; the affirmance was announced only six days after oral argument. Comment, *The Clean Air Act*, *supra* note 46, at 808.

48. 39 Fed. Reg. 42,514 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.21 (1977)). For a summary, see F. GRAD, *supra* note 21, at 2-163-65.

tration, pressed Congress to repeal nondegradation.[49] Environmental groups, on the other hand, were dissatisfied with the narrow applicability of EPA's rules.[50] Pollutants other than sulfur dioxide and particulate matter were not covered either by the increments[51] or by the requirement that new sources install the best available pollution controls.[52] Even for the pollutants covered, the program was of limited scope. First, the program allowed states to choose to allow deterioration to the levels of the ambient standards so long as EPA's permission was obtained.[53] Second, it provided no guarantee that national parks or wilderness areas would be given the specially protective Class I designation provided by EPA.[54] Indeed, the first steps to re-classify such lands as Class I did not start until over two years after the program's promulgation.[55] Finally, the program did not oblige the states to investigate the possibility that sources could control their emissions more tightly than required by the new source performance standard for their category.[56] This last issue was especially important to environmental groups because the new source performance standards allowed coal-fired power plants to operate without pollution controls so long as low-sulfur fuel was burned.[57]

49. *See* R. VIETOR, ENVIRONMENTAL POLITICS AND THE COAL COALITION, 203-08 (1980) . The administration proposal, introduced as H.R. 2633 and H.R. 2650, 94th Cong., 1st Sess. § 601 (1975), is reprinted in 7 LIBRARY OF CONGRESS, A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977, at 5734-35 (1978) [hereinafter 1977 LEGISLATIVE HISTORY].

50. 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, 671-73 (1977). Critiques include Guilbert, *Up in Smoke: EPA's Significant Deterioration Regulations Deteriorate Significantly*, 4 Envtl. L. Rep. (Envtl. L. Inst.) 50,033 (1974); Note, *Sierra Club v. Ruckelshaus: "On a Clear Day. . . ."* 4 ECOLOGY L.Q. 739, 749-62 (1975).

51. 39 Fed. Reg. 42,515 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.21(c)(2) (1977)).

52. *Id.* at 42,516 (formerly codified at 40 C.F.R. § 52.21(d)(ii) (1977)).

53. *Id.* at 42,515-16 (formerly codified at 40 C.F.R. § 52.21(c) (1977)).

54. *See id.* at 42,515 (formerly codified at 40 C.F.R. § 52.21(c)(2)(i) (1977)) (listing Class I increment levels).

55. *See* Oren, *Parklands*, *supra* note 25, at 358 n.198.

56. *See* 39 Fed. Reg. 42,514 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.01(f) (1977)) (defining the term "best available control technology" as equivalent to new source performance standards); *id.* at 42,516 (formerly codified at 40 C.F.R. § 52.21(d)(ii) (1977)) (requiring sources applying for PSD permits to install such technology).

57. *See* B. ACKERMAN & W. HASSLER, *supra* note 14, at 21-23. Eventually, the 1977 Clean Air Act Amendments resolved this issue separately by ordering EPA to promulgate a new source performance standard that required fossil-fuel burning sources to use pollution controls. Pub. L. No. 95-95, § 109(c)(1)(A), 91 Stat. 699-700 (1977) (codified at 42 U.S.C. § 7411(a)(1) (1982)).

The states were more ambivalent in their views on EPA's program. This reflected the mixed effects of nondegradation on state autonomy.[58] On the one hand, a nondegradation program limits the ability of industry to shop for the most lenient environmental controls, and thus allows states to press new sources to install stringent pollution controls; on the other, federal limits on degradation decrease state control of economic growth decisions.[59]

But even states favoring PSD wanted the program structured to give them as much power as possible.[60] EPA's rules failed this test in several crucial respects. First, the rules allowed federal land managers—the Secretary of the Interior and the like—to reclassify federally-owned lands more stringently than the state desired and to dispute state classifications of non-federal lands. Such classification disputes would be decided by EPA; this raised the specter of federal control over land use.[61] Second, the rules gave states little leverage in allocating increment. Only specified categories of new sources were required to obtain PSD permits.[62] Even for covered sources, there was, as we have seen, no obligation that states investigate control technology possibilities more stringent than the new source performance standard.[63] As a result, interstate competition could force states to allow new sources to emit pollutants at relatively high levels and therefore consume increment rapidly. Hence, EPA's regulations gave the states the worst of all worlds: an obligation to live by increments but little power to pressure new sources to minimize emissions

58. *See* R.S. MELNICK, *supra* note 12, at 82, 90; 34 CONG. Q. 1033 (May 1, 1976) (quoting a Senate aide as characterizing states as "all over the lot on this issue"); *compare* 122 CONG. REC. 13,446 (May 11, 1976), *reprinted in* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6089 (statement of Representative Rogers listing states and state organizations supporting codification of PSD) *with* 122 CONG. REC. 20,307-309 (June 24, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4586-90 (statement of Senator Moss tabulating statements from states in opposition to PSD).

59. *See* R.S. MELNICK, *supra* note 12, at 82-85.

60. *See, e.g., Clean Air Act Amendments of 1977 (Part 2): Hearings Before the Subcomm. on Health and the Environment of the House Comm. on Interstate and Foreign Commerce*, 95th Cong., 1st Sess. 946-47 (1977) (statement of Governor Hammond on behalf of the National Governors Association) [hereinafter *1977 House Hearings*]; 122 CONG. REC. 15,182 (May 24, 1976) (reprinting telegram of Governor Ray on behalf of the National Governors Conference).

61. *See* Oren, *Parklands*, *supra* note 25, at 357-58.

62. *See* 39 Fed. Reg. 42,516 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.21(d)(1) (1977)).

63. *See supra* note 56 and accompanying text.

and therefore conserve increment for future growth. State representatives thus urged, for instance, that EPA be given responsibility for specifying minimum levels of pollution control.[64]

Issuance of the PSD rules therefore inaugurated extended Congressional deliberation about the proper legislative response. For over two years, environmental groups, the states and industry engaged in a three-cornered battle over whether and how the Act should incorporate nondegradation. In 1976, both House and Senate passed bills codifying PSD, but a conference committee agreement between the Houses was killed by a Senate filibuster at the close of the session.[65] The fray ended in August, 1977, with the adoption of the Clean Air Act Amendments of 1977, which revised and codified EPA's program.[66]

The absence of a constituency for EPA's rules played a decisive role in this process. In theory, Congress could simply have passed a one-sentence provision authorizing EPA to "prevent significant deterioration," thus leaving it to the agency to craft a policy. Although EPA suggested this option early in the debate,[67] the option appears to have died quickly. Normally, nondegradation would be precisely the sort of issue on which such a delegation might be expected. Not only is the issue complex, so that its settlement in Congress imposes substantial decision-making costs, but its resolution in Congress necessarily results in a large number of identifiable winners and losers. This encourages legislators to wish to transfer elsewhere responsibility for a controversial decision.[68] Yet in the case of PSD an element often necessary for delegation was absent. It has been suggested that delegation is most likely to take place when the contending forces in Congress perceive that gambling on administrative agency action—in effect, a lottery—is less risky than attempting to fight out an issue to final resolution.[69] But in the PSD situation, because of *Sierra*

64. *See 1977 House Hearings, supra* note 60, at 948 ("Congress should require the Environmental Protection Agency to determine best available control technology").

65. *See* Oren, *Prevention, supra* note 21, at 10-11.

66. Pub. L. No. 95-95, § 127, 91 Stat. 631-42 (1977) (adding §§ 160-169, 42 U.S.C. §§ 7470-7479 (1982)).

67. *See Clean Air Act Amendments—1975 (Part 2); Hearings Before the Subcomm. on Health and the Environment of the House Comm. on Interstate and Foreign Commerce*, 94th Cong., 1st Sess. 1182 (1975).

68. *See* Fiorina, *Legislative Choice of Regulatory Forms: Legal Process or Administrative Process*, 39 PUB. CHOICE 33, 44-49 (1982).

69. *See id.* at 55-60; Aranson, Gellhorn & Robinson, *A Theory of Legislative Delegation*, 68 CORNELL L. REV. 1, 60-62 (1982).

Club, the lottery had already been held in the form of EPA rulemaking, and all the relevant actors felt they had lost. Thus none of them was interested in a broad delegation that might simply lead to the agency's re-affirmance of its rules.

Instead, Congress was led to adjust the specifics of the program. This necessarily involved legislating in the kind of detail normally found in agency regulations. Congressional policymakers, however, had only limited time for PSD. Nondegradation was but one of many intricate and factious issues that faced Congress in re-authorizing the Act. For instance, the need to alter the auto emission standards contained in the 1970 Amendments caused a battle royal of dimensions at least equal to that caused by PSD.[70]

PSD's supporters, however, were not willing to have the program set aside for separate legislative consideration. Rather, it was essential to the program's backers that a PSD codification be passed. Despite the existence of the EPA program, the risks of inaction fell in large part on PSD's supporters.[71] If Congress did not act, either the Ford Administration or the courts could weaken or strike down the program.

This calculus was not altered by the D.C. Circuit's affirmance of EPA's rules[72] or the election of President Carter in 1976, because the Supreme Court agreed in early 1977 to review the D.C. Circuit's decision and to hear industry's challenge to EPA's authority to promulgate nondegradation rules.[73] There was a substantial risk that the 4-4 Supreme Court deadlock in the original *Sierra Club* case would turn into a majority against PSD. First, the deadlock in *Sierra Club* may have been prompted by the arguably premature timing of the Government's appeal, rather than by the

70. *See, e.g.*, 35 CONG. Q. 1024 (May 28, 1977); 34 CONG. Q. 1036 (May 1, 1976); Shabecoff, *Senate Compromises on Car Fumes*, June 10, 1977, at 1, col. 4 ("The issue that has inspired the liveliest debate and heaviest lobbying in both houses is the proposed changes in standards governing the emission of pollutants by automobiles"). For a summary of preceding law and the changes made by the 1977 amendments in the mobile source provisions, *see* Davies, Kurtack, Leape & Magill, *The Clean Air Act Amendments of 1977: Away from Technology-Forcing?*, 2 HARV. ENVTL. L. REV. 1, 58-68 (1977).

71. *But see* R.S. MELNICK, *supra* note 12, at 99-100, 346. Melnick, though, does not mention the Supreme Court's decision to review the validity of EPA's PSD rules, *see infra* notes 73-81 and accompanying text. The result is that he overstates the significance of the existence of the PSD rules, and hence the importance of the court decision that ordered EPA to write the rules.

72. Sierra Club v. EPA, 540 F.2d 1114 (D.C. Cir. 1976) (Wright, J.), *vacated and remanded for reconsideration in light of the Clean Air Act Amendments of 1977*, 434 U.S. 809 (1977).

73. Montana Power v. EPA, 430 U.S. 953 (1977).

acceptance of the environmentalists' reading of the Act.[74] Second, the Court, while agreeing to hear industry's challenge to EPA's rules, refused to hear the appeals of environmental groups wishing more rigorous nondegradation requirements.[75] This seemed especially significant since the Solicitor-General, in telling the Court that the government did not object to granting certiorari, had equated the environmental and industry petitions.[76] Third, developments at the Court since the deadlock seemed unfavorable. The Court had recently held that EPA, in deciding whether to approve state implementation plans, could not take account of factors other than those mentioned in section 110(a).[77] Since nondegradation was not mentioned in section 110(a), it arguably followed that *Sierra Club* was wrong in holding that EPA could approve a state plan only if it found that the plan provided for nondegradation.[78] More prosaically, the only change since *Sierra Club* in the court's composition—the replacement of Justice Douglas by Justice Stevens—was at best an even trade from the environmentalists' point of view.[79] The only development in favor of PSD was that EPA had switched from opposition to advocacy of PSD.[80] The issue was therefore no longer whether the Act required a nondegradation program, but rather only whether the Act allowed such a program—a considerably easier position to advocate. In addition, EPA's support of nondegradation meant that

74. *See* [3 Current Developments] Env't Rep. (BNA) 1522, 1523 (April 20, 1973) (reporting comments of Justice Stewart); Transcript of Oral Argument at 5-10, Ruckelshaus v. Sierra Club, No. 72-804, decided *sub. nom.* Fri v. Sierra Club, 412 U.S. 541 (1973).

75. Sierra Club v. EPA, 430 U.S. 959 (1977).

76. *See* Memorandum for the Federal Respondents, Montana Power Co. v. EPA, 430 U.S. 953 (1977) (No. 76-529).

77. *See* Union Electric Company v. EPA, 427 U.S. 246, 257-66 (1976).

78. On whether the issue in *Union Electric* was distinguishable from that of PSD, see *Sierra Club*, 540 F.2d at 1129 (distinguishing *Union Electric* as involving air pollution in excess of the ambient standards); Currie, *Nondegradation and Visibility Under the Clean Air Act*, 68 CALIF. L. REV. 48, 48-49 (1980) (arguing this distinction is not supportable by the expansive language of *Union Electric*); Comment, *The Clean Air Act*, *supra* note 46, at 811-12 (suggesting that sections other than 110(a)(2) might impose obligations on EPA in approving SIPs).

79. On the other hand, it appeared likely that Justice Powell would continue not to participate in deciding the degradation issue, since he did not take part in deciding whether to hear industry's challenges to EPA regulations. Montana Power v. EPA, 430 U.S. 953 (1977). This was a boost for PSD supporters, since in *Union Electric*, Justice Powell had criticized the Clean Air Act's refusal to balance economic against environmental concerns. 427 U.S. at 269-72. He therefore would have been unlikely to support an expansive reading of the Act.

80. Hines, *supra* note 50, at 680.

PSD's supporters would benefit from whatever deference the court might give to EPA's interpretation of the statute. But since EPA's change of heart was motivated by the earlier judicial decision in favor of nondegradation, judicial deference to EPA's views might well be limited.[81]

Legislative enactment of PSD was therefore vital. But the program was in all likelihood too controversial to run the Congressional gauntlet alone. For instance, Senator Edmund Muskie, the Senate floor manager of the Clean Air Act Amendments and a firm supporter of PSD, considered PSD dangerous to his 1976 reelection campaign in Maine because of the program's possible limits on economic growth.[82] PSD supporters thus needed to splice the program to other Clean Air Act issues. The controversy over the auto emission standards was ideal for this purpose. It was clear by 1976 that auto manufacturers would not meet the 1978 model year emissions standards for new cars.[83] Thus some

81. *Cf.* Chevron, U.S.A. v. Natural Resources Defense Council, 467 U.S. 837, 864 (1984) (Stevens, J.) (refusing to attach substantial weight to an agency determination that, in the court's view, had been primarily influenced by incorrect judicial interpretation of the Clean Air Act).

82. Thus Senator Muskie remarked on the floor that

> I have been put under examination by important Maine industries and important Maine unions, to insure that I shall not lock the door on growth. So if the Senator . . . thinks I did not examine that question carefully in terms of my own political skirts, he is wrong.

123 CONG. REC. 18,160 (June 9, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 939. For an account of a tense meeting between Senator Muskie and Maine union members on the issue during Muskie's re-election campaign and of Muskie's reaction, *see* B. ASBELL, THE SENATE NOBODY KNOWS, 293-95, 303-13 (1978).

83. *See* B. Asbell, *The Outlawing of Next Year's Cars*, N.Y. Times, Nov. 21, 1976, at § 6 (Magazine), p. 41. The 1970 Amendments had required that light-duty vehicles achieve a 90% reduction in hydrocarbon and carbon monoxide emissions from 1970 model year levels by the 1975 model year, and the same reduction in nitrogen oxide emissions from the 1971 model year level by the 1976 model year. Pub. L. No. 91-604, § 6(a), 88 Stat. 1690 (amending § 202(b)(1), codified as extensively amended at 42 U.S.C. § 7525(b)(1) (1982)). The Administrator was authorized to grant a one-year waiver of the hydrocarbon and carbon monoxide standards if necessary. *Id.*, 88 Stat at 1690-91 (amending § 202(b)(5), since rewritten).

The Administrator's rejection in 1972 of requests by the auto manufacturers for waivers was set aside by Int'l Harvester v. Ruckelshaus, 478 F.2d 615 (D.C. Cir. 1973). On remand, the waivers were granted and interim standards were set. 38 Fed. Reg. 10,317 (Apr. 26, 1973). Congress then postponed the deadline for meeting the hydrocarbon and carbon monoxide standards to 1977, and the nitrogen oxides standards to 1978; as in the 1970 Amendments, the Administrator was authorized to delay the former two standards for an additional year. Energy Supply and Environmental Coordination Act of 1974, Pub. L. No. 93-319, § 5, 88 Stat. 258 (1974). EPA granted the extension. 40 Fed. Reg. 11,900 (March 14, 1975).

form of clean air legislation was needed before mid-1977, when production of the 1978 cars was scheduled to begin. Keeping PSD linked to the auto standard debate was therefore the best strategy for ensuring that PSD would be part of the final legislative package.

Accordingly, PSD's supporters fought attempts in the Senate and House—such as the Moss and Chappell Amendments—to remove PSD from the package of proposed amendments to the Clean Air Act.[84] In effect, auto emissions standards became the engine that pulled PSD through Congress. Indeed, Senator Muskie made it plain that the auto industry could expect only very limited relief if his committee's proposals on PSD and other issues were weakened on the floor.[85] Other issues, such as adjustment of the deadlines for urban areas to attain the ambient standards, rode along similarly.[86] The price, though, was that PSD had to remain part of an extremely complicated bill that gave lawmakers and staff only limited opportunity to focus on the nondegradation issue.

Another reason why a detailed codification of PSD was problematical is that EPA had little power to restrain the detail of the statute. The agency seems to have been virtually absent as a substantive participant in the struggle over the PSD codification. EPA did, it is true, offer technical analysis of the effects on eco-

84. Both amendments, printed respectively at 122 CONG. REC. 25,148 (Aug. 3, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5270-71 and 122 CONG. REC. 29,242 (Sept. 8, 1976), *reprinted in* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6286-87, would have deleted the PSD provisions of the codification in favor of a study by the National Comission on Air Quality. For the views of supporters of PSD on these proposals, *see*, for instance, 122 CONG. REC. 25,180-81 (Aug. 3, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5330-33 (remarks of Senator Muskie).

Melnick describes the House amendment as seeking to "postpone the effective date of the committee bill pending additional study." R.S. MELNICK, *supra* note 12, at 101. This might give some readers the mistaken impression that the amendment would have kept the codification in the bill, but with a delayed effective date. Such a proposal was in fact made in the Senate by Senator Allen, 122 CONG. REC. 25,541 (Aug 4, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5378, but was defeated 23 to 59. 122 CONG. REC. 25,550 (Aug. 4, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5400-01.

85. *See* 122 CONG. REC. 14,562 (May 19, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5675-76. Melnick characterizes Muskie as holding other issues "hostage to passage of a PSD program at least as strong as the EPA's." R.S. MELNICK, *supra* note 12, at 98. An interview during this period with Leon Billings, Muskie's chief staffer on Clean Air Act matters, confirms this account. *See* B. ASBELL, *supra* note 82, at 409-10 (quoting Billings as ascribing support by committee members of the PSD provisions to Muskie's expressed willingness to accept a bill limited to a single auto emissions issue).

86. Pub. L. No. 95-95, § 129, 91 Stat. 745 (1977).

nomic growth of the proposed nondegradation scheme. Since the agency's analysis showed that a nondegradation scheme could accommodate substantial growth, its participation was invaluable to PSD's supporters.[87] But there is little evidence that the agency brought to Congress' attention the many ambiguities of the 1976 conference report prior to passage of an almost identical PSD provision in 1977, or that EPA asked for alteration of provisions that were not readily administrable.[88]

EPA's absence was due to the agency's lack of political clout in 1975 and 1976, when Congress was developing the codification. Ironically, EPA's lack of influence may well have been the consequence of the independence EPA enjoyed from the Ford Administration. The Administration allowed EPA to dissent publicly from the Administration's opposition to any nondegradation policy.[89] This very independence, however, deprived EPA of any bargaining power with Congress, since EPA was not in a position to promise Administration support in exchange for concessions on the codification's provisions. Nor was the Administration willing to abandon its opposition to PSD, despite the unanimous urging of the Republican members of the Senate Public Works Committee, which had jurisdiction over Clean Air Act matters;[90] a

87. *See, e.g.*, 122 CONG. REC. 25,188-90 (Aug. 3, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5351-59; H.R. REP. NO. 294, 95th Cong., 1st Sess. 154-64 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2621-31; 122 CONG. REC. 29,547 (Sept. 9, 1976), *reprinted in* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6351 (remarks of Representative Rogers quoting EPA and Federal Energy Administration studies as showing that large plants can be built in Class II areas).

88. The main organ during 1974-77 of the environmental law trade press, Environmental Reporter, contains no mention of any such participation. Neither does Meiburg's extensive chapter on the formation of the PSD provisions. A.S. Meiburg, *supra* note 35, at 264-357. This is especially telling since Meiburg, an official of U.S. EPA's Office of Air Quality Planning and Standards,, seems to have based his account in large part on interviews with EPA staff, and can therefore be expected to have mentioned any EPA participation in drafting.

A Senate staffer at that time has told the author that he hazily recalls Robert Baum, EPA's general counsel, being given an opportunity to read the 1976 conference report for an hour "between midnight and 1 a.m." That staffer confirms that EPA was never a substantive player on PSD. *But see* R.S. MELNICK, *supra* note 12, at 103 (stating that EPA staff warned the conferees "that the scheme would be nearly impossible to administer as written").

89. *See, e.g., 1977 House Hearings*, *supra* note 60, at 1182. For the Ford Administration position, *see* [7 Current Developments] Env't Rep. (BNA) 195-96 (June 4, 1976) (urging a moratorium on all PSD rules pending study).

90. *See* [7 Current Developments] Env't Rep. (BNA) 5 (May 7, 1976) (recounting letter from five Republican Senators on Public Works Committee backing committee

short-lived compromise on the issue between the Administration and these Senators fell victim to industry opposition.[91] In addition, as we have seen, the various contending parties in Congress were united only by a firm distaste for EPA's nondegradation regulations; this left the agency with less than ideal credibility on the issue.[92]

This situation was not altered by the inauguration of President Carter in 1977 or by the new administration's endorsement of PSD.[93] By that time, the contours of the codification were fairly well set; the PSD provisions of the bill enacted by Congress in 1977 are quite similar to the Conference Committee version that was filibustered to death in 1976.[94] Instead, Congress' and EPA's attention had shifted to dealing with the many cities that had not attained the ambient standards by the statutory deadlines.[95] In addition, it was not until April that President Carter named and the Senate confirmed new senior leadership at the agency; this left little time for the agency to influence Congress before enactment of the Amendments in August.[96]

A final reason why codification was difficult is the intricacy of the trade-offs among the competing interests. While the fact of codification represented a defeat for industry, PSD's environmental supporters were unable to prevail totally.[97] In particular, the

nondegradation proposal); *id.* at 223 (June 11, 1976) (recounting meeting at which the five urged President Ford to support nondegradation proposal).

91. *See* [7 Current Developments] Env't Rep. (BNA) 532 (July 30, 1976) (discussing origins, contents and demise of proposed compromise).

92. *See supra* notes 49-69 and accompanying text.

93. *See* 1977 PUB. PAP. OF PRESIDENT CARTER 971, *reprinted in* 123 CONG. REC. 16,138 (May 23, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1770 ("I support . . .[s]trong provisions to prevent the deterioration of air quality in already clean areas").

94. The Senate staffer quoted *supra* in note 88 confirms this, saying that the participants in the 1976 conference agreement were extremely reluctant to re-open discussion of details of the proposed codification. For a comparison of the two bills, *see* Oren, *Prevention*, *supra* note 21, at 11 n.50.

95. *See, e.g.*, 123 CONG. REC. 18,038 (June 8, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 771 (statement of Senator Stafford that "[l]ast year the committee focused on control of industrial polluters in clean air areas. This year the time was spent on the issue of growth in areas not yet meeting national health standards").

96. Douglas Costle, President Carter's choice for EPA Administrator, was nominated in February 1977, *see* [7 Current Developments] Env't Rep. (BNA) 1588 (Feb. 18, 1977), and confirmed the following month. *See* 123 CONG. REC. 6417 (March 4, 1977). David Hawkins, Assistant Administrator for Air, was not confirmed until over a month after the 1977 Amendments had been signed into law. *See* 123 CONG. REC. 30,800 (Sept. 26, 1977).

97. *See, e.g., Air Pollution: Attempts Likely, Strengthen Senate Committee Nondegradation Rule* [7 Current Developments] Env't Rep. (BNA) 5-6 (May 7, 1976) (environmentalist criticism of

interests of the states had to be accommodated. To some extent, state and environmentalist aims coincided. As we have seen, both wanted the increment system to be accompanied by strong control technology requirements for new sources.[98] The result was that the codification's reach was not confined to the categories of facilities specified in EPA's rules, but rather extended to requiring permits of all new and modified major emitting facilities.[99] In addition, all such facilities were required to install the best available control technology defined on a case-by-case basis, with the category-wide new source performance standards becoming a minimum level of control, rather than, as in EPA's regulations, the norm.[100]

But on other issues states and environmental groups were in conflict. For instance, the environmentalist desire for protection of parks was contrary to the states' interest in controlling land use decisions. The result was a compromise that guaranteed Class I protection for many parks, but gave the states exclusive control of other lands.[101] Similarly, states and environmental groups had different objections to EPA's increment scheme; the states resented EPA control over classification decisions, while environmentalists opposed the states' authority to allow areas to be degraded to the ambient standards through designation as Class III.[102] Congress responded by providing increments that limit

bill reported by Senate committee); *Air Pollution: House, Senate Panels Face Conflict on Significant Deterioration Proposals* [6 Current Developments] Env't Rep. (BNA) 1259 (Nov. 7, 1975) (environmentalist criticism of both House and Senate committee proposals).

98. *See supra* notes 56-64 and accompanying text.

99. *Compare* Pub. L. No. 95-95, § 127, 91 Stat. 735, 740 (1977) (enacting §§ 165(a) and 169(1), codified at 42 U.S.C. §§ 7475(a), 7479(1) (1982)) (delineating requirements for the construction of "major emitting facilities" and defining that term to include all facilities with a potential to emit over 250 tons per year of an air pollutant) *with* 39 Fed. Reg. 42,516 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.21(d)(1) (1977)) (listing specified categories of sources that required PSD permits).

100. *Compare* Pub. L. No. 95-95, § 127, 91 Stat. 736, 743 (1977) (enacting §§ 165(a)(4) and 169(3), codified at 42 U.S.C. §§ 7475(a)(4), 7479 (3) (1982)) (requiring sources seeking PSD permits to install the "best available control technology" defined on a case-by-case basis with new source performance standards as a minimum) *with* 39 Fed. Reg. 42,514 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.01(f) (1977)) (defining the term "best available control technology" as equivalent to new source performance standards); *id.* at 42,516 (formerly codified at 40 C.F.R. § 52.21(d)(ii) (1977)) (requiring sources applying for PSD permits to install such technology).

101. *See* Oren, *Parklands*, *supra* note 25, at 358-59.

102. *See supra* notes 53-63 and accompanying text.

deterioration in Class III areas[103] and by establishing cumbersome procedural requirements for classifying areas Class III;[104] but Congress simultaneously freed the states from substantive federal supervision of re-classification decisions.[105]

Industry, too, played a role in the codification. Business groups failed in their primary goals of stopping or slowing the codification. This was due in part to inept lobbying that exaggerated PSD's likely effects;[106] one knowledgeable observer suggested later that the industry lobbyists who worked on the 1977 Amendments should have been fired.[107] But individual business groups and firms were successful in exacting concessions. Thus the effective date of the nondegradation program was adjusted by the Senate to assuage Senator Henry Jackson's concerns about the impact of the program on the expansion of the Colstrip power plant in Montana, which would supply electricity to Jackson's state of Washington.[108] Backers of the Intermountain Power Project, a planned coal-fired power plant in Utah, were able to exact a variance provision that would allow the project to be built under certain conditions even if it would violate the increments in a nearby national park.[109] Finally, plants undertaking small expansions were exempted from the obligation to demonstrate compli-

103. *See* Pub. L. No. 95-95, § 127, 91 Stat. 732 (1977) (enacting § 163(a)(3), codified at 42 U.S.C. § 7473(a)(3) (1982)).

104. Pub. L. No. 95-95, § 127, 91 Stat. 732, 733-34 (1977) (enacting § 164(a)(1), codified at 42 U.S.C. § 7474(a)(1) (1982)).

105. *Compare* Pub. L. No. 95-95, § 127, 91 Stat 732, 734-35 (1977) (enacting § 164(b)(2), codified at 42 U.S.C. § 7474(b)(2) (1982)) (allowing disapproval of redesignation only for procedural error) *with* 39 Fed. Reg. 42,515 (Dec. 5, 1974) (formerly codified at 40 C.F.R. (c)(2)(vi)(a) (1977)) (reserving the power to disapprove "arbitrary and capricious" redesignations). An attempt to preserve the Administrator's substantive authority over redesignations was defeated on the House floor. 122 CONG. REC. 29,549-50 (Sept. 9, 1976), *reprinted in* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6355-66.

106. *See* R.S. MELNICK, *supra* note 12, at 99.

107. [9 Current Developments] Env't Rep. (BNA) 1346 (Nov. 24, 1978) (quoting Walter Barber, then director of EPA's Office of Air Quality Planning and Standards).

108. *See* Pub. L. No. 95-95, § 127, 91 Stat. 741 (1977) (enacting § 169(2)(B), codified at 42 U.S.C. § 7479(2)(B) (1982)). The origins and motivations for the provision are discussed at 123 CONG. REC. 18,493, 18,498-99 (June 10, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1101-02, 1110-13.

109. *See* Pub. L. No. 95-95, § 127, 91 Stat. 741, 737-38 (1977) (enacting § 165(d)(2)(D), codified at 42 U.S.C. § 7475(d)(2)(D) (1982)). On the purpose of the provision, *see* 123 CONG. REC. 27,076 (Aug. 4, 1977) , *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 335 (remarks of Representative Waxman); Oren, *Parklands*, *supra* note 25, at 378-79. The proposed plant is described in Note, *Prevention of Significant Deterioration of Air Quality: The Clean Air Act Amendments of 1977 and Utah's Power Generating Industry*, 1977 UTAH L. REV. 775.

ance with the Class II increments under certain conditions.[110] None of these provisions has proven to have much substantive importance.[111] But, like the compromises with the states, these provisions helped to increase the complexity of the final codification. The result was a statutory scheme whose ramifications could not be foreseen.

III. THE DEFICIENCIES OF DETAIL

The codification changed the balance of power within the Federal government regarding PSD. Before Congress acted, EPA was free to devise a nondegradation program, subject only to its own ambivalence about initiating a major new policy[112] and to the possibility that the courts might find its policy flawed. The courts in turn had substantially limited their role to determining whether the Act required protection of clean air. Thus the district court opinion in *Sierra Club v. Ruckelshaus*[113] ordering a nondegradation policy gave no guidance as to what such a policy should look like,[114] and the D.C. Circuit opinion reviewing EPA's regulations in response to *Sierra Club* deferred extensively to EPA's policy choices in designing the program.[115]

The explicit incorporation of PSD into the Clean Air Act was intended, according to its supporters, to alter this balance in favor of legislative supremacy; no longer would such an important pol-

110. Pub. L. No. 95-95, § 127, 91 Stat. at 736 (enacting § 165(b), codified at 42 U.S.C. § 7475(b) (1982)). The provision is discussed at greater length *infra* at notes 229-235, 248-252 and accompanying text.

111. The utility plant in Montana, known as Colstrip #3 and #4, was ruled to need a PSD permit despite Senator Jackson's intervention. *See* 42 Fed. Reg. 60,784 (Nov. 29, 1977), *upheld in* Montana Power v. EPA, 608 F.2d 334, 357-58 (9th Cir. 1979). At least the plant ultimately received a permit. *See* Northern Plains Resource Council v. EPA, 645 F.2d 1349 (9th Cir. 1981). In contrast, the proposed facility in Utah, the Intermountain Power Plant Project, failed to obtain a variance and had to be relocated. *See* Note, *Prevention*, *supra* note 21, at 787. The 165(b) exemption for small sources has similarly had little effect, due in part to its restrictive interpretation by the D.C. Circuit. *See infra* notes 248-252 and accompanying text.

112. *See* R.S. MELNICK, *supra* note 12, at 86-96 (tracing evolution of the program).

113. 344 F. Supp. 253 (D.D.C. 1972).

114. *See* R.S. MELNICK, *supra* note 12, at 73 ("The judge [who decided Sierra Club v. Ruckelshaus] seemed to assume that the EPA knew what 'significant deterioration' meant").

115. Sierra Club v. EPA, 540 F.2d 1114 (D.C. Cir. 1976); *see* Hines, *supra* note 50, at 80-83, 86 (questioning the amount of deference given by the court to the agency).

icy be the domain of unelected bureaucrats and judges.[116] Instead, responsibility for the program would rest with Congress. The realization of this goal, however, depended on either a coherent codification or expeditious congressional action to correct defects in the scheme as they arose. Instead, the detail of the codification proved to have obscured key issues, and Congress quickly found itself unable to respond legislatively. The result was an expansion of administrative and judicial power far beyond the expectations of PSD's supporters. Moreover, accountability for the program's operation was diminished because of the difficulty of unequivocally assigning responsibility for PSD's workings to any branch of government.

A. *Finding an Effective Date*

Flaws in the codification took only weeks to materialize. The first to emerge concerned the effective date of the new program. For all the detail of the codification, Congress had failed to resolve this issue. Rather, the program contained two conflicting effective dates. The result was that EPA, rather than Congress, was able to decide when the new program would take effect.

The issue of the codification's effective date was important because the codification increased industry's obligations. For instance, the codification extended PSD's reach to all emissions of pollutants regulated under the Clean Air Act by all new and modified major emitting facilities in clean air areas, rather than, as under EPA's pre-codification program, just to the sulfur dioxide and particulate matter emissions of selected categories of industry.[117] It was therefore vital to know the effective date of the new requirements.

The House and Senate bills passed in 1977 took different approaches to this question. The House bill provided that its alterations in the PSD program would not go into effect until the states amended their implementation plans to reflect the codification's

116. *See, e.g.*, 122 CONG. REC. 25,544 (Aug. 4, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5387 (statement by Senator Muskie that "[t]he key question is this: what policy will the nation have for the next 2 years—a bureaucratic-judicial policy or a congressional policy"); 122 CONG. REC. 25,184 (Aug. 3, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5341 (statement by Senator Domenici); H.R. REP. NO. 294, 95th Cong., 1st Sess. 139 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2606 ("[T]he committee felt it was Congress' responsibility to decide these policy questions, not the courts").

117. *See supra* notes 98-99 and accompanying text.

requirements, or until EPA itself revised the state plans—a process for which the House gave twenty months, and which could take far longer.[118] The Senate bill, though, provided that its changes in PSD would largely go into effect immediately.[119]

Unfortunately, the conference committee failed to harmonize the two provisions. As enacted, Section 165(a) specifies that its requirements for the construction of major emitting facilities apply to facilities on which construction is commenced after August 7, 1977, the date the codification was signed into law.[120] In contrast, section 168(a) provides that EPA's pre-existing program would stay in effect until the states' plans were revised.[121] Thus section 165(a) follows the Senate bill, while Section 168(a) adopts the House position. Section 168(b) reconciles these provisions somewhat by specifying several sections of the codification that go into effect immediately. But section 165 is not among those listed.[122] Section 165(a) and section 168 are therefore in conflict; one section declares that the new provisions apply immediately,

118. *See* H.R. 6161, 95th Cong., 1st Sess. § 160, 123 CONG. REC. 16,649 (May 25, 1977), *reprinted at* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 3136 (proposed § 160(e)). While the citation is to the bill as reported, there was no subsequent alteration of the provision in question. Unfortunately, the House bill as passed in 1977 is not printed in the Congressional Record.

119. *See* S. 252, 95th Cong., 1st Sess. § 7, 123 CONG. REC. 18,518 (June 10, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1154 (proposed § 110(g)(7), stating that EPA's regulations would generally remain in force "except as those regulations are. . .inconsistent with the requirements of this subsection").

A bibliographic note: strictly speaking, the Senate-passed bill ought to be referred to as H.R. 6161, since the Senate set aside S.252 and passed H.R. 6161 after amending the latter to substitute the Senate bill's provisions for those passed by the House. Oren, *Prevention*, *supra* note 21, at 11 n.49. But to avoid confusion, this Article refers to the Senate-passed bill as S. 252.

120. Section 165(a), 42 U.S.C. § 7475(a) (1982). The codification by West is slightly different from the original session law, found at Pub. L. 95-95, § 127, 91 Stat. 735 (1977), in that the codification supplies the date of enactment. The same is true of §§ 168(a) and 168(b), cited *infra* at notes 121-22.

121. Section 168(a), 42 U.S.C. § 7478(a) (1982).

122. Section 168(b), 42 U.S.C. § 7478(b) (1982). Section 168(b) does exempt from the codification all facilities that commenced construction before the date of enactment. 42 U.S.C. § 7478(b) (1982). This sentence was taken from the Senate bill. S. 252, 95th Cong., 1st Sess. § 7, 123 CONG. REC. 18,518 (June 10, 1977) (proposed § 110(g)(6)(C)) But its presence in section 168 does not in itself establish the codification as applying to all sources commencing construction after the date of enactment—and therefore as immediately effective—although it does raise a negative implication to that effect. Citizens to Save Spencer County v. EPA, 600 F.2d 844, 895-96 (D.C. Cir. 1979) (dissenting opinion).

and the other that the new requirements must await each state's revision of its implementation plan.[123]

There is no way to know why the conflict occurred. One possible answer is staff inadvertence. The final conference committee report in August, 1977 had to be negotiated in great haste because of the need to pass legislation before the start of production of 1978-model year cars and before Congress' adjournment for the month.[124] It would hardly be surprising if mistakes were made in the tumult of the moment.

This explanation, however, is not entirely satisfactory. For one thing, the 1976 conference report, which had been filibustered to death, contained exactly the same conflict.[125] True, that report had also been formulated hastily—in that case, in an attempt to produce a bill prior to the 94th Congress' final adjournment—but simple inadvertence seems insufficient to explain why the error was not caught and resolved in the ten months between the two conference reports.

Rather, the discrepancy between the two provisions reflects a policy dispute buried in the detail of the final bill. This became clear when EPA began implementing the codification. The agency initially took the view that the omission of section 165(a)

123. *Spencer County*, 600 F.2d at 862 ("*It is indisputable that the one section allows what the other prohibits.*") (emphasis in original).

124. 123 CONG. REC. 36,252 (Nov. 1, 1977) (statement of Senator Muskie that "[b]ecause of the rush to produce this legislation prior to the date the automobile companies would begin to produce model 1978 cars. . .there are a number of. . .errors"); *see* B. ACKERMAN & W. HASSLER, *supra* note 14, at 48-56.

125. *See* H.R. CONF. REP. No. 1742, 94th Cong., 2d Sess. 42, 47-48, *reprinted in* 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4328, 4333-34. (The relevant pages of the conference report may also be found at 122 CONG. REC. 34,179-81 (Sept. 30, 1976)).

The 1976 conference committee version of § 160(e)(1)(A) provided that its PSD provisions, including control technology requirements, would apply to any major emitting facility on which construction commenced after June 1, 1975. *Id.* at 42, 5 1977 LEGISLATIVE HISTORY at 4328 .In contrast, proposed § 160(j), *id.* at 47-48, 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4333-34, declared that the requirements of the PSD codification would generally not apply until states had a chance to revise their implementation plans. A number of exceptions were listed in proposed § 160(j)(2), but not including 160(e)(1)(A). Rather, the only immediately effective provisions of the codification were to be §§ 160(c)(2), (d)(2)(C), (e)(2)(C)(ii)(III) and (b)(2). *Id.* at 48, 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4334. The first two of these revised the increments, *id.* at 40, 42, 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4326, 4328, while the last classified various national parks Class I. *Id.* at 39, 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4325. The third is more mysterious, since there is no subclause by that description. The reference is probably to proposed section 160(e)(1)(C)(ii)(III), which sought to impose upon federal land managers an obligation to protect air quality in national parks. *Id.* at 43-44, 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4329-30.

from the list of immediately effective provisions was accidental, and that the section should therefore take effect immediately.[126] This position was endorsed by Senator Edmund Muskie and Representative Paul Rogers, the codification's Senate and House floor managers.[127] But it drew fire from other legislators, the Department of Energy and the electric utility industry, who claimed that the exclusion of section 165(a) from section 168(b)'s list of immediately effective provisions had been intentional and that EPA's interpretation would disrupt the construction of badly-needed electric generating plants.[128]

The dispute was especially thorny because it was concrete. EPA had just established the PSD program when the Congressional debates on it took place. Thus industry attacks on the program during the debates could be dismissed as speculative. For the same reason, most industry had only limited reason to be concerned about PSD. Since PSD covers primarily new and expanded sources, the program, as Melnick points out, affects only an industry's possible expansion plans or its future competitors.[129] In contrast, PSD's effective date would determine the fate of actual projects ready to break ground; this increased lobbying pressure. PSD's supporters were at their most vulnerable in dealing with such tangible challenges. This is illustrated by the inclusion in the codification of provisions designed to assist particular projects nearing construction.[130]

Had the conflict in effective dates surfaced before codification, it might well have been thrashed out, like other provisions affecting specific projects, in the conference committee. Instead, the controversy surrounding the issue doomed attempts to resolve it legislatively after the codification. The conflict in effective dates was far from the only issue on which drafting errors occurred in the 1977 Amendments.[131] In response to these errors, a set of

126. *See* [8 Current Developments] Env't Rep. (BNA) 931 (Oct. 14, 1977) (reprinting memorandum from EPA Assistant Administrators David Hawkins and Marvin Durning to Regional Administrators).

127. 123 CONG. REC. 36,252 (Nov. 1, 1977) (statement of Senator Muskie); 123 CONG. REC. 36,332 (Nov. 1, 1977) (statement of Representative Rogers).

128. *See* [8 Current Developments] Env't Rep. (BNA) 963 (Oct. 26, 1977); *Spencer County*, 600 F.2d at 855 n.22.

129. R.S. MELNICK, *supra* note 12, at 99.

130. *See supra* notes 108-10 and accompanying text.

131. *See* 123 CONG. REC. 36,252 (Nov. 1, 1977) (statement of Senator Muskie introducing technical amendments); for another example, *see* the discussion *infra* at notes 180-85 and accompanying text regarding the definition of a "modification."

ninety technical amendments was prepared by EPA and passed by Congress in November, 1977 as a rider to amendments to the Safe Drinking Water Act.[132] To secure passage, however, the sponsors of the technical amendments were compelled to exclude the issue of section 165(a)'s effective date.[133]

EPA was therefore left on its own to grapple with the issue. The agency decided to follow neither section 165(a) nor section 168, but instead to devise a compromise set of effective dates based on various interim target dates in the process of revising state implementation plans to take account of the codification.[134] This solution satisfied neither environmentalist nor industry rep-

132. Pub. L. No. 95-190, § 14, 91 Stat. 1401 (1977).

133. *Spencer County*, 600 F.2d at 855.

134. EPA exempted from the codification's requirements those projects that received all required permits before March 1, 1978, and that commenced construction before March 19, 1979. 43 Fed. Reg. 26,401 (June 19, 1978), *codified as amended at* 40 C.F.R. § 52.21(i)(4) (1988).

The evolution of these dates is somewhat complicated. The March 1, 1978 date was first proposed by EPA in November, 1977. 42 Fed. Reg. 57,479 (Nov. 3, 1977). It then represented EPA's target date for publishing final rules instructing states how to alter their implementation plans to take account of the PSD codification. EPA also proposed to combine the March 1, 1978 permitting date with a requirement that construction commence before December 1, 1978—nine months after the March 1 date, when revisions of the state plans would be due at EPA. *Id.*

The agency, though, was not able to publish final rules until June 19, 1978. To keep the nine-month period to commence construction, EPA in its final rules postponed the date by which construction had to commence to March 19, 1979. 43 Fed. Reg. 26,391 (June 19, 1978). The March 1, 1978, deadline for obtaining a permit, though, was retained. *Id.* But an exception from the March 1 date was made for two projects that, in EPA's judgement, would have received a permit by the deadline had not EPA extended the public comment period on their applications. *Id.* at 26,391 (codified as amended at 40 C.F.R. § 52.21(i)(4)(iii) (1988)); *Spencer County*, 600 F.2d at 858, 882-88. This exception was later liberalized. *See* 43 Fed. Reg. 58,188 (Dec. 13, 1978) (interpreting EPA rules to give these two facilities the same period after permit issuance to commence construction as a project that received a permit just before March 1); 44 Fed. Reg. 42,722 (July 20, 1979) (proposing a further liberalization of the construction commencement date for these two sources); *see also* Roosevelt Campobello International Park Commission v. EPA, 684 F.2d 1034 (1st Cir. 1982) (holding premature a challenge to a permit for one of the grandfathered projects).

Even leaving aside these two projects, EPA's dates markedly departed from section 165(a), since the March 19, 1979, deadline for commencing construction was more than nineteen months after the date prescribed by that section. It is hard to judge how EPA's solution compares with the date prescribed by section 168(a), since there is no way to know when states would have submitted their plans, when EPA would have acted on the plans, or when EPA would have promulgated plans of its own for states without adequate submissions. But it is fair to guess that, at best, this process would have taken close to two years from the June, 1978, promulgation of regulations; given that the regulations had to be re-issued in August, 1980, because of judicial disapproval, section 168 could have postponed implementation far longer.

resentatives. The former attacked EPA's response as a "cave-in" to industry pressure that would exempt over one hundred sources from the program,[135] while the latter criticized the costs EPA's solution would impose on projects that were close to commencing construction.[136] Not even industry exempted by EPA's approach could be altogether happy; given the language of section 165(a), a source relying on EPA's solution to commence construction without complying with the codification was taking a substantial risk that the agency's approach, and therefore the source's construction, would be found illegal.

The uncertainty was not resolved until a year later, when a divided panel of the D.C. Circuit upheld EPA's approach in *Citizens to Save Spencer County v. EPA*.[137] The majority's analysis was ironic in light of the desire of PSD's sponsors for legislative specification. The court found that sections 165 and 168 were irreconcilable, and that no means existed to give precedence to one over the other.[138] This lack of legislative guidance did not mean, however, that the issue had to return to Congress for resolution. Rather, the court held that EPA's general rulemaking authority under the Act gave it the power to fashion a solution that reasonably balanced the conflicting goals of section 165 and 168.[139] Indeed, according to the court, the agency had an obligation to do so, since it was clear that Congress intended the codification to take effect at some point but had opted neither for section 165 or section 168.[140]

In effect, the court treated the issue much as if Congress had either explicitly delegated the issue's resolution to EPA or implicitly delegated it by leaving a gap in the statutory scheme.[141]

135. *See* [8 Current Developments] Env't Rep. (BNA) 963 (Oct. 21, 1977); *id.* at 1002 (Nov. 4, 1977); *id.* at 1033 (Nov. 11, 1977); *Spencer County*, 600 F.2d at 859.

136. *Spencer County*, 600 F.2d at 859 n.53; 43 Fed. Reg. 26,390 (June 19, 1978). Industry seems to have been somewhat less aggrieved than environmental groups, who filed the challenge to EPA's compromise solution. *Spencer County*, 600 F.2d at 857.

137. 600 F.2d 844 (D.C. Cir. 1979). Judge Wilkey wrote for the majority, joined by Judge Leventhal, who added a concurring opinion. *Id.* at 891. Judge Robinson dissented, urging that section 168 controlled and that industry's interpretation was therefore correct. *Id.* at 891.

138. *Id.* at 860-72.

139. *Id.* at 873-74.

140. *Id.* at 872.

141. *See* Chevron, U.S.A. v. Natural Resources Defense Council, 467 U.S. 837, 843-44 (1984) (upholding EPA's resolution of an issue on which, according to the court, Congress had not spoken).

Thus, instead of providing legislative guidance, the detail of the statutory scheme left EPA in precisely the same position it would have been in had Congress had not acted at all. By obscuring a key issue, the codification failed to give coherent direction to the agency and increased rather than decreased uncertainty.

B. *Setting the Baseline Date*

Congress' failure to resolve PSD's effective date in the technical amendments sounded the death-knell for legislative alteration of the codification. To this day, Congress has been unwilling to plunge anew into the PSD thicket. This is largely due to the absence of the driving force supplied in 1975-77 by the need to alter the auto standards. In the absence of action-forcing issues, like the auto standards controversy, difficult questions like PSD can be deferred indefinitely.[142] Moreover, the coalition backing PSD quickly weakened with the renewal of the energy crisis in 1979 and the election of Ronald Reagan in 1980. From then through 1982, PSD's backers had their hands full blocking efforts to weaken the Clean Air Act.[143] PSD has therefore not been altered since the technical amendments.

This result perhaps confirms the political savvy of PSD's sponsors in insisting in 1975-77 that the program remain linked to the auto standards and other Clean Air Act issues.[144] Had PSD's sponsors consented to splitting off the issue, PSD might never have been codified. Yet the impossibility of amending the codifi-

142. Until 1989, the issue that came closest to forcing action was the expiration in 1982 and 1987 of the statute's deadlines, § 172(a), 42 U.S.C. § 7502 (1982), for attaining the primary ambient standards. Thus proponents of legislative alteration warned in 1982 that dire consequences would occur if the Act were not amended. *See* 182 CONG. Q. ALMANAC 426; 40 CONG. Q. 1019 (May 1, 1982). Their evident hope was that a deadline extension would set the stage for action on other issues. But Congress and EPA found ways to resolve the passage of the 1982 deadline without comprehensive legislation. *See* Pub. L. 98-45, 97 Stat. 226 (1983) (barring EPA from expending money to impose sanctions against nonattaining areas); 48 Fed. Reg. 50,686 (Nov. 2, 1983) (announcing sanctions would not be imposed against areas making good faith attempts to attain the standards). Similarly, the 1987 deadline has not, at this writing, resulted in comprehensive legislative action, although concern has been increasingly voiced over the effects of inaction. *See* F. Friedman & E. Rosenberg, *Why Industry Needs a New Clean Air Act*, ENV'T F. at 6 (May-June 1989).

The Bush Administration's endorsement of comprehensive amendments may well result in the passage of amendments this year. It is not yet clear, though, whether PSD will be modified in any final bill that emerges.

143. *See* 1982 CONG. Q. ALMANAC 425. In the interests of full disclosure, the author must confess that he played a modest role in this process as a Congressional staffer.

144. *See supra* notes 83-86 and accompanying text.

cation meant that the detail of the program could not be adjusted during the crucial period when the codification was being put into effect. It therefore became all the more important that the original codification be correct.

But, as we have already seen in the case of the program's effective date, the codification was imperfect. In that instance, EPA had been able to resolve the difficulty by itself, albeit at the considerable cost of eighteen months of uncertainty. But EPA's solution to the program's effective date was successful only because the statute was internally inconsistent on the issue. This inconsistency allowed the D.C. Circuit to give EPA flexibility in resolving the issue. In other areas, though, Congress had been all too explicit on matters that it evidently had not completely thought through. The result was to hamper EPA in effectively enforcing the scheme and to diminish accountability for the program's operation.

One example is the contention over the baseline date: the date when increases in emissions begin to consume the increments. Here Congress chose to adopt an approach that increased EPA's administrative burdens without any apparent offsetting benefit. Indeed, the primary Congressional explanation showed that PSD's sponsors did not understand the program they were enacting.

EPA's pre-codification regulations counted against the increments all actual increases in emissions after January 1, 1975, except increases due to sources that had received permits before this date but had not yet gone into operation.[145] By contrast, Congress, in codifying the program, refused to set a uniform date for the increments to become applicable, but instead allowed this date to vary among clean air areas according to the date of the first PSD permit application in the area.[146]

145. 39 Fed. Reg. 42,513-15 (Dec. 5, 1974) (formerly codified at 40 C.F.R. §§ 52.21(b)(1) (defining baseline concentration as including sources granted approval before January 1, 1975), 52.21(d)(2)(i) (providing that increment would be consumed by new growth not included in the baseline concentration) (1977)).

146. Pub. L. No. 95-95, § 127, 91 Stat. 741 (1977) (enacting § 169(4)). This section defines the term baseline concentration as "the ambient concentration levels which exist at the time of the first application for a permit in an area subject to this part." 42 U.S.C. § 7479(4) (1982).

Congress' varying baseline date approach came from the Senate bill.[147] Under the workings of that bill, a varying baseline date was at least plausible. The Senate bill provided that increment would be consumed only by sources that needed PSD permits.[148] Consequently, there was arguably no purpose in starting increment consumption in a clean air area before the first application for a PSD permit was filed for that area, since there would be nothing to count against the increments before that time.[149]

As enacted, though, the codification provided that increment is consumed by all increases in emissions after the baseline date, even increases that do not require PSD permits[150]—such as increases from projects that are too small to need permits, or increases that result from a change in hours of operation or fuel type at a major emitting facility rather than from the physical alteration of a facility.[151] Under this scheme, a variable baseline date treats similarly-situated areas differently according to the happenstance of the date of the first PSD permit. Imagine Areas *A* and *B*, both with sulfur dioxide concentrations of thirty micrograms on the date of enactment, both subject to the Class II increment of twenty micrograms,[152] and both experiencing five micrograms of growth from non-PSD sources between 1977 and the present. In Area *A*, a source called New Power Plant, to consume seven micrograms, applies for a PSD permit in 1977; in Area B there are no applications until 1990, when a permit is sought by a facility identical to New Power Plant.[153] By 1990, both areas will have the same twelve micrograms of air pollution growth; but in Area A, there will have been five more micrograms

147. *See* S. 252, 95th Cong., 1st Sess. § 42(a) (proposed § 302(l)), 123 CONG. REC. 18,528 (June 10, 1977).

148. *Id.*, § 7 (proposed § 110(g)(2)), 123 CONG. REC. at 18,516-17 (June 10, 1977). For further discussion of this feature of the Senate bill, *see* Oren, *Prevention*, *supra* note 21, at 58-59.

149. *But see infra* notes 162-65 and accompanying text (discussing the fact that, even under the Senate bill, increment could be consumed by some sources that had received permits before the baseline date).

150. Pub. L. No. 95-95, § 127, 91 Stat. 732 (1977) (enacting § 163(a), codified at 42 U.S.C. § 7473(a) (1982)) (establishing "maximum allowable increases").

151. *See* Oren, *Prevention*, *supra* note 21, at 13-17 (discussing the coverage of the permit requirement).

152. Section 163(b)(2), 42 U.S.C. § 7473(b)(2) (1982).

153. The hypothetical is not far-fetched. There are still areas in which the first application for a PSD permit has not been filed, and in which, therefore, increment consumption has not begun. *See infra* note 178 and accompanying text.

of increment consumption. As EPA argued, this difference in treatment seems hard to justify.[154]

EPA instead ruled in its post-codification regulations that all areas would have the baseline date of August 7, 1977, the date of the codification's enactment.[155] This approach (the "uniform baseline date") had two advantages in addition to treating similar areas similarly. First, it is more environmentally protective than the varying baseline date approach, since it ensures that all post-codification growth is counted against increment consumption, regardless of when the first application for a PSD permit was received.[156] Second, it is far simpler to administer. Under a uniform baseline date approach, the only question to be answered in deciding whether an increase consumes increment is whether the increase occurred after the date of codification. Under a varying baseline date approach, by contrast, EPA and the states must keep track not only of the date of the first PSD permit application in each area, but also the exact boundaries of each area and all other areas affected by the emissions from the first applicant.[157]

These disadvantages of the varying baseline date approach are not offset by any benefits. The stated Congressional rationale, found in the Senate committee report, was that the varying baseline date approach would allow the baseline concentration in each area to be determined by the results of actual air quality monitoring data collected by the first proposed source prior to filing its

154. Alabama Power Co. v. Costle, 636 F.2d 323, 374-75 (D.C. Cir. 1979) (quoting EPA's brief).

155. 43 Fed. Reg. 26,383, 26,404 (June 19, 1978) (formerly codified at 40 C.F.R. §§ 51.24 (b)(11), 52.21 (b)(11) (1978) (defining "baseline concentration)). The agency's rationale appears at 43 Fed. Reg. 26,400 (June 19, 1978).

156. Hypothesize an area with air quality of ten micrograms on the date of codification. Several minor sources, too small to require permits, then locate in the area, adding three micrograms. Under EPA's approach, these sources would consume increment, since the increases took place after the date of enactment. Under a literal reading of the statute, though, these increases would not count against the increments since no major source had yet applied for a PSD permit.

157. *See* 43 Fed. Reg. 26,400 (June 19, 1978). Melnick suggests that another difficulty with the varying baseline date approach is that it allows sources located in one area to degrade air quality in another without consuming increment there. R.S. MELNICK, *supra* note 12, at 109. This is overstated. Under EPA's rules, an application to build sets the baseline date both in the area in which the source is located and any other area within the same state that would be affected by the source's emissions. *See* 40 C.F.R. §§ 51.166(b)(15)(i), 52.21(b)(15)(i) (1988). The exception for out-of-state areas is not due to the varying date, but rather to EPA's desire to preserve as much autonomy as possible for individual states. *See* Oren, *Prevention*, *supra* note 21, at 87-88.

application.[158] The D.C. Circuit, in later ordering EPA to use the varying baseline date approach, labeled this rationale "a sound, practical consideration."[159] But it is hard to see why PSD's backers thought it important to have the baseline concentration determined by actual data. In a system based on increments, such as PSD, the baseline concentration is irrelevant—all that matters are the changes in pollutant concentrations that occur after the date the baseline is set.[160] Thus varying the baseline date for the sake of using monitoring data to determine the baseline concentration has little or no benefit.[161]

Furthermore, it is not even possible for the baseline concentration to be accurately determined from the first applicant's monitoring data. One reason is that EPA had been operating PSD for over two years before Congress codified it.[162] It was therefore necessary for Congress to decide the extent to which pre-codification sources were to be included in the baseline concentration and therefore exempted from increment consumption. Congress

158. S. REP. No. 127, 95th Cong. 1st Sess. 98 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1472.

159. Alabama Power Co. v. Costle, 636 F.2d 323, 375 (D.C. Cir. 1979).

160. *See Clean Air Act (Part 1): Hearings Before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. 354 (1982) (statement of David Hawkins, former EPA Assistant Administrator for Air, that "we do not need to identify the actual baseline through monitoring") [hereinafter *1982 House Hearings*]. It might seem that monitoring of the baseline concentration would be necessary to prevent violation of the ambient standards in situations in which the baseline concentration is so high that the sum of the baseline and the increment would exceed the standards (for instance where the baseline concentration is seventy micrograms per cubic meter, the increment is the twenty permitted by the Class II increment and the air quality standard the eighty allowed by the sulfur dioxide ambient standard). This would be true if the first source in an area were the only one required to submit monitoring data. Instead, the Act requires that each applicant for a PSD permit provide a year of monitoring data, and prohibits a PSD permit for any new source that might violate the standards, regardless of whether increment is available. These provisions give permit-granting officials both a factual basis to judge whether a new source would cause a violation and legal ground to prevent a violation. But they are not dependent on any particular definition of the baseline concentration.

161. Melnick appears to see a link between the use of monitoring data and Congress' decision to have the increments be binding ceilings on air quality. R.S. MELNICK, *supra* note 12, at 107-10. The latter decision means that an area that violates the increments must roll back emissions. In contrast, EPA's pre-codification regulations had regarded the increments as determining only whether a new source could be located. But the two issues are not necessarily linked. Even if the increments are binding ceilings, monitoring data are not needed to determine if the increments are being violated. In fact, given the difficulties in calculating increment consumption, monitoring data are unlikely to be very useful on this point.

162. *See supra* note 48 and accompanying text.

resolved the issue by including in the baseline concentration major emitting facilities that had commenced construction before January 6, 1975 ("pre-January 6, 1975 commencers"), the effective date of EPA's pre-codification program,[163] and by excluding from the baseline concentration—and therefore counting against increment consumption—all major emitting facilities that commenced construction thereafter ("post-January 6, 1975 commencers").[164]

This provision, like the varying baseline date approach, came from the Senate bill.[165] But it made it impossible to use monitoring data from the first applicant to determine the baseline concentration, as the Senate committee had wanted. Using such data is practicable only if all baseline sources, but no increment-consuming sources, are in operation when the monitoring is being conducted. There is no guarantee, however, that all pre-January 6, 1975 commencers would have gone into operation before the filing of the first application for a PSD permit under the codification. Such sources might then still be undergoing construction. Moreover, some post-January 6, 1975 commencers might have succeeded in going into operation before the first permit application was filed under the codification. Reliance solely on the monitoring data gathered on the date of the first permit application could therefore lead to an inaccurate determination of the baseline concentration. As a result, the baseline concentration can be correctly determined only through air quality modeling—computerized simulations—that includes all pre-January 6, 1975 commencers and excludes all post-January 6, 1975 commencers. Hence, even a varying baseline date approach would not make it possible for the baseline to be measured by monitoring.

A second reason why the baseline concentration cannot accurately be measured by monitoring comes from a provision that originated in the House bill. The House drafters of the 1977 Amendments were opposed to the use of "tall stacks"—giant chimneys that lower levels of pollutants immediately around the

163. *See* 39 Fed. Reg. 42,514 (Dec. 5, 1974) (declaring that "these regulations will become effective January 6, 1975").

164. Pub. L. No. 95-95, § 127, 91 Stat. 741 (1977) (enacting § 169(4), codified at 42 U.S.C. § 7479(4) (1982)).

165. *See* S. 252, 95th Cong., 1st Sess. § 42(a) (proposed § 302(l), 123 CONG. REC. 18,528 (June 10, 1977)). The House bill had contained a somewhat different provision for exempting such sources. *See* Citizens to Save Spencer County v. EPA, 600 F.2d 844, 869 n.114 (D.C. Cir. 1979).

source, but increase long-range transportation of pollution that can lead to problems like acid rain.[166] Section 123 of the Act, included in the 1977 Amendments, discourages the use of tall stacks by prohibiting many sources from receiving credit for stack height greater than "good engineering practice."[167] A source with a thousand-foot tall stack may therefore be treated as though the stack were only two hundred feet tall. In effect, a fictitious assumption is made about the source. This assumption, though, can be reflected in the baseline determination only through modeling that assumes the stack has only the height dictated by "good engineering practice"; a determination based on monitoring, which measures actual conditions, necessarily reflects the full height of the stack.

Thus the varying baseline date approach is not supported by Congress' stated rationale. In this instance, Congress appears to have been overwhelmed by the technical as well as legal complexity of its own design; to have failed to understand how its increment scheme worked or how the various portions of the codification would interact. Yet EPA was unable to bring its expertise to bear in the legislative process. Nor was the agency able to secure a technical amendment changing the baseline date provision, even though EPA Administrator Douglas Costle had signed the agency's proposal to establish a uniform baseline date the day before the package of technical amendments passed Congress.[168]

Congress' failure to change the varying baseline date approach in the technical amendments meant that EPA, in attempting to defend its uniform baseline date rule before the courts, was left only with the argument that its approach made more policy sense than the literal terms of the statute and that it carried out "the fundamental Congressional intent to prevent significant deterio-

166. *See* H.R. REP. No. 294, 95th Cong., 1st Sess. 84-87 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2551-54; R.S. MELNICK, *supra* note 12, at 120-21.

167. 42 U.S.C. § 7423 (1982), *added by* Pub. L. No. 95-95, § 121, 91 Stat. 721-22 (1977). For a thumbnail summary of the problems that have been encountered in defining this term, *see* Oren, *Prevention*, *supra* note 21, at 42 n. 178.

168. The proposal, which called for a uniform baseline date of January 6, 1975, *see* 42 Fed. Reg. 57,480 (Nov. 3, 1977), was signed October 31, 1977. *Id.* at 57,483. The technical amendments were passed by each House the following day. *See* 123 CONG. REC. 36,330-34 (Nov. 1, 1977); 123 CONG. REC. 36,250-59 (Nov. 1, 1977).

ration."[169] In effect, the agency wished the court to imply into the Act a provision—sometimes called a "Henry VIII clause"—giving the agency the power to vary its terms if necessary.[170] Perhaps Congress should have included such a clause in the PSD codification. But a court could not imply a Henry VIII clause without redistributing the balance of power between EPA and Congress and undercutting Congress' intent in codifying PSD of substituting legislation for administrative regulation.[171] Not surprisingly, in *Alabama Power v. Costle*, the D.C. Circuit rejected the agency's argument as "a remarkable assertion of administrative power to revise what Congress has wrought," holding instead that EPA was bound by the language of the statute and was therefore obliged to use the varying baseline date approach.[172]

EPA subsequently followed *Alabama Power* and adopted the varying baseline date approach.[173] Indeed, the agency has taken the approach to an extreme. First, EPA has interpreted the statutory language to allow an area to have different baseline dates for different pollutants.[174] If, for instance, the first source in an area emits substantial quantities of sulfur dioxide, but not particulate matter, the baseline concentration will be set only for the former. Second, states have been allowed to alter area boundaries to manipulate the baseline date. If the first source in an area affects air quality in only part of the area, then the state may subdivide the area so that the baseline date is set only in the portion affected by the source.[175] Thus, for example, Colorado has treated a 1977 permit application for a major source of sulfur dioxide as setting the baseline date for that pollutant for the entire state. For particulate matter, in contrast, the state has subdivided itself into twelve areas with different baseline dates for each.[176] In Massa-

169. Brief for Respondents at 161-63, Alabama Power Co. v. Costle, 636 F.2d 323 (D.C. Cir. 1979) [hereinafter EPA Brief in *Alabama Power*].

170. *See* COMMITTEE ON MINISTERS' POWERS, *supra* note 13, at 36-37, 59-61. For a summary and critique, *see* Jaffe, *Invective and Investigation in Administrative Law*, 52 HARV. L. REV. 1201 (1939).

171. *See supra* note 116 and accompanying text.

172. 636 F.2d 323, 374-75 (D.C. Cir. 1979).

173. *See* 45 Fed. Reg. 52,731, 52,737 (Aug. 7, 1980) (codified at 40 C.F.R. §§ 51.166(b)(15), 52.21(b)(15) (1988)) (defining baseline area).

174. 45 Fed. Reg. 52,717 (Aug. 7, 1980).

175. *See* 45 Fed. Reg. 52,715-16 (Aug. 7, 1980). Section 107(b), 42 U.S.C. § 7407(b) (1982), gives states general authority to subdivide areas with EPA's permission.

176. *See* Griffith, *The Colorado Prevention of Significant Deterioration of Air Quality Program*, 12 COLO. LAW. 1983, 1984 (1983).

chusetts, there are said to be one hundred different baseline areas.[177] As of 1988, some areas, in fact, still did not have baseline dates at all.[178]

These variations may, as EPA has suggested, promote state authority. The ability to manipulate the baseline date gives states some extra latitude in controlling increment consumption and thus in deciding how much growth to allow. For instance, Colorado's decision to set a state-wide baseline date of 1977 for sulfur dioxide sharply limits increases in concentrations of that pollutant, since all post-1977 increases will count against increment. By contrast, Colorado's localized approach to setting the baseline date for particulate matter allows the concentration of that pollutant to increase in some areas without triggering increment consumption so long as no application is received to construct or modify a major emitting facility.[179]

There is, though, no indication that Congress intended that the varying baseline date approach should serve this purpose or that Congress weighed this purpose against the disadvantages of the varying baseline date approach. Thus EPA's response to *Alabama Power*, like the varying baseline date approach itself, again illustrates how a high level of statutory detail, no less than a broad delegation, can lead to unexpected consequences as the complexity of the statute outstrips the capabilities of the legislature and agency.

C. *Defining "Modification"*

The discussion thus far illustrates both the imperfections of the original codification and the futility of expecting subsequent legislation to iron out the difficulties. There is, in fact, one issue on which subsequent legislation increased the inflexibility of the original scheme. This was the matter of deciding which modifications of existing major emitting facilities would require a PSD permit, and which facilities would therefore have to both install the best available control technology for the expansion and demonstrate compliance with the increments. Here the technical amendments substituted a rigid provision of questionable wisdom for agency discretion.

177. A.S. Meiburg, *supra* note 35, at 469.
178. 53 Fed Reg. 3705 (Feb. 8, 1988); Oren, *Prevention*, *supra* note 21, at 27 n.103.
179. *See supra* note 156 and accompanying text.

The codification, as enacted in August, 1977, required a PSD permit for the "construction" of a "major emitting facility."[180] The latter term was defined as comprising sources in twenty-eight categories with the potential to emit one hundred tons per year of an air pollutant, and all other sources with the potential to emit two hundred fifty tons per year (hereafter "the 100/250 ton threshold).[181] But the term "construction" was left undefined. Thus it was not clear whether and which modifications of existing major emitting facilities needed permits.

In revising its regulations after the codification, EPA elected to use the same 100/250 ton threshold for modifications as for construction of new sources (the "major-increase" approach).[182] This approach had the virtue of consistency. Just as a brand new source with the potential to emit ninety tons of sulfur dioxide would escape coverage, so too would an existing major emitting facility that was expanding to add ninety tons of sulfur dioxide emissions potential. Moreover, the codification's expansion of the program's scope made it all the more important that EPA and the states be able to focus on the projects with the largest increases in emissions and hence the greatest potential to degrade air quality.

Given the statute's lack of clarity, EPA's position might well have prevailed as a reasonable resolution of a gap in the statutory scheme.[183] This is especially possible because Senator James Buckley, a leading supporter of PSD, had told the Senate during debates on the program that existing sources would need a permit only if a "major expansion program" were undertaken.[184]

180. Pub. L. No. 95-95, § 127, 91 Stat. 735 (1977) (enacting § 165(a), codified at 42 U.S.C. § 7475(a) (1977)).

181. Pub. L. No. 95-95, § 127, 91 Stat. at 740 (enacting § 169(1), codified at 42 U.S.C. § 7479(1) (1982)). On the term "potential to emit" *see infra* Part III-D. On the lengthy controversy over the meaning of the term "source", *see* Stukane, *EPA's Bubble Concept After* Chevron v. NRDC*: Who is to Guard the Guards Themselves?*, 17 NAT. RESOURCES LAW. 647 (1985).

182. 43 Fed. Reg. 26,382, 26,385, 26,403, 26,406 (June 19, 1978) (formerly codified at 40 C.F.R. §§ 51.24(b)(2), 51.24(i), 52.21(b)(2), 52.21(i)). The first and third of these define the term "major modification" while the second and fourth stipulate that a "major modification" requires a PSD permit.

183. *See* Chevron, U.S.A. v. Natural Resources Defense Council, 467 U.S. 837, 842-45 (1984).

184. Alabama Power v. Costle, 636 F.2d 323, 400 n.47 (D.C. Cir. 1979). Buckley, despite his generally conservative positions, was a strong supporter of the PSD program. *See* 122 CONG. REC. 23,987 (July 27, 1976) *reprinted at* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4520-22; *see generally* B. ASBELL, *supra* note 82, at 137-38 (reprinting interview with Senator Buckley).

But just as EPA was proposing the major-increase approach, Congress barred its use by passing the technical amendments.[185] One of the amendments defines the term "construction" to include a modification within the meaning of section 111(a), which establishes the new source performance standard program.[186] Section 111(a) in turn defines a modification as a physical change that results in "any increase in pollutants."[187] Thus, under the technical amendments, any increase in pollutants, no matter how small, resulting from a physical change at a major emitting facility constitutes a "modification" and requires a PSD permit. Accordingly, the D.C. Circuit in *Alabama Power* struck down EPA's attempt to use the 100/250 ton threshold as a means of defining a modification. The court held instead that all but de minimis increases at a major emitting facility require permits if the increases result from physical changes (the "any-increase approach").[188]

As was the case with the rest of the technical amendments, Congress did not explain its decision. It is therefore hard to understand why Congress adopted the any-increase approach, especially since EPA itself helped prepare the technical amendments.[189] On the one hand, it is easy to imagine why EPA might have wanted a statutory definition of "construction"; without one, a court could conceivably have interpreted the term as covering only new facilities and thus excluding expansions of existing facilities from PSD coverage.[190] Yet it is hard to see why EPA would have proposed a provision that rendered illegal the agency's own preferred approach to the definition of "modification". The present author has been unable to find any participant in the drafting of the technical amendments who can shed light

185. On the timing of EPA's proposed rules and the technical amendments, *see supra* note 168.

186. Pub. L. No. 95-190, § 14(a)(54), 91 Stat. 1402 (1977).

187. Section 111(a)(4), 42 U.S.C. § 7411(a)(4) (1982).

188. Alabama Power Co. v. Costle, 636 F.2d 323, 399-403 (D.C. Cir. 1979).For further discussion of EPA's authority to exempt so-called de minimis increases, *see infra* notes 261-75 and accompanying text.

189. *See* 123 CONG. REC. 36,252 (Nov. 1, 1977) (statement of Senator Muskie).

190. This might especially have been possible because EPA's pre-existing regulations defined "construction" and "modification" separately. 39 Fed. Reg. 42,514-15 (Dec. 5, 1974) (formerly codified at 40 C.F.R. §§ 52.01(d), 52.21 (b)(6) (1977)). Thus a statutory scheme covering only "construction" could be held to exempt modifications. On the other hand, section 165(b), 42 U.S.C. § 7475(b) (1982), discussed at greater length *infra* at notes 229-35 and 248-51, specifically exempts some modifications from some of the codification's requirements, thus perhaps evidencing a background understanding that Congress believed that modifications were generally covered.

on this question. But perhaps the answer is that the complexity of the amendments had overwhelmed the agency as well as Congress; that EPA officials, simultaneously grappling with a host of implementation issues raised by other portions of the 1977 Amendments,[191] simply overlooked the impact of the technical amendment's definition of "construction" on the use of the 100/250 threshold for modifications. Alternatively, EPA may have believed that, as with the definition of the baseline date, the literal terms of the statute did not matter because EPA had inherent power to alter them in ways that carried out the codification's "fundamental intent"; at least, that is the implication of EPA's very short discussion of the modification issue in its brief to the D.C. Circuit.[192] In effect, then, the very intricacy of the codification caused EPA to lose respect for the statute's literal terms.

It is difficult to rationalize the choice of the any-increase approach. A new source that emits ninety tons per year of an air pollutant has the same incremental effect on air quality as an existing source that has decided to expand its emissions by that amount. It therefore seems odd to subject the latter, but not the former, to new source review.[193] If, as suggested by some, a purpose of PSD's enactment was to favor the Snowbelt over the Sun-

191. *See* [8 Current Developments] Env't Rep. (BNA) 1818 (March 24, 1978) (discussing concerns about implementation of 1977 amendments). For instance, the agency was attempting to draft guidelines for states in revising their implementation plans for "nonattainment areas"—those which violate the ambient air quality standards—pursuant to § 129 of the 1977 Amendments, *see, e.g.*, 43 Fed. Reg. 21,673 (May 19, 1978), and was trying to decide how to fulfill the requirement of the 1977 Amendments that the new source performance standard for coal-fired power plants be revised. *See* B. ACKERMAN & W. HASSLER, *supra* note 14, at 79-104.

192. *See* Brief for EPA in *Alabama Power*, *supra* note 169, at 51-52.

193. Perhaps the distinction makes sense if Congress were more concerned about increased air pollution in populated than unpopulated areas. Existing sources are more likely than new sources to be located in populated areas, where a ninety-ton increase in emissions will have more impact on health than in uninhabited areas. But the PSD scheme was motivated in large part by a desire to protect parklands, *see* § 160(1), 42 U.S.C. § 7470(1) (1982), which new and existing sources affect equally.

Similarly, it could be argued that the Congressional approach can be justified by assuming that marginal damage rises with emissions. Thus a ninety-ton expansion of an existing source is of greater significance than the brand new source emitting ninety tons. The problem with this reasoning is that it is antithetical to an increment scheme like PSD, since such a scheme treats increases in air quality concentrations alike regardless of the baseline concentration.

belt,[194] Congress' approach to modifications is inexplicable; reviewing small increases at existing sources, but not small new sources, disadvantages states in the East and Midwest having a concentration of older industrial facilities.[195] In addition, the environmental benefits of the "any-increase" approach are meager, since small increases from existing sources account for only a minor share of new emissions.[196]

One possible explanation for adoption of the any-increase approach is that Congress wished to draw the line between covered and exempt projects on the basis of the applicant's financial ability. While a new ninety-ton source is, all other things being equal, more harmful to air quality than a seventy-ton expansion at an existing major emitting facility, it seems probable that the owner of the latter, larger, source is in a better position to meet the costs of applying for a permit and installing the best available control technology.[197]

This explanation is congruent with the separate statutory provision that defines a major emitting facility as one that exceeds the 100/250 ton threshold for any pollutant, whether or not the pollutant is regulated under the Act.[198] Under this provision, source *A* that emits 99 tons of sulfur dioxide, a regulated pollutant, is exempt; but source *B* that emits 99 tons of sulfur dioxide and 300 tons of carbon dioxide, an unregulated pollutant is covered. This seems odd at first glance; only emissions of regulated pollutants are covered by the best available control technology and incre-

194. R.CRANDALL, CONTROLLING INDUSTRIAL POLLUTION: THE ECONOMICS AND POLITICS OF CLEAN AIR 125-29 (1983); Navarro, *The Politics of Air Pollution*, 59 PUB. INTEREST 36 (1980); *see* Oren, *Prevention*, *supra* note 21, at 111-12.

195. This did not go unnoticed by eastern states. *See* [10 Current Developments] Env't Rep. (BNA) 1423, 1424 (Oct. 19, 1979) (quoting R. Peter Fairchild, representing northeastern states); *1982 House Hearings*, *supra* note 160, at 352 (statement of John Quarles, representing the National Environmental Development Association).

196. *See* EPA, ANALYSIS OF NEW SOURCE REVIEW (NSR) PERMITTING EXPERIENCE 15, 89 (PB 83 115 972/LP, PB 83 115 980/LP) (1982) [hereinafter 1982 NEW SOURCE REVIEW ANALYSIS].

197. *See Alabama Power*, 636 F.2d at 353 (suggesting that Congress took financial ability as well as emissions into account in delineating the scope of the program).

198. *See* § 169(1), 42 U.S.C. § 7479(1) (1982) ("The term 'major emitting facility' means any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of *any* air pollutant . . . or any other source with the potential to emit two hundred and fifty tons per year or more of *any* air pollutant") (emphasis added); Oren, *Prevention*, *supra* note 21, at 13-14 n.62(2).

ment provisions of the PSD scheme.[199] Subjecting source *B* to the program, therefore, does not add any control of unregulated pollutants. Hence there seems to be no environmental basis for distinguishing one source from the other. But arguably, source *B*, because of its greater unregulated emissions, is likely to be larger and hence more able to bear the costs of obtaining a permit and installing control technology for sulfur dioxide.

The scope of the requirement that sources install the best available control technology similarly indicates that Congress meant to base the applicability of the program on the economic ability of the source rather than on the environmental impact of the source's emissions. As just discussed, a source needs a PSD permit if it satisfies the 100/250 ton threshold for any pollutant.[200] But once the source satisfies that threshold, it must install the best available control technology for any regulated pollutant it emits, not just for the pollutants for which it satisfies the 100/250 ton threshold.[201] The result is that a source that emits 99 tons of pollutants *A* and *B* is exempt from the program; but a source that emits 251 tons of pollutant *A* and 70 tons of pollutant *B* must install the best available control technology for pollutant *B* as well as for pollutant *A*. Since the environmental impact of the emissions of pollutant *B* is lower in the second case than in the first, coverage of the second case seems to be based on the source's apparent financial ability, as evidenced by its overall size. Again, though, Congress did not indicate this explicitly.

It is also possible that Congress incorporated the section 111 definition of modification for reasons other than to adopt the "any-increase" approach. As EPA later argued,[202] the section 111 definition of modification may have been incorporated into PSD out of a Congressional desire for lenient treatment of voluntary fuel conversions at plants that were capable of burning the

199. *See* § 165(a)(4), 42 U.S.C. § 7475(a)(4) (1982) (requiring as a condition for a PSD permit "the best available control technology for each pollutant subject to regulation under this Act ["chapter" in West codification] emitted from, or which results from, such facility); § 163(a), 42 U.S.C. § 7473(a) (1982) (establishing increments for sulfur oxide and particulate matter); § 166, 42 U.S.C. § 7476 (1982) (requiring EPA to establish increments for other pollutants controlled by ambient standards).

200. *See supra* note 198 and accompanying text.

201. *See* Alabama Power Co. v. Costle, 636 F.2d 323, 404-05 (D.C. Cir. 1979) (striking down EPA's interpretation to the contrary). The court did, however, allow EPA to exempt "de minimis" emissions from the BACT requirement. *See infra* note 265 and accompanying text.

202. *See* 43 Fed. Reg. 26,396 (June 19, 1978).

dirtier fuel in 1975—for instance, conversions from oil to coal by sources that had switched to oil before the energy crisis of the early 1970s.[203] EPA had exempted such conversions from section 111's new source performance standards program and from the pre-codification version of the PSD program. EPA therefore argued that Congress' incorporation of section 111's definition of modification into PSD was intended to mandate that the agency continue to exempt voluntary conversions from the PSD program.[204] Again, there is no direct evidence that this was Congress' purpose. But if indeed this was Congress' aim, then the establishment of the "any-increase" approach was another unforeseen consequence of trying to adjust a single detail of a complex scheme. The result was that EPA, rather than require permits only for major increases at existing facilities, was forced to extend the permit requirement to cover all but de minimis increases.[205]

The significance of Congress' decisions on the definition of modification extends beyond the merits. On this issue, as well as on the definition of the baseline date, there is little trace of what, if any, purpose Congress thought it was serving. Unelected though they may be, at least bureaucrats and judges are obliged to explain their decisions. Congress, though elected, has virtually no obligation to do so.[206] It is not at all clear that more accountability exists in one situation than the other.

The lack of explanation, like other faults, is due to the complexity of the scheme, which overwhelmed the usual processes, such as committee report-writing and floor debate, for explication of legislative purpose. As a result, it is not at all clear that the PSD

203. *See* 39 Fed. Reg. 42,514 (formerly codified at 40 C.F.R. § 52.01(d)(3)); Note, *supra* note 50, at 752 n.67.

204. EPA, though, does not take its position to its logical corollary: that Congress intended that the NSPS and PSD programs use identical definitions of the term "modification." *Compare* 40 C.F.R. § 60.14 (1988) (defining a modification under the NSPS program as involving an increase in the "hourly rate" of emissions) *with* 40 C.F.R. § 52.21(b)(2)(i) 1988) (defining a modification under the PSD program as involving an increase in annual emissions); *see generally* Wisconsin Electric Power Co. v. Reilly, 893 F.2d 901, 913-16 (7th Cir. 1990). It is hard to see how EPA can square this differential in definitions either with the text of the statute or with the agency's own theory that Congress intended that definitions worked out in the NSPS program should also apply to PSD.

205. On the origins of this de minimis exception, *see infra* notes 261-76 and accompanying text.

206. *See generally* Bruff, *Legislative Formality, Administrative Rationality*, 63 TEX. L. REV. 207 (1984) (contrasting judicial supervision of legislative and administrative action).

codification served Congress' professed aim of ensuring accountability for the PSD program. Both before and after codification, members of Congress could escape responsibility for PSD; beforehand, by attributing PSD's faults to the agency and judges who had helped create it; afterwards, by blaming the program's demerits on agency and judicial decisions on issues that had apparently escaped overt Congressional attention.

D. *Interpreting "Potential to Emit"*

So far, the courts may appear to have been rather passive participants in the implementation of the PSD codification. On the issue of the program's effective date, the D.C. Circuit in *Citizens to Save Spencer County* read the statute as giving broad authority to the agency to craft the solution. While *Alabama Power* struck down the agency on the issues of the baseline date and definition of modification, the court had only to compare the agency's interpretation with the plain letter of the statute. Even the court's endorsement of the policy behind the varying baseline date approach,[207] though incorrect, was essentially gratuitous given the statute's unmistakable terms.

Thus it may seem that the codification of PSD was at least successful in transferring policymaking power away from the judiciary as its sponsors had desired.[208] But such a picture would be incomplete. Rather, the codification to some extent transferred power to adjust the program from EPA to the courts, which could act in the guise of interpreters of the statute. This can be illustrated by the dispute over the correct method of determining whether an industrial facility (a "source") emits enough air pollution to require a PSD permit.[209]

EPA's pre-codification regulations required a PSD permit for the construction or modification of any source falling into

207. *See supra* note 159 and accompanying text.

208. *See supra* note 116 and accompanying text.

209. Another example, too intricate and far-reaching to discuss here, might be the holding of *Alabama Power* that EPA was obliged to define the term "source" in a way that exempted from the program those increases in emissions that were accompanied by an offsetting contemporaneous decrease at the same plant. *Alabama Power*, 636 F.2d at 400-03. This decision was to have consequences well beyond the PSD program. *See* Chevron, U.S.A., Inc. v. Natural Resources Defense Council, 467 U.S. 837 (1984) (holding that EPA has discretion to define the term "source").

nineteen specified categories.[210] These categories were chosen because they accounted for a large proportion of emissions of sulfur dioxide and particulate matter,[211] the only two pollutants that were covered by the agency's rules.[212] Congress' expansion of the scope of the PSD program to include pollutants other than sulfur dioxide and particulate matter[213] necessitated a corresponding augmentation of the scope of the permit requirement.

As with other aspects of the program, Congress chose itself to delineate the permit requirement's scope, rather than to leave the matter to the agency's discretion. The codification established the 100/250 ton size threshold. Sources that are within twenty-eight specified categories require a permit if they "emit, or have the potential to emit" a hundred tons per year of any air pollutant. Other types of sources need a permit only if they have the "potential to emit" 250 tons per year.[214]

In revising its regulations after the codification, EPA asserted that Congress' use of the term "potential to emit" meant that the 100/250 ton size threshold should be applied on the basis of uncontrolled emissions—that is, without regard to any pollution controls that a source's operator might be planning to include.[215] Thus if a source (call it the Small Incinerator) could emit 300 tons

210. *See* 40 C.F.R 52.21(d)(1) (1977). The details are a little more complicated than the textual statement. As promulgated in 1974, EPA's nondegradation regulations required a PSD permit of any source, regardless of size, falling into eighteen specified categories. *See* 39 Fed. Reg. 42,516 (Dec. 5, 1974). Later, EPA announced that it would extend the PSD permit requirement to any source of a type that was covered by a new source performance standard for sulfur dioxide or particulate matter and that generally emitted more than 25 pounds per hour of either pollutant even after compliance with the new source performance standard; one category of sources, feroalloy production facilities, was in fact added to coverage under these criteria. *See* 40 Fed. Reg. 42,102 (Sept. 10, 1975). In announcing the extension, EPA promised it would exempt any proposed source that would not exceed the 25-pound per hour threshold. This promise was not codified in the regulations because EPA did not expect the construction of any source in a covered category that would be small enough to qualify for the exemption. *Id.*

211. Sixteen of the original eighteen categories then accounted for 75 per cent of the sulfur dioxide, and 30 per cent of the particulate matter emitted in the United States. TECHNICAL SUPPORT DOCUMENTS: EPA REGULATIONS FOR PREVENTING THE SIGNIFICANT DETERIORATION OF AIR QUALITY 82 (PB-240 215) (1975).

212. *See supra* notes 51-52 and accompanying text.

213. *See supra* notes 98-99 and accompanying text.

214. Section 169(1), 42 U.S.C. § 7479(1) (1982) (defining "major emitting facility") ; *see* § 165(a), 42 U.S.C. § 7475(a) (1982) (requiring a PSD permit prior to construction of any "major emitting facility").

215. *See* 43 Fed. Reg. 26,392 (June 19, 1978). The rule itself is published in 43 Fed. Reg. at 26,404 (formerly codified at 40 C.F.R. § 52.21(b)(3) (1978)).

per year, it would need a permit even if the owner were proposing to include control equipment that would reduce emissions to 30 tons per year.[216] EPA's adoption of the "major-increase" approach to modifications somewhat softened the blow.[217] Under this approach, if Small Incinerator were to be modified in a way that could increase uncontrolled emissions by 90 tons, the modification would not require a permit.[218] Even so, EPA's interpretations meant that the number of permits processed annually would grow from 165 per year to about 4000.[219] The prospect of such an increase was alarming to the states, which would have to process the applications, to the Department of Energy, which was concerned about delays in permitting energy facilities, and to White House economists, who regarded additional paperwork as inflationary. All of these, as well as industry, urged that actual, controlled emissions should be the basis for deciding whether a source exceeds the 100/250 ton threshold.[220]

EPA, though, refused to adopt this view. This was largely due to EPA's lawyers, who believed that the statutory phrase "potential to emit" referred to uncontrolled emissions and that it therefore mandated that such emissions be the criterion for deciding whether a source exceeds the 100/250 ton threshold and therefore needs a permit.[221] But policy considerations that arguably outweighed paperwork burdens also played a role. EPA's enforcement staff viewed a cut-off based on uncontrolled emissions as familiar and easy to administer, since emissions reporting programs are based on uncontrolled emissions.[222] Increasing the number of sources requiring permits had other advantages as well. Such an expansion would broaden the scope of the pro-

216. This 90 percent reduction is not hypothetical; as the court in *Alabama Power* pointed out, some types of pollution can routinely be controlled by as much as 99 percent. 636 F.2d at 354.

217. *See supra* note 182 and accompanying text.

218. Such an interpretation might present the possibility that a source might evade the 250-ton threshold by first building a facility with a potential to emit of 240 tons, and then adding a 90-ton expansion. EPA prevented this by defining the term "major modification" to include such phased projects. *See* 43 Fed. Reg. 26,382, 26,403 (June 19, 1978) (formerly codified at 40 C.F.R. §§ 51.24(b)(2), 52.21(b)(2) (1978)).

219. 43 Fed. Reg. 26,392 (June 19, 1978).

220. *Id.* at 26,391; [9 Current Developments] Env't Rep. (BNA) 35 (May 12, 1978); [9 Current Developments] Env't Rep. (BNA) 222 (June 9, 1978) (reprinting memo by Council of Economic Advisors); [8 Current Developments] Env't Rep. (BNA) 1777 (March 17, 1978) (summarizing comments by Exxon).

221. *See* 43 Fed. Reg. 26,391-92 (June 19, 1978); A.S. Meiburg, *supra* note 35, at 414.

222. *See* 43 Fed. Reg. 26,392 (June 19, 1978).

gram's requirement for the best available control technology and therefore minimize new emissions in clean air areas. In contrast, a narrow interpretation, according to EPA, would increase emissions by ten to twenty per cent, depending on the pollutant.[223] Expanding the scope of the permit requirement would also, by reducing the number of unpermitted sources, ease tracking of increment consumption. This would reduce the possibility that the increments would be inadvertently violated and that sources would have to be forced to install additional pollution control equipment after construction. Moreover, a broad interpretation of the scope of the program would lessen the possibility that national parks would be endangered by small sources that did not have to pass through review by the Federal Land Manager. Time has confirmed this last concern; the growth of small sources is increasingly regarded as a threat to Shenandoah National Park and possibly to other parks.[224]

In addition, EPA's definition presented a unique opportunity to give sources the economic incentive to keep pollution controls running. Normally, sources comply with pollution control regulations by installing "add-on" equipment, such as scrubbers on power plants, that is not integral to the production process. A source has little motivation to maintain the equipment, since its failure will not prevent the source from functioning. Under EPA's definition, by contrast, the only way for a source to escape PSD review would be to reduce its potential to emit by using inherently low-pollution processes. If the process doesn't work, the factory will not produce; thus, unlike a source using add-on control technology, a source using a low-pollution process has every incentive to keep its process working correctly.[225] This advantage is not merely theoretical; EPA studies have shown that add-on

223. A.S. Meiburg, *supra* note 35, at 413.

224. *See* Oren, *Parklands*, *supra* note 25, at 354. A recent study by the General Accounting Office reports that small sources are responsible for substantial emissions near some national parks. U.S. GENERAL ACCOUNTING OFFICE, AIR POLLUTION: PROTECTING PARKS AND WILDERNESS FROM NEARBY POLLUTION SOURCES, GAO/RCED-90-10, at 3, 23 (1990). But the study does not specify the proportion of these emissions that come from growth of small sources since the establishment of PSD.

225. *See* 43 Fed. Reg. 26,392 (June 19, 1978) (defining "potential emissions" to exclude those emissions that are captured by equipment integral to production).

pollution control equipment is often poorly operated and maintained.[226]

The dispute over how to define "potential to emit" became the most controversial issue in the drafting of EPA's regulations. Faced with considerable pressure, the agency adopted a compromise. It ruled that some small sources, though requiring PSD permits, would not have to install the best available control technology requirement or analyze their increment consumption. This exemption was made available to any source, regardless of its uncontrolled emissions, whose actual emissions, taking into account pollution controls, would be less than fifty tons per year and which would not affect a Class I area or an area where the increments were being violated.[227] Thus the construction of Small Incinerator above would not require a permit if the owner agreed that controlled emissions would be less than the fifty ton cut-off. This alteration reduced the number of projects that would pass through full PSD review from nearly four thousand to about sixteen hundred annually and thus saved industry thirty million dollars per year in application costs alone, without, according to EPA, any substantial impact on emissions.[228]

The basis for EPA's exemption was section 165(b).[229] This provision was a latecomer to the codification of PSD. It was not part of the 1976 conference committee bill. Rather, section 165(b) emerged during consideration of the bill in 1977 by the Senate Committee on Environment and Public Works.[230] Section

226. *See* [11 Current Developments] Env't Rep. (BNA) 5 (May 2, 1980) (reporting speech by William Drayton, then EPA Assistant Administrator for Planning and Evaluation). *Cf.* Commoner, *Reporter at Large: The Environment*, THE NEW YORKER, June 15, 1987, at 46, 56-58 (suggesting that measures to improve the environment have succeeded only when they take the form of banning a polluting method of production, rather than compelling the use of control technology).

227. *See* 43 Fed. Reg. 26,385-86, 26,406-07 (June 19, 1978) (formerly codified at 40 C.F.R. §§ 51.24 (j)(2), 51.24 (k)(2), 52.21(j)(2), 52.21(k)(2) (1978)). The exemption was not available to a source that, while emitting less than 50 tons per year, emitted more than 1000 pounds per day or 100 pounds per hour, whichever was more restrictive. *Id.* Nevertheless, a source qualifying for the exemption was generally referred to as a "50-ton source." *See, e.g.*, 43 Fed. Reg. 26,393 (June 19, 1978).

228. *See* 43 Fed. Reg. 26,393-94 (June 19, 1978); EPA Brief in *Alabama Power*, *supra* note 169, at 112-14.

229. 42 U.S.C. § 7475(b) (1982).

230. *See* [7 Current Developments] Env't Rep. (BNA) 1755 (March 18, 1977); S. 252, 95th Cong., 1st Sess. § 6 (proposed § 110(g)(4)(C)) (as reported), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 589. The language appears in italics, indicating that it was added by Committee action after original introduction.

165(b) allows some sources to expand without having to model their emissions to demonstrate compliance with the Class II increments.[231] But, unlike EPA's exemption, section 165(b) does not apply to entirely new sources, nor does it relieve even small expanded sources from the requirement to install the best available control technology. Indeed, the provision specifically envisions that such sources will install such technology. Thus, as with the definition of baseline date, EPA could defend its view only with the argument that Congress had intended to allow the agency to make cost-effective changes in the program in order to carry out its purposes.[232]

Industry representatives therefore expressed concern about the legality of EPA's exemption while praising the agency for its moderation.[233] This concern proved well-placed. As with other issues, EPA's effort to adjust the scheme was invalidated by the D.C. Circuit in *Alabama Power*. Instead the small source exemption of section 165(b) was read literally to authorize relief only from the Class II increment analysis and not from the other requirements of the codification.[234] Furthermore, as we have already seen, the court held that the statute requires a PSD permit for any modification at a major emitting facility, even if the increase is less than one hundred or two hundred and fifty tons.[235] The result was that many projects were swept into the requirement to undergo full PSD review.

Thus far, the court's holdings not only appear to be a defeat for industry, but also seem to reflect a view of the court's role as restrained to enforcing the literal terms of the statute. But the loss was turned into victory by the court's additional holding that

231. Section 165(b) reads:

> The demonstration pertaining to [compliance with the increments and with the ambient air quality standards] shall not apply to maximum allowable increases for Class II areas in the case of an expansion or modification of a major emitting facility which is in existence on [August 7, 1977], whose allowable emissions of air pollutants, after compliance with [the BACT requirement] will be less than fifty tons per year and for which the owner or operator of such facility demonstrates that emissions of particulate matter and sulfur oxides will not cause or contribute to [exceedances of the secondary ambient standards] for either of such pollutants.

42 U.S.C. § 7475(b) (1982).

232. *See* EPA Brief in *Alabama Power*, *supra* note 169, at 114-19.

233. *See* [9 Current Developments] Env't Rep. (BNA) 1348 (Nov. 24, 1978) (quoting John Quarles).

234. *Alabama Power*, 636 F.2d at 356-57.

235. *See supra* note 188 and accompanying text.

the codification required that the 100/250 ton threshold be applied to all sources on the basis of controlled emissions—that is, that the construction of the Small Incinerator mentioned above must be exempted because its control equipment reduces emissions to below the threshold amounts. In this decision, the court appears to have taken a more expansive view of its role.

Judge Leventhal, writing for the court in this portion of *Alabama Power*, relied on the initial clause of section 169(1), which defines a "major emitting facility"—the statutory term for the kind of source whose construction requires a PSD permit[236]—as including sources in twenty-eight specified categories that "emit or have the potential to emit" a hundred tons per year.[237] If "potential to emit" referred to uncontrolled emissions, he asserted, then there would never be a situation in which the amount the source "emits" would be more than the "potential to emit"; thus, the "emits" language would be surplusage. This result could be avoided by holding that "potential to emit" was equivalent to controlled emissions. Under this interpretation, "emits" would retain importance in situations in which the source's control equipment malfunctions, and in which the amount the source actually "emits" is therefore more than the designated quantities.[238] Moreover, Judge Leventhal argued, the Senate drafters of the one-hundred ton limit thought the limit would remove some small sources from the program.[239] Interpreting the one-hundred ton limit as referring to uncontrolled emissions, though, rendered it nugatory as an exemption device, since all foreseeable new sources within the categories subject to the one-hundred ton limit have uncontrolled emissions of more than one hundred

236. *See* § 165(a), 42 U.S.C. § 7475(a) (1982).

237. 42 U.S.C. § 7479(1) (1982).

238. *Alabama Power*, 636 F.2d at 353. Presumably, if a source escaped the requirement for a permit on the basis of its potential emissions, it would find itself liable under section 113, 42 U.S.C. § 7413 (1982), for operating without a permit if its emissions were actually greater. This possibility affords a check on a source estimating unrealistic control levels to avoid the permit requirement. *See, e.g.*, United States v. Louisiana-Pacific Corp., 682 F. Supp. 1122, 1130-34 (D.Colo. 1987). It would also be, perhaps, Judge Leventhal's response to Professor Currie's claim that the court's definition of "potential to emit" allows the source to be the judge of its own case. Currie, *supra* note 78, at 55-56.

239. *Alabama Power*, 636 F.2d at 354-55; *see, e.g.*, S. REP. No. 127, 95th Cong., 1st Sess. 31 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1405 ("If a source falls in a category listed but would be smaller than the 100 tons per year figure, it is not subject to the procedures in this act").

tons.[240] Finally, Judge Leventhal urged that EPA's uncontrolled emissions interpretation would cause an "intolerable" burden on the agency and sources; he inferred that Congress could not have intended to place this onus on the agency for the sake of controlling sources that were already planning to reduce their emissions below the 100/250 ton threshold, *e.g.*, a source with one ton of emissions that had already applied 99% reduction.[241] In other words, the very arguments that EPA had used to try to justify the 50-ton exemption were now being used to reject the agency's interpretation of the 100/250 ton threshold, and to hold that the threshold operated in terms of controlled rather than uncontrolled emissions.

The court's interpretation of the statute is not entirely convincing. First, section 169(1)'s text arguably points the other way. Although the 100-ton threshold for the twenty-eight specified categories expressly applies to sources that "emit" or "have the potential to emit" that amount, the 250-ton test for other kinds of sources is expressed in terms of "potential to emit" alone. For these sources, defining the threshold as uncontrolled emissions neither created surplusage nor rendered the threshold nugatory. Judge Leventhal assumed that Congress intended the 250-ton threshold to be applied like the 100-ton threshold,[242] but this simply rewrites the statute.[243] In addition, as the court conceded, the legislative history behind the 100/250 ton threshold does not point uniformly to the court's result.[244] There are several indications that the sponsors thought they were adopting the uncontrolled emissions interpretation of the thresholds. For instance, Senator McClure, in explaining the 100/250 ton threshold on the floor, appears to have equated "potential to emit" with the term

240. *Alabama Power*, 636 F.2d at 354.

241. *Id.* at 354-55.

242. *Id.* at 353 n.62.

243. Another possibility is that the words "which have the potential to emit" one hundred tons were intended as descriptive of the sources covered rather than restrictive of the kind of sources in question. Had Congress intended the one-hundred ton potential clause to be restrictive—that is, to exempt some sources within the 28 specified categories from the permit requirement—"that" rather than "which" would have been the appropriate word. *See* T. BERNSTEIN, WATCH YOUR LANGUAGE 129 (1965); H.W. FOWLER, A DICTIONARY OF MODERN ENGLISH USAGE 625-30 (2d ed. 1965); W. STRUNK & E.B. WHITE, THE ELEMENTS OF STYLE 59 (3rd ed. 1979). Such a view, though, ignores the legislative history indicating that the Senate sponsors thought their definition would actually exempt some sources within the 28 categories. *See supra* notes 239-40 and accompanying text.

244. *Alabama Power*, 636 F.2d at 354.

"potential emissions," which was long used by EPA to describe uncontrolled emissions, and also incorporated an agency memorandum similarly treating the terms.[245] Moreover, the Senate committee reports in both 1976 and 1977 refer to typical asphalt-batch plants as having the "potential to emit" 1700 tons of pollutants yearly.[246] But, as indicated by information supplied by EPA to the Senate sponsors and inserted in the Congressional Record, a controlled plant emits less than 20 tons yearly.[247] Thus the report writers evidently thought that the coverage threshold would apply to uncontrolled emissions.

The court's interpretation of the coverage threshold is also hard to square with the exemption for fifty-ton expansions created by section 165(b).[248] EPA had interpreted the 165(b) exemption as applying to expansions that would result in overall plant emissions of fifty tons or less. As thus construed, this provision seemed a powerful argument for defining the 100/250 threshold as applying to uncontrolled emissions, since under any other view it is surplusage. If Congress had intended under the 100/250 ton threshold that a source that controls its emissions to fifty tons should be entirely exempt from the program, it would hardly have needed section 165(b) to exempt such sources from the Class II increment analysis.

The court's response was to read section 165(b) as exempting projects that add less than fifty tons per year to an existing source, rather than projects that result in total emissions of fifty tons or less from the source as a whole. Under this construction, defining the 100/250 ton threshold as controlled emissions does not render section 165(b) surplusage. Rather, the section would still partly exempt from PSD's requirements an expansion adding less than fifty tons to a source's emissions.

Such a reading has some appeal. The fifty-ton exemption applies to modifications of existing sources; it clearly does not apply to new sources. Indeed, this is one reason why the court struck down EPA's attempt to extend the fifty-ton exemption to all

245. 122 CONG. REC. 24,548-50 (July 29, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5261-63; Brief for EPA in *Alabama Power*, *supra* note 169, at 35-41.

246. S. REP. No. 127, 95th Cong., 1st Sess. 97 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1471; S. REP. No. 717, 94th Cong., 2d Sess. 80 (1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4781.

247. 122 CONG. REC. 24,549 (July 29, 1976), *reprinted in* 6 1977 LEGISLATIVE HISTORY, *supra* note 49, at 5264.

248. 42 U.S.C. § 7475(b) (1982).

sources.[249] The limited scope of section 165(b) may well reflect a background understanding by Congress that entirely new sources with fifty tons of controlled emissions would be exempt from the statute by virtue of the 100/250 ton threshold and that it was therefore unnecessary to further exempt such sources through section 165(b). If so, then the 100/250 ton threshold ought to be construed as applying to controlled emissions and in this way to support the court's result.

The court's reading, however, seems inconsistent with the language of section 165(b), which creates an exemption from increment analysis "in the case of an expansion or modification of a major emitting facility which is in existence on [the date of enactment], *whose allowable emissions* of air pollutants, after [compliance with best available control technology] will be less than fifty tons per year." (emphasis added)[250] This language seems most naturally to support EPA's reading that section 165(b) is intended to apply only to sources which, after expansion, still emit fifty tons or less per year, rather than Judge Leventhal's view that additions of less than fifty tons to major sources are exempted. Hence section 165(b) seems to support EPA's interpretation of the 100/250 ton threshold as applying to uncontrolled emissions.

Judge Leventhal's response was to characterize the underlined language as a "curious phrase" and EPA's interpretation of it as "teratogenetic".[251] This is indeed true if one assumes that Congress meant that "potential to emit" should be based on controlled emissions. In that case, there would be no sources for section 165(b) to apply to, because all such sources would have been exempted under the controlled emissions definition of "potential to emit". But that assumes precisely what is to be proven. If, on the other hand, one starts with the premise that the term "potential to emit" is ambiguous, then EPA's reading of section 165(b) seems at least as reasonable as Judge Leventhal's. Such a reading supports the proposition that Congress intended the 100/250 ton threshold to be applied to uncontrolled emissions, and intended 165(b) as a partial exception for some sources swept into the program by the thresholds. Indeed, while the language of the Senate committee report is not entirely clear, it seems to bolster EPA's reading of the section. The report states

249. *See supra* note 234 and accompanying text.
250. The whole of § 165(b) is quoted *supra* at note 231.
251. *Alabama Power*, 636 F.2d at 357 n.80.

that the exemption for fifty-ton sources is necessary because without it "many such sources" would need a permit because of the one hundred-ton coverage threshold in the Senate bill.[252] That statement appears to assume that the potential to emit of a fifty-ton source is not the same as its actual emissions, but instead represents uncontrolled emissions—precisely EPA's position.

The terms of the statute therefore do not command the court's interpretation that the 100/250 ton threshold applies to controlled emissions only. Instead, the court's reading of the statute rests in substantial part on its perception of what Congress would have done, knowing the costs and benefits of the various definitions. In other words, the court did exactly what it was forbidding the agency to do: balance costs and benefits to decide the proper course. The court was able to do so because of a complex and therefore inevitably ambiguous codification, which, by requiring interpretation, gave the court the power to impose its own construction of the statute. It is instructive to compare the D.C. Circuit's detailed analysis of EPA's post-codification regulations in *Alabama Power* with the same court's earlier handling of the challenges to EPA's original pre-codification regulations. In upholding those rules, the D.C. Circuit, in an opinion by Judge Skelly Wright, deferred to the agency's choices about the program's operation. For instance, the agency's decision to cover only a limited number of categories of sources—the same kind of decision challenged in *Alabama Power*—was upheld against environmentalist challenge in a three paragraph section of the opinion that contented itself with noting that the agency's decisions were "rational."[253]

Thus through codification Congress increased rather than decreased judicial power. The complexity of the codification transferred from the agency to the court the ability to adjust the workings of the program. The court's power, though, has one prime weakness: it does not extend to allowing the court to alter the program as experience accrues. A decision like *Alabama Power*, which overturns agency action as contrary to the authorizing statute, must be grounded in the court's reading of the law

252. *See* S. REP. No. 127, 95th Cong., 1st Sess. 33, *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1407. It is possible, though, that the report language alluding to the one hundred ton threshold refers to the facility as a whole, rather than the individual source.

253. Sierra Club v. EPA, 540 F.2d 1114, 1133-35 (D.C. Cir. 1976).

and the legislative history. Such a reading does not ordinarily change over time; it is for this reason that courts are wary of inconstancy in legal interpretations by agencies.[254]

Thus the court, by imposing its own interpretation of the statute, minimized flexibility to modulate the program as it evolved. Had the court simply admitted the codification's ambiguity and left it to EPA to define the meaning of the 100/250 ton threshold, the agency might well have fashioned better alternatives. For instance, the agency could have, as in other parts of the program, applied a more stringent standard to sources near Class I areas such as national parks than to other sources.[255] Alternatively, as suggested by one state during the public comment period, the agency could have adopted the "controlled emissions" threshold for deciding whether a source needed to apply the best available control technology, but used the "uncontrolled emissions" threshold for determining whether the source needed to go to the expense of modeling its emissions for compliance with the increments.[256] The court's construction, however, made this impossible. Instead, the codification, along with Congress' inability to produce clean air legislation after 1977, produced a detailed and rigid scheme whose complexity outstripped the institutional abilities of Congress, courts and agency.

IV. The Failure of Flexibility

The PSD experience therefore demonstrates how legislative detail can lead to unexpected results that cannot be easily alleviated and can blur accountability for a program's defects. This Part of the Article discusses whether the difficulties with detailed legislation can be overcome by providing interstitial areas of flexibility within a complex statutory scheme.

The history of PSD tests this possibility. Both Congress and the courts at least implicitly recognized the dangers of legislative overspecification in the PSD program. As a result, both attempted to provide areas for agency discretion within PSD's stat-

254. *See, e.g.*, General Electric Co. v. Gilbert, 429 U.S. 125 (1976).

255. *See* Oren, *Parklands*, *supra* note 25, at 325 n.53.

256. *See* Letter dated January 5, 1978 from Anthony D. Cortese to Members of the State and Territorial Air Pollution Program Administrators. One EPA official deeply involved in the issue expressed support for the idea. *See* handwritten memo from "Darryl" [evidently Darryl Tyler, Chief, Standards Implementation Branch] to Dave Dunbar, dated January 13, 1977 [sic] on file with the Columbia Journal of Environmental Law.

utory framework. Such an approach would seem a promising compromise between statutory specificity and untrammeled delegation of authority to an administrative agency. As with delegation, the approach would allow the agency not only to develop law in areas in which legislative precision is impossible or premature, but also to adjust that evolving law over time. As with statutory specificity, however, the detail of the remainder of the scheme would provide policy mandates to guide the agency's exercise of discretion. In this way, the benefits of statutory specificity could be realized without its companion costs of rigidity.

Unfortunately, as this Part argues, the PSD experience indicates that interstitial grants of agency authority may not offer a workable middle ground between delegation and detail. As even the strongest proponents of delegation agree, designing the appropriate scope of a delegation is itself an intricate process in which the drafters must consider the character of the agency, the need for flexibility and the importance of avoiding ambiguities that may hinder the agency's fulfillment of its statutory mission.[257] Devising such a delegation in the context of an intricate legislative scheme is especially difficult. First, the detailed provisions of the codification may contaminate the delegation in ways that unexpectedly narrow its scope. Indeed, the interstitial delegations in PSD, like the detailed specifications discussed earlier, show how intricate legislative provisions can obscure accountability and lead to unforeseen results. Even if the delegation does not conflict with a particular provision of the codification, it clashes with the overall desire for specificity; as a result, the scope of the delegation may be cramped or ambiguous. Alternatively, the detail of the remainder of the scheme may lead Congress to overlook a key issue that affects the scope of the apparent delegation. Moreover, as a practical matter, taking advantage of such authority inevitably becomes a lower priority for the agency than coping with Congress' specific mandates. The result may be a vicious cycle in which an agency downplays the implementation of flexible authority; this in turn prompts Congress to substitute detailed regulation that further limits agency discretion.

These conclusions confirm and extend the present author's previous examination of Congress's attempts to provide flexibility in the protection of national parks from new sources of air pollu-

257. *See* J. LANDIS, THE ADMINISTRATIVE PROCESS 52-60 (1938).

tion.[258] PSD's sponsors realized that even the stringent Class I increments could allow new sources that would damage visibility within national parks and wilderness areas. At the same time, the increments were politically controversial because they could substantially restrain economic development in areas adjacent to national parklands, many of which were classified Class I under the statutory scheme. Congress provided, therefore, that decisions on whether to allow a new source near a Class I area would be made on a case-by-case basis and that a source's compliance with or violation of the Class I increment would only determine who had the burden of proof on whether the source should be permitted. Yet this provision has been applied to few sources. Similarly, the Act's visibility provisions, which might have been used to regulate new sources which affect visibility within and looking out from parks, have proven to be of little importance. Instead, the ambiguities of the individualized tests have led implementing agencies to ignore them in favor of using the increments as a rule of decision.

The explanations for the failures of the new source provisions are congruent with the explanations given here. In both cases, Congress was unclear in delineating the scope of the authority it was conferring. For instance, the statute leaves unanswered the extent to which Congress expected the visibility provisions to supplement the PSD program's regulation of new sources.[259] Both instances also illustrate the tendency of agencies to emphasize the implementation of specific provisions within a detailed statute and to devote little energy to the exercise of whatever discretionary authority the statute provides. But the flaws of interstitial flexibility are not confined to park protection. Indeed, there is no reason to expect they are confined to environmental law.

A. *"De Minimis" and "Administrative Necessity" Exemptions*

As we have seen, *Alabama Power* rejected EPA's claims that Congress had empowered the agency to alter the statutory scheme in ways that violated the codification's express terms. Thus, for instance, the court refused to allow EPA to substitute a uniform baseline date of August 7, 1977, for the varying baseline date pre-

258. *See* Oren, *Parklands*, *supra* note 25, at 368-402.

259. *Id.* at 392-96.

scribed by the statute.[260] The court, though, attempted to give EPA some flexibility by holding that the agency could grant an exemption from regulation if it concluded that the benefits of regulation would be de minimis, or if it could show that administrative resources were not available to carry out the statutory command.[261] Neither of these exemptions, however, has proven to give much latitude to the agency.

The court's discussion of these exemptions arose out of EPA's attempts to narrow the scope of the program. As noted above, EPA had ruled in its post-codification regulations that PSD permits were not required for expansions that increased emissions at major emitting facilities by less than the 100/250 ton threshold. The court instead enforced the statute literally by defining construction of a source as including any physical change that increased emissions.[262] Similarly, EPA had decided that even if a new source or a modification were large enough to require a permit, the source would need to install the best available control technology only for pollutants for which the source's potential to emit exceeded the 100/250 ton threshold.[263] Again, the court read the statute literally and invalidated EPA's decision on the grounds that the statute's requirement for best available control technology was not limited to such pollutants, but rather applied, in the words of the statute, to "each [regulated] pollutant. . .emitted from" a major emitting facility,[264] regardless of the quantity of emissions.[265] The court did not, however, go so far as to hold that PSD review was required for any increase in emissions, or that best available control technology was required for all increases in regulated pollutants. Rather, the court held that EPA could use the de minimis and administrative necessity exemptions as ways to limit the reach of the regulatory scheme.

The de minimis exemption in particular represented an elaboration of prior case law. Previous D.C. Circuit decisions by Judge Leventhal had recognized such an exemption, but had made no

260. *See supra* notes 169-72 and accompanying text.

261. *Alabama Power*, 636 F.2d at 357-61.

262. *See supra* note 188 and accompanying text.

263. *See, e.g.*, 43 Fed. Reg. 26,406 (June 19, 1978) (formerly codified at 40 C.F.R. 52.21(i)(1) (1978)).

264. Section 165(a)(4), 42 U.S.C. § 7475(a)(4) (1982).

265. *See Alabama Power*, 636 F.2d at 403-05.

attempt to demarcate its scope.[266] In *Alabama Power*, Judge Leventhal held for the court that an agency could grant a de minimis exemption if the agency concluded that no benefits would result from regulation. The exemption, however, could not be based on the absence of net benefits—that is, benefits minus costs—but rather only on the lack of gross benefits.[267] In other words, if requiring a permit for a small addition to an existing source would not serve the program's purposes, then EPA could grant an exemption; but EPA could not do so if requiring a permit would result in some benefit, albeit one that appears offset by its costs.[268]

Such a narrow delineation may seem counterintuitive. After all, an action that would reap $100 in benefits but $150 in costs would seem at least as objectionable as one that results in no benefits but $10 in costs; on balance, the first costs society more than the second. So too the action with $10 in benefits but $100 in costs would seem more objectionable than the action with $10 in benefits and $5 in costs. Yet Judge Leventhal's formulation, because it disregards costs, treats them identically.

Moreover, the logic of a de minimis exemption does not demand Judge Leventhal's cost-oblivious approach. The theory behind the exemption is that the purpose of a statute should be treated as more important than its literal language. Since Congress does not generally intend that its enactments be applied in ways that do not serve the statutory purposes, the argument runs, Congress should be regarded as having exempted circumstances in which there would be no benefit from applying the statute, even if the circumstances fall within the statute's literal scope.[269] Yet the same reasoning could equally justify the implication of an exemption in instances in which costs are greater than benefits. The purpose of a statute is not merely to accomplish some instru-

266. *See* Monsanto Co. v. Kennedy, 613 F.2d 947, 955 (D.C. Cir. 1979); Marine Space Enclosures, Inc. v. Fed. Maritime Comm'n, 420 F.2d 577, 584 (D.C. Cir. 1969).

267. *Alabama Power*, 636 F.2d at 361.

268. *Accord*, Public Citizen v. Fed. Trade Comm'n, 869 F.2d 1541 (D.C Cir. 1989), *aff'g* 688 F. Supp. 667 (D.D.C. 1987) (FTC could not exempt so-called utilitarian items from a statutory requirement that all advertising for smokeless tobacco must contain warnings, on the basis that the costs of such regulation exceeded the benefits, but rather could grant an exemption only in situations in which there were no benefits at all from regulation).

269. *See* District of Columbia v. Orleans, 406 F.2d 957, 959 (D.C. Cir. 1968); *cf.* P.ROBINSON, CRIMINAL LAW DEFENSES 324-27 (1984) (suggesting a similar rationale underlies the de minimis defense in criminal law).

mental goal, but to accomplish it at a cost which Congress thinks is justified by the benefits. The establishment of PSD, for instance, represented a balancing of environmental values with other concerns: that is why the scheme seeks to prevent "significant" deterioration rather than to enact an absolute goal of nondegradation.[270] While Congress made a judgment that, in general, the benefits of a measure such as PSD are greater than the costs, it may not have anticipated every instance which the statute reaches. Construing the statute to cover situations in which costs to society exceed the benefits obtained may therefore be as violative of Congress' purpose as applying the statute where there are no benefits at all.

But Judge Leventhal's limits on the de minimis exemption authority, however crude, are understandable. As discussed earlier, allowing an agency "Henry VIII" authority to vary the terms of a statute based upon the agency's perception of relative costs and benefits would alter the balance of power between agencies and the legislative branch.[271] The same would be true if an agency could use cost-benefit considerations to create exemptions from the statutory scheme. By contrast, limiting the agency's exemption power to situations in which there is no net benefit more closely channels the agency's discretion. Moreover, allowing the agency to balance costs and benefits raises the difficult problems of measuring either. The court's refusal to let EPA consider cost in creating de minimis exceptions is akin to the Act's policy of not allowing EPA to use costs as a criterion for setting ambient air quality standards.[272] The present author has suggested elsewhere that the Act's design is based both on a desire to insulate EPA from attacks on its cost calculation methodology and to encourage the agency to give primary attention to public health considerations in setting air quality standards.[273] Similar considerations may be at work in the instance of exemptions.

270. *See* Chevron, U.S.A., v. Natural Resources Defense Council, 467 U.S. 837, 851-52 (1984) (suggesting that the Clean Air Act Amendments of 1977 as a whole represented a compromise between environmental and economic values).

271. *See supra* notes 170-71 and accompanying text.

272. *See* Lead Industries Ass'n v. EPA, 647 F.2d 1130, 1149-54 (D.C. Cir.), *cert. denied* 449 U.S. 1042 (1980); *cf.* Natural Resources Defense Council v. EPA, 824 F.2d 1146 (D.C. Cir. 1987) (en banc) (Bork, J.) (holding that EPA, in setting emission standards for toxic air pollutants, can use costs only in determining the margin of safety).

273. Oren, *Prevention*, *supra* note 21, at 72-74.

Confining the de minimis exemption to no-gross-benefit situations, though, poses perplexing questions of implementation for the agency, just as the cost-oblivious stance of the Act has troubled the establishment of ambient air quality standards.[274] Almost any exemption sacrifices some benefit, however small; if costs cannot be considered, there is little guidance for the agency in considering how small a benefit may be dismissed as "de minimis". Moreover, as we have seen, a test that disregards costs runs the risk of treating as identical the very dissimilar situations of the action with $10 benefit and $100 cost, and the action with $10 benefit and $5 cost. Yet allowing the agency to differentiate between these situations allows it to substitute its judgement of costs and benefits for that of Congress. The desire for rational decision-making thus runs counter to the value of protecting legislative supremacy over administrative agencies. Such a conflict is unlikely to produce satisfactory results from the standpoint of either agency or court. The consequence is that the de minimis exemption affords little genuine flexibility.

To complicate matters, *Alabama Power* is not clear on whether the agency may consider its own administrative costs—as opposed to costs to applicants for PSD permits—in designing a de minimis exemption. This ambiguity originates in the *Alabama Power* court's understandable decision to divide responsibility for drafting the lengthy final opinion, which runs almost 70 pages in West's reports and has been annotated with 135 headnotes. As a result, both Judge Wilkey and Judge Leventhal had occasion to discuss the scope of the de minimis exemption. Judge Wilkey's opinion not only expressly permits the agency to consider administrative burden in setting de minimis levels, but also implies that the agency would be acting arbitrarily if it did not do so.[275] Judge Wilkey does not address the seeming inconsistency between this position and Judge Leventhal's refusal to allow the agency to consider costs. Perhaps the two opinions can be reconciled on the basis that administrative costs are usually only a fraction of overall

274. *See, e.g.*, Finamore & Simpson, *Ambient Air Standards for Lead and Ozone: Scientific Problems and Economic Pressures*, 3 HARV. ENVTL. L. REV. 261 (1979); R.S. MELNICK, *supra* note 12, at 252-61.

275. *See Alabama Power*, 636 F.2d at 405 (Wilkey, J.) ("The *de minimis* exemption must be designed with the specific administrative burdens and specific regulatory context in mind. . .A rational approach would consider the administrative burden with respect to each statutory context").

costs; thus, allowing the agency to consider administrative costs does not pose a substantial risk that the agency will have free rein to rewrite express provisions of the statute. Moreover, an action whose benefits do not even exceed its administrative costs can arguably be fairly characterized as one without significant benefits. In any case, the court's failure to clearly address the issue means that the agency must proceed at its peril in taking advantage of the exemption. This is a substantial disincentive to the exemption's use and therefore undercuts the court's object of providing flexibility.

The court's "administrative necessity" exemption proved no more flexible than the de minimis exemption. The "administrative necessity" exemption allows the agency to depart from the statutory terms when compliance is impossible: if, for instance, Congress has failed to appropriate sums sufficient to allow the agency to meet a statutory deadline.[276] In such a situation, Congress has arguably revised by implication the terms of the statute. The exemption has also been applied to postpone statutory deadlines in instances in which delay seems necessary to effectuate the purposes of the statute. Thus, in *Natural Resources Defense Council v. Train*,[277] the leading case on the "necessity" exemption, the court extended the statutory deadline for the publication of effluent guidelines by EPA so that the guidelines could comprehensively evaluate technology as Congress wished.

The "administrative necessity" exemption demands a showing of impossibility, obviously a difficult one to make. Viewed prospectively, there is nothing impossible about requiring the states to process 4,000 permit applications instead of 165. While there is a high risk that the states will respond by refusing to assume responsibility for permitting or by cursorily reviewing applications, it is also possible that the states will respond by increasing their program resources. Thus the "necessity" exemption is not much of a lever with which to adjust the program before it goes

276. *See, e.g.*, Morton v. Ruiz, 415 U.S. 199, 230-31 (1973) (Bureau of Indian Affairs had power to create reasonable classifications for spending of limited funds, even if this resulted in denial of benefits to some eligible persons); American Fed. of Labor v. Marshall, 570 F.2d 1030, 1039 (D.C. Cir. 1978) (The Secretary of Labor and the states' obligation to enforce OSHA is proportionately abated if Congress approves only a portion of the resources necessary to do so).

277. 510 F.2d 692 (D.C. Cir. 1975). For further discussion of the application of the impossibility exemption to deadline extensions, *see infra* notes 408-18 and accompanying text.

into operation. Using the exemption while the program is in effect is risky as well, since this forces the agency to gamble that its view of impossibility will be shared by the reviewing court.[278]

Perhaps as a result of these difficulties, the administrative necessity exemption has proven to be a dead letter within the PSD program. The de minimis exemption has not fared much better. Although in theory applicable to any portion of the PSD scheme, it has been confined to the narrow areas in which the issue originally arose.[279] The agency has promulgated a set of de minimis emission rates that apply both to modifications and best available control technology determinations. For instance, an increase of less than forty tons per year of sulfur dioxide at an existing major emitting facility is exempt from PSD review; equally, a new or modified major emitting facility need not use the best available control technology for sulfur dioxide emissions of less than that amount.[280] Even if these emission rates are not exceeded, a source is not eligible for the exemption if its emissions would affect air quality in a Class I area such as a national park by more than one microgram on more than one day each year.[281]

The limited and ambiguous scope of the de minimis exemption vexed the agency in formulating these exclusions. EPA declared that administrative burdens were a secondary concern in formulating de minimis levels.[282] This position was apparently an attempt to find a compromise between Judge Leventhal's and Judge Wilkey's opinions on the de minimis exemption: the agency ac-

278. *See* Public Citizen v. Fed. Trade Comm'n, 869 F.2d 1541, 1556 (D.C. Cir. 1989) (rejecting the argument that administrative necessity justified the agency's exemption of utilitarian items advertising smokeless tobacco from statutory requirements for warning labels).

279. EPA has apparently created a *de minimis* exemption in another area. As discussed earlier, *see supra* notes 198-99 and accompanying text, the 100/250 ton threshold under the statute applies to any air pollutant, even if the pollutant is not regulated under the Act. Thus a proposed source whose only emissions would be 251 tons of carbon dioxide, a pollutant not regulated under the Act, would be obliged to obtain a PSD permit. EPA has chosen in its regulations, however, to cover only sources emitting regulated pollutants. *See* 40 C.F.R. §§ 51.166 (b)(1)(i), 52.21(b)(1)(i) (1988) (defining as a "major stationary source" sources that exceed the 100/250 ton threshold for emissions of "any air pollutant subject to regulation under the Act"). It is not clear what EPA's basis was for this decision, since it is nowhere discussed in the preambles to the proposed or final rulemaking.

280. *See* 40 C.F.R. §§ 51.166(b)(23)(i), 52.21(b)(23)(i) (1988).

281. *See* 40 C.F.R. §§ 51.166(b)(23)(iii), 52.21(b)(23)(iii) (1988). EPA has recently decided against repealing this special protection for Class I areas. *See* 54 Fed. Reg. 27,286 (June 28, 1989).

282. *See* 45 Fed. Reg. 52,707 (Aug. 7, 1980).

cepted Judge Wilkey's view that administrative costs were relevant, but sought to defer to Judge Leventhal by putting primary weight on other factors. Similarly, the agency found that criteria for deciding how to set de minimis levels "is [sic] almost nonexistent."[283] Establishing these levels is especially complicated for several reasons. First, researchers have been unable to find "threshold" levels below which air pollutant levels are harmless; this indeed was one of the rationales behind the establishment of PSD.[284] Thus, it is not possible to determine with certainty that some level of air pollution poses little or no risk of harm. Second, increment consumption is cumulative—that is, a proposed source must take into account not only its own additions to baseline air quality levels but also those of other sources.[285] Any de minimis exemption, therefore, will hasten exhaustion of the increments by exempting from control requirements some emissions which consume increment.[286] Finally, the establishment of a de minimis level below which there is no benefit assumes that the agency knows what benefit Congress was seeking to obtain by establishing the regulatory provision. But this may not be ascertainable; as we have seen, it is far from clear, for instance, why Congress wanted all modifications to be covered by the PSD program.[287]

The choice of a de minimis level, therefore, is inevitably arbitrary. This is reflected in the levels chosen by EPA. The agency chose without explanation to set the de minimis emission rates for particulate matter and sulfur dioxide—the two pollutants then covered by increments[288]—at four per cent of the 24-hour ambient standards for these pollutants.[289] De minimis levels for other pollutants covered by air quality standards were derived by ad hoc analogy.[290] De minimis levels for pollutants not covered by such standards were expressed as a fraction—again, chosen with-

283. 45 Fed. Reg. 52,706 (Aug. 7, 1980).

284. Oren, *Prevention, supra* note 21, at 70-73.

285. *See* 45 Fed. Reg. 52,717 (Aug. 7, 1980).

286. This is especially true of the annual increments, which can be exhausted by multiple sources. *See* Oren, *Prevention, supra* note 21, at 36-37.

287. *See supra* notes 193-205 and accompanying text.

288. *See supra* notes 23-24 and accompanying text.

289. *See* 45 Fed. Reg. 52,707-08 (Aug. 7, 1980).

290. *See id.* at 52,708. For instance, the nitrogen oxides de minimis levels were set the same as the sulfur dioxide levels because "these pollutants are frequently emitted from the same source, in roughly equivalent amounts." The hydrocarbon de minimis level was then set at the same quantity as the nitrogen oxides level because of the link between the two pollutants in the formation of ozone.

out explanation—of the emissions that could be expected from a well-controlled source of those pollutants.[291]

Perhaps fortunately for EPA, its de minimis limits have not been challenged. There has therefore been neither a resolution of the tension between Judge Wilkey's and Judge Leventhal's views of the role of administrative costs, nor any elucidation of how an agency should apply the de minimis exemption. Furthermore, the difficulties of applying the exemption have rendered it practically useless as a continual source of flexibility for the agency. This is even true in the context—deciding which increases require a permit or best available control technology—in which the issue first arose. First, EPA has been unable to formulate de minimis levels for pollutants newly regulated since 1980, such as radionuclides.[292] Second, studies sponsored by the agency indicate that higher de minimis levels would for some pollutants eliminate a great many permit reviews with relatively low emissions impact. For instance, a 1982 study showed that a one hundred ton de minimis level would eliminate from review 45% of the permits involving particulate matter increases; these permits account for only 6% of the particulate matter emissions of all PSD permits.[293] By contrast, small sources appear to be a substantial problem for Class I areas. This may indicate the need for a lower de minimis level for sources near those areas.[294] Yet the agency has not re-entered the thicket of de minimis levels, even though their alteration could release additional resources for the review of projects posing the greatest environmental concerns.

291. *Id.* at 52,708-09.

292. *See* 40 C.F.R. § 61 Subparts B, K and W (1988). Radionuclides were first listed by the agency as hazardous in 1979. *See* 44 Fed. Reg. 76,738 (Dec. 27, 1979). Similarly, the agency has not yet proposed de minimis levels for benzene, although it has issued standards for emissions of this pollutant. *See* 55 Fed. Reg. 8292 (Mar. 7, 1990), 54 Fed. Reg. 38,044 (Sept. 14, 1989) (to be codified at 40 C.F.R. § 61). The proposed Clean Air Amendments recently passed by the Senate would set deadlines for the promulgation of de minimis levels for such hazardous air pollutants. S.1630, 101st Cong., 2d Sess. § 301 (proposed § 112(b)(6)), 136 CONG. REC. S4363 (daily ed. Apr. 18, 1990).

293. 1982 NEW SOURCE REVIEW ANALYSIS, *supra* note 196, at 89-90. A later study appears to be in accord. *See* EPA, ANALYSIS OF NEW SOURCE REVIEW (NSR) PERMITTING EXPERIENCE (PART 3) 23 (1986) (showing that a 500 ton threshold would, for instance, eliminate approximately half of the PSD reviews for nitrogen oxides and carbon monoxide, while exempting less than ten per cent of emissions of these pollutants.). The later study, though, is not strictly comparable, since it assumes an increase not merely in the de minimis levels, but also in the statutory 100/250 ton threshold for program applicability.

294. *See supra* note 255 and accompanying text.

Rather, the de minimis exemption has been unsuccessful in giving the agency the ability to adjust the program over time.

B. *The Fugitive Dust Exemption*

The de minimis and administrative necessity exemptions illustrate the difficulty of using judicial interpretation to import general exemption authority into an intricate statutory scheme. It is no easier to attempt to interpret specific provisions to give the agency flexibility. This can be seen from the effort to determine the proper treatment of fugitive emissions—emissions that do not emerge from a conventional stack.[295]

In revising its nondegradation regulations after PSD's codification in 1977, EPA granted an exemption from the increments for natural windblown dust that is uncontaminated by industrial activity.[296] Thus a strip mine would not consume increment because of soil that is blown from open mines or from haulage roads into the atmosphere. Under EPA's policy, though, the dust would count towards the 100/250 ton threshold that determines whether a PSD permit is needed. A strip mine or other source meeting the threshold would be required to use the best available control technology to reduce the dust.[297] Such technology can substantially lower local concentrations of particulate matter at a relatively low cost.[298] The requirement to use the best available control technology is especially important near national parks, where strip mines can contribute large amounts of dust.[299]

The increment consumption exemption was a corollary of EPA's policy of ignoring natural windblown dust in determining whether an area violates the ambient standards for particulate

295. For a more detailed account, see Probst & Becker, *Escaping the Regulatory Dust Bowl: Fugitive Dust and the Clean Air Act*, 14 NAT. RESOURCES LAW. 541 (1982).

296. 43 Fed. Reg. 26,395 (June 19, 1978), *formerly codified at* 40 C.F.R. §§ 51.24(k)(5), 52.21(k)(5) (1978).

297. *Id.*

298. *See* EPA, REGULATORY IMPACT ANALYSIS: LISTING OF SURFACE COAL MINES FOR NEW SOURCE REVIEW II-7, IV-20, IV-42 (1985) [hereinafter STRIP MINE REGULATORY IMPACT ANALYSIS].

299. *See* Johnson & Haspel, *Economic Valuation of Potential Scenic Degradation at Bryce Canyon National Park* in MANAGING AIR QUALITY AND SCENIC RESOURCES AT NATIONAL PARKS AND WILDERNESS AREAS 235-37 (R. Rowe & L. Chestnut ed. 1983) ; Tundermann, *Protecting Visibility: The Key to Preventing Significant Deterioration in Western Air Quality*, XI NAT. RESOURCES LAW. 373, 374 (1978)

matter.[300] Without this policy, much of rural America would exceed the standards. Moreover, natural dust settles out of the atmosphere relatively quickly—within ten miles, in the case of dust from strip mines[301]—and does not pose the same health and welfare concerns as smaller particulates. Natural dust particles are too large to penetrate into the deep lung or to degrade regional visibility through light scattering, though a concentration of dust will reduce nearby visibility.

Unfortunately for the agency, Congress, although apparently approving of the fugitive dust exemption policy, failed to endorse its use in calculating increment consumption. The House version of the PSD codification contained a provision allowing states to exclude natural windblown dust from increment consumption.[302] This exemption allowed the House sponsors to rebut charges that PSD would make strip mining impossible.[303] The provision, however, was dropped in conference.[304]

The conferees did not explain their decision to delete the provision,[305] and it is difficult to understand why they did so. The Senate bill was even more solicitous of natural dust than the House bill. Under the Senate bill, only specified categories of sources would obtain permits or consume increment; strip mines and other sources of rural dust were not among those listed.[306] Moreover, the Senate report stressed that EPA was expected to exclude natural dust from calculations of baseline concentrations.[307] Thus under the Senate bill, natural dust would figure

300. *See* 52 Fed. Reg. 24,716 (July 1, 1987) (notice by EPA discussing the policy and inviting comment on whether to retain it).

301. STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at xxxiii.

302. *See* H.R. 6161, 95th Cong., 1st Sess § 108(a), 123 CONG. REC. 16,645 (May 25, 1977) (proposed § 160(f)(1)(E)).

303. *See* H.R. REP. No. 294, 95th Cong., 1st Sess. 165-66 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2632-33.

304. *Compare* H.R. 6161, 95th Cong., 1st Sess. § 108(a), 123 CONG. REC. 16,645 (May 25, 1977) (proposed § 160(f)(1)) *with* Pub. L. 95-95, 91 Stat. 733 (1977) (enacted § 163(c)).

305. *See* H.R. CONF. REP. No. 564, 95th Cong., 1st Sess. 173 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 533.

306. *See* S. 252, 95th Cong., 1st Sess. § 42, 123 CONG. REC. 18,527-28 (June 10, 1977) (proposed § 302(k)).

307. *See* S. REP. No. 127, 95th Cong., 1st Sess. 98 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 1472. The issue appears to have been of particular concern to Senator Domenici, who at one point expressed the intent to introduce an amendment that would require EPA to exclude fugitive dust. *See* 122 CONG. REC. 12,393-94 (May 4, 1976); [7 Current Developments] Env't Rep. (BNA) 67 (May 21, 1976).

neither in the baseline concentration nor in increment consumption, and sources of natural dust would not be obligated to install the best available control technology. It is therefore remarkable that the House's specific fugitive dust exemption did not survive conference as a means of softening the conferees' decision to extend PSD's applicability beyond the categories listed in the Senate bill to all categories of major emitting facilities.[308]

The deletion of the House's exemption cast doubt upon the legality of EPA's decision to exempt fugitive dust from the increments while still requiring the best available control technology for large sources of fugitive dust. Such a policy, according to the court in *Alabama Power*, quite likely required a complex series of rulemakings centering around revision of the ambient standard for particulate matter.[309] The court, however, found an alternative and seemingly simpler route for allowing flexibility in section 302(j). This provision defines a "major emitting facility" as a source with the potential to emit one hundred tons per year of any air pollutant "including any. . .source of fugitive emissions of any such pollutant, as determined by rule by the Administrator."[310] This language indicates that a source's fugitive emissions may be included in determining whether the source is large enough to need a PSD permit only if the Administrator decides it is appropriate to do so.

308. The deletion cannot be explained as simple inadvertence. First, the Senate did accept other exclusions from increment consumption proposed by the House. *See* H.R. CONF. REP. No. 564, 95th Cong., 1st Sess. 173 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 533. Second, the deletion occurred in the 1976 as well as the 1977 conference report. *Compare* H.R. 10,498, 94th Cong., 2d Sess. § 108, 122 CONG. REC. 30,783 (Sept. 16, 1976) (proposed § 160(f)(1)(E)) *with* H.R. CONF. REP. 1742, 94th Cong., 2d Sess. 45 (1976), *reprinted in* 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4331 (proposed § 160(f)(1)).

309. *Alabama Power*, 636 F.2d at 370 n.134. This route required EPA to exempt large particulates from the ambient standards and increments for particulate matter, and then to re-regulate sources of such particulates through the promulgation of new source performance standards. This would mean that most strip mine emissions would not count against the increments, therefore in effect re-establishing EPA's increment exemption, but that strip mines would continue to be subject to the requirement for best available control technology since strip mine emissions would be regulated under the Act. *See* § 165(a)(4), 42 U.S.C. § 7475(a)(4) (1982). EPA, though, has decided to exclude from the ambient standards only those particulates greater than ten microns. *See* 52 Fed. Reg. 26,639, 26,645-46 (July 1, 1987). Strip mines, though, emit up to two thousand tons annually of particulates that are smaller than this size and hence still covered. STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at IV-2. Thus they continue to pose increment consumption issues.

310. 42 U.S.C. § 7602(j) (1982).

There are, however, some difficulties in using section 302(j) as a safety valve. First, Congress left little trace of its rationale for including the fugitive emissions language in the provision. The language does not appear in the 1976 conference report. Instead, it originates in a provision of the 1977 House bill dealing with eligibility for delayed compliance orders—that is, postponements of deadlines for sources in nonattainment areas to comply with emission limits set in state implementation plans.[311] Furthermore, the description of the provision in the report is inconsistent with the provision's language. The House Committee explained that the fugitive emissions language had been inserted to make clear that major sources of fugitive emissions were to be treated as major stationary sources. But the provision does not do so, either as reported from the Committee or as enacted.[312] Rather, it leaves to the Administrator the choice of how to treat major sources of fugitive emissions.[313] The Committee report does not even acknowledge that, as reported, the fugitive emissions language would affect PSD and other provisions of the Act, not just the scope of the delayed compliance order section.

Second, section 302(j) is ambiguous on whether it applies to natural dust like that generated by strip mining. The term "fugitive emissions" in section 302(j) is not defined. At the time the provision was adopted, however, EPA had used this term in at least one major rulemaking to refer only to process emissions from industrial sources that do not pass through a stack (*e.g.*, leaks from chemical plants or from coke ovens), not to natural dust.[314] Thus section 302(j) may have been intended to afford EPA a means of exercising discretion only with respect to such industrial emissions.

311. *See* H.R. 6161, 95th Cong., 1st Sess. § 103(f) (1977), 123 CONG. REC. 16,634 (May 25, 1977) (proposed § 302(o)). The definition was important in that section because, under its provisions, only a major stationary source would need advance approval by EPA for a delayed compliance order; other sources could be granted an order by the state, subject to possible revocation by EPA. *Id.* (proposed § 121(a)(1)(B)).

312. *See* H.R. REP. No. 294, 95th Cong., 1st Sess. 4 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2471.

313. The Natural Resources Defense Council and other environmental groups have sought to reconcile the language of section 302(j) with its history by contending that Congress intended that EPA should promulgate a rule listing all significant sources of fugitive dust. But, as EPA notes, it is hard to see why Congress, if it had wanted such sources to be covered, would not have said so more directly. 48 Fed. Reg. 38,745 (Aug. 25, 1983).

314. *See* 41 Fed. Reg. 55,560 n.3 (Dec. 21, 1976) (proposed requirements for review of new sources in areas violating the air quality standards).

Finally, the section 302(j) safety value may not apply to PSD. As enacted, section 302(j) provides that its definition of "major emitting facility" does not override a contrary express definition. But the PSD provisions themselves contain a definition of "major emitting facility" in section 169(1), which establishes the 100/250 ton threshold and which does not include any special language about fugitive emissions.[315] The absence of such language seems understandable, since section 169(1) provides a general threshold of 250 tons as opposed to section 302(j)'s lower 100-ton cutoff. The fugitive dust language in section 302(j) can be seen as consistent with section 169(1) in establishing a policy that most sources between 100 and 250 tons of total emissions will not be treated as "major emitting facilities" simply on the basis of fugitive emissions.

Arguably, then, section 169(1) nullifies the applicability of section 302(j)'s fugitive emissions language to PSD. The court in *Alabama Power*, though, held that section 169(1) pre-empts section 302(j) only insofar as section 169(1) provides different tonnage thresholds. Therefore, according to the court, the fugitive emissions language of section 302(j) applies to the PSD program.[316] The court relied on section 169(1)'s silence on fugitive emissions; since section 302(j) applies unless another provision is expressly to the contrary, section 169(1)'s silence must have meant, the court reasoned, that Congress intended section 302(j)'s fugitive emissions language to apply.

The court appears to have believed that section 302(j) would give EPA some maneuvering room in treating fugitive emissions. Indeed, the court, though admitting the sparse history of the provision, hailed section 302(j) as "serendipitous, for it gives EPA flexibility to provide industry-by-industry consideration and the appropriate tailoring of coverage."[317] Had the court rejected section 302(j)'s applicability, the agency would have been constrained to treat windblown dust and other fugitive emissions like other air pollution, with consequent hardship to strip mining and forestry operations.[318]

But section 302(j) has proven of doubtful meaning and utility. The section does not provide any obvious criteria for the agency

315. 42 U.S.C. § 7479(1) (1982).
316. *Alabama Power*, 636 F.2d at 370.
317. *Id.* at 369.
318. *Id.*

to use in applying the fugitive dust language of section 302(j).[319] One possibility is that the agency is supposed to list only those categories of sources whose fugitive emissions can be sufficiently quantified to determine whether the 100/250 ton threshold is satisfied. But if Congress's motivation in enacting section 302(j) was concern that fugitive emissions cannot be quantified, one would expect that Congress would have also exempted fugitive emissions from increment consumption, since increment consumption calculations also require knowledge of the quantity of emissions. Yet Congress, as we have seen, did not provide such an exemption.[320] The consequence is an artificial distinction between a fugitive dust source with 250 tons of non-fugitive emissions and the same source with no non-fugitive emissions. Since section 302(j) can exempt fugitive emissions from the 100/250 ton threshold, it offers relief for the source with less than 250 tons of non-fugitive dust; a source with a greater amount of fugitive emissions, though, will need a permit, and will have to attempt to quantify its fugitive emissions in calculating increment consumption.

The ambiguity of section 302(j) has plagued EPA in implementing the provision. EPA responded to *Alabama Power* by promulgating a list of categories for which fugitive emissions would be taken into account in deciding whether a source is large enough to need a PSD permit.[321] This list consisted largely of the twenty-eight source categories that Congress singled out in section 169(1) for a one-hundred ton threshold for needing a PSD permit, rather than the general two-hundred-fifty-ton threshold.[322] Strip mines, however, were not included, though the agency promised further study.[323] EPA justified its list on the grounds that the categories selected were known to be major air polluters, and that EPA had substantial experience in quantifying their emissions.[324] But the agency undercut the latter rationale by stat-

319. *See, e.g.*, 49 Fed. Reg. 43,208 (Oct. 26, 1984) ("The intention behind section 302(j) is difficult to discern.").

320. *See supra* notes 303-08 and accompanying text.

321. *See* 45 Fed. Reg. 52,733, 52,739 (Aug. 7, 1980) (presently codified at 40 C.F.R. §§ 51.166(i)(4)(ii), 52.21(i)(4)(ii) (1988)). Despite wavering during the Reagan Administration, this list has remained in place. *See* Oren, *Prevention*, *supra* note 21, at 15.

322. *Compare id. with* § 169(1), 42 U.S.C. § 7479(1) (1982); *see* 45 Fed. Reg. 52,691 (Aug. 7, 1980) ("EPA intended to identify in the proposed section 302(j) list the same categories of sources identified by Congress in the section 169(1) list").

323. Sierra Club v. Gorsuch, 715 F.2d 653, 656 (D.C. Cir. 1983).

324. *See* 45 Fed. Reg. 52,691 (Aug. 7, 1980).

ing that it did not believe that difficulty in quantifying a category's fugitive emissions was a good reason for keeping the category off the list, since the agency could consider this difficulty when deciding whether a particular proposed source would exceed the 100/250 ton threshold.[325] This statement, along with EPA's apparent agreement that strip mines were substantial emitters, meant that the agency had no clear rationale for failing to include strip mines on the list. As a result, the D.C. Circuit in 1983 ordered EPA to reconsider whether strip mines should be listed.[326]

EPA proposed to list strip mines in 1984,[327] and took five years before recently deciding not to do so.[328] The delay reflects the dilemma in which the agency is placed by section 302(j)'s all-or-nothing character. To illustrate this, hypothesize the Western Strip Mine with non-fugitive emissions of ten tons per year and fugitive emissions of two thousand tons per year.[329] EPA's exemption of natural dust in its original post-codification regulations was confined to increment consumption.[330] Thus the Western Strip Mine's fugitive emissions would not count against the increments. The Mine would, however, need a permit, since it emits a total of over 250 tons per year. Accordingly, it would have to install the best available control technology for its fugitive and non-fugitive emissions alike.

This middle ground is not available under section 302(j). Rather, if a category is listed under section 302(j), its fugitive emissions would both consume increment and be subject to the best available control technology. Even such technology, though, will not prevent large mines from causing substantial additions to air pollution that would violate the increments immediately around the mine. Thus, placing strip mines on the section 302(j) list would cause substantial restrictions on the productivity of strip mines.[331]

325. *Id.* at 52,692.

326. Sierra Club v. Gorsuch, 715 F.2d 653, 660-61 (D.C. Cir. 1983).

327. 49 Fed. Reg. 43,211 (Oct. 26, 1984).

328. *See* 54 Fed. Reg. 48,870 (Nov. 28, 1989).

329. *See* STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at IV-1 (emissions from typical strip mines range up to 4000 tons per year).

330. *See supra* note 296 and accompanying text.

331. *See* STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at IV-15 ("Implementation of PSD requirements on [surface mines] has been demonstrated to require not only [best available control technology], but for larger mines, will also call for reduced rates of production"); Probst & Becker, *supra* note 295, at 557 ("[N]umerous studies . . .

On the other hand, granting an exemption could cause severe environmental effects. If the Western Strip Mine were in an exempted category, it would not need a PSD permit, since its non-fugitive emissions are not by themselves sufficient to make the source large enough to satisfy the 100/250 ton threshold. The requirement for best available control technology would therefore not apply. Nor might the source be limited by the increments. Suppose Western Strip Mine locates in an area where the baseline date has not previously been set by the construction or modification of a major emitting facility.[332] Western Strip Mine would not trigger the baseline because its non-fugitive emissions are not great enough to qualify it as a major emitting facility. Its emissions therefore would not count against the increments. As a result, nothing in PSD would prevent the source from emitting enough pollution to cause the area to reach the national ambient air quality standards.

Hence, far from proving "serendipitous", section 302(j) has given the agency no more than a choice between flawed alternatives. Moreover, EPA's administration of section 302(j) has been hampered by the provision's lack of substantive criteria, which leave unclear what scope Congress intended for the agency's flexibility or even the procedure EPA must follow before listing a source category.[333] EPA's current position is that categories that emit a great deal of fugitive emissions are to be listed under section 302(j) unless the industry shows this would be "unreasonable."[334] But the difficulty in deciding whether to list strip mines illustrates the vagueness of this standard, which leaves unresolved how costs and benefits are to be weighed. Nor is it clear whether EPA has discretion to list only those strip mines locating near parks, an option that would considerably cut the costs of regulation while improving visibility in areas where it is especially important.[335] Finally, it is still not known whether EPA should

indicate that typical mining and energy development operations generally would exceed the Class II particulate increment, often by considerable margins").

332. There may still be such areas. *See supra* note 178 and accompanying text.

333. *See* 49 Fed. Reg. 43,203-06 (Oct. 26, 1984); 45 Fed. Reg. 52,690 (Aug. 7, 1980) (discussing industry claims regarding § 302(j) and the agency's response). Similarly, there is ambiguity about how and whether § 302(j) applies to expansions of existing sources. *See* 54 Fed. Reg. 48,875-76 (Nov. 28, 1989); 49 Fed. Reg. 43,213-14 (Oct. 26, 1984).

334. *See* 49 Fed. Reg. 43,203 (Oct. 26, 1984).

335. *See* 49 Fed. Reg. 43,212 (Oct. 26, 1984); STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at xxviii, xxxiv. Such a position might be supportable as analogous to

consider the quantifiability of fugitive emissions in deciding whether to list a category; EPA's failure to complete reconsideration of its original listing decisions has delayed judicial review that might elucidate this question.[336]

EPA's latest response to the dilemma is to attempt to escape it. The agency has recently decided not to list strip mines under section 302(j), and thus has largely exempted strip mines from the PSD program.[337] EPA's rationale is that fugitive emissions from strip mines are worth regulating only insofar as these emissions affect national parks;[338] these latter emissions, EPA believes, can be adequately controlled by the Department of the Interior (DOI) under other laws.[339]

At a minimum, the latter part of this reasoning is open to question. EPA largely relies on DOI's authority to regulate strip mines under the Surface Mining Control and Reclamation Act of 1977 (SMCRA).[340] SMCRA, though, does not give DOI the power to regulate air pollution resulting from blasting operations or vehicular traffic at strip mines, but rather confines DOI to regulating emissions due to erosion.[341] While section 522 of SMCRA authorizes DOI to forbid strip mining on Federal lands near

EPA's decision to impose a special "de minimis" test for sources proposing to locate near national parks, *see supra* note 281 and accompanying text. On the importance of visibility in these areas, *see, e.g.*, Oren, *Parklands*, *supra* note 25, at 330-37.

336. *See* Oren, *Prevention*, *supra* note 21, at 15. An action challenging EPA's original listing decisions, National Coal Ass'n v. EPA, No. 84-1609 (D.C. Cir., filed Dec. 19, 1984), remains open while EPA ponders petitions to re-consider those decisions.

337. 54 Fed. Reg. 48,870 (Nov.28, 1989).

338. *Id.* at 48,879 ("EPA believes. . .the benefits of adopting Alternatives II or III [providing for listing of all surface mines, *see id.* at 48,872-73] are greatly outweighed by the costs associated with those options.").

339. *Id.* at 48,874-875, 48,878-880.

340. 30 U.S.C. § 1201 *et. seq.* (1982).

341. Shortly after passage of SMCRA, DOI took the position that all air emissions from strip mines are subject to regulation under § 515(b)(4) of SMCRA, 30 U.S.C. § 1265(b)(4) (1982), and issued regulations requiring strip mines to utilize specified control practices. *See* 44 Fed. Reg. 15,050-52 (March 13, 1979). These regulations were invalidated in In re Permanent Surface Mining Regulation Litigation, 19 Env't Rep. Cas. (BNA) 1477, 1491-92 (D.D.C. 1980), which held that SMCRA only authorizes regulation of air pollution caused by erosion.The Department of the Interior consequently suspended the regulation, *see* 45 Fed. Reg. 51,549 (August 4, 1980), and later amended it to acquiesce in the court's ruling, *see* 48 Fed. Reg. 1160 (January 10, 1983). The amended regulation has since been upheld in National Wildlife Fed'n v. Hodel, 839 F.2d 694, 764-65 (D.C. Cir. 1988), *aff'g* In re Permanent Surface Mining Reg. Litigation, 21 Env't Rep. Cas. (BNA) 1193, 1207 (D.D.C. 1984). In addition, DOI has promulgated regulations requiring strip mine operators to prevent air emissions from haulage roads. *See* 53 Fed. Reg. 45,190 (Nov. 8, 1988).

sensitive areas such as national parks,[342] there has been only one occasion on which DOI has used this authority[343] and the section's implementation has been mired in litigation.[344] Indeed, EPA has itself expressed doubts about section 522's usefulness.[345] These reservations seem well-founded. Section 522 presents an all-or-nothing choice, since it does not provide a middle ground between allowing strip mines near parks and prohibiting them completely. In this way, section 522 poses the dilemma faced by EPA in using section 302(j) in regulating strip mines,[346] and could result in the same kind of regulatory deadlock. The other possible authority identified by EPA for DOI regulation of strip mines near parks, the Federal Coal Management Program,[347] appears equally untested and could pose the same dilemma as section 522.

EPA's attempt to invoke DOI's regulatory authority as a *deus ex machina* to escape the section 302(j) dilemma therefore appears weak. Not surprisingly, litigation has been brought to set aside EPA's decision.[348] The result may well be continued delay in settling the issue. Congress may also prove unable to resolve the issue. In apparent recognition of the difficulties with section 302(j), the Bush Administration has proposed restoring the original increment exemption for strip mines, except insofar as strip mines affect national parks and other Class I areas.[349] Although this amendment is included in the Clean Air Act Amendments recently passed by the Senate, the revision's prospects are uncer-

342. 30 U.S.C. § 1272 (1982).

343. 54 Fed. Reg. at 48,879 n. 9. The occasion referred to in this notice appears to be DOI's decision in December, 1980 to forbid new strip mining near Bryce Canyon National Park. *See* Utah Int'l, Inc. v. DOI, 553 F. Supp. 872 (D. Utah 1982) (upholding DOI's decision).

344. *See* In re Permanent Surface Mining Regulation Litigation, 620 F. Supp. 1519, 1538-59 (D.D.C. 1985) (largely upholding DOI's regulations regarding the section), *aff'd in part by* National Wildlife Fed'n v. Hodel, 839 F.2d 694, 751-52 (D.C. Cir. 1988).

345. STRIP MINE REGULATORY IMPACT ANALYSIS, *supra* note 298, at III-3 ("SMCRA procedures are not extensively tested, however, and may be inefficient").

346. *See supra* notes 329-32 and accompanying text. For other views of § 522, *see* Gorrell & Russell, *The Petition Process for Designating Lands Unsuitable for Surface Coal Mining Operations: Extreme Solution or Unnecessary Exercise*, 71 KY. L.J. 57 (1982); Note, *Designating Areas Unsuitable for Surface Coal Mining*, 1978 UTAH L. REV. 321.

347. 54 Fed. Reg. at 48,875.

348. Sierra Club v. Reilly, No. 90-1028 (D.C. Cir., filed Jan. 25, 1990).

349. *See* H.R. 3030, 101st Cong., 1st Sess. § 108(h)(3) (1989) (proposing new § 163(c)(1)(E)).

tain, since the proposal does not appear in the proposed Clean Air Amendments recently considered in House Committee.[350]

The impasse over strip mine dust is ironic given the court's high hopes in directing the use of section 302(j). The experience instead illustrates the limitations of interpreting a statute to provide interstitial flexibility. Section 302(j), as we have seen, appears to have been written without the strip mine issue in mind.[351] Hence the provision neither guides EPA in resolving the matter nor provides the agency with practicable alternatives. The judicial attempt to adapt section 302(j) to the strip mining problem was therefore tantamount to ordering EPA to put a square peg in a round hole.

C. *The Set II Pollutants: Coming Full Circle*

In the instances recounted so far in this Part, the courts played a major role in attempting to evolve and formulate a zone of discretion for EPA to use in administering the PSD program. Of course, the judiciary could not write on a blank slate, but rather, as in the instance of fugitive dust, was confined by the language and history of the statute. The question remains, therefore, whether the problem in these situations is simply that Congress did not itself provide for flexibility. Unfortunately, even an explicit Congressional creation of an area for administrative discretion may frequently go awry. The author has illustrated this point elsewhere in discussing the various devices under the PSD program for agency flexibility in protection of national parks from new sources of air pollution.[352] These devices have been ignored by EPA and other implementing agencies because of the ambiguities in the statutory grants of authority and the contrast between the statute's detail and the apparently large breadth of the congressional delegation.

But the point is not confined to park protection. This can be seen from the history of the effort to regulate the so-called Set II pollutants — those for which increments did not originally exist.

350. *See* S. 1630, 101st Cong., 2d Sess. § 114(c) (proposed § 163(c)(1)(E)), 136 CONG. REC. S4363 (daily ed. Apr. 18, 1990); Committee Print, H.R. 3030, showing the amendment in the nature of a substitute adopted by the Subcommittee on Health and the Environment (Nov. 9, 1989). At this writing, it is not possible to establish whether the proposal appears in the bill reported by the House Committee on Energy and Commerce in early April, 1990.

351. *See supra* notes 311-13 and accompanying text.

352. *See* Oren, *Parklands*, *supra* note 25, at 368-402.

Here a statutory provision seemingly gives EPA broad power to act but in reality does not. Instead, the scheme's complexity casts doubt over the scope of the agency's power and creates ungainly procedural roadblocks to agency action. Moreover, as with fugitive dust, the statute leaves the agency unguided on crucial policy questions.

As we have seen, EPA's original nondegradation regulations covered only sulfur dioxide and particulates, but not the other "criteria" pollutants for which ambient air quality standards existed.[353] Thus a proposed source was under no obligation to use the best available control technology to limit, for instance, its emissions of nitrogen oxides or hydrocarbons that lead to ozone formation. Nor did EPA's regulations provide any system of increments to restrain the source's emissions of these pollutants from consuming the entire margin between pre-existing air quality levels and the ambient standards.

The codification, by contrast, extended the requirement that a proposed source install best available control technology to all pollutants regulated under the Clean Air Act.[354] But the conference committee did not accept the House's position that increments should be extended to all criteria pollutants.[355] Rather, the conferees hammered out a compromise that was enacted as section 166.[356] This provision delegates to EPA the obligation to develop within two years an increment scheme, or an equally effective equivalent, for criteria pollutants other than sulfur dioxide and particulate matter (known as Set II pollutants).[357] The same

353. *See supra* notes 51-52 and accompanying text. Because ambient standards are based on lengthy scientific "criteria" documents, *see* § 108, 42 U.S.C. § 7408 (1982), pollutants for which ambient standards have been set are known as criteria pollutants.

354. *See* § 165(a)(4), 42 U.S.C. § 7475(a)(4) (1982), *added by* Pub. L. No. 95-95, § 127, 91 Stat. 736 (1977).

355. *See* H.R. 6161, 95th Cong., 1st Sess. § 108(a), 123 CONG. REC. 16,642-43 (May 24, 1977) (proposed § 160(c)). By contrast, the Senate bill would have merely given EPA the responsibility to recommend proposed strategies to Congress within one year, including proposed increments for hydrocarbons and nitrogen oxide. S. 252, 95th Cong., 1st Sess. § 7, 123 CONG. REC. 18,518 (June 10, 1977) (proposed § 110(g)(8)).

356. 42 U.S.C. § 7466 (1982), *added by* Pub. L. No. 95-95, § 127, 91 Stat. 739 (1977). This provision is interpreted in Environmental Defense Fund v. Administrator of EPA, 898 F.2d 183 (D.C. Cir. 1990), discussed *infra* at notes 380-88 and accompanying text.

357. *See* 45 Fed. Reg. 30,088 (May 7, 1980). Industry petitioners argued in *Alabama Power* that Set II pollutants were exempt from all requirements of the PSD codification, including the requirement for best available control technology, until EPA issued regulations under section 166. This contention was rejected by the court as contrary to the plain language of the statute. *Alabama Power*, 636 F.2d at 405-06.

obligation applies whenever EPA promulgates ambient standards for additional pollutants, as it did for lead in 1978.[358]

Set II regulation could have afforded the agency a way to remedy some of the flaws of the PSD program. EPA's original regulations have been criticized as representing less a systematic response to the intricate policy issues raised by nondegradation than an *ad hoc* response strongly influenced by the need to comply with a vague judicial order.[359] The codification of the increments for sulfur dioxides and particulate matters squelched any possibility that states could be allowed to develop alternatives to the increment scheme for those pollutants.[360] Nevertheless, EPA had an opportunity, in the course of developing regulations for Set II pollutants, to think through the purposes and mechanisms of the PSD program as a whole, perhaps influencing future Congressional action on the program.

Instead, Set II regulation hardly exists at all. Even the Set II regulation that is in place has taken the remainder of the PSD program as a given rather than re-examine the premises of the program. EPA's implementation of its responsibility for regulating Set II pollutants has been most reluctant. In 1980, the agency issued an Advance Notice of Proposed Rule-making on regulating Set II pollutants,[361] but dropped the matter from its regulatory agenda the following year.[362] A court order at last forced EPA to promulgate in 1988 Set II regulations for nitrogen oxides,[363] but there is no indication when or if EPA will carry out the statute's mandate with respect to the other Set II pollutants.[364]

358. *See* 44 Fed. Reg. 46,258 (Oct. 5, 1978) (presently codified at 40 C.F.R. § 50.12 (1988)).

359. *See* R.S. MELNICK, *supra* note 12, at 86-89. The present author, who has criticized the PSD program at length, *see* Oren, *Prevention*, *supra* note 21, and Oren, *Parklands*, *supra* note 25, hopes in future work to pursue the theme that the agency's behavior in the original PSD rulemaking was crucial in leading to the program's present difficulties.

360. *Compare* [7 Current Developments] Env't Rep. (BNA) 1550 (Feb. 11, 1977) (reporting meetings between EPA and the states on the possibility of allowing states to formulate alternatives to the increments for Set I pollutants) *with* 42 Fed. Reg. 57,473 (Nov. 3, 1977) ("The Act does not appear to give States the option of developing new, innovative approaches. . .notwithstanding that such schemes may be equivalent in accomplishing PSD").

361. 45 Fed. Reg. 30,088 (May 7, 1980).

362. *See* 46 Fed. Reg. 54,036 (Oct. 30, 1981).

363. *See infra* notes 407-41 and accompanying text.

364. EPA has proposed increments for PM10—particulates smaller than ten microns in diameter and hence respirable—as a result of the agency's promulgation of ambient standards for this pollutant. *See* 54 Fed. Reg. 41,218 (Oct. 5, 1989); 54 Fed. Reg. 45,327 (Oct. 30, 1989) (estimating final action in September, 1990). These increments, though, will

The inauguration of the Reagan Administration in 1981 helped cause the agency's inaction; the first Assistant Administrator for Air appointed by the Reagan Administration, Kathleen Bennett, came to the agency a professed opponent of Set II regulation.[365] Similarly, the Bush Administration has proposed to repeal the agency's obligation to promulgate further Set II regulations or even to maintain the nitrogen oxide increments.[366] Yet this does not explain why the agency was unable to act before 1981. The two year statutory period, after all, ran out in 1979, when the Carter Administration was still in office, and when the Assistant Administrator for Air was David Hawkins, both previously and presently a lawyer for the Natural Resources Defense Council, whose commitment to environmental protection and a strong Clean Air Act cannot be seriously questioned.

The language of Congress' Set II mandate may afford part of the answer. Section 166(c) requires that the Set II regulations include "specific numerical measures."[367] This appears to eliminate alternatives, such as emissions fees, land-use planning mechanisms or especially stringent control technology requirements that do not rely on quantitative restrictions on the precise amount of new pollution allowed.[368] Rather, the agency is restricted to

replace rather than supplement the previous increments, which covered all particulate matter. *See also* H.R. 3030, 101st Cong., 1st Sess. § 108(i) (1989) (proposal by Bush Administration to establish such increments by legislation).

365. Transcript of Public Hearing 14-15 (July 1, 1980), EPA Docket A-79-34. Ms. Bennett was then speaking for the American Paper Institute.

366. *See* H.R. 3030, 101st Cong., 1st Sess. § 108(i)(3) (1989), (proposed revision of § 166(a)). This proposal does not appear in the proposed Clean Air Act Amendments just passed by the Senate nor in the proposed amendments recently considered in House Committee. *See* S.1630, 101st Cong., 2d Sess., 136 CONG. REC. S4363 (daily ed. Apr. 18, 1990); Committee Print, H.R. 3030, showing the amendment in the nature of a substitute adopted by the Subcommittee on Health and the Environment (Nov. 9, 1989). As with the fugitive dust exclusion, *see supra* note 350 and accompanying text, it is not possible to establish whether it appears in the bill reported by the House Committee on Energy and Commerce in early April, 1990.

367. Section 166(c) provides:

> Such regulations shall provide specific numerical measures against which permit applications may be evaluated, a framework for stimulating improved control technology, protection of air quality values, and fulfill the goals and purposes set forth in section 7401 and section 7470 of this title.

42 U.S.C. § 7476(c) (1982).

368. It is therefore somewhat surprising that EPA in 1979 and 1980 devoted so much attention to non-quantitative alternatives. *See* 45 Fed. Reg. 30,088-89 (May 7, 1980); Mayer, *Prevention of Significant Deterioration Set II: A Regulatory Analysis*, 30 J. Air Pollution Control Ass'n. 868 (1980)(outlining alternatives being considered by agency); [10 Current

the same choice between increments and emissions density zoning that bedeviled it when writing the pre-codification PSD regulations, and that led to the adoption of the increment system as the least objectionable means of complying with *Sierra Club*.[369]

This limitation on EPA's options is a substantial deterrent to agency implementation. One reason why EPA confined its original PSD regulations to sulfur dioxide and particulate matter is the difficulty of applying a quantitative standard of degradation to pollutants that come both from automobiles and stationary sources.[370] Yet Congress, by confining the agency's alternatives, simply replicated the original problems of designing an increment system for Set II pollutants.

PSD's sponsors in the House apparently realized they were giving the agency little discretion. This can be seen from the debate on the floor of the House in 1976 on an amendment proposed by Representative Broyhill to confine the increment system to sulfur dioxide and particulates. Representative Satterfield, arguing for the amendment, urged that technology was not available to apply the increment scheme to other pollutants. Representative Seiberling rose to reply:

> "What the gentleman is saying is that since we do not have the technology. . .to detect and determine the amounts of these pollutants . . .we should strike them from the statute, with the result we probably will not develop the technology. . .It is kind of a bootstrap philosophy in reverse. . . .How will they ever do it unless they have a requirement that something be done?. . .How will they develop the technology if there is no compulsion to do so?"[371]

Along the same lines, Representative Maguire quoted the Samuel Johnson aphorism about how the prospect of being hanged in a fortnight concentrates the mind, and the amendment was then defeated, 23 to 53, on a division vote.[372]

The proponents of Set II regulation thus saw the issue as analogous to the regulation of emissions from new cars: just as Congress in 1970 had mandated strict emissions standards in the

Developments] Env't Rep. (BNA) 2353 (Apr. 25, 1980) (reprinting EPA draft development plan for regulating Set II pollutants).

369. *See* R.S. MELNICK, *supra* note 12, at 87-91.

370. *See* 39 Fed. Reg. 42,511 (Dec. 5, 1974); A.S. Meiburg, *supra* note 35, at 124.

371. 122 CONG. REC. 29,551 (Sept. 9, 1976), *reprinted in* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6359.

372. *Id.*, *reprinted at* 7 1977 LEGISLATIVE HISTORY, *supra* note 49, at 6360.

hope that the auto industry would be spurred to develop the technology to meet them, so too would mandating Set II regulation bring forth the necessary techniques for control. Leaving aside whether technology-forcing has proven effective in regulating the auto industry,[373] the analogy seems unpersuasive. Technology-forcing may be effective to force the development of pollution controls for a single, highly concentrated, highly visible industry. The auto industry had to develop emissions control technology because it could suffer catastrophic consequences if it did not. But no similar industry is as greatly affected if Set II regulatory techniques are not developed. Moreover, since EPA is responsible for administration, it is something of a bluff for the agency to threaten dire consequences if Set II regulation fails: the blame for failure is likely to fall as much on the agency as on outsiders.

The Congressional attitude toward Set II clearly evidenced distrust of the agency and industry. In this way, the limited scope of EPA's options in regulating Set II pollutants was a result of the same philosophy of suspicion of administrative agencies that contributed to the detail of the rest of the codification. The desire for legislative specificity therefore ran counter to the philosophy of delegation and undercut the delegation's scope.

The desire for specificity can undercut an interstitial delegation of authority in another way. The intricacy of a scheme can lead Congress to neglect issues that are important in defining the scope of the delegation. The result may be inadvertent restrictions on the agency's flexibility. This is illustrated by section 166's ambiguity in two respects.

The first of these concerns EPA's mission under the provision. Sections 166(c) requires that the specific numerical measures in Set II regulations fulfill the goals and purposes of the Clean Air Act and the PSD program.[374] Section 166(d) requires that these specific measures be "at least as effective" in fulfilling these goals and purposes as the increments established by Congress for sulfur dioxide and particulate matter ("Set I increments").[375]

These provisions are difficult to construe. Section 166(c) and 166(d) are not congruent; the former requires that the regula-

373. On this question, see, for instance, Mills and White, *Government Policies Toward Automotive Emissions Control* in APPROACHES TO CONTROLLING AIR POLLUTION 348-419 (A. Friedlaender ed. 1978).

374. 42 U.S.C. § 7476(c) (1982).

375. 42 U.S.C. § 7476(d) (1982).

tions accomplish certain purposes, while the latter demands only that the regulations be as effective in accomplishing those purposes as the Set I increments. Moreover, Congress did not define the meaning of the "at least as effective" standard.[376] EPA has interpreted this standard to mean that the agency need only assure that increments for Set II pollutants are as stringent in proportion to the ambient standards as the Set I increments established by Congress (the "percentage stringency" test).[377] This interpretation, though, cannot cover a situation in which EPA decides to use an approach other than increments (for instance, emission density zoning) to Set II pollutants. In such a situation, there would be no way to readily convert EPA's regulations into percentages of the ambient standards. Yet Congress expressly anticipated that Set II regulation might use an approach other than increments.[378] EPA's interpretation therefore can survive only if it is assumed that Congress meant the "at least as effective" standard to be applied differently to increments than to other approaches. There is no indication of this in the statute or its legislative history. Moreover, the statutory words "at least as effective" seem directed towards ensuring a satisfactory result to Set II regulation rather than towards guaranteeing that a particular standard be used in that regulation.

Alternatively, the statute may mean that EPA's approach to Set II pollutants must be as successful in achieving the Clean Air Act and PSD's goals as the Set I increments. Such an inquiry would require that the agency assess the usefulness of the present increment system. It is difficult, though, to compare a program aimed at controlling Set I pollutants with one designed to control Set II pollutants. Moreover, an "as successful" inquiry is workable only if the relevant goals are not in conflict. If there is no conflict, then EPA need only decide if its proposed Set II program is "at least as effective" as the Set I program in accomplishing each goal. In fact, though, the PSD program represents a set of trade-offs between its various goals. For instance, the goal of protecting parks may conflict with the goal of protecting public health if the result

376. *See* Environmental Defense Fund v. Administrator of EPA, 898 F.2d 183, 187 (D.C. Cir. 1990).

377. *See* 53 Fed. Reg. 3701 (Feb. 8, 1988).

378. Section 166(d), 42 U.S.C § 7476(d) (1982) ("The regulations of the Administrator. . .may contain air quality increments, emission density requirements, or other measures").

of the stringent Class I increments near parks is to relocate new sources to more populated areas.[379] As a result, EPA, in deciding whether its proposed Set II program is as effective as the present Set I program, would have to conclude that the Set II program replicates the balance between goals of the Set I program. Such a difficult inquiry would be a substantial deterrent to implementation. The task would be even more difficult if, as suggested by the D.C. Circuit in its recent decision in *Environmental Defense Fund v. Administrator of EPA*,[380] the statutory "at least as effective" standard were interpreted to mean that Set II regulation must be as cost-effective in accomplishing the program's goals as Set I regulation.[381] As the court recognized, the difficulties in implementing this test would be "breathtaking."[382]

In *Environmental Defense Fund*, the D.C. Circuit has recently attempted to clarify the statutory standards. The court held that section 166(c) requires EPA to assess the effectiveness of its Set II regulations "in terms of the PSD goals."[383] This apparently means that EPA must find, as section 166(c) requires, that its reg-

379. *See* Oren, *Prevention*, *supra* note 21, at 80-81.

380. 898 F.2d 183 (D.C. Cir. 1990).

381. *Id.* at 187. The court based this interpretation on the premise that PSD's goals (specified in section 160, 42 U.S.C. § 7470 (1982)) include economic growth. *Id.* at 187-88. This is an incorrect reading of § 160(3), 42 U.S.C. § 7470(3) (1982), which instead establishes the goal that "economic growth will occur in a matter consistent with the preservation of existing clean air resources." Section 160(3) therefore takes economic growth as a given, rather than to make its achievement a goal of the program. Even to the extent that the goal takes economic growth as an objective, environmental protection was seen as a means to growth, not a countervailing value. For further discussion of this goal, see Oren, *Prevention*, *supra* note 21, at 97-104.)

Of course, Congress must have been balancing economics against environmental protection in setting the Set I increments. By failing to include economic growth as a goal in section 160, though, Congress may well have been allowing the agency the discretion not to do the same in establishing Set II increments.

Rather, the "cost-effectiveness" interpretation must be based on reading the statutory standard of "at least as effective" as itself requiring cost-effectiveness. This would be an unusual construction of the Clean Air Act, which has usually been regarded as barring cost considerations except where Congress has explicitly stated otherwise. *See, e.g.*, Union Electric Co. v. EPA, 427 U.S. 246, 265 (1976) (EPA may not consider feasibility in deciding whether to approve a state implementation plan); Lead Industries Ass'n v. EPA, 647 F.2d 1130, 1148-49 (D.C. Cir.), *cert. denied*, 449 U.S. 1042 (1980) (EPA may not consider economic or technological feasibility in setting air quality standards); *but see* Natural Resources Defense Council v. EPA, 824 F.2d 1146 (D.C. Cir. 1987) (en banc) (EPA may consider costs in establishing margins of safety for hazardous air pollutants, but not in defining safe levels).

382. *Environmental Defense Fund*, 898 F.2d at 187.

383. *Id.* at 188.

ulations "fulfill the goals and purposes" of the Clean Air Act and the PSD program. The court, though, also concluded that EPA can permissibly conclude that section 166(d)'s "at least as effective" standard is satisfied by Set II increments that are as stringent in percentage terms as the Set I increments.[384] The court suggested that EPA might be able to reconcile these sections by establishing a presumption that section 166(c)'s "fulfillment" standard is met by Set II regulations that meet the section 166(d)'s "at least as effective" standard.[385] In this way, EPA could meet both subsections by establishing increments as stringent in percentage terms as the Set I increments and by finding that there is no evidence that such increments would not fulfill the Act's and PSD's goals.

This reading makes it easier for EPA to enforce the statute. It does so, however, at a considerable cost. First, the court's legal basis for allowing EPA to adopt percentage stringency as the measure of section 166(d)'s "at least as effective" standard seems weak. The court argued that the House-passed forerunner of section 166(d) envisioned the percentage stringency test.[386] This is open to two objections. First, it seems wrong to ignore the possible effects of the conference committee agreement intent of the final version. Second, the House version specifically permitted the use of approaches other than increments.[387] The percentage stringency approach, though, as noted above, can only be applied to increments.[388] The House therefore could not have meant the percentage stringency approach to be the measure of the "at least as effective" test.

The court's interpretation has practical difficulties as well. Since only increments can be assessed in percentage stringency terms, the court's suggested presumption can be applied only when the agency uses increments. The result is to give EPA an incentive to use increments rather than to carry out Congress' expectation that the agency seriously explore alternative approaches to Set II regulation. Thus, the court's reading of section 166(d)

384. *Id.*

385. *Id.* at 189.

386. *Id.* at 188.

387. H.R. 6161, 95th Cong., 1st Sess. § 108(a) (proposed § 160(d)), *reprinted at* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2293 ("Such other provisions. . .need not require the establishment of maximum allowable increases").

388. *See supra* notes 377-78 and accompanying text.

discourages EPA from viewing its flexibility under section 166(d) broadly.

A better approach might be to interpret the "at least as effective" language of section 166(d) as requiring that EPA conclude that its Set II regulations would be "as successful" as the Set I increments. This need not impose an unreasonable burden on the agency so long as it is kept in mind that the required finding concerns not the ascertainment of a past fact whose existence or non-existence can be definitively found, but rather represents a judgment about the future. Such a finding, because of its predictive nature, is due a great deal of deference from a reviewing court.[389] At the same time, such a reading would come closer to the literal language of the statute and would not prejudice EPA to pick a particular approach to Set II regulation.

In the end, though, the dispute over the meaning of sections 166(c) and (d) reflects the difficulty of arriving at policy decisions within the context of a very detailed statute. Given the other demands on Congress' time, it is not surprising that Congress did not precisely define what it expected of the agency. The same may be said of the statute's ambiguity over whether Set II rules may include control of indirect sources—facilities such as shopping malls that emit no pollutants themselves, but arguably encourage use of private automobiles, thereby increasing pollution.

EPA had not included such sources in its pre-codification nondegradation program. But it had sought to regulate such sources as part of its effort to ensure that presently clean areas would not drift into violation of the ambient standards.[390] Congress responded in the 1977 Amendments by prohibiting EPA from requiring states to establish indirect source review programs. [391]

The scope of the ban is not entirely clear. Congress defined an indirect source review program as one which reviews indirect sources as a means of protecting against violation of an ambient standard.[392] This definition does not expressly apply to an effort

389. *Cf.* Industrial Union Department, AFL-CIO v. Hodgson, 499 F.2d 467, 474-76 (D.C. Cir. 1974).

390. *See* Comment, *Control of Complex Emissions Sources—A Step Towards Land Use Planning*, 4 ECOLOGY L.Q. 693 (1975).

391. Section 110(a)(5), 42 U.S.C. 7410(a)(5) (1982), *added by* Pub. L. No. 95-95, § 108(e), 91 Stat. 695-96 (1977). The "stillbirth" of the program is described in R.S. MELNICK, *supra* note 12, at 313-19.

392. Section 110(a)(5)(D) reads:

like Set II regulation that is intended to preserve a margin of clean air, rather than to prevent or curb ambient standard violations. Hence it is possible to read the ban as not applying to Set II. This interpretation is buttressed by the failure of the provision's sponsors to acknowledge any connection between the provision and Set II regulation.

EPA's lawyers, however, have opined that the ban on indirect source regulation applies to Set II regulation.[393] There is some support for this interpretation. Congressional backers of the ban on indirect source regulation stressed that the burden of curbing automobile pollution should rest on auto manufacturers, rather than on facilities that happen to attract automobile use.[394] Thus Congress banned Federal indirect source regulation even when there is no other feasible means of meeting the health standards on schedule. Since Congress was willing to risk a continuation of dirty air for the protection of indirect sources, arguably Congress was also willing to sacrifice clean air for this purpose.[395]

This conclusion, however, need not follow. The premise underlying PSD is that clean air is entitled to more protection than dirty air. While presently dirty air need only be cleaned to the level of the air quality standards, clean areas must be kept at levels cleaner than the standards.[396] The fact that a step is considered overly onerous for protecting dirty air areas need not imply that it is too stringent for protecting clean areas. Thus the provision's history does not compel the conclusion that Congress intended it to bar indirect source review in Set II regulation.

> For purposes of this paragraph the term "indirect source review program" means the facility-by-facility preconstruction review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations —
>
> (i) exceeding any national primary ambient air quality standard for a mobile source-related air pollutant after the primary standard attainment date, or
>
> (ii) preventing maintenance of any such standard after such date.

42 U.S.C. § 7410(a)(5)(D) (1982).

393. Memorandum dated August 7, 1979, from Peter H. Wyckoff, attorney, Air Noise and Radiation Division, Office of General Counsel, to Richard G. Rhoads, Director, Control Programs Development Division, included in Pedco PSD Set II Report 122-23, EPA Docket A-79-34.

394. *See* H.R. REP. No. 294, 95th Cong., 1st Sess. 221 (1977), *reprinted in* 4 1977 LEGISLATIVE HISTORY, *supra* note 49, at 2688.

395. *See* Currie, *supra* note 78, at 78-79.

396. *See* Oren, *Prevention*, *supra* note 21, at 68-69.

The structure of the 1977 Amendments is similarly ambivalent on the intended reach of the bar on indirect source review. The House version of the Amendments both restricted indirect source review programs and established an increment system for Set II pollutants that required permits for new major stationary sources.[397] This may indicate that the House drafters thought that the main burden of regulation of Set II pollutants ought to fall on large stationary sources and that indirect sources should be exempt. This would be a strong argument for barring indirect source review as a means of regulating Set II pollutants. There is no evidence, however, that the Senate ever agreed to this understanding, assuming it existed. The Senate bill did not restrict EPA's use of indirect source review, and the Senate conferees agreed to the House restrictions only with express reluctance.[398] The Senate conferees may well have intended, therefore, that the final Set II provision would give EPA authority to regulate both direct and indirect sources.

Thus Congress, for all of its talk about spurring action on Set II pollutants, was ambiguous on the crucial policy issues in designing a regulatory scheme. Such ambiguity substantially decreases the implementing agency's will to implement. Moreover, Congress, in the name of promoting flexibility, imposed on the agency a difficult and inflexible procedural burden in formulating Set II regulations. The story of how this occurred illustrates that the process of merging two very detailed bills can unexpectedly reduce interstitial discretion. The House's version of PSD, as we have seen, mandated that Set II pollutants be controlled through an increment system.[399] The House did, however, provide a safety valve that provided that a state need not follow the increment approach for Set II pollutants if its implementation plan contained alternative provisions that would be at least as effective in affording protection from significant deterioration.[400] EPA was

397. *See* H.R. 6161, 95th Cong., 1st Sess. § 108, 123 CONG. REC. 16,645 (May 25, 1977) (proposed § 160(c)(4)(A)), § 201(d), 123 CONG. REC. 16,915-16 (May 26, 1977) (proposed § 124).

398. *See* 123 CONG. REC. 26,849 (Aug. 4, 1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 362 (statement of Senator Muskie).

399. *See supra* note 355 and accompanying text.

400. *See* H.R. 6161, 95th Cong., 1st Sess. § 108(a), 123 CONG. REC. 16,644 (May 25, 1977) (proposed § 160(d)). One high EPA official praised this provision for its flexibility. *See 1977 House Hearings*, *supra* note 60, at 1768.

given the same flexibility in adopting a plan for a state that failed to submit a satisfactory implementation plan.[401]

This provision was accepted by the conference committee and enacted virtually verbatim as section 166(e).[402] But the scope of the provision is unclear. The balance of section 166 allows EPA to develop a Set II regulatory scheme other than area classifications and increments so long as specific numerical measures are used.[403] Section 166(e), though, as befits a provision that was developed as part of a House PSD scheme that relied on increments and area classification, by its terms only allows the states to avoid an area classification scheme.[404] It is therefore not clear whether section 166(e) applies only if EPA develops increments, or whether the provision gives states discretion to submit alternatives to any other scheme developed by EPA.

More fundamentally, section 166(e) is incongruous with the rest of the provision. The House bill established increments for Set II pollutants and gave EPA the flexibility to allow states to depart from the increments, or to itself depart from the increments in designing plans for recalcitrant states. EPA would thus have been faced with the difficult but arguably manageable task of devising criteria to consider applications for variant schemes. But under section 166 as enacted, EPA must apparently jump two separate hurdles in devising Set II regulations. First, EPA must, in compliance with sections 166(a) through (d), develop a regulatory scheme that includes "specific numerical goals."[405] Then it

401. *See* H.R. 6161, 95th Cong., 1st Sess. § 108(a), 123 CONG. REC. 16,644 (May 25, 1977) (proposed § 160(d)) (referring to a plan "promulgated by the Administrator").

402. *Compare* Pub. L. No. 95-95, § 127, 91 Stat. 739 (1977) (enacting § 166(e), codified at 42 U.S.C. § 7476(e) (1982)) *with* H.R. 6161, 95th Cong., 1st Sess. § 108(a), 123 CONG. REC. 16,644 (May 25, 1977) (proposed § 160(d)).

403. *See* § 166(c)-(d), 42 U.S.C. § 7476(c)-(d)(1982).

404. Section 166(e) provides:

> With respect to any air pollutant for which a national ambient air quality standard is established other than sulfur oxides or particulate matter, *an area classification plan* shall not be required under this section if the implementation plan adopted by the State and submitted for the Administrator's approval or promulgated by the Administrator under section 110(c) contains other provisions which when considered as a whole, the Administrator finds will carry out the purposes in section 160 of this title at least as effectively as *an area classification plan* for such pollutant. Such other provisions referred to in the preceding sentence need not require the establishment of maximum allowable increases with respect to such pollutant for any area to which this section provides.

42 U.S.C. § 7476(e) (1982) (emphasis added).

405. 42 U.S.C. § 7476 (1982).

must consider whether the values furthered by that scheme could be equally well served by alternatives. Thus, even if the agency concludes in the development of its scheme that there is a better alternative to "specific numerical goals," it must go through the lengthy process of promulgating a scheme containing those goals and of defending that process in court before it can consider alternatives. If, by contrast, EPA thinks a scheme based on "specific numerical goals" is best, it must first develop such a scheme and then formulate criteria for evaluating alternatives. Thus, the flexibility provided by section 166(e) is somewhat of an illusion. In reality, section 166(e) presents EPA with the need for a two-step rulemaking in which one step is at odds with the other. There is, though, no explanation from the conference committees about how section 166(e) was expected to fit into the remainder of the section.[406]

The limits on the judiciary's ability to provide flexibility also played a role in curbing the scope of the agency's authority over Set II. The results are illustrated by EPA's recent promulgation of Set II increments for nitrogen oxides. Although EPA's abandonment in 1981 of plans to establish Set II regulations was inconsistent with section 166's requirement that Set II regulation be established by August 1979, environmental groups made no immediate effort to enforce the statute. Eventually, though, several environmental groups filed suit; this resulted in an order in April 1987, that EPA establish Set II regulations for nitrogen oxides by early October 1988.[407]

This schedule reflects the limits of the administrative necessity exemption. As we have seen, the courts have allowed agencies to depart from a mandate that is impossible to meet.[408] But this doctrine proved unavailing for EPA. Rather, the court held that, just as the original statute had mandated establishment of the rules within two years of passage, so too EPA should be required to promulgate rules within two years.[409] EPA's protestations that it needed over four years to prepare the regulations were turned

406. *See* H.R. CONF. REP. No. 564, 95th Cong., 1st Sess. 151 (1977), *reprinted in* 3 1977 LEGISLATIVE HISTORY, *supra* note 49, at 531; H.R. CONF. REP. No. 1742, 94th Cong., 2d Sess. 102 (1976), *reprinted in* 5 1977 LEGISLATIVE HISTORY, *supra* note 49, at 4387.

407. *See* Sierra Club v. Thomas, 658 F. Supp. 165, 175 (N.D. Cal. 1987).

408. *See supra* notes 276-77 and accompanying text.

409. *Sierra Club*, 658 F. Supp. at 175. The parties had agreed in October, 1986, that the schedule for promulgation, regardless of its length, would run from that time. Telephone Interview with Gregory B. Foote, Assistant General Counsel, EPA (July 26, 1989).

aside by the court, which concluded that the agency had failed to show that the two-year schedule was impossible or infeasible.[410]

The court's lack of sympathy with EPA's claims of impossibility is understandable, since the agency had apparently done nothing in the previous six years to comply with the statute.[411] Yet the court's approach to the issue again shows the limitations of trying to afford flexibility to an agency through an "impossibility" exemption. In most cases, there will be nothing literally impossible about meeting a given schedule. Rather, the question will be whether meeting the schedule exacts an exorbitant cost, either because it will lead to poorly-supported regulations or will unduly delay implementation of other programs.[412] One problem in resolving this issue is the difficulty of determining how Congress wished to strike the balance between having regulations issued on time and having the regulations be as rational and well-supported as possible. For instance, extensions have been denied when the reviewing court has believed that Congress was more interested in having the regulations completed by a certain date than in having all doubts about the regulations' necessity resolved before promulgation.[413]

Even if the court believes it knows how Congress would resolve this issue, the court must proceed to a factual determination of whether the agency's rationale for delay is sound. But to make such a determination—to separate, in the words of Judge Leventhal, "justifications grounded in the purposes of the Act from the footdragging efforts of a delinquent agency"[414]—a reviewing court must second-guess the agency's estimate of the amount of background material needed or of its proposed alloca-

410. *Sierra Club*, 658 F.2d at 172.

411. *Id.* at 172.

412. Natural Resources Defense Council v. Train, 510 F.2d 692, 712 (D.C. Cir. 1975).

413. *See, e.g.*, Sierra Club v. Ruckelshaus, 602 F. Supp. 892 (N.D. Cal. 1984) (refusing to extend the time for EPA to establish emission standards for radionuclides, and holding the Administrator in civil contempt for failing to establish such rules); Sierra Club v. Gorsuch, 551 F. Supp. 785 (N.D. Cal. 1982) (ordering the Administrator to propose emission standards for radionuclides); New York v. Gorsuch, 554 F. Supp. 1060 (S.D.N.Y. 1983) (ordering the Administrator to propose emission standards for arsenic); Maine Ass'n of Handicapped Persons v. Dole, 623 F. Supp. 920 (D.Me. 1985) (ordering the Secretary of Transportation to complete the drafting of final regulations governing access by the disabled to public transit services). The corollary of such an approach would seem to be that the agency's final action should be reviewed leniently, since Congress was more interested in having the action completed than in having it be perfect. This seems to be recognized in FMC Corp. v. Train, 539 F.2d 973 (4th Cir. 1976).

414. Natural Resources Defense Council v. Train, 510 F.2d 692, 713 (D.C. Cir. 1975).

tion of resources. Neither task, though, is well-suited for the courts.[415] The result is that some courts have held that the agency's schedule must be accepted so long as the agency is proceeding in good faith.[416] But such a standard poses the equally difficult question of how "good faith" or its absence can be demonstrated. Moreover, any judicial deference to the agency's estimate arguably undermines Congress's determination about what the agency's priorities should be.[417] For this reason, apparently, at least one decision has held that EPA cannot plead competing priorities as a reason for inability to meet a statutory deadline.[418] In effect, then, the court seeking to enforce an "impossibility" exemption must fear treading on either the agency's or Congress's domain.

In the case of Set II regulation for nitrogen oxides, the court resolved the dilemma by refusing to give EPA any time beyond the two-year period stipulated in the statute. That decision may seem unobjectionable, since the agency in fact managed to issue its final regulations two days before the court's deadline.[419] But the mere fact of EPA's obedience leaves open the question of whether two years was enough time to devise a program that serves the public interest in effective environmental regulation.

There is room for doubt on this score. The court largely rested its refusal to give the agency more than two years on the history of the initial PSD rulemaking of 1973-74 that responded to the original judicial order in *Sierra Club v. Ruckelshaus*[420] that EPA establish a nondegradation program. Since that rulemaking had taken about two years, the court reasoned, so too EPA ought to be able to complete the Set II rulemaking in the same period.[421]

415. *Cf.* Heckler v. Chaney, 470 U.S. 821, 831-32 (1985) (questioning the courts' ability to review agency decisions regarding enforcement priorities).

416. *See, e.g.* Environmental Defense Fund v. Thomas, 627 F. Supp. 566, 569 (D.D.C. 1986).

417. *Cf.* Plater, *Statutory Violations and Equitable Discretion*, 70 CALIF. L. REV. 524 (1982) (urging that courts do not have equitable discretion to permit violations of statutes).

418. *See* New York v. Gorsuch, 554 F. Supp. 1060, 1065 n.4.

419. *See* 53 Fed. Reg. 40,656 (Oct. 17, 1988) (to be codified at various parts of 40 C.F.R. § 51.166(c) and 40 C.F.R. § 52.21(c)).

420. 344 F. Supp. 253 (D.D.C. 1972).

421. Sierra Club v. Thomas, 658 F. Supp. 165, 172 (N.D. Calif. 1987). The court sought to buttress this ruling with the observation that "the original regulations included a requirement that permit applicants use the 'best available control technology' for all criteria pollutants. . ." *Id.* This is not true; those regulations required control only for sulfur dioxide and particulate matter. *See* 39 Fed. Reg. 42,516 (Dec. 5, 1974) (formerly codified at 40 C.F.R. § 52.21(d)(ii) (1977)). But it is true that since the 1977 Amendments extended the

This line of reasoning, though, assumes the original rulemaking was successful. It is rather ironic that the Sierra Club should portray EPA's original nondegradation rules as a model when the same organization denounced those rules when issued and tried to have them set aside, in part because they did not cover Set II pollutants.[422]

EPA's performance in meeting the court's deadline lends weight to these misgivings. The agency elected to comply with the court order by establishing the same kind of three-class increment system for nitrogen dioxide as already exists for sulfur dioxide and particulate matter.[423] The levels for the new nitrogen dioxide increments, in fact, were derived by analogy from the other pollutants: for instance, just as the sulfur dioxide and particulate matter Class II increments generally represent twenty-five per cent of the ambient standards, so too the new Class II increment for nitrogen dioxide was set at twenty-five per cent of the ambient standard for that pollutant.[424] This is somewhat hard to justify since, as the agency itself admitted, there is substantial reason to believe that nitrogen dioxide is proportionately more dangerous than the other pollutants.[425] Similarly, EPA based the Class I increments for nitrogen dioxide on the sulfur dioxide Class I increments, even though the agency recognized that a nitrogen dioxide increment set on this basis would not change siting patterns near Class I areas like national parks and wilderness areas.[426] Finally, indirect and mobile sources of nitrogen dioxides are ignored, although one of the original reasons for not including nitrogen dioxide in the increment system was the necessity of finding a way to control such sources within a nondegradation program.[427]

BACT requirement to all pollutants, *see supra* notes 99-100 and accompanying text, EPA's Set II regulations would not have to address whether to impose a minimum level of control technology, thus somewhat simplifying the agency's task.

422. *See* Sierra Club v. EPA, 540 F.2d 1114, 1130-31 (D.C. Cir. 1976).

423. *See* 53 Fed. Reg. 40,670-72 (Oct. 17, 1988) (to be codified at 40 C.F.R. §§ 51.166(c), 52.21(c)).

424. *See* 53 Fed. Reg. 3701 (Feb. 8, 1988); 53 Fed. Reg. 40,660-61 (Oct. 17, 1988).

425. *See* 53 Fed. Reg. 3701 (Feb 8, 1988); *cf.* 53 Fed. Reg. 40,661 (Oct. 17, 1988) (discussing agency attempts to study the question).

426. *See* 53 Fed. Reg. 3704 (Feb, 8, 1988); 53 Fed. Reg. 40,662 (Oct. 17, 1988) ("The EPA's analysis of existing sources located near Class I areas indicates that none of these sources would have been seriously constrained by the nitrogen dioxide increment").

427. *See* 39 Fed. Reg. 42,511 (Dec. 5, 1974).

In short, the nitrogen dioxide increment regulations break no new conceptual ground, but are rather a pallid imitation of the existing program for sulfur dioxide and particulate matter. The agency's refusal to depart from the existing program was all the more remarkable because it came even as the Reagan Administration had thrown its support to a freeze on nitrogen oxide emissions as a means of minimizing acid rain damage.[428] This would suggest a nondegradation program based on capping emissions over a large area, analogous to most acid rain control programs,[429] rather than, as with an increment program, one based on controlling localized concentrations of pollution.[430] Such an approach would allow sources in different areas to trade their emissions and thus lower compliance costs.[431] It would also obviate the need for air quality modeling of particular proposed sources. Such modeling, hard enough for sulfur dioxide and particulate matter,[432] is especially difficult for a pollutant like nitrogen dioxide. This pollutant, unlike sulfur dioxide and particulate, presents not only the problem of modeling both mobile as well as stationary sources, but also the issue of how to take account of the reactivity of nitrogen oxides in the atmosphere.[433] Moreover, increments for nitrogen oxides pose the difficult issue of tracking increases and decreases from sources too small to need PSD permits. This problem is particularly acute for nitrogen oxides because many sources of this pollutant are unregulated,[434] and hence there are little data on emissions from these sources. Nevertheless, the agency chose the increment program, largely because of its familiarity to state and federal regulators.[435] In a

428. *See* Leary, *Reagan, in Switch, Agrees to a Plan on Acid Rain*, N.Y. Times, Aug. 7, 1988, § 1, at 1, col. 2.

429. *See* H.R. 3030, 101st Cong., 1st Sess. § 501 (1989) (Bush Administration proposal); Amendment No. 1293 to S. 1630, 101st Cong., 1st Sess. Title IV, 136 CONG. REC. S2030 (daily ed. March 5, 1990) (proposed Senate bipartisan compromise).

430. *See* Oren, *Prevention*, *supra* note 21, at 81-84; Oren, *Parklands*, *supra* note 25, at 352-53 (criticizing the increment system as failing to address problems linked to total emissions).

431. *See generally* PROJECT 88, HARNESSING MARKET FORCES TO PROTECT OUR ENVIRONMENT 30-35 (1988); Passell, *Selling Right to Pollute: Bush Backs Idea in Acid-Rain Fight*, N.Y. Times, May 17, 1989, p. 1, col. 1.

432. *See* Oren, *Protection*, *supra* note 21, at 40-44.

433. *See* 53 Fed. Reg. 3708 (Feb. 8, 1988); Mayer, *supra* note 368, at 870.

434. 53 Fed. Reg. 3709 (Feb. 8, 1988).

435. *Id.* at 3699; 53 Fed. Reg. 40,669 (Oct. 17, 1988) ("The added work load should be relatively small. . .because the nitrogen dioxide increment consumption analysis can be based on existing administrative structures.")

sense, therefore, EPA came full circle from the original PSD regulations. Those rules were adopted in large part because they represented as little change as possible from the structure of the remainder of the statute; the Set II rules had the similar advantage of not departing from the PSD scheme already established by the agency and Congress.

The Set II rules do not even provide flexibility for states to find better approaches. Rather, EPA sought to avoid going through the two-step process outlined above for allowing states to submit alternatives to the increments.[436] The agency declined to issue any guidance for states wishing to take advantage of this possibility.[437] In addition, EPA opined in both the proposed and final version of the rules that no other approach would be as effective as the increments.[438] It is hard to imagine how EPA could have done more to discourage states from seeking to develop alternative programs.

At first blush, the agency's position seems surprising. First, the agency did not provide any basis for its stance. Second, the statement was unnecessary to justify the choice of increments to regulate nitrogen dioxide, since the law requires only that the system to regulate nitrogen dioxide be as effective as the sulfur dioxide and particulate matter increments, not that nitrogen oxide increments be shown to be more effective than any alternative.[439] Yet the constraints imposed by the court and Congress may explain the agency's narrow approach both to its own authority and to state flexibility. The court's deadline obviously put a premium on getting a regulation out as quickly as possible. Copying the existing increment system and forcing states to do the same both minimized the amount of analysis the agency would have to do and decreased controversy that might have delayed promulgation. The same factors affected EPA's choices within the confines of the increment system. Setting the Class II increment at 25 percent not only allowed EPA to argue that it was simply following the existing increment system, but also enabled the agency to

436. *See supra* notes 405-06 and accompanying text.

437. *See* 53 Fed. Reg. 40,658 (Oct. 17, 1988).

438. *Id.* at 40,647; 53 Fed. Reg. 3709 (Feb. 8, 1988).

439. Section 166(d) reads:

> The regulations of the Administration [for Set II pollutants] shall provide specific measures at least as effective as the increments established in section 163 to fulfill such goals and purposes.

42 U.S.C. § 7476(d) (1982).

show that the annual costs of the regulation were low enough to avoid review by the Office of Management and Budget and a Regulatory Impact Analysis under Executive Order 12291,[440] another potential source of delay.[441] Similarly, a narrow approach allowed EPA to avoid the difficult questions posed by the statute regarding the adoption of alternative means of regulation, regulation of indirect sources and the scope of state flexibility.

There is some reason to hope that the regulations will soon be improved. Recently, the D.C. Circuit ordered EPA to explain how its nitrogen dioxide increments meet section 166(c)'s requirement that Set II regulations fulfill the goals and purposes of the PSD program and Clean Air Act.[442] In addition, the agency must decide how to view the relationship between 166(c) and section 166(d)'s requirement that Set II regulations be "at least as effective" as the statutory increments for sulfur dioxide and particulate matter.[443] This ruling gives the agency an opportunity to reconsider the issue free of the court-imposed deadline that originally constrained it in writing the rules. Yet it is still an open question, given the complexities of the statute, whether EPA will be willing to accept the court's implicit invitation to take a more comprehensive approach.

D. *The Flaws of Interstitial Rulemaking*

The detail of codification therefore militates against an effective delegation of interstitial rulemaking power. Rather, the momentum of a detailed codification may lead the legislature to impose requisites for agency action that constrain flexibility so much that agency action is not capable of resolving the issues in a given area. Nor is such excessive detail necessarily the product of deliberate Congressional action: it is hard to imagine that anyone in Congress foresaw how the treatment of strip mine emissions, for example, would be influenced by the language of section 302(j) or that the full ramifications of section 166(e) were realized by the conferees seeking to compromise the Set II issue.

The foregoing discussion, though, suggests a number of other difficulties with interstitial flexibility. First, it may be unrealistic

440. Exec. Order 12,291, 46 Fed. Reg. 13,193 (Feb. 17, 1981).

441. *See* 53 Fed. Reg. 3710 (Feb. 8, 1988).

442. Environmental Defense Fund v. Administrator of EPA, 898 F.2d 183 (D.C. Cir. 1990). For further discussion of this case, *see supra* notes 380-88 and accompanying text.

443. *Id.* at 189.

to expect an agency to carry out interstitial rulemaking while attempting to implement a complex statutory scheme. In administering a codification, the agency's first priority must be interpretative rulemaking that provides immediate guidance to regulators and the regulated community about the meaning of the statute's detailed requirements. Policymaking to fill in the gaps in the statute must necessarily assume a lower priority. This is especially true of an area such as Set II, in which the development of a regulatory program was not essential to the day-to-day functioning of the rest of the program.

Yet, as the Set II and fugitive dust examples show, EPA's difficulties in interstitial rulemaking have persisted long after the 1977-80 period of adjustment to the changes in the program made by the Clean Air Act Amendments of 1977. One reason is that interstitial rulemaking must compete with other rulemaking priorities of the agency. PSD is but one of the areas in which the agency's air program has engaged in complex rulemaking since 1977. During the 1977-1980 period, for instance, EPA was simultaneously revising the ozone standard and establishing the new source performance standard for coal-fired power plants, thus consuming huge amounts of agency resources and political capital.[444] Interstitial rulemaking uses up the same resources. For instance, the agency estimated in 1980 that it would take several man-years to promulgate Set II regulations,[445] and in 1987 that it would take fifty months to prepare nitrogen oxide increments.[446]

In addition, interstitial rulemaking is especially likely to attract opposition. We can expect that Congress, in codifying a scheme, will relegate an issue to interstitial rulemaking when the benefits of resolving it are less than the trouble of doing so. The more an issue attracts political opposition, the more likely this is to be the case. Thus the subjects of interstitial rulemaking tend to be those that are hard to resolve in the legislature; transferring them to an administrative agency does not resolve the difficulty. Again, Set II is a good example. Given the controversial history of the issue, as well as the substantial economic impacts of Set II regulation,

444. *See* B. ACKERMAN & W. HASSLER, *supra* note 14, at 79-104; Finamore & Simpson, *supra* note 274.

445. *See* [10 Current Developments] Env't Rep. (BNA) 2353, 2355 (Apr. 25, 1980) (reprinting EPA Draft Development Plan for Prevention of Significant Deterioration Set II Pollutants).

446. Sierra Club v. Thomas, 658 F. Supp. 165, 172 (N.D. Cal. 1987).

Congress found it could not decide the issue; so too EPA could anticipate substantial criticism upon finishing the job. Thus Set II, even before the advent of the Reagan Administration, sank to a low priority within the agency. Other interstitial rulemakings have been similarly slow in emerging from the agency.

Interstitial rulemaking within the scope of a codification is hindered by another obstacle. Any policymaking role provides the agency with an ambit of discretion; within the scope of this discretion, an agency can accommodate the regulated community and regulatory activists through judicious log-rolling. A codification, though, decreases the number of issues on which the agency has discretion, and hence decreases the opportunities for reaching compromise through the regulatory process. If, for instance, the agency has power both to determine which sources need PSD review and which emissions consume increment, it is possible to require a permit for strip mines without necessitating that strip mines consume increment; or, to take another example, the agency can broadly define "potential to emit" while reducing the requirement for small sources that consequently need permits. Codification, though, forces a categorical decision on a given issue without affording the agency the possibility of using another issue to placate opponents.

Thus the process of codification may make it virtually impossible to combine detail on some issues with delegations of policymaking authority to an agency on other issues. Nor is it clear that more statutory detail is the answer. As we have already seen, the detail of the codification constrained rational decision-making, undercut Congressional accountability and invited the judiciary to make policy determinations in the guise of interpretation. Indeed, the failure of flexibility had much the same results as the detail itself: it limited the agency's ability to re-direct the program in the face of serious questions about its goals and its implementation.

V. Conclusion

The PSD experience therefore indicates that legislative detail, either alone or in combination with interstitial flexibility, is not a satisfactory means of formulating and implementing environmental policy. Moreover, as the author has suggested elsewhere,[447]

447. Oren, *Parklands*, *supra* note 25, at 398.

the difficulties of programs like PSD tend to cause a vicious circle: as the agency fails in carrying out the statute, Congress responds with still more detail, thereby further hampering the agency.

But the alternative approach of a broad delegation is not entirely attractive. The concerns that led Congress to wish specificity in environmental legislation are, after all, quite real. Probably a considerable period of evolution in the relationship between EPA and its overseers in the executive and legislative branch will be necessary before there is substantial movement towards increased delegation. Even then, delegation poses the risk, that, as with detail, Congress will not make the crucial policy decisions that prevent administrative stalemate. Yet the implementation of PSD suggests that broad delegation may deserve renewed attention as an alternative to the kind of frustrations that have marked the implementation of the program.