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NOTES

JURISDICTION—ATOMIC ENERGY—Federal Pre-emption and State Regulation of Radioactive Air Pollution: Who Is the Master of the Atomic Genie?

Pending litigation between the Minnesota Pollution Control Agency and Northern States Power Company presents a potential federal-state conflict over the right of a state to impose upon operators of nuclear power plants more exacting pollution control standards than those required by regulations of the Atomic Energy Commission (AEC).¹ The AEC issued Northern States Power Company a permit to construct a nuclear power generating plant in Monticello, Minnesota.² The regulations under which that permit was issued place a ceiling on the amount of radioactive effluents which can be discharged into the air during the course of the plant's operations.³ But under the regulations of the Minnesota Pollution Control Agency, before the power company could begin operation of the plant, it was required to obtain a permit from that agency.⁴ The permit that it obtained from the state agency restricted the discharge of radioactive effluents from the plant to approximately two per cent of the levels allowed under the AEC standards.⁵ Northern States Power Company complained that the state standards made economical operation of the plant impossible. The company has filed suit in federal district court,⁶ asserting that the State of Minnesota is precluded from regulating radioactive pollution from atomic power plants because Congress has given the AEC exclusive authority to regulate radiation hazards.⁷

Although conflict between federal and state regulation of radiation hazards has existed for several years,⁸ the suit in the federal

1. Clemons, *Pollution: Are Nuclear Reactors Safe?*, Wall. St. J., Aug. 28, 1969, at 6, col. 4.

2. 2 CCH ATOMIC ENERGY L. REP. ¶ 11,264 (1967).

3. See 10 C.F.R. pt. 20 (1969).

4. The Minnesota Pollution Control Agency promulgated these regulations under authority of MINN. STAT. ANN. § 116 (1964) on the theory that radioactive pollution of the air is merely one form of air contamination within its regulatory control. Telephone Interview with Robert Johnson, Counsel to the Minnesota Pollution Control Agency, May 1, 1970.

5. Kenworthy, *Who Should Police the Polluters?*, N.Y. Times, Feb. 1, 1970, § E, at 2, col. 4.

6. Northern States Power Co. v. Minnesota, Civ. No. 3-69-185 (D. Minn., filed Aug. 26, 1969).

7. Kenworthy, *supra* note 5.

8. For example, in March 1961, the Pennsylvania Department of Health and Safety ordered a company to reduce the concentration of low-level radioactive wastes which the company was discharging into a river to 50% of the level permitted under its AEC

district court in Minnesota presents the first opportunity for an adjudication of the question whether the AEC is the exclusive regulator of air pollution from atomic power operations. The stringent state regulations which have created the federal-state conflict in the Minnesota case grew out of the concern of environmentalists that AEC standards regulating radioactive discharges from nuclear production and utilization facilities fail to afford adequate protection.⁹ Environmentalists have persuaded several state legislatures to enact pollution standards which include provisions regulating radioactive pollutants discharged by atomic activities conducted within their states.¹⁰ As concern for the environment grows, and as the atomic energy industry expands,¹¹ resolution of the question whether the state or the federal government shall regulate pollution caused by that industry becomes increasingly important.

I. THE FRAMEWORK FOR JUDICIAL ANALYSIS OF THE PRE-EMPTION QUESTION

There can be no doubt that Congress possesses the constitutional authority to enact the basic statutory framework for the regulation of atomic energy;¹² nor is there any doubt that Congress could have

license. Litigation was avoided, however, because the company decided to comply with the state order. Estep & Adelman, *State Control of Radiation: An Intergovernmental Relations Problem*, 60 MICH. L. REV. 41, 43 (1961). In 1962, Consolidated Edison Company of New York withdrew an application to build a nuclear reactor in New York City, when it was faced with a vote by the city council on a bill to prohibit construction of nuclear reactors within the city limits. Helman, *Preemption: Approaching Federal-State Conflict over Licensing Nuclear Power Plants*, 51 MARQ. L. REV. 43, 44 (1967). In *Boswell v. City of Long Beach*, 1 CCH ATOMIC ENERGY L. REP. ¶ 4045 (Cal. Super. March 21, 1960), the superior court held that the city would not revoke plaintiff's permit to engage in the business of radioactive-waste disposal simply because the city health department had withdrawn its approval. In a sweeping statement, the court concluded that the Atomic Energy Act [42 U.S.C. §§ 2011-296 (1964)] covered the entire field of atomic-energy legislation, CCH ATOMIC ENERGY L. REP. ¶ 4045, at 9113.

9. Clemons, *supra* note 1. See also Wicker, *In the Nation: Taking on a Nuclear Giant*, N.Y. Times, March 1, 1970, at 17, col. 4.

10. CAL. HEALTH & SAFETY CODE §§ 25600-10 (West 1967). See also ARIZ. REV. STAT. ANN. §§ 36-771 to -790 (Supp. 1969); GA. CODE ANN. §§ 17-501 to -530 (Supp. 1969) (water pollution).

11. At the present time, less than 1% of the nation's electrical energy is produced by nuclear installations. By 1980, however, nuclear power will generate approximately 25% of the country's electrical energy. Tape, *Environmental Aspects of Operation of Central Power Plants* 3 (remarks at dinner meeting of the Washington Section of the American Nuclear Society, Dec. 11, 1968).

12. In enacting the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-296 (1964), Congress relied upon its constitutionally granted powers of defense, proprietorship, and commerce to justify its regulation of radiation hazards. Several writers have analyzed the permissibility of that reliance and have concluded that the three named powers provide a sufficient constitutional basis for the regulatory scheme promulgated by the AEC. That conclusion appears to be sound. See, e.g., Estep & Adelman, *State Control of Radiation: An Intergovernmental Relations Problem*, 60 MICH. L. REV. 41, 44-50 (1961).

pre-empted the field had it so chosen. In *United States v. Darby*,¹³ the United States Supreme Court held that when a court is faced with a pre-emption issue involving a power which the Constitution has delegated to Congress, the question to be answered is not whether Congress can pre-empt state legislation, but rather, whether Congress *has* pre-empted it.¹⁴ A review of the cases discussing the pre-emption of state law by federal legislation which deals with the same subject matter reveals that in formulating tests for resolving the issue, the Supreme Court has used a variety of expressions.¹⁵ Despite the diversity of expressions, however, it is clear that the Court uses the same basic analytical approach in all cases involving the question of pre-emption. Under this approach, the Court first examines the provisions of the respective federal and state laws to determine whether they conflict to such an extent that both laws cannot be enforced "without impairing federal superintendence of the field."¹⁶ If no such conflict exists, the Court then determines whether a finding of pre-emption is required either because the subject matter of the legislation involves dominant national interests which demand uniform regulation or because Congress has manifested an intent to preclude concurrent state legislation.¹⁷

The cases reveal that the Court's willingness to tolerate concurrent state legislation in any particular case depends largely upon the subject matter involved. For example, when the federal legislation deals with economic matters,¹⁸ individual rights and freedoms,¹⁹ or a field in which the national interest is clearly dominant,²⁰ conflicting state legislation is usually held invalid if it "stands as an obstacle to the accomplishment and execution of the full purpose and objectives of Congress."²¹ Moreover, in such cases, the Court tends

13. 312 U.S. 100 (1941).

14. 312 U.S. at 124.

15. See, e.g., *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941):

This Court, in considering the validity of state laws in the light of treaties or federal laws . . . has made use of the following expressions: conflicting; contrary to; occupying the field; repugnance; irreconcilability; inconsistency; violation; curtailment; and interference. But none of these expressions provides an infallible constitutional test or . . . yardstick. In the final analysis, there can be no one crystal, distinctly marked formula.

16. *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142 (1963).

17. *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 143 (1963).

18. See, e.g., *Campbell v. Hussey*, 368 U.S. 297 (1967).

19. *Pennsylvania v. Nelson*, 350 U.S. 497 (1956); *Hines v. Davidowitz*, 312 U.S. 52 (1941).

20. See, e.g., *San Diego Bldg. Trades Council v. Garmon*, 359 U.S. 236 (1959) (labor relations); *Pennsylvania v. Nelson*, 350 U.S. 497 (1956) (seditious activities against the national government); *Hines v. Davidowitz*, 312 U.S. 52 (1941) (immigration and naturalization).

21. *Hines v. Davidowitz*, 312 U.S. 52, 67-68 (1941); cf. *Savage v. Jones*, 225 U.S. 501, 533 (1912).

to base its finding of pre-emption on relatively slender evidence of congressional intent.²² The application of these standards results in the invalidation of any state law that is inconsistent with the general scheme of the federal legislation. Similarly, when the subject matter of the legislation demands national uniformity of regulation, state law is usually pre-empted on the ground that federal legislation has completely occupied the field.²³

On the other hand, in cases in which the state law that allegedly has been displaced by federal legislation involves an area of long-recognized state interests—particularly public health and safety—the Court has been more tolerant of concurrent state legislation.²⁴ In such cases, the Court has generally required a repugnance or an actual conflict between the substantive provisions of the respective federal and state laws before it has concluded that the state law had been pre-empted.²⁵ Moreover, in such cases, the Court has required more persuasive evidence of congressional intent to preclude state legislation²⁶ than it has in cases in which long-standing state interests have not been present. Finally, when strong state interests have been present, the Court has seemed relatively indulgent of state regulation and it has frequently upheld such state laws, particularly if those laws have operated mainly to fill the gaps in federal legislation.²⁷

As an initial matter, then, it must be determined which of the

22. *Campbell v. Hussey*, 368 U.S. 297, 302 (1961) (Justice Black, dissenting). See also *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947): "[T]he act of Congress may 'touch a field in which the federal interest is so dominant that the federal system [must] be assumed to preclude enforcement of state laws on the same subject.'"

23. Although the requirement of uniformity is a sufficient independent constitutional basis for such a decision [*Cooley v. Board of Wardens*, 53 U.S. (12 How.) 298 (1851)], the Court occasionally prefers to decide these cases on the ground of federal pre-emption. See, e.g., *Napier v. Atlantic Coast Line Co.*, 272 U.S. 605 (1926); *Pennsylvania R.R. v. Public Serv. Commn.*, 250 U.S. 566 (1919). See generally Note, *Pre-emption as a Preferential Ground—A New Canon of Construction*, 12 STAN. L. REV. 208 (1959).

24. See, e.g., *Head v. New Mexico Bd. of Examiners*, 374 U.S. 424 (1963); *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132 (1963). In the latter case, for example, the Court noted: "While it is conceded that the California statute is not a health measure, neither logic nor precedent invites any distinction between state regulation designed to keep unhealthful or unsafe commodities off the grocer's shelves and those designed to prevent deception of consumers." 373 U.S. at 146. See also *Cloverleaf Butter Co. v. Patterson*, 315 U.S. 148 (1942) (Chief Justice Stone, dissenting); *Kelly v. Washington*, 302 U.S. 1 (1937); note 27 *infra*.

25. *Kelly v. Washington*, 302 U.S. 1 (1937), illustrates the test used in such cases: "The principle is thoroughly established that the exercise by the state of its police powers, which would be valid if not superceded by federal action, is superceded only where the repugnance or conflict is so 'direct and positive' that the two acts cannot be reconciled or consistently stand together." 302 U.S. at 10.

26. See, e.g., *Head v. New Mexico Bd. of Examiners*, 374 U.S. 424, 432 (1963); *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 146 (1963).

27. See, e.g., *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440 (1960); *Welch v. New Hampshire*, 306 U.S. 72 (1939); *Kelly v. Washington*, 302 U.S. 1 (1937); *Mintz v. Baldwin*, 289 U.S. 87 (1933); *Savage v. Jones*, 225 U.S. 507 (1911).

foregoing categories of pre-emption cases the controversies involving the regulation of radioactive air pollution most closely resemble. It can be argued with some force that such disputes fall within that category of cases in which there are dominant national interests or a need for uniform national regulation. That argument is supported by the fact that the federal government has exercised broad authority over atomic energy since the early development of the field by governmental scientists working on the Manhattan Engineering Project.²⁸ Moreover, atomic energy has been the subject of extensive federal legislation—the Atomic Energy Act²⁹—and is regulated by a special federal agency—the AEC.³⁰ Furthermore, it can be argued that the development of nuclear power is a vital national interest which is more adequately served through federal, rather than state, regulation. But the state regulation which is the subject of controversies such as that in Minnesota is not concerned with atomic power as such. Rather, the state regulation is directed toward air pollution from atomic power facilities; pollution control, unlike atomic-energy development, is an area of long-standing state interest and responsibility. That responsibility has been recognized both by the Supreme Court³¹ and by Congress.³² The disputes in question thus fall between the two lines of pre-emption cases, and it is at least arguable that the national interest in promoting the development of atomic energy is not dominant when it is compared with the interests which the states have in protecting the health and safety of their citizens through preventing radioactive pollution of the local environment. If a court rejects that argument, however, it will have little difficulty in deciding that state regulation is preempted either on the ground that such regulation conflicts with the objectives of the federal regulatory scheme—to protect the public health without restraining industrial development by imposing unnecessarily strict safety standards³³—or on the ground that federal legislation was intended to occupy the field fully.³⁴ Moreover, even if a court finds that the national interests are not dominant, it is

28. Esgain, *State Authority and Responsibility in the Atomic Energy Field*, 1962 DUKE L.J. 163, 163-65.

29. 42 U.S.C. §§ 2011-296 (1964).

30. 42 U.S.C. § 2031 (1964).

31. *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440 (1960).

32. Air Quality Control Act, 42 U.S.C. § 1857(a)(3) (Supp. IV, 1965-1968); cf. Federal Water Pollution Control Act, 33 U.S.C. § 466(b) (Supp. IV, 1965-1968).

33. 42 U.S.C. § 2013 (1964); AEC, *Criteria for Guidance of States and the AEC in the Discontinuance of AEC Regulatory Authority over By-Product, Source, and Special Nuclear Materials in Quantities Not Sufficient To Form a Critical Mass and the Assumption Thereof by States Through Agreement*, Criterion One, in 4 CCH ATOMIC ENERGY L. REP. ¶ 16,537 (1967).

34. See notes 20, 23 *supra* and accompanying text.

still not clear that state regulation can be upheld under the more indulgent standards expressed in the second category of cases.³⁵

In pursuing this inquiry, the court must determine whether the state, by enacting exacting standards relating to radioactive pollution of the air, is supplementing or frustrating the provisions and purposes of the Atomic Energy Act. The fact that the state regulations are designed to eliminate the same environmental evil to which federal regulations are directed is not sufficient for a finding of pre-emption, for the Supreme Court has held that concurrence of regulation is not by itself a sufficient ground for declaring that a state standard has been pre-empted.³⁶ Indeed, the Court has indicated in *Florida Lime and Avocado Growers, Inc. v. Paul*³⁷ that even state regulations which are more stringent than federal regulations may supplement federal legislation without conflicting with it. That case involved a California law which barred immature avocados from the California markets. The California statute defined immature avocados as those having an oil content of less than eight per cent while the federal marketing standards defined maturity on the basis of size, weight, and picking date.³⁸ Florida Lime and Avocado Growers, Inc., asserted that the existence of the federal standards precluded the enforcement of the California law, which operated to exclude from the California markets approximately six per cent of the avocados which met the federal standard. In upholding the California regulation, the Court utilized the following standard for determining whether the federal and state laws were in direct conflict:

A holding of federal exclusion of state law is inescapable and requires no inquiry into congressional design where compliance with both federal and state regulations is a *physical* impossibility for one engaged in interstate commerce.³⁹

The Court then recited the district court's finding that Florida avocados were capable of complying with the most exacting Cali-

35. See text accompanying notes 24-27 *supra*.

36. *California v. Zook*, 336 U.S. 725, 730 (1949) (upholding the validity of a state statute which prohibited the same activity prohibited under the Federal Motor Carrier Act). It may be argued that the Court retreated from its position in *Zook* when it decided *Campbell v. Hussey*, 368 U.S. 297, 301 (1961) (holding that the Tobacco Inspection Act fully occupied the field of tobacco inspection and classification). In *Campbell*, however, the Court found a congressional intent to pre-empt concurrent state regulation before it declared that supplemental state regulation was as susceptible to this pre-emption as was state regulation which conflicts with the federal scheme. 368 U.S. at 302.

37. 373 U.S. 132 (1963).

38. 373 U.S. at 139.

39. 373 U.S. at 142-43 (emphasis added).

fornia maturity test and that they had done so in the past, and it concluded that there was therefore no direct conflict.⁴⁰

However, the Court's test in *Lime and Avocado Growers* should not be relied upon too heavily. If taken literally, that test would mean that a direct conflict between state and federal standards would never exist so long as compliance with the most exacting regulation, whether federal or state, would necessarily include compliance with the less exacting regulation. So viewed, the test seems overly broad. More realistically, the test should be viewed simply as an illustration that in cases involving state health and safety measures, the Court requires a high degree of conflict between state and federal laws before it will declare that state law has been pre-empted by federal legislation. Moreover, the case clearly does suggest that if the state's health and safety standards are more exacting than those in federal regulations, the Court may be more willing to tolerate concurrent state regulation than it is when the state standards are more permissive than the federal standards.⁴¹

The foregoing discussion of the conflicts tests which have been articulated by the Supreme Court suggests that there is no direct conflict between state and federal regulations concerning air pollution from atomic sources. Consequently, resolution of the pre-emption question must turn upon an examination of congressional intent. At one time the Court seemed to indicate that an intent to pre-empt was to be presumed from the mere enactment of federal legislation upon a subject.⁴² Subsequent decisions, however, indicate that the Court no longer adheres to this position. In *California v. Zook*,⁴³ the Court held that the mere coincidence of regulation, without evidence of a congressional intent to exclude the state regulation, is only one factor to be considered in an inquiry into congressional intent.⁴⁴ In determining such intent, the Court seems to rely both upon direct evidence and upon inferences drawn from its inquiries into the historical background and legislative history of the particular federal statute in question. In addition, the Court seeks

40. 373 U.S. at 143.

41. The four dissenting justices in *Lime and Avocado Growers* interpreted the majority opinion to stand for this proposition. After concluding that federal and state standards did not conflict, the Court analyzed the provisions of the Act, their legislative history, and their operation, and determined that Congress did not manifest an unambiguous intent to preclude state regulation.

42. See *Erie R.R. v. New York*, 233 U.S. 671 (1914). In that case, a New York law prescribing an eight-hour work day for railroad telegraph operators was held to be pre-empted by a federal statute prescribing a nine-hour work period for nighttime operators and a thirteen-hour work period for daytime operators.

43. 336 U.S. 725 (1949).

44. 336 U.S. at 730.

to determine legislative intent through an examination of the statute itself and of its administration by the designated federal agency.⁴⁵

Since there is apparently no direct conflict between the state and federal regulations in the present controversy, judicial determination of congressional intent is necessary. The discussion which follows seeks to examine the legislative history and implementation of the 1954 Atomic Energy Act,⁴⁶ in order to determine whether, under the foregoing approach, a court is likely to find that there was a congressional intent sufficient to preclude state legislation concerning pollution from atomic power facilities.

II. THE LEGISLATIVE INTENT BEHIND THE ATOMIC ENERGY ACT

The purpose of the 1954 Atomic Energy Act was to encourage the private development and utilization of atomic energy.⁴⁷ As private industries began to operate nuclear facilities, legislatures of states in which such facilities were operated became concerned about increased radiation hazards, and they enacted laws to regulate atomic activities conducted within their states under AEC licenses.⁴⁸ Because the 1954 Act contained no express statement concerning pre-emption, the need for a clarification of state and federal responsibilities in the regulation of the nuclear industry became increasingly evident. In 1959 Congress sought to provide that clarification by enacting section 274 of the 1959 amendments to the Act.⁴⁹

Section 274(b) of those amendments authorized the AEC to enter into a "turnover" agreement with the governor of any state for the discontinuance of AEC regulation of certain specified materials: (1) by-product materials, (2) source materials, and (3) special nuclear materials in quantities not sufficient to form a critical mass.⁵⁰ But

45. *Head v. New Mexico Bd. of Examiners*, 374 U.S. 424, 432 (1963).

46. 42 U.S.C. §§ 2011-296 (1964).

47. 42 U.S.C. §§ 2011, 2013(d) (1964).

48. See generally E. STASON, S. ESTEP, & W. PIERCE, *ATOMS AND THE LAW* 952-1001 (1959).

49. 42 U.S.C. § 2021 (1964). See Estep & Adelman, *supra* note 12, at 58-60.

50. 42 U.S.C. § 2021(b) (1964). Twenty-two states have entered into turnover agreements with the AEC: Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Idaho, Kansas, Kentucky, Louisiana, Mississippi, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Oregon, South Carolina, Tennessee, Texas, and Washington. Although New York has entered into a turnover agreement with the AEC, it has not conceded exclusive AEC jurisdiction. Memorandum of Understanding art. 5, in 4 CCH ATOMIC ENERGY L. REP. ¶ 16,563 (1967). States which have entered into turnover agreements with the AEC exercise exclusive control over the specified materials; but before entering into an agreement authorized by § 274(b), the AEC must find that the state regulatory program is compatible with the federal program and is adequate to protect public health and safety. 42 U.S.C. § 2021(d)(2) (1964). To guide the states in formulating their regulatory programs, the AEC has published criteria to be used in evaluating these programs. These criteria require that federal

section 274(b) is limited in scope to these materials and provides for the relinquishment of AEC authority only in these areas. More relevant to the issue of air pollution from atomic facilities is section 274(c):

No agreement entered into pursuant to subsection (b) shall provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of—

(1) the construction and operation of any production facility.⁵¹

According to interpretations by the AEC, the agency's responsibilities under this subsection include the control of radioactive discharges into the air.⁵²

Admittedly, one could argue that these two sections, read together, indicate a congressional design to delegate to the AEC the power of exclusive control of radiation hazards, although the AEC could, if it so chose, delegate some of that power to the states. In light of the historical background of the amendment, this interpretation of congressional purpose appears to be reasonable. On the other hand, it can be argued that section 274(c) precludes the AEC merely from entering into those agreements with the states under which the states would have exclusive responsibility for regulating radioactive pollution of the air, and that the section does not on its face preclude stringent state standards which are designed to supplement, rather than to replace, minimum federal standards established by the AEC.⁵³ Because an intent to preclude state regulation of pol-

and state standards for radiation protection be uniform, AEC, *Criteria for Guidance of States and the AEC in the Discontinuance of AEC Regulatory Authority over By-Product Source and Special Nuclear Materials in Quantities Not Sufficient To Form a Critical Mass and the Assumption Thereof by States Through Agreement*, Criterion 3, in 4 CCH ATOMIC ENERGY L. REP. ¶ 16,537 (1967).

51. 42 U.S.C. § 2021(c)(1) (1964).

52. Control of radioactive effluents is considered an integral part of the design, construction, and operation of nuclear-production facilities. See *Hearings on Federal-State Relations Before the Joint Comm. on Atomic Energy*, 86th Cong., 1st Sess. 306 (1959) [testimony of Robert Lowenstein, Office of the General Counsel, AEC, explaining § 274(c)] [hereinafter *1959 Hearings*].

53. *Lime and Avocado Growers* indicates that the Court is unlikely to hold state regulation pre-empted when state standards merely supplement federal standards. See text accompanying notes 37-41 *supra*. In its analysis of congressional intent, the Court, in *Lime and Avocado Growers*, emphasized that the Agricultural Adjustment Act authorized the Secretary to set *minimum* standards. The dissent dismissed the majority's reliance upon this language in the federal law:

It is a commonplace that when the appropriate federal regulating agency adopts minimum standards which on balance satisfy the needs of the subject matter without a disproportionate burden on the regulatees, *the balance struck is not to be upset by the imposition of higher local standards. . . . And when the cumulative operation of more strict local law is to be continued . . . Congress has so provided in express terms.*

373 U.S. at 171 (emphasis added). *Lime and Avocado Growers* graphically illustrates that different pre-emption standards are applied by the Court according to the

lution in this area is not clearly evident in the statutory language, an analysis of the legislative history of section 274(c) is necessary in order to glean additional indications of congressional intent.

During the hearings on the amendment held by the Joint Committee on Atomic Energy, the lack of an explicit delineation of federal and state responsibilities regarding the operation of nuclear reactors was discussed. In fact, the same Minnesota regulations⁵⁴ that are the subject of the current controversy between that state and the AEC led Mr. Toll, counsel to the committee, to suggest the need for further clarification:

Mr. Toll. . . . [O]n the question of reactors does this bill go far enough? Should there be a statement that these activities are expressly preemptive to the federal government?

Mr. Lowenstein. [Office of the General Counsel, AEC] Under this bill which gives explicit reference to the interest of the Federal and State Governments, we think it would be fairly apparent, as many of us now believe under the existing Atomic Energy Act, that there has been an area of preemption. We considered the desirability of writing the kind of provision you suggested, Mr. Toll, and we decided against it, primarily for the reason that it is practically impossible to try to define, taking into account all of the various gray areas and special circumstances that might arise, where these areas of preemption begin and end.

Mr. Toll. Does this bill do anything to clarify the situation as to the Minnesota regulations . . . ? Minnesota has no indication from the Federal Government as to whether or not the State of Minnesota has legal authority to license reactors.

Mr. Lowenstein. In this bill, we are not trying to deal with any specific situation.

Mr. Toll. Minnesota is just an example of the first State that has attempted to license reactors. Should this bill attempt to spell out whether or not they are encouraged or whether they have legal authority to do this?

Mr. Lowenstein. I think this is a suggestion that is certainly worth giving consideration to. The problem, I think, that you run into is that when you begin to specify one thing such as licensing, then you create questions and perhaps leave inferences as to what the State's authority might be in other details.⁵⁵

Mr. Toll then suggested that the Act should be reworded in order

various characterizations of the interests involved; the majority viewed the case as involving a health and safety measure, whereas the dissent looked upon the California statute as an economic measure.

54. See note 2 *supra*.

55. 1959 *Hearings* 307.

to make explicit Congress' intent to pre-empt state control of nuclear reactors; but Mr. Lowenstein, expressing the AEC position, stated a preference for leaving the question to the courts:

Mr. Lowenstein. We thought that this act, without saying in so many words did make clear that there was preemption here, but we have tried to avoid defining the precise extent of that preemption, feeling that it is better to leave these kinds of detailed questions perhaps up to the courts later to be resolved.⁵⁶

Representative Durham voiced some objection to the AEC position:

Representative Durham. I don't agree in writing an act like that. I think it should be clearly defined what is our field and what is their field.

Mr. Lowenstein. I think this does do that, Mr. Durham.

Representative Durham. I think so, too. If they want to set up a licensing system, they can do it. The courts will decide it, then, not us. I think the law should be as clear as possible to avoid litigation. I am not a lawyer, but I wonder if that is not a pretty clear statement of what we intended to do, and what we are writing into the act.⁵⁷

Some additional suggestion of the congressional intent with respect to pre-emption may be seen in the Senate report which accompanied the bill. That report contained two statements referring to the exclusive authority of the AEC. One statement, found in the Comments by the Joint Committee, is a specific reference to section 274(b) and thus may not be applicable to section 274(c), which is the provision that is more relevant to control of radioactive air pollution.⁵⁸ The other statement is more general and is included in the Committee's analysis of subsection (k), which provides: "Nothing in this section shall be construed to affect the authority of a state or local agency to regulate activities for purposes other than protection against radiation hazards."⁵⁹ The Committee's statement explained that provision as follows:

This subsection [(k)] is intended to make it clear that the bill does not impair the state authority to regulate activities of AEC licensees for manifold health, safety, and economic purposes other than radiation protection. As indicated elsewhere, the Commission has exclusive authority to regulate for protection against radiation hazards until

56. *Id.*

57. *Id.* at 307-08. Representative Carl T. Durham was Chairman of the Joint Committee on Atomic Energy.

58. U.S. CODE CONG. & AD. NEWS, 86th Cong., 1st Sess. 2879 (1959).

59. 42 U.S.C. § 2021(k) (1964).

such time as the state enters into an agreement with the Commission to assume such responsibility.⁶⁰

Since the statute's only reference to "agreements" is that contained in section 274(b), it appears that the "agreements" to which the committee refers must be those contemplated by subsection (b). And because subsection (b) refers to agreements only with respect to source, by-product, and special nuclear materials, it is at least arguable that subsection (k)'s apparent preclusion of state regulation refers only to regulation of those specific areas and does not preclude state regulation of radioactive air pollution.⁶¹

The legislative history of section 274(c) does reveal that Congress intended to pre-empt state regulation of nuclear reactors, but the precise extent of that intended pre-emption is not certain. In fact, the AEC successfully argued against rewording the statute to provide that the Commission would have exclusive authority to regulate nuclear reactors; the AEC, in this particular instance, preferred the flexibility afforded by a less precise delineation of the bounds of federal pre-emption.⁶² Admittedly, some members of the Committee believed that section 274(c) in its original form, which was subsequently enacted into law with the passage of the amendments, was sufficient to indicate a congressional intent to pre-empt all state regulation of nuclear reactors. But the actual wording of the provision may afford the court some flexibility in interpreting it. It would arguably not be inconsistent with federal regulation of the construction and operation of reactors for a state to determine, within the limits of technological feasibility, what amount of discharge of atomic effluents is tolerable, and to refuse to permit the operation of a nuclear reactor within its borders unless that standard is met. The specific design and operational aspects of the atomic power installation would be left to the AEC.

Of course, after analyzing the provisions of the statute, their legislative history, and the historical background of the amendments to the act, a court could reasonably conclude that Congress intended

60. U.S. CODE CONG. & AD. NEWS, 86th Cong., 1st Sess. 2882-83 (1959).

61. That contention finds support in the legislative history of subsection (k). As that subsection was originally drafted, its preclusion of state regulation was explicitly directed to those categories contained in § 274(b):

It is the intention of this Act that State laws and regulations concerning the control of radiation hazards from by-product, source, and special nuclear materials shall not be applicable except pursuant to an agreement entered into with the Commission pursuant to subsection (b): Provided, however, that States may adopt registration requirements for such materials and may inspect the use of such materials within States to assure compliance with the Commission's regulations. 1959 *Hearings* 489.

62. See testimony of Mr. Robert Lowenstein in text accompanying notes 55-57 *supra*.

federal legislation fully to occupy the field of radiation-hazard regulation, and that concurrent state regulation is therefore precluded. But the legislative history does not clearly mandate that conclusion. Indeed, there is some indication of an express intent to leave the courts substantial room for interpretation.⁶³ Interpretative factors in judicial resolution of questions of federal pre-emption are malleable and may sometimes be shaped by the policies surrounding a particular issue.⁶⁴ Thus it seems that if a court can be persuaded that the local interests in protecting the environment from unnecessary radioactive pollution not only are not subordinate to, but are significantly greater than, the federal interest in promoting the development of economical nuclear power, then the court might conclude that Congress has not manifested an unambiguous intent to displace state regulation of radioactive pollution of the air.⁶⁵

III. POLICY CONSIDERATIONS

A description of the AEC's procedure for licensing nuclear reactors under the Atomic Energy Act provides valuable insights necessary to a comprehension of the policy considerations which could bear upon judicial resolution of the pre-emption question. The AEC's licensing procedure may be broadly analyzed as a two-step process.⁶⁶ The prospective licensee first files with the AEC an application for an operating license.⁶⁷ The application must contain detailed information sufficient to enable the AEC's regulatory staff to determine whether the applicant has made adequate provisions for the protection of public health and safety.⁶⁸ The Advisory Committee on Reactor Safeguards (ACRS)⁶⁹ makes a similar but independent review of the safety features of the reactor. The regula-

63. See testimony of Mr. Robert Lowenstein in text accompanying note 57 *supra*.

64. See generally text accompanying notes 16-27 *supra*.

65. Compare opinion of the Court in *California v. Zook*, 336 U.S. 725 (1941), with dissenting opinion of Justice Burton, 336 U.S. at 741.

66. See generally Green, *Safety Determinations in Nuclear Power Licensing: A Critical View*, 43 NOTRE DAME LAW. 633, 635-43 (1968).

67. The AEC has a statutory duty to give prompt notice of the filing of a license application to the state in which the proposed activities will be conducted. 42 U.S.C. § 2021(l) (1964). The AEC rules of practice require that copies of the application be sent to the chief executive officer of the state and to the appropriate local subdivision. 10 C.F.R. § 2.101(b) (1969).

68. 10 C.F.R. § 50.34(a) (1969).

69. The ACRS, an advisory committee of scientists and engineers, is a statutory creation of Congress [42 U.S.C. § 2039 (1969)] and provides an independent evaluation of the safety aspects of the AEC license proceedings. Members of the committee are not employees of the AEC, but serve as independent consultants, and are selected by the AEC from nominations made by the existing committee and the Director of Regulation. *Hearings on Environmental Effects of Producing Electric Power Before the Joint Comm. on Atomic Energy*, 91st Cong., 1st Sess. 110 (1969) (testimony of Commissioner Ranczy, AEC) [hereinafter 1969 *Hearings*].

tory staff and the ACRS both write reports, which are submitted to the Atomic Safety and Licensing Board.⁷⁰ The Board then holds a hearing to determine whether a provisional construction permit will be issued.⁷¹ In actual practice, the regulatory staff and the ACRS do not issue their reports until the applicant has complied with their safety requirements.⁷² Thus the proceedings are usually uncontested and pro forma, and consist mostly of introducing testimony in support of the reports of the regulatory staff and the ACRS. States do have the opportunity to intervene,⁷³ however, and may introduce testimony and evidence to contest the safety determinations of the regulatory staff and the ACRS.⁷⁴ Upon completion of construction in accordance with the application, the applicant then, as the second stage in the licensing procedure, amends his application by including a final safety analysis. If the Atomic Safety and Licensing Board then finds that the operation of the facility will not endanger public health and safety, an operating permit is issued.⁷⁵

The AEC licensing procedure outlined above is characterized by a series of complex questions which demand that highly trained scientists, technicians, and engineers administer the procedure. For this reason, it is clear that a complete licensing program is beyond the financial capability of most state governments. The federal government, because of its superior financial resources, is more likely to attract qualified personnel than are the states. Accordingly,

70. The ACRS report becomes part of the record of the application and a copy is sent to the appropriate state official. 10 C.F.R. § 2.102(c) (1969).

71. The AEC regulations were amended in 1966 to permit the construction of the reactor to proceed simultaneously with research and development of the safety features. 10 C.F.R. § 50.35 (1969). The applicant must submit the proposed design for the facility, identify the safety features or components requiring further research, and specify that a research and development program will be conducted in order to resolve any safety questions before the latest completion date designated in the application. Upon a finding that the proposed facility can operate without undue risk to the public, a provisional construction permit will be issued. 10 C.F.R. § 2.104(b)(1) (1969).

72. Green, *supra* note 66, at 642.

73. 42 U.S.C. § 2021(i) (1964). Although Minnesota officials did not intervene in the proceeding, they did make a limited appearance, without taking a position on the issue, in order to introduce evidence, interrogate witnesses, and advise the Commission as provided for in 10 C.F.R. § 2.715 (1969). 2 CCH ATOMIC ENERGY L. REP. ¶ 11,264 (1967).

74. It has been argued that this procedure is not satisfactory, because the intervenor has the burden of proving the inadequacy of the safety precautions provided in the application. See Green, *supra* note 66, at 655.

75. 10 C.F.R. § 50.35(e) (1969); 42 U.S.C. § 2133 (1964) provides that no license may be issued when the public health and safety would thereby be jeopardized. Although an operating license may be granted without a hearing, the Commission is required to give thirty-days notice of its intention to do so, and must hold a hearing if one is requested by a party whose interests will be affected by the issuance of the license. 42 U.S.C. § 2239(a) (1964). A public hearing on the application of Northern States Power Company for an operating license was scheduled for April 28, 1970. Report Letter No. 769, 4 CCH ATOMIC ENERGY LAW REP. (March 13, 1970).

advocates of federal control argue that the states cannot act effectively in this area.⁷⁶ This argument, however, is not conclusive. States do recognize the limitations on their ability to administer a comprehensive program, and consequently they tend to concentrate their efforts on specific problem areas.⁷⁷ By concentrating their resources on the specific area of air pollution, for example, the states may well be able to attract radiological-health experts who are as qualified in that particular area as are those employed by the federal government.⁷⁸ Moreover, many such persons can be found on the campuses of state universities and colleges and may therefore be available to the states as consultants.⁷⁹

A further argument advanced in favor of exclusive federal control is the contention of the nuclear-energy industry that it finds greater reassurance in the AEC's comprehensive program than in disjointed state schemes, because the federal regulator has an appreciation of the over-all problems associated with the regulation of the industry.⁸⁰ Although this argument has a certain persuasiveness, it also has weaknesses. It may be questioned, first of all, whether it is desirable to preclude state regulation simply because the industry would prefer to be regulated only by the federal agency with which it is familiar. The tendency of regulatory agencies to be "captured"

76. See, e.g., Helman, *Preemption: Approaching Federal-State Conflict over Licensing Nuclear Power Plants*, 51 MARQ. L. REV. 43, 63-66 (1967).

77. *Id.*

78. Indeed, the standards contained in the Minnesota Pollution Control Agency permit were recommended by Dr. Ernest C. Tsivoglou, Professor of Sanitary Engineering at the Georgia Institute of Technology and former head of radiological water pollution control for the United States Public Health Service, who is serving as a consultant to the Pollution Control Agency. Clemons, *supra* note 1.

79. Dr. G. Hoyt Whipple, Professor of Radiological Health, School of Public Health, University of Michigan, stated in an interview that, in his opinion, a sufficient number of radiological-health experts would be available to furnish the required personnel to the states if state regulation is upheld. Faculty members of state universities which have radiological-health programs are generally available to state agencies for consultation; and although, according to Dr. Whipple, state agencies traditionally prefer full-time staffs to part-time consultants, the greater cost of a full-time staff would tend to limit the demand for full-time employees. Another factor which indicates that sufficient numbers of adequately trained personnel would be available is that the supply of persons trained in radiological health expands with each class that graduates from the radiological-health programs now established in colleges and universities. Some of those graduates work for state health departments; others are employed by the AEC; and still others are hired by the public-utility companies. In addition, Dr. Whipple noted that some graduates are forming consulting firms—a practice which he expects will expand with the growth of the nuclear industry. Dr. Whipple conceded that an acute shortage would be created if all states made the necessary appropriations and attempted to hire trained personnel within a short time, but he suggested that this would be unlikely. Interview with Dr. G. Hoyt Whipple, Professor of Radiological Health, School of Public Health, University of Michigan, in Ann Arbor, Michigan, April 13, 1970.

80. See Helman, *supra* note 76, at 63-64.

by those whom they regulate is well-known,⁸¹ and that consideration alone should prompt a cautious approach in an area as delicate as that involving atomic energy. Indeed, there is some indication that the AEC has become identified with the industry which it is regulating and that the Commission does more promoting than regulating. Practice under the licensing program reveals that the determinations to issue permits are sometimes made, prior to public hearings, in nonpublic meetings between the AEC regulatory staff and the applicant.⁸² The burden is on the intervenor to prove that the provisions of the application are inadequate to protect the public safety.⁸³ The primary functions of the AEC's counsel in public hearings are to demonstrate that the radioactive discharges are within the minimum levels required by the regulatory staff and to publicize safety measures provided in the reactor design—or, as one commentator has stated, “to help the applicant get a construction permit.”⁸⁴

Moreover, the industry's objection to state regulation seems to presume that the state regulators will be incompetent and parochial—a presumption that may not be warranted. It may be expected that in a state licensing proceeding the applicant will at least have an opportunity to present evidence to demonstrate to the state agency that the agency's standards or regulations are unreasonable in light of their consequences on related aspects of operating a nuclear power plant. Thus, the state regulators' attention will be focused on the precise difficulties which the state standards create for the power company; and the state agency will be able to evaluate the reasonableness of its standards in view of those consequences. Moreover, there will be available to the industry a degree of judicial protection, particularly if the decisions of the state administrative body run counter to the federal regulations. In any event, it seems a bit early to dismiss the possibility of adequate state regulation; one must posit at least a modicum of confidence in the capacity of state agencies to render reasonable decisions.

Another objection to state regulation may be drawn from the nature of air pollution. It may be contended that because air pollution from atomic facilities is an interstate problem, national regulation is necessary. That objection is persuasive, however, only to the extent that pollution from one state may harm inhabitants of another state. Certainly, federal regulation is necessary to ensure that lax standards of one state do not result in harm to persons in another state. But when one state seeks to set pollution control standards which are more strict than those of a neighboring state or

81. L. JAFFE, *JUDICIAL CONTROL OF ADMINISTRATIVE ACTION* 11-14 (1965).

82. See Green, *supra* note 66, at 651.

83. *Id.* at 654.

84. *Id.* at 656.

the federal government, no harm to persons in the neighboring state can result, and hence there is no need for pre-emption by federal regulation. This reasoning applies to radioactive air pollution, for strict state standards in fact serve to protect inhabitants of neighboring states; and, in any event, so long as state standards may not be more lax than the federal standards, any pollution reaching adjoining states will not exceed that permitted by the federal standards.

Another important policy consideration is the need for economical electrical power. Admittedly, the addition of state licensing systems would create an additional expense in an already costly process.⁸⁵ In addition, the AEC argues that it is in the best position to strike the balance between public safety and the economical development of nuclear power, since a state agency, concerned only with safety considerations, may not give adequate attention to the need to take tolerable risks in order to further the development of peaceful uses of atomic energy.⁸⁶ That argument, however, should be examined with some skepticism in view of the allegations that the AEC may have become a "captured" agency.⁸⁷ In any event, the argument that allowing state regulation will increase the cost of electrical power generated by nuclear energy is persuasive only up to a point. In the first place, it is not clear that the implementation of the state standards would retard the development of atomic power production or significantly increase the cost of electrical power. Indeed, it might be argued that imposition of strict standards can serve to encourage increased technological development in order to produce electrical power more efficiently. Moreover, since utility rates are in part based on a fixed rate of return on investment,⁸⁸ capital expenditures necessitated by pollution control regulations could be spread among a large consumer population and thus neither directly impede technological advance nor substantially increase the cost of electrical power. In the Minnesota situation, for example, the state pollution control agency determined that the increased costs necessitated by its regulation of radioactive discharges from the utility's nuclear power plant would not increase the price of electricity beyond a level which consumers would be willing to

85. See generally Cavers, *State Responsibility in the Regulation of Atomic Reactors*, 50 KY. L. REV. 29, 34-36 (1959).

86. Green, *supra* note 66, at 649.

87. See text accompanying notes 80-84 *supra*.

88. A fair rate of return is the generally accepted measure of reasonable rate levels for privately owned public utilities who enjoy monopoly status. The role of return allowed is a multiple of two factors: the rate base and the fair rate of return. The rate base is the total amount of invested capital on which the utility is permitted in reasonable rate of compensation. The fair rate of return is a percentage rate deemed appropriate in light of historical conditions and considerations prevailing or anticipated at the time of the rate case. J. BONBRIGHT, *PRINCIPLES OF PUBLIC UTILITY RATES* 147-51 (1961). See also *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

pay,⁸⁹ presumably because the cost would be spread among all consumers so that none would feel a substantial burden individually.⁹⁰

It may be argued that a national agency is the appropriate authority to regulate atomic pollution, because the increased costs of production required by local regulation of radioactive pollutants will affect consumer prices beyond local markets. This objection, however, is not unique to atomic pollutants, but is equally applicable to all forms of air pollution. Yet, despite the fact that local control of pollution may affect consumer prices outside the regulating state, Congress, when it enacted the Air Quality Control Act of 1967,⁹¹ emphasized local control of air pollution. It thus appears that the economic effects of state regulation in this area are not sufficient to preclude state regulation.

Moreover, it can be contended that the economics of production should not be accorded great weight in determining the propriety of state efforts toward pollution control, for as many environmentalists have pointed out, the economics of production are in fact the fundamental *cause* of the general deterioration of the environment.⁹² Because past generations sacrificed the environment in their pursuit of economic and technological development, this generation faces an environmental crisis of staggering proportions. In view of that crisis, the public today is becoming increasingly aware of the value of the environment and thus may now be willing to pay to preserve that environment.

The foregoing policy considerations suggest that arguments against permitting some state regulation in this area are not necessarily compelling. Indeed, there are a number of policy considerations which favor a degree of state regulation. For example, the indications that the AEC may tend to favor promotion over protection⁹³ suggest that some state regulation or participation could serve

89. Kenworthy, *Who Will Police the Polluters?*, N.Y. Times, Feb. 1, 1970, § E, at 2, col. 3.

90. The impact that the increased cost of electricity would have on individual consumers of electricity might be further minimized because a substantial portion of the electricity produced would be purchased by industries which might socialize that increased cost among the consumers of their products.

91. 42 U.S.C. §§ 1857-571 (Supp. IV, 1965-1968).

92. 1969 *Hearings* 297 (testimony of Mr. Carl Klein, Asst. Secretary for Water Quality Research, U.S. Dept. of the Interior):

Clearly, we must not cast the question of balanced use of the environment in solely economic terms.

Under these conditions, the use of the environment is taken at zero and, inevitably, we wind up sacrificing the environment for the benefit of development and resource expenditures.

Alternative balances, such as those of competing uses in view of society's long-range goals, must be considered. Man has existed some 2 million years on the basis of his use of the environment without reckoning the true cost of that use. Our future depends on a more reasonable assessment of its value.

93. See text accompanying notes 80-84 *supra*.

to promote balance in the decision-making process. In addition, strong state interests are present in this area. Local communities bear the risk of having a nuclear power plant in their midst and hence have a very real interest in the level of radioactive discharges at which atomic power plants are permitted to operate. Yet under the present regulatory scheme, state authorities have no power to regulate the potential hazards from radioactive pollution of the air and have little effective opportunity to participate in the decision-making process. The best solution seems to be to permit states such as Minnesota, which seek an additional margin of safety, to play a more active role in accommodating the need for electrical power with the need to preserve the environment.

The goal could be achieved in either of two ways. One approach is through state regulation under existing law—the method sought by Minnesota in its current dispute. Success in this approach depends upon a judicial finding that some state regulation of radioactive air pollution has not been pre-empted by Congress. Although the statutory framework and its legislative history do not clearly preclude a sympathetic court from upholding the state regulation in this instance, the probable outcome admittedly must favor pre-emption. In any event, there are limits to what could be accomplished through this approach. Certainly, a judicial decision permitting a degree of state regulation could have the effect of counterbalancing some of the shortcomings of the current AEC procedure. Yet many of the objections to state regulation have some validity, and permitting state efforts in this field raises the problem of unnecessary and wasteful duplication of administration. For that reason, it seems that a long-range solution would better be sought through congressional alteration of the statutory framework.

The conditions upon which Congress predicated the present regulatory scheme when it amended the Atomic Energy Act in 1959 need to be re-evaluated in light of the changes which have occurred in those conditions during the past ten years. The two most important of these changes are the willingness on the part of state governments to assume greater responsibility in controlling environmental pollution and the increased number of trained personnel who are available to aid the states in their efforts to control radioactive air pollution. In addition, although the development of nuclear power to satisfy the nation's expanding needs for electrical energy continues to be an important national interest, that interest must now be harmonized with a correspondingly important need to preserve the environment. Thus, it is not possible to say that either the national interest in promoting nuclear development or the local interest in health and safety predominates; on the contrary, each is intertwined with the other. Hence, what is needed is a coordinated

regulatory scheme in which states could have a greater opportunity for participation than they presently have.

Such a regulatory scheme might be modeled upon that which Congress has adopted in the Air Quality Control Act of 1967.⁹⁴ Under that Act, the Department of Health, Education, and Welfare (HEW) develops air quality control criteria for the various atmospheric regions into which the nation is divided.⁹⁵ The states then promulgate air quality standards and enforcement measures which are evaluated by HEW to determine whether or not they are consistent with the federal criteria. If the state standards are inadequate to protect the public health and safety, or if they are inconsistent with the federal standards, HEW may establish air quality control standards on its own initiative. The act specifically provides that the states may enact more exacting standards than the HEW criteria require.⁹⁶ That regulatory scheme is predicated upon a congressional finding that the prevention and control of air pollution at its source is essentially a state responsibility;⁹⁷ and the scheme provides a flexible approach for meeting the problem of such pollution and encourages local innovation and experimentation in developing control techniques.⁹⁸

Arguably, a similar approach could be utilized to control radioactive air pollutants discharged from nuclear reactors. Those states which prefer to allocate their financial resources to the control of other air pollutants and those states which are satisfied with the protection afforded by the AEC's standards could rely upon the AEC to provide minimum protection from radioactive air pollution. But those states wishing to provide an additional margin of safety would be free to do so by enacting safety standards more stringent than

94. 42 U.S.C. §§ 1857-57(l) (Supp. IV, 1965-1968).

95. Atmospheric regions are air basins determined on the basis of meteorological studies, and may stretch across several states. 42 U.S.C. § 1857(d)(1) (Supp. IV, 1965-1968).

96. It is possible to draw an inference of congressional intent to pre-empt state regulation of radiation hazards from the absence of a savings clause similar to this provision in the Air Quality Control Act. But the significance of the presence or absence of a savings clause depends upon the theory which one entertains with respect to federal pre-emption. One could argue that the supremacy clause of the Constitution creates a presumption of federal pre-emption and that consequently a savings clause would be necessary to negate this pre-emption. On the other hand, it can be argued that when the legislation deals with an area—such as that involving health and safety—in which the paramount policy appears to be the preservation of local authority, a savings clause is unnecessary to prevent pre-emption. More realistically, the presence or absence of a savings clause should not be determinative of the pre-emption issue; rather the court should decide the matter in terms of the policies embodied within the legislature. *See generally* Note, *Pre-emption as a Preferential Ground: A New Canon of Construction*, 12 STAN. L. REV. 208, 211-14 (1959).

97. 42 U.S.C. § 1857(a)(3) (Supp. IV, 1965-1968).

98. *See generally* Martin & Symington, *A Guide to the Air Quality Control Act of 1967*, 33 LAW & CONTEMP. PROB. 239 (1968).

those of the AEC. Under this approach, minimum protection for the entire country would still be provided by the AEC, yet the increased role of state regulation and participation would provide a valuable safeguard against the possibility that the federal agency may be more interested in promotion than in regulation. Costs, whether in the form of increased product costs or of deterioration of the environment are incurred regardless of the approach taken; but the views of those persons who inevitably bear the burden of those costs deserve greater consideration than that which is now afforded to them in the present AEC regulatory scheme.