Comment:

Impossibility: A Viable Defense under the Clean Air Act?

Judge Harold Leventhal of the United States Court of Appeals for the District of Columbia Circuit recently commented that "[i]n the Clean Air Act proceedings the issue of technical feasibility has emerged as the core issue for decision."[1] A quick scan of the areas in which this issue has emerged illustrates the accuracy of Judge Leventhal's observation.

Under the Clean Air Act,[2] claims of technical impossibility have arisen in challenges to the decisions of the Administrator of the U.S. Environmental Protection Agency in denying a one year extension to automotive manufacturers for attainment of mobile source emission standards,[3] in approving the emission limitation standards contained in state implementation plans,[4] in promulgating new stationary source performance standards,[5] and in actions seeking to enjoin the enforcement of compliance orders issued by

1. Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509, 531 (1974) [hereinafter cited as "Leventhal"]. Judge Leventhal further predicts that claims of technical impossibility promise to dominate litigation arising under the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1251 *et seq.*, which require polluters to install the "best practicable control technology currently available" by 1977, 33 U.S.C. § 1311(b)(1)(A)(i) (Supp. II 1972), and the "best available control technology economically achievable" by 1983. 33 U.S.C. § 1311(b)(2)(A)(i) (Supp. II 1972). *Id.* at 532.

2. 42 U.S.C. §§ 1857-1858a (1970) [hereinafter referred to as the "Clean Air Act" or the "Act," and the Administrator of the United States Environmental Protection Agency is hereinafter referred to as the "Administrator"].

3. International Harvester Co. v. Ruckelshaus, 478 F.2d 615 (D.C. Cir. 1973). Judge Leventhal discusses the nature of the issues raised by this appeal and the judicial approach taken by the D.C. Circuit Court of Appeals to deal with them in Leventhal, *supra* note 1, at 532-41.

4. *See* Duquesne Light Company v. Environmental Protection Agency, 481 F.2d 1 (3d Cir. 1973); Buckeye Power, Inc. v. Environmental Protection Agency, 481 F.2d 162 (6th Cir. 1973); Appalachian Power Company v. Environmental Protection Agency, 477 F.2d 495 (4th Cir. 1973).

5. *See* Portland Cement Association v. Ruckelshaus, 486 F.2d 375 (D.C. Cir. 1973), *cert. denied*, 94 S. Ct. 2628 (1974); Appalachian Power Co. v. Ruckelshaus, 486 F.2d 427 (D.C. Cir. 1973); Essex Chemical Corp. v. Ruckelshaus, 487 F.2d 427 (D.C. Cir. 1973), *cert. denied*, 94 S. Ct. 1991 (1974).

the Administrator.[6] The extent to which issues of technical infeasibility and economic hardship may be considered by the states in deferring enforcement of their implementation plans by the grant of variances has been the subject of several attacks on the Administrator's approval of state plans.[7] Finally, claims that the requirements of federally approved implementation plans are impossible to comply with have been raised successfully as a defense to civil contempt[8] and enforcement[9] proceedings brought by at least one state.

Issues of technical and economic feasibility permeate the fabric of the Clean Air Act.[10] While such considerations are essential if the actions of the Administrator are to be practicable and realistic, undue deference to these issues will hinder and, possibly, prevent timely attainment and maintenance of primary and secondary air quality standards. But of all the points at which such issues arise under the Act, perhaps the most critical are the variance and the enforcement provisions.

Federal approval of permissive variance procedures in state implementation plans could emasculate the enforcement provisions of the Act and put off indefinitely the attainment and maintenance of primary and secondary air quality standards.[11] In recognition of

6. *See* Getty Oil Co. v. Ruckelshaus, 467 F.2d 349 (3d Cir. 1972), *cert. denied*, 409 U.S. 1125 (1973); U.S. Steel Corp. v. Fri, 364 F. Supp. 1013 (N.D. Ind. 1973); West Penn Power Co. v. Train, ___ F. Supp. ___, 6 ERC 1722 (W.D. Pa. 1974).

7. *See* Natural Resources Defense Council v. Environmental Protection Agency, 478 F.2d 875 (1st Cir. 1973) (Massachusetts and Rhode Island plans); Natural Resources Defense Council v. United States Environmental Protection Agency, 483 F.2d 690 (8th Cir. 1973) (Iowa plan); Natural Resources Defense Council v. Environmental Protection Agency, 489 F.2d 390 (5th Cir. 1974) (Georgia plan); Natural Resources Defense Council v. United States Environmental Protection Agency, 494 F.2d 519 (2d Cir. 1974) (New York plan). An attack on the variance provisions of the Arizona and Washington plans is pending in Natural Resources Defense Council v. Environmental Protection Agency, Nos. 72-2145, 72-2147 (9th Cir.). Challenges to the Administrator's approval of the Utah, New Mexico and Colorado plans were dismissed by the Tenth Circuit for lack of standing. Natural Resources Defense Council, Inc. v. United States Environmental Protection Agency, 481 F.2d 116 (10th Cir. 1973).

8. *See* Commonwealth of Pennsylvania v. Pennsylvania Power Company, 5 ERC 1373 (Pa. Lawrence County Ct. C.P.), *aff'd*, 6 ERC 1328 (Pa. Comm. Ct. 1973).

9. *See* Commonwealth of Pennsylvania v. United States Steel Corp., 57 Pa. D. & C.2d 583 (Allegheny County Ct. C.P. 1973).

10. *See* text accompanying notes 50 *et seq. infra.*

11. Ambient air quality standards are established by the Administrator pursuant to section 109 of the Act, 42 U.S.C. § 1857c-4 (1970).

this possibility, as well as of the fact that situations will arise in which a variance ought to be granted, Congress set forth in section 110(f)[12] a tightly drawn procedure for obtaining a postponement of the requirements of a state implementation plan for an individual or class of sources. Under section 110(f), a postponement from the requirements of a state implementation plan for not more than one year may be obtained upon application of the Governor of a state to the Administrator provided certain criteria are met. These criteria include a finding by the Administrator that good faith efforts have been made to effect compliance, that the necessary technology or other control methods are not available, that interim control measures will be undertaken, and that continued operation of the source is essential to either national security or to public health or welfare.

The Fifth Circuit has recently held the section 110(f) procedure to be the exclusive mechanism for obtaining a postponement of scheduled compliance with the emission limitations contained in state implementation plans.[13] In arriving at this conclusion, the Fifth Circuit refused to adopt the more liberal view of the First[14]

12. Section 110(f), 42 U.S.C. § 1857c-5(f) (1970), which provides in part:

> (1) Prior to the date on which any stationary source or class of moving sources is required to comply with any requirement of an applicable implementation plan the Governor of the State to which such plan applies may apply to the Administrator to postpone the applicability of such requirement to such source (or class) for not more than one year. If the Administrator determines that—
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> (A) good faith efforts have been made to comply with such requirement before such date,
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> (B) such source (or class) is unable to comply with such requirement because the necessary technology or other alternative methods of control are not available or have not been available for a sufficient period of time,
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> (C) any available alternative operating procedures and interim control measures have reduced or will reduce the impact of such source on public health or welfare, and
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> (D) the continued operation of such source is essential to national security or to the public health or welfare,
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> then the Administrator shall grant a postponement of such requirements.

13. Natural Resources Defense Council v. Environmental Protection Agency, 489 F.2d 390 (5th Cir. 1974).

14. Natural Resources Defense Council v. Environmental Protection Agency, 478 F.2d 875 (1st Cir. 1973).

and Eighth[15] Circuits which have construed section 110(f) as the exclusive variance procedure only after the mandatory date for attainment of the primary air quality standards (the "postattainment period"). During the "preattainment period," these circuits permit the Administrator to approve implementation plans containing provisions which allow variances based upon considerations of technological impossibility and economic hardship to be granted. However, under these rulings, all such variances must cease before the mandatory compliance date for achieving primary air quality standards, and all must be approved by the Administrator.[16] Most recently, the Second Circuit rejected the result reached by the Fifth and adopted that of the First and Eighth Circuits.[17]

15. Natural Resources Defense Council v. United States Environmental Protection Agency, 483 F.2d 690 (8th Cir. 1973).

16. 478 F.2d at 887. The First Circuit's rationale in allowing variances during the preattainment period was that providing flexibility during this period will permit the states to set more stringent standards:

> We can see value in permitting a state to impose strict emission limitations now, subject to individual exemptions if practicability warrants; otherwise it may be forced to adopt less stringent limitations in order to accommodate those who, notwithstanding reasonable efforts, are as yet unable to comply.

Id. The Eighth Circuit fully endorsed the rationale and conclusions reached by the First Circuit. 483 F.2d at 694. The result reached by the First and Eighth Circuits was rejected by the Fifth Circuit on the ground that Congress did not intend to grant such "flexibility" to the states. It concluded that

> the plan of the statute was to secure ambitious commitments at the planning stage, and then, by making it difficult to depart from those commitments, to assure that departures would be made only in cases of real need. That view precludes the conclusion that Congress intended the states to have the kind of "flexibility" state variance plans would give them.

489 F.2d at 403. The rationale and results reached by the First, Eighth and Fifth Circuits are analyzed in Note, *1970 Clean Air Amendments: Use and Abuse of the State Implementation Plan*, 26 BAYLOR L. REV. 232, 234-38 (1974). *See also* Metropolitan Washington Coalition for Clean Air v. District of Columbia, ___ F. Supp. ___, 6 ERC 1363, *motion to amend denied*, 6 ERC 1863 (D.D.C. 1974) which also endorsed the holding of the First and Eighth Circuits and dismissed a challenge to a variance granted for a city incinerator.

17. Natural Resources Defense Council v. United States Environmental Protection Agency, 494 F.2d 519 (2d Cir. 1974). After briefly reviewing the rationale used by the First Circuit, the Court dismissed the contrary conclusions reached by the Fifth Circuit by stating:

> We agree with the holdings in the First and Eighth Circuits that the Administrator has the discretionary power to approve state plans which contained their own deferral mechanism to deal with variances during the preliminary or attainment period, which were not inconsistent with national objectives. We do not agree with the contrary Fifth Circuit holding on this issue.

Id. at 523.

As a result, in the First, Second and Eighth Circuits the Administrator may approve state implementation plans containing state variance provisions applicable to the preattainment period. Emission sources in those states which have such variance provisions in their approved implementation plans may be able, for technical or economic reasons, to defer compliance with the emission limitations of the plan until the mandatory date for achievement of primary air quality standards, mid-1975.[18] Emission sources in the states which comprise the Fifth Circuit will not be able to defer compliance with the state implementation plan unless they obtain a section 110(f) postponement. In all of the circuits which have thus far considered the matter, section 110(f) remains the only route to postponement of compliance with an implementation plan *after* the deadline for attainment of the primary standards.[19]

Because of the stringent substantive requirements imposed by section 110(f), many emission sources may be unable to obtain postponements even though compliance with a state plan may require them to cease operation.[20] Moreover, it has been suggested by one commentator that the Administrator's authority to grant postponements ought to be narrowly construed.[21] Even if a postponement is obtained, the legislative history of section 110(f) suggests that postponements may be limited to only one year.[22]

18. The Act does not specifically define the mandatory compliance date for achieving primary air quality standards. The date may be found by summing the time allotted for completion of the various steps necessary to implement the Act. These provisions have been interpreted as requiring compliance with the primary air quality standards by May 31, 1975. *See* Natural Resources Defense Council, Inc. v. Environmental Protection Agency, 475 F.2d 968, 970 (D.C. Cir. 1973). *See also* Comment, *Variance Procedures Under the Clean Air Act*, 15 WM. & MARY L. REV. 324, 327 & n.14 (1973).

19. The First Circuit did provide an exception to this rule during the postattainment period for minor state and local deferral procedures, such as by brief postponement of the effective date of abatement orders, and for flexibility to allow for mechanical breakdowns and acts of God. 478 F.2d at 886. The result reached by the First Circuit concerning the postattainment period was adopted by the Eighth Circuit, 483 F.2d at 694; the Fifth Circuit, 489 F.2d at 402-03; and the Second Circuit, 494 F.2d at 523.

20. For a discussion of the procedural, political and substantive difficulties of obtaining a section 110(f) postponement see Comment, *Variance Procedures Under the Clean Air Act: The Need for Flexibility*, 15 WM. & MARY L. REV. 324, 334-36 (1973).

21. 1 F. GRAD, TREATISE ON ENVIRONMENTAL LAW § 2.03, at 2-75 (1973) [hereinafter cited as Grad].

22. The wording of section 110(f) would not preclude subsequent grants of

The effect of construing section 110(f) as the exclusive means for obtaining a variance from the emission standards imposed by state implementation plans after mid-1975 will be to shift the forum for raising claims of technical and economic impossibility from the state and federal agencies to the courts. Accordingly, efforts to enforce state implementation plans will encounter defenses of technical or economic impossibility.

The remainder of this note will analyze the impossibility defense, examine its legal basis in general and, more specifically, under the comprehensive scheme of the Clean Air Act.

THE NATURE OF THE IMPOSSIBILITY DEFENSE

Relatively little has been written about the defense of impossibility.[23] Professor Grad has suggested that the defense be analyzed as containing two distinct, yet closely related claims: technical impossibility and economic infeasibility.[24] Technical impossibility ex-

postponements for any particular source for a period "not to exceed one year." However, the fact that the House-Senate Conference Committee deleted a clause in the Senate version of the Act which expressly authorized consecutive one year extensions indicates an intention to limit extensions for any source to one year. H.R. REP. No. 91-1783, 91st Cong., 2d Sess. 45 (1970). *See* Comment, *The Clean Air Amendments of 1970: Better Automotive Ideas from Congress*, 12 B.C. IND. & COM. L. REV. 571, 588 n.1 (1971) [hereinafter cited as Automotive Ideas].

23. *See generally* Leventhal, *supra* note 1; Grad, *supra* note 21, § 2.03; Pollack, *Legal Boundaries of Air Pollution Control—State and Local Legislative Purpose and Techniques*, 33 LAW & CONTEMP. PROB. 331 (1968) [hereinafter referred to as Pollack]; S. EDELMAN, THE LAW OF AIR POLLUTION CONTROL (1970) [hereinafter referred to as Edelman]; Automotive Ideas at 621-34.

The doctrines of impossibility and frustration of purpose as developed in contract law are inapposite to impossibility claims in environmental law. A contract is an agreement entered into voluntarily by the contracting parties. Since it is the result of a bargained-for-exchange, courts have generally examined contract impossibility claims in terms of foreseeability and assumption of risk. *See* Transatlantic Financing Corp. v. United States, 363 F.2d 312, 315 (D.C. Cir. 1966); Cuneo and Crowell, *Impossibility of Performance: Assumption of Risk or Act of Submission?*, 29 LAW & CONTEMP. PROB. 531 (1964). Acceptance of impossibility claims in contract actions is usually based either on an interpretation of the contract or on grounds of mutual mistake. *See* UNIFORM COMMERCIAL CODE § 2-615; RESTATEMENT OF CONTRACTS §§ 454-69 (1932). This element of mutuality and assumption of risk is absent where the obligation claimed to be impossible is imposed unilaterally by a legislature or an administrative agency. Furthermore, the object of pollution control regulations is to limit discharge of pollution to protect the health and welfare of the populace; accordingly, compliance may always be accomplished by terminating the activity causing the emission.

24. Grad § 2.03 at 2-121.

ists where a method to achieve an emission standard has not been successfully demonstrated on a commercial scale. Economic infeasibility, on the other hand, includes instances where the means to achieve an emission standard are commercially available, but where the costs of implementing it will cause termination of the activity producing the emission.

A claim of either technical or economic impossibility, if raised as a defense to an enforcement proceeding, poses difficult factual as well as policy questions for a court. In determining whether or not an emission standard is technically or economically impossible, a court will have to grapple with extremely complex technical issues.[25] However, even more troublesome than these factual determinations is the policy question of what a court should do if it finds that compliance with an emission limitation *is* technically or economically impossible. If the standard is strictly enforced, the offending activity—which could be an entire industry—must be subjected to sanctions which could include termination. On the other hand, refusal to enforce the standard will subject people exposed to the emissions to a health hazard the avoidance of which was the prime objective of the legislature in enacting the emission standard.

Both the difficulty of the factual determinations and the legislative nature of the policy issues presented by a defense of technical or economic impossibility has led to a difference of opinion among the courts as to whether either defense has any place in the field of air pollution control regulation.[26] In view of this difference of

25. Judge Leventhal discusses these difficulties in his article, *supra* note 1, where he states:

> The courts would be the first to agree, indeed to proclaim, that they are not technicians and cannot themselves either decide technological disputes, or draw on their own knowledge for a ruling on whether an agency's determination is proper.

Leventhal at 532. Judge Leventhal suggested that courts approach these issues as a matter of deciding whether the Agency has sustained the burden of adducing a reasoned presentation supporting its claim. He concludes that such an approach protects against excessive risks of error that could seriously erode the efficiency of the congressionally mandated regulatory scheme. *Id.* at 536.

26. *Compare* Moses v. United States, 16 App. D.C. 428 (1900); Northwestern Laundry v. Des Moines, 239 U.S. 486 (1916); Ballantine v. Nester, 350 Mo. 58, 164 S.W.2d 378 (1942); Dep't of Health v. Owens-Corning Fiberglas Corp., 100 N.J. Super. 366, 242 A.2d 21 (1968), *aff'd per curiam*, 53 N.J. 248, 250 A.2d 11 (1969); *with* Dep't of Health v. Philip & William Ebling Brewing Co., 38 Misc. 537, 78 N.Y.S. 13 (Bronx Mun. Ct. 1902); City of Rochester v. Macauley-Fien

opinion, it is appropriate to examine the legal basis for a court to consider claims of technical or economic impossibility.

THE LEGAL BASIS FOR IMPOSSIBILITY CLAIMS

Unless courts are authorized by the legislature to consider issues of technical and economic impossibility in applying air pollution control laws, the basis for their consideration must be found in the due process clause of either the state or Federal Constitution,[27] or, for state and local regulations, the commerce clause of the Federal Constitution.[28]

Commerce Clause

The commerce clause has been used to invalidate local air pollution control ordinances. In *People v. Cunard White Star Line*,[29] the New York Court of Appeals held application of a New York City smoke control ordinance to steamships engaged in interstate or foreign commerce to be unconstitutional because compliance with the ordinance was not "practicable."[30]

Milling Co., 199 N.Y. 207 (1910); People v. New York Central & H. R.R. Co., 159 App. Div. 329, 144 N.Y.S. 699 (1913); People v. Detroit Belle Isle & Windsor Ferry Co., 187 Mich. 177, 153 N.W. 799 (1915); People v. Cunard White Star Ltd., 280 N.Y. 413, 21 N.E.2d 489 (1913); People v. Oswald, 1 Misc. 2d 726, 116 N.Y.S.2d 50 (Magis. Ct. 1952); People v. Savage, 1 Misc. 2d 337, 148 N.Y.S.2d 191 (Sup. Ct.), *aff'd mem.*, 309 N.Y. 941, 132 N.E.2d 313, N.Y.S.2d (1955); People v. Peterson, 31 Misc. 2d 738, 226 N.Y.S.2d 1004 (Erie County Ct. 1961); Commonwealth v. Penn Power Co., 5 ERC 1373 (Pa. Lawrence County Ct. C.P.), *aff'd*, 6 ERC 1328 (Pa. Comm. Ct. 1973); Commonwealth v. United States Steel Corp., 57 Pa. D. & C.2d 583 (Allegheny County Ct. C.P. 1973).

27. *See* Pollack, *supra* note 23, at 335-37.

28. U.S. CONST. art. 1, § 8. Article 1, section 8 of the Constitution has been construed as conferring power on the courts to review state legislation in the absence of congressional action to "regulate commerce," and has been interpreted as embodying a constitutional policy against interference by the states with the flow of interstate commerce. *See* Southern Pacific Co. v. Arizona, 325 U.S. 761 (1945); Hetherington, *State Economic Regulation and Substantive Due Process*, 53 NO. WEST L. REV. 13, 226 (1958).

29. 280 N.Y. 413, 21 N.E.2d 489 (1939).

30. 280 N.Y. at 420-21. The court's application of the commerce clause might be defensible if this were a case of true *technical* impossibility. However, as the three dissenting justices pointed out, the smoke emission could have been prevented by merely firing the boilers one at a time instead of all at once. The practice of firing all of the boilers simultaneously was used merely because it was admittedly cheaper and more convenient. While it is true that at some point economic considerations might constitute a sufficient burden on interstate commerce to warrant

Whatever strength the *Cunard White Star Line* decision had as precedent for judicial interference, based upon the commerce clause, with local air pollution control regulatory schemes was severely limited by the Supreme Court in *Huron Portland Cement Co. v. Detroit.*[31] In a fact situation similar in many respects to the *Cunard White Star Line* case, a shipowner brought a suit to enjoin the enforcement of a Detroit smoke control ordinance. While compliance with the ordinance was admittedly technically possible, it would have required costly structural alterations to the vessel and installation of a different type of boiler. Nevertheless, the Court upheld the validity of the ordinance since it did not unconditionally exclude the vessel from the Port of Detroit. It appears, however, that where compliance with a state or local air pollution control statute by a vehicle engaged in interstate commerce is found to be *technically* impossible, the ordinance will be invalidated.[32]

Because of the federal dominance of air pollution control under the Clean Air Act, future use of the commerce clause as a basis to invalidate state and local air pollution control legislation would appear to be limited to local regulations more stringent than those contained in federally approved state implementation plans.[33] Regulations contained in approved state plans, being congressionally sanctioned, could not be challenged as interfering with the power of Congress to regulate interstate commerce.

Due Process Clause

As an exercise of the police power of a state or of the federal government,[34] air pollution control legislation is limited by the fifth and fourteenth amendments to the United States Constitution and,

holding an air pollution control statute void, it does not appear that such a burden was established in this case.

31. 362 U.S. 440 (1960).

32. *See* People v. Atchison, Topeka & Santa Fe Ry. Co., 268 Cal. App. 2d 501, 74 Cal. Rptr. 222 (1968), which distinguished the *Huron* case on the ground that in *Huron* compliance with the air pollution control statute was technically feasible. The *Atchison* court found that compliance with the California statute by the railroad was not technically possible and, as a result, it held that application of the statute to the railroad constituted an unreasonable burden on interstate commerce.

33. The Clean Air Act is itself an exercise of congressional power under the commerce clause. Section 101, 42 U.S.C. § 1857 (1970). *See* United States v. Bishop Processing Co., 287 F. Supp. 624 (D. Md. 1968).

34. Air pollution control legislation is within the proper framework of an exercise of the police power. *See* Pollack, *supra* note 23, at 335 & n.23.

for state regulations, analogous state constitution "due process" clauses.[35] Because a state court may invalidate state legislation as violative of its own state constitution notwithstanding the fact that the same legislation would not violate the fourteenth amendment,[36] a discussion of due process as the legal basis for recognition of impossibility claims must be divided into considerations of federal and state due process limitations.

Federal Substantive Due Process

Due process under the Federal Constitution has historically been held to impose three substantive requirements on legislation: the purpose must be a constitutionally proper exercise of the police power; the means chosen must be reasonably related to achieving that end (*i.e.* they must not be arbitrary or capricious); and the means must not go beyond what is necessary to accomplish that end.[37] Since 1934, however, the Supreme Court has evinced a decreasing willingness to invalidate legislation on these grounds.[38] Presently, except in limited situations where the Supreme Court has found personal interests protectable under the Bill of Rights,[39] the substantive due process limitations imposed by the fifth and fourteenth amendments of the Federal Constitution are virtually nonexistent. Since air pollution control legislation does not infringe upon personal liberties, but rather upon economic interests, there should be no judicial recognition of substantive due process challenges to such laws on grounds of technical or economic impossibility.

Even before the present era of reduced judicial scrutiny of legislative action, a substantial amount of deference had been accord-

35. For a discussion of state constitutional "due process" provisions see Paulsen, *The Persistence of Substantive Due Process in the States*, 34 MINN. L. REV. 91, 93 n.10 (1950). As Paulsen points out, some state constitutions phrase their "due process" clauses differently from the fourteenth amendment. As used in this Comment with reference to state constitutions, the term due process is meant to include differently phrased clauses which impose the same general limitation on legislative power as those clauses cast in terms identical with the fourteenth amendment.

36. *See* Paulsen, *supra* note 35, at 93; Hetherington, *supra* note 28.

37. Lawton v. Steele, 152 U.S. 133, 136 (1894).

38. *See* Nebbia v. New York, 291 U.S. 502 (1934); West Coast Hotel Co. v. Parrish, 300 U.S. 379 (1937); Lincoln Federal Union v. Northwestern Iron and Metal Co., 335 U.S. 525 (1949); Williamson v. Lee Optical, 348 U.S. 483 (1955).

39. *See* Griswold v. Connecticut, 381 U.S. 479 (1965); Loving v. Virginia, 388 U.S. 1 (1967); Roe v. Wade, 410 U.S. 113 (1973).

ed to the legislature when it acted to protect the public health by controlling air pollution.[40] In *Northwestern Laundry v. Des Moines*,[41] the Supreme Court flatly rejected the notion that the Federal Constitution imposes any limitation on regulations controlling air pollution on the ground that they might be technically or economically impossible, stating:

> Nor is there any valid Federal Constitutional objection in the fact that the [air pollution control] regulation may require the discontinuance of the use of property, or subject the occupant to large expense in complying with the terms of the law or ordinance.[42]

Therefore, there would appear to be no basis in the due process clauses of the fifth or fourteenth amendments for courts to invalidate properly enacted air pollution control regulations on the grounds that compliance with them is technically or economically impossible. Accordingly, the legal basis for considering these claims must be grounded solely in the air pollution control legislation itself or, where permitted by the supremacy clause,[43] in the due process limitations of a state constitution.

40. *See* Moses v. United States, 16 App. D.C. 428 (1900), where a due process challenge to a congressional act which declared the emission of dense smoke within the District of Columbia a public nuisance was rejected. The manner in which the court applied the due process criteria enumerated in Lawton v. Steele, 152 U.S. 133 (1894), illustrates this deference to the legislature:

> Charged with the duty of guarding the public interests, and vested, as we have seen, with wide discretion and liberty of choice in the means adapted thereto, Congress, it must be presumed, inquired into and duly considered the effect, present and prospective, of the continued emission [upon the public health and welfare] . . . .
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> And it must be presumed that [Congress] apprehended and duly considered the probable injury to, or burden upon private property . . . .
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> The policy of adopting a regulation to meet the conditions is a matter peculiarly and exclusively within the province of the legislative department.
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> The judiciary can only interfere with the exercise of the power where it is manifest that the regulation has no real or substantial relation to objects within the police power, and constitutes a palpable invasion of a private right.

Id. at 437-38.

41. 239 U.S. 486 (1916). The legislation challenged in this case was a rather sophisticated smoke control ordinance enacted by the City of Des Moines pursuant to state enabling legislation. As a practical matter, the emission standard specified by the ordinance required the remodeling of virtually all of the furnaces in operation at that time.

42. 239 U.S. at 492.

43. U.S. CONST. art. VI. *See* text accompanying notes 50-57 *infra*.

Finally, the fact that an air pollution control regulation may require closing down the source of the emission should not result in a compensable "taking" under the fifth or fourteenth amendments. While the test for determining what governmental actions constitute a compensable "taking" is not amenable to precise definition, it appears that where the public health necessitates that action, no compensation is required.[44]

State Substantive Due Process

Unlike the federal courts, some state courts have persisted in the use of substantive due process to invalidate state economic legislation.[45] The constitutional test applied to air pollution control legislation has generally focused on the third substantive due process requirement that legislation may not go beyond what is necessary to accomplish its objective. This requirement has been construed as imposing a "reasonableness" standard. But, as one commentator has pointed out,[46] the use of the word "reasonable" in

44. *See, e.g.*, Mugler v. Kansas, 123 U.S. 623 (1887), which dealt with a state statute prohibiting the manufacture and sale of intoxicating liquors within the state. Declaring that the statute did not result in a "taking" of property the Supreme Court held that:

> A prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any just sense be deemed a taking or an appropriation of property for the public benefit . . . . The power which the States have of prohibiting such use by individuals of their property as will be prejudicial to the health, the morals, or the safety of the public, . . . cannot be burdened with the condition that the State must compensate such individual owners for pecuniary losses they may sustain, by reason of their not being permitted, by a noxious use of their property, to inflict injury upon the community.

Id. at 668-69. *See also* Goldblatt v. Hempstead, 369 U.S. 590 (1962). *See generally* Van Alstyne, *Inverse Condemnation: Unintended Physical Damage*, 20 HASTINGS L.J. 431 (1969); Van Alstyne, *Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction*, 20 STAN. L. REV. 617 (1968); Sax, *Takings and the Police Power*, 74 YALE L.J. 36 (1964); Mandelker, *Inverse Condemnation: The Constitutional Limits of Public Responsibility*, 1966 WIS. L. REV. 3 (1966). For a discussion of the "taking" issue as it relates to the automotive emission standards established by the Clean Air Act see Comment, *The Clean Air Amendments of 1970: Better Automotive Ideas from Congress*, 12 B.C. IND. & COM. L. REV. 571, 630-34 (1971).

45. *See* Hetherington, *supra* note 28; Paulsen, *supra* note 35; and Stuive, *The Less-Restrictive-Alternative Principle and Economic Due Process*, 80 HARV. L. REV. 1463 (1967).

46. *See* Pollack, *supra* note 23, at 336-37.

private nuisance cases which formed the legal basis for early air pollution control efforts has led to some confusion where that word is employed as the basis for a constitutional inquiry. Where the legislature acts to protect the public health by enacting air pollution control legislation, it is inappropriate for courts to apply the flexible balancing standard of reasonableness applicable in private nuisance cases. There should be a strong presumption that in enacting air pollution control laws the legislature has performed this type of balancing and has concluded that the threat to the public health outweighs the economic burden of complying with these laws.

While many state courts have shown a strong deference to the legislature in applying this reasonableness test to air pollution control laws,[47] others have not.[48] Courts in the latter group have either invalidated or refused to find any violation of local air pollution control laws where the emission source was shown to be using equipment and operating methods as good as or better than those employed in their respective industries. In so ruling, these courts substituted their judgment for that of the legislature. But the extent to which the public health is endangered by various emissions of air pollutants, and the extent to which technology is avail-

47. *See* State v. Tower, 185 Mo. 79, 84 S.W. 10 (1904); State v. Dower, 134 Mo. App. 352, 114 S.W. 1104 (1908); City of Rochester v. Macauley-Fien Milling Co., 199 N.Y. 207 (1910); People *ex rel.* Newman v. Murray, 174 Misc. 251, 19 N.Y.S. 902 (New York City Magis. Ct. 1940); People *ex rel.* Greene v. Long Island R.R. Co., 31 N.Y.S.2d 537 (New York City Ct. of Special Sessions 1941); Ballantine v. Nester, 350 Mo. 58, 164 S.W.2d 398 (1942); People v. Consolidated Edison Co. of New York, 116 N.Y.S.2d 555 (New York City Mun. Ct. 1952); State v. Mundet Cork Corp., 8 N.J. 359, 86 A.2d 1 (1952); Department of Health v. Owens-Corning Fiberglas Corp., 100 N.J. Super. 366, 242 A.2d 21 (1968), *aff'd per curiam*, 53 N.J. 248, 250 A.2d 11 (1969); Consolidation Coal Co. v. Kandle, 105 N.J. Super. 104, 251 A.2d 295 (1969), *aff'd*, 54 N.J. 11, 252 A.2d 403 (1969). *See also* Pollack, *supra* note 23, at 343-48; Edelman, *supra* note 23, at 100-05.

48. *See* People v. New York Central & H. R.R. Co., 159 App. Div. 329, 144 N.Y.S. 699 (1st Dept. 1913); People v. New York Edison, 159 App. Div. 786, 144 N.Y.S. 707 (1st Dept. 1913); People v. Detroit Belle Isle & Windsor Ferry Co., 187 Mich. 177, 153 N.W. 799 (1915); People v. Oswald, 1 Misc. 2d 726, 116 N.Y.S.2d 50 (New York City Magis. Ct. 1952); People v. Savage, 1 Misc. 2d 337, 148 N.Y.S.2d 191 (Erie Co. Sup. Ct. 1955), *aff'd mem.*, 309 N.Y. 941, 132 N.E.2d 313 (1955); People v. Peterson, 31 Misc. 2d 738, 226 N.Y.S.2d 1004 (Erie Co. Ct. 1961); Commonwealth v. Penn Power Co., 5 ERC 1373 (Pa. Lawrence County Ct. C.P.), *aff'd*, 6 ERC 1328 (Pa. Comm. Ct. 1973). *See also* Pollack, *supra* note 23, at 343-48; Edelman, *supra* note 23, at 100-05.

able to control such emissions are both issues more properly decided by the legislature. Not only is the legislature better equipped by reason of its investigative authority to ascertain the facts upon which to make such determinations, but also these decisions require a determination of public policy which, in a democratic society, is best decided by the representatives of the people.

Before enactment of the Clean Air Act Amendments of 1970,[49] there was little doubt that state decisions refusing to enforce, or invalidating, air pollution control legislation as violative of a state constitution did not contravene any provision of federal law or of the United States Constitution. However, as developed below, the Clean Air Act has changed this result.

THE CLEAN AIR ACT AMENDMENTS OF 1970 AND ISSUES OF TECHNICAL AND ECONOMIC IMPOSSIBILITY

The primary purpose of the Clean Air Act Amendments of 1970 is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."[50] The goal of protecting the public health and welfare is to be achieved under the Act by attaining primary and secondary national ambient air quality standards within the deadlines set by the Congress.[51] The primary responsibility for attaining and maintaining these ambient air quality standards is delegated to the states.[52] The states are required by the Act to submit to the Administrator of the Environmental Protection Agency an implementation plan which details, among other things, the means by which the states will achieve timely compliance with the air quality standards established by the Act.[53] If a state should fail in this responsibility, the Administrator must promulgate and may enforce an implementation plan for the state.[54]

Since the mandate to attain the national ambient air quality standards within the time frame established in the Act is a matter of federal law, any state law, constitutional provision, or judicial decision which would prevent the timely attainment of such stand-

49. 42 U.S.C. § 1857a *et seq.* (1970).
50. Section 101(b)(1), 42 U.S.C. § 1857(b)(1) (1970).
51. Section 109, 42 U.S.C. § 1857c-4 (1970).
52. Section 101(a)(3), 42 U.S.C. § 1857(a)(3) (1970).
53. Section 110(a)(1), 42 U.S.C. § 1857c-5(a)(1) (1970).
54. Sections 110(c) and 113(a), 42 U.S.C. §§ 1857c-5(c) and c-8(a) (1970).

ards should be void by operation of the supremacy clause of the United States Constitution.[55] Furthermore, the emission standards contained in state implementation plans themselves become part of federal law.[56] Accordingly, there would now appear to be substantial doubt as to the validity of any state court decision which finds an emission limitation contained in a state implementation plan unconstitutional, on its face or as applied, with respect to the state constitution on the ground that such limitation is "unreasonable." State courts should be able to take cognizance of claims of technical or economic impossibility in defenses to enforcement proceedings only to the extent permitted by the Clean Air Act.[57]

To determine how much vitality, if any, the doctrines of technical and economic impossibility will have in the future, it is necessary to examine those provisions of the Clean Air Act in which these issues arise. Issues of impossibility arise under the Act in the provisions dealing with emission standard setting, judicial review, and enforcement. Each of these will be examined below to ascertain the extent to which Congress intended issues of technical and economic impossibility to be considered. For purposes of this paper, the examination of the Act will be limited to those provisions applicable to stationary emission sources.

Emission Standard Setting

The main burden in attaining ambient air quality standards falls to the states which are required to submit to the Administrator an

55. *Cf.* Grad, *supra* note 21, § 2.03(b), at 2-113. Professor Grad notes that "[a] state law that requires a lesser degree of compliance than federal law would clearly run into supremacy clause problems and could be invalidated." Similarly, any construction of state law by state courts which would have the same effect would also violate the supremacy clause.

56. *See* Luneberg, *Federal-State Interaction Under the Clean Air Act Amendments of 1970*, 14 B.C. IND. & COM. L. REV. 637, 640 (1973):

> At the heart of an implementation plan are the regulations by which it limits emissions from stationary and/or mobile sources to the extent necessary to attain and maintain national standards. Whether these are adopted by states and approved by the Administrator or, alternatively promulgated by the Administrator when a state fails to submit an approvable plan, they become federal law on approval or promulgation and thereafter are enforceable by the EPA pursuant to Section 113 of the Amendments and by private citizens pursuant to Section 304.

57. It is unlikely that the due process clause of the Federal Constitution would provide a foundation for invalidating emission limitations on the grounds of either technical or economic impossibility. *See* text accompanying notes 37-44 *supra*.

implementation plan.[58] This plan must provide the means by which the state expects to attain and maintain primary air quality standards "as expeditiously as practicable" but not later than three years after the date of the plan's approval, and secondary air quality standards within a "reasonable time."[59] These means include, but are not limited to, the establishment of emission standards for all existing sources, schedules, and time tables for compliance with such limitations. Accordingly, under the Act, the states are responsible for the establishment of emission standards for all existing sources of air pollution.[60]

The federal government is responsible for establishing emission standards for all new stationary sources of air pollution which emit substances which the Administrator finds may endanger the public health or welfare,[61] for both new and existing sources of hazardous air pollutants,[62] for all new motor vehicles,[63] for all aircraft,[64] and for the regulation of fuels.[65] The latter three areas will not be explored below.

State Emission Standards

The Act does not explicitly require the states to set emission limitations which are technically and economically feasible. In fact, such an absolute requirement would be inconsistent with the overall scheme of the Act. The main objective of the implementation plan is the attainment, by whatever combination of control techniques the state may choose, of air quality standards within the deadline prescribed in the Act. In choosing between alternative implementation schemes, the states are free under the Act and the regulations promulgated thereunder,[66] to consider issues of technical and

58. Section 110(a)(1), 42 U.S.C. § 1857c-5(a)(1) (1970).

59. Section 110(a)(2)(A), 42 U.S.C. § 1857c-5(a)(2)(A) (1970).

60. Sections 110(a)(2)(B), 111(d), 112(d), 42 U.S.C. §§ 1857c-5(a)(2)(B), 1857c-6(d), 1857c-7(d) (1970). With respect to hazardous sources of air pollution this responsibility is shared with the federal government.

61. Section 111, 42 U.S.C. § 1857c-6 (1970).

62. Section 112, 42 U.S.C. § 1857c-7 (1970).

63. Section 202, 42 U.S.C. § 1857f-5 (1970).

64. Section 231, 42 U.S.C. § 1857f-9 (1970).

65. Section 211, 42 U.S.C. § 1857f-6c (1970).

66. *See* The Requirement for Preparation, Adoption, and Submittal of Implementation Plans, 40 C.F.R. § 51 *et seq.* which provide:

§ 51.2 Stipulations

Nothing in this part shall be construed in any manner:

. . . .

economic feasibility in order to choose the scheme which will ensure timely attainment of air quality standards with minimal adverse impact on the state's economy. However, once this "optimal" scheme is devised, the emission limitations necessary to accomplish it must be imposed without regard to whether they are technically or economically feasible.

This conclusion is compelled by the following considerations. Issues of technical and economic feasibility are irrelevant in determination of air quality standards; protection of the public health and welfare is the sole criterion by which these standards are set.[67] The states must attain air quality standards within the deadlines imposed by the Act. Therefore, any source of emission which cannot technically or economically comply with an emission standard found to be necessary for a state to attain air quality standards must be closed down, unless an exemption pursuant to section 110(f) is in effect.[68] The legislative history of the Act supports this conclusion.[69] As a result, claims of individual technological or

> (b) To encourage a state to adopt any particular control strategy without taking into consideration the cost-effectiveness of such control strategy in relation to that of alternative control strategies.
>
> . . . .
>
> (d) To encourage a state to prepare, adopt, or submit a plan without taking into consideration the social and economic impact of the control strategy set forth in such plan, including but not limited to, impact or availability of fuels, energy, transportation, and employment.

See also Baum, *The Federal Program for Air Quality*, 5 NATIONAL RESOURCES LAWYER 165, 169 (1972):

> [W]hen the ambient air quality standards were promulgated, there was no consideration given to economics or feasibility. It is at the implementation plan stage that a state will consider these things. In devising their control strategy, the states will determine who can do what, how much it is going to cost, if we should require sixty per cent reduction for this industry and forty per cent for this one or vice versa, and when these things will be applied.

67. The legislative history of section 109 of the Act supports this assertion. The House version had required consideration of economic feasibility in setting national ambient standards. The Senate version, which was adopted, deleted all reference to economic feasibility and cost in setting national ambient air quality standards. *See* Note, *Clean Air Act Amendments of 1970: A Congressional Cosmetic*, 61 GEO. L.J. 153, 179 n.157 (1972).

68. 42 U.S.C. § 1857c-5(f) (1970). *See* note 12 *supra* for the provisions of that section.

69. The following passage from the Senate Report supports the conclusion:

> In the Committee discussions, considerable concern was expressed regarding the use of the concept of technical feasibility as the basis for ambient air standards. The Committee determined that (1) the health of people is

economical impossibility of compliance with the emission limitations imposed by a state implementation plan should be irrelevant where the imposition of those limitations is necessary for the attainment of ambient air quality standards.[70]

But what if the challenged emission limitation is not "necessary" in order for a state to attain air quality standards required by the Act? This result can obtain if the state has set ambient air quality standards more stringent than those required by the Act, if an error has been made by the state in computing the effect of an emission source on ambient air quality,[71] or if the state failed to

> more important than the question of whether the early achievement of ambient air quality standards protective of health is technically feasible; and (2) the growth of pollution load in many areas, even with application of available technology, would still be deleterious to public health.
>
> Therefore, the Committee determined that existing sources of pollutants either should meet the standard of the law or be closed down.

S. REP. No. 91-1196, 91st Cong., 2d Sess. 2-3 (1970). *See also* the definition of "control strategy" in 40 C.F.R. § 51.1(n):

> "Control Strategy" means a combination of measures designated to achieve the aggregate reduction of emissions necessary for attainment and maintenance of a national standard, including, but not limited to, measures such as:
>
> (1) Emission limitations.
>
> . . . .
>
> (3) *Closing* or relocating of residential, commercial, or industrial facilities. (Emphasis added.)

70. Including,. where applicable, the "non-degradation" standards. *See* Sierra Club v. Ruckelshaus, 344 F. Supp. 233 (D.D.C. 1972), *aff'd by an equally divided court sub nom.* Fri v. Sierra Club, 412 U.S. 541 (1973). However, the term "degradation" necessarily involves a prospective standard. Therefore, existing sources would not normally be subjected to a non-degradation standard unless the method chosen to attain local ambient air quality resulted in subjecting formerly higher air quality regions to additional pollution. This result might obtain if dispersion rather than emission limitations were employed. While dispersing air pollutants through the use of tall smoke stacks relieves the immediate vicinity around the emission source from high concentrations of pollution, it does so at the expense of the air quality of other areas surrounding the source. These other areas act as a "pollution sink," absorbing those emissions in a more diluted form. Because of this result, as well as other considerations under the Act, the Fifth Circuit recently rejected the use of dispersion as a generally acceptable technique for achieving air quality standards. Natural Resources Defense Council, Inc. v. Environmental Protection Agency, 489 F.2d 390 (5th Cir. 1974). New sources, which could cause significant deterioration to air quality, will be covered by federally promulgated emission limitations under section 111, 42 U.S.C. § 1857c-6 (1970). Considerations of technical and economical infeasibility should not be relevant in enforcing these standards. *See* text accompanying notes 131-37 *infra*.

71. The complexity of these computations and the possibility of error in them was

devise the "optimal" scheme which minimizes the adverse effect of necessary emission controls. In such event, the imposition of technically or economically infeasible emission limitations on certain sources might not be necessary to achieve the air quality standards required by the Act. Ought considerations of technical and economic feasibility be relevant in such instances?

The Act does not prohibit the states from promulgating more stringent regulations than those required to meet federal air quality standards.[72] However, this flexibility accorded the states under the Act is a one way street. Once an implementation plan is approved by the Administrator, it appears that the states are thereafter "locked in" to their initial emission standards. Section 116 expressly forbids the adoption or enforcement of any emission standard or limitation less stringent than that contained in an approved implementation plan.[73] In all of the circuits which have thus far considered the matter, variances from the requirements of implementation plans may not be granted after the mandatory date for attainment of national primary air quality standards.[74] In the Fifth Circuit, variances are not permissible at any time.[75] Moreover, attempts to relax enforcement of standards found to be more stringent than necessary after federal approval will be seriously undermined by section 304, which permits citizens to enforce any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard" which is in effect under the Act.[76] In

observed in Note, *Clean Air Act Amendments of 1970: A Congressional Cosmetic*, 61 GEO. L.J. 153, 161 n.57:

> Derivation of emission standards from ambient standards, while determined by complex computer programming, ultimately rests on assumptions which, if incorrect, undermine the entire control program.

72. Section 116, 42 U.S.C. § 1857d-1 (1970) provides:

> Sec. 116. Except as otherwise provided in sections 209, 211(c)(4), and 233 (preempting certain State regulation of moving sources) nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 111 or 112, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

73. *Id.*
74. *See* text accompanying notes 11-19 *supra*.
75. *Id.*
76. 42 U.S.C. § 1857h-2 (1970).

fact, it appears that the only relief available to an emission source subjected to unnecessarily stringent emission standards of a state implementation plan is through the mechanism of section 110(f).[77]

In view of this "lock-in" effect of federal approval of state implementation plans, it is suggested that the Administrator should consider claims of technological and economic impossibility in his review of the adequacy of state implementation plans. Where it appears that compliance with a given emission standard or standards will be impossible, either technically or economically, it should be determined whether such limitations are *necessary* to achieve the air quality standards of the Act. If it is found that the challenged standards are necessary, the plan should be approved and those sources unable to comply must be closed down.[78] If the emission standards are found to be unnecessary, the Administrator ought to determine whether the state purposefully imposed them in order to achieve ambient air quality standards more stringent than those prescribed by the Act. If such was not the state's intention, the plan ought to be revised by the state to accomplish the objectives of the Act without the imposition of unnecessary and infeasible emission standards.

Neither the public nor the Administrator will benefit by a hasty approval of a state implementation plan which contains *unnecessary* and infeasible emissions standards. The economic dislocation which might be caused by the enforcement of such standards is certainly not in the public interest. The Administrator's interest in conducting a feasibility review of state implementation plans was noted by the Fourth Circuit in *Appalachian Power Co. v. Environmental Protection Agency*.[79] The court justified requiring the Administrator to conduct such a review by stating:

> Nor is such an evaluation inappropriate under the Amendments. After all, the Administrator's responsibility is to determine whether the proposed plan is practical and reasonably likely to achieve the results required under the Amendments; and if he finds it reasonably unlikely to achieve such results within the fixed timetables, whether for technological or economic reasons, or otherwise, he should reject the plan and return it to the state

77. 42 U.S.C. § 1857c-5(f) (1970).
78. *See* note 69 *supra*.
79. 477 F.2d 495 (4th Cir. 1973).

> authorities with instructions to consider alternative procedures that might meet the statutory requirements established by the Administrator.[80]

While the main opportunity for employing feasibility reviews of state implementation plans has passed,[81] it would be advisable for the Administrator to conduct such reviews in the future.[82] A well reasoned plan which demonstrates a careful analysis of the necessity of imposing stringent regulations is likely to encounter much less difficulty in enforcement proceedings. As a result, it is more likely to achieve compliance with air quality standards on time.

Federal New Stationary Source Emission Standards

The extent to which factors of technical and economic feasibility are to be considered in the promulgation by the Administrator of standards of performance for new stationary sources is clearly spelled out in section 111 of the Act.[83] The Act defines "standard of performance" as a function of technical and economic feasibility:

> The term "standard of performance" means a standard for emission of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated.[84]

80. 477 F.2d at 506.

81. All of the states have by now submitted and received at least partial approval of their implementation plans. The status of each state's plan can be found in 40 C.F.R. § 52.01-52.2850 (1973).

82. Future opportunity to conduct feasibility reviews will arise when a state resubmits previously disapproved portions of its implementation plan, when a state revises an approved plan, 42 U.S.C. § 1857c-5(a)(3) (1970), or when the Administrator requires submission of new plans by revising existing or promulgating new air quality standards. 42 U.S.C. § 1857c-4(b) (1970).

83. 42 U.S.C. § 1857c-6 (1970).

84. Section 111(a)(1), 42 U.S.C. § 1857c-6(a)(1) (1970). The wording of section 111(a)(1) was the result of a compromise by the Conference Committee between the House and the Senate bills. The House bill required the Administrator to consider economic and technological feasibility in establishing emission standards. The Senate amendment required the Administrator to base the standards on the greatest emission control possible through application of the latest available technology. The Conference Report does not discuss the language finally chosen. CONFERENCE REPORT ON THE 1970 AMENDMENTS TO THE CLEAN AIR ACT OF 1967, H.R. REP. No. 1783, 91st Cong., 2d Sess. 45 (1970).

Accordingly, any standard promulgated under section 111 may be properly challenged on the ground that it is not economically or technically feasible.

Such challenges have been made to the new source performance standards promulgated for the cement, electric power, and sulfuric acid industries in *Portland Cement Association v. Ruckelshaus*,[85] *Appalachian Power Co. v. Ruckelshaus*,[86] and *Essex Chemical Corp. v. Ruckelshaus*,[87] respectively.

The main thrust of the challenges to the new source performance standards reviewed in these cases was that the Administrator had failed to consider adequately the economic and technical feasibility of the standards. In order to evaluate the merits of these claims, the D.C. Circuit had to grapple with complex engineering problems involving an analysis of the processes used by these industries, the validity of test procedures used in establishing performance criteria, the reliability of the Administrator's projections based upon these data, the difficulties of compliance during start-up or upset conditions, and the possibility of adverse secondary environmental effects of using the control techniques recommended by the Administrator.

The D.C. Circuit views its role on judicial review of the Administrator's decisions as embracing "a constructive cooperation with the agency involved in the furtherance of the public interest."[88] Consistent with this role, that court has subjected the Administrator's decisions to close scrutiny. It has required that the Administrator not only demonstrate on the record that he has considered all relevant factors, but also that he fully explain his decision in a reasoned presentation.[89]

85. 486 F.2d 375 (D.C. Cir. 1973) [hereinafter cited as Portland].

86. 486 F.2d 427 (D.C. Cir. 1973) [hereinafter cited as Appalachian].

87. 486 F.2d 427 (D.C. Cir. 1973) [hereinafter cited as Essex]. The *Essex* and *Appalachian* cases were consolidated.

88. International Harvester v. Ruckelshaus, 478 F.2d 615 (D.C. Cir. 1973). *See also* Leventhal, *supra* note 1, at 535-41.

89. This methodology, as well as the court's reservation about dealing with such technical issues is illustrated by the following passage from the *Essex* opinion:

> In subjecting the Administrator's actions to judicial review we apply a test of reasonableness, wherein we are "not empowered to substitute (our) judgment for that of the agency" but must consider whether "the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." [citation omitted] The judgment of the Administrator is to be weighted against his statutory function and limitations,

Where the record demonstrates that the Administrator has considered all relevant factors, and where there is some data to support his conclusion, even though the weight of the evidence might be contrary to his conclusion, the court has deferred to his judgment. For example, in the *Essex* case, where only three tests out of nineteen performed on a test plant supported a standard of 4.0 pounds of sulfur dioxide (SO_2) emitted per ton of sulfuric acid produced, the average being 4.6 pounds per ton, the court upheld the standard. Recognizing the weakness in the data the court stated:

> While the test results hardly support the EPA's allegation of full-load emissions "consistently less" than 4.0 lbs./ton, they do suffice to convince us of the reasoned decision-making of the Administrator. . . . Keeping in mind Congress' intent that new plants be controlled to the "maximum practicable degree," we find that the 4.0 lbs./ton standard based on a dual absorption system for new elemental sulfur burning plants is the result of the exercise of reasoned discretion by the Administrator and cannot be upset by this court.[90]

However, the court has not accepted off-handed, empty justifications for the Administrator's conclusions. For example, in the *Appalachian* and *Essex* cases, the recommended techniques for removing SO_2 from the stack gas of spent acid and coal-fired power plants (sodium sulfite and lime aqueous scrubbing processes) both produce significant amounts of liquid and solid wastes. The petitioners claimed that the Administrator had not given sufficient consideration to the counterproductive environmental effects caused by these control techniques. With respect to the sodium sulfite process wastes the Administrator merely commented that "[m]ethods for disposing of these products will have to be considered by plant operators," and "process designers are investigating several

> the record searched to determine if indeed his decisions and reasons therefore are themselves reasoned, and at that point our function terminates. Our "expertise" is not in setting standards but in determining if the standards as set are the result of reasoned decisionmaking. Yet, even this limited function requires that we foray into the technical world to the extent necessary to ascertain if the Administrator's decision is reasoned. While we must bow to the acknowledged expertise of the Administrator in matters technical we should not automatically succumb thereto, overwhelmed as it were by the utter "scientificity" of the expedition.

486 F.2d at 434. *See also* International Harvester v. Ruckelshaus, 478 F.2d at 647-48.

90. 486 F.2d at 437.

means of handling these wastes."[91] The court termed these statements as "feeble" and "poor substitutes for the reasoned consideration of this problem that is required."[92] Concerning the solids waste problem inherent in the lime scrubbing system the Administrator merely admitted the problem, stating:

> Lime-scrubbing systems are essentially throwaway processes that produce significant quantities of solid waste. For a 3.0-percent-sulfur coal, the additional wastes are roughly equal to the ash generated from burning coal.[93]

The court described this treatment of the problem as "insufficient." It remanded the standards based upon both the sodium sulfite and lime processes to the Administrator for further consideration of the secondary waste problems.[94]

The *Portland, Appalachian* and *Essex* cases clearly demonstrate that the D.C. Circuit Court will not rubber-stamp the EPA's technical conclusions in setting standards under section 111. That court will make a thorough and meaningful review of the technological and economical soundness of these regulations.[95] While such review and subsequent remands may delay the implementation of these standards, they should also provide a sound basis for strict enforcement of them in enforcement proceedings without any consideration of technological and economic impossibility defenses.[96]

Federal Hazardous Source Emission Standards

Section 112 of the Act requires the Administrator to publish a list of what he determines to be "hazardous air pollutants," and

91. Background Information for Proposed New-Source Performance Standards, J.A. in No. 72-1072 at 58, as quoted in 486 F.2d at 439.

92. 486 F.2d at 439.

93. Background Information for Proposed New-Source Performance Standards, J.A. in No. 72-1079 at 35, as quoted in 486 F.2d at 441.

94. 486 F.2d at 439-41.

95. The *Portland* court, however, did not require the Administrator to prepare a quantified cost-benefit analysis, showing the benefit to ambient air conditions as measured against the cost of the pollution control devices. 486 F.2d at 387.

96. Since questions of technical and economic feasibility are ones which can be raised in a section 307(b)(1) review of the Administrator's action in promulgating section 111 emission standards, section 307(b)(2) would prohibit these issues from being raised as a defense to either civil or criminal enforcement proceedings. *See* text accompanying notes 110-12 *infra*.

to promulgate standards of performance for new and existing sources emitting such pollutants.[97] The term "hazardous air pollutant" is defined as

> an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.[98]

Because of the imminent health hazard posed by such pollutants, there are no provisions for considering technological or economic feasibility in setting emission standards in section 112. Instead, the Act states that the Administrator "shall establish any such standard at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant."[99]

Ninety days are allowed for existing sources to comply with these standards, and an extension of up to two years may be granted by the Administrator if he finds that such period is necessary for the installation of controls.[100] Furthermore, the President may exempt any stationary source from compliance with these standards if he finds that technology is not available to enable compliance and that the operation of the source is required for reasons of national security.[101]

It is clear from these provisions that any noncomplying source which is not exempt and which has exceeded the maximum extension period must be shut down without any consideration of the impossibility doctrine.[102]

97. Section 112, 42 U.S.C. § 1857c-7 (1970).
98. Section 112(a)(1), 42 U.S.C. § 1857c-7(a)(1) (1970).
99. Section 112(b)(1)(B), 42 U.S.C. § 1857c-7(b)(1)(B)(1970).
100. Section 112(c)(1)(B), 42 U.S.C. § 1857c-7(c)(1)(B) (1970).
101. Section 112(c)(2), 42 U.S.C. § 1857c-7(c)(2) (1970).
102. The congressional intention of shutting down sources unable to meet section 112 standards is clearly shown in this excerpt from the Summary of the Provisions of the Conference Agreement:

> The standards [of section 112] must be set to provide an ample margin of safety to protect the public health. This could mean, effectively, that a plant would be required to close because of the absence of control techniques.

116 CONG. REC. 42385 (1970).

Judicial Review of the Administrator's Actions: The exclusive forum for raising impossibility claims?

Section 307(b)(1) of the Act contains extensive provisions for judicial review of the Administrator's actions in administering the Act.[103] Exclusive jurisdiction is vested in the Court of Appeals for the District of Columbia to review the Administrator's action in promulgating any new source or hazardous source performance standard other than those prescribed by Congress under section 202(b)(1),[104] any determination regarding a one year suspension of the congressionally prescribed automotive emission standards, any control or prohibition of fuel or fuel additives, and any aircraft emission standards.[105] The Administrator's actions in approving or promulgating any implementation plan under section 110[106] or section 111(d)[107] are reviewable in the United States Court of Appeals for the appropriate circuit.[108] Any such appeal must be filed within 30 days from the date of the Administrator's action unless the grounds for the appeal arise after that time.[109]

The scope of review provided in section 307(b)(1) potentially encompasses all of the Administrator's actions which may involve consideration of issues of technical and economic feasibility of both federal and state emission standards. Congress apparently intended the review provided by section 307(b)(1) to be the sole procedure for raising claims of technical and economic impossibility. Section 307(b)(2)[110] expressly forbids raising as a defense to enforcement proceedings any claim which could have been raised in a section 307(b)(1) review. Section 307(b)(2) provides that

103. 42 U.S.C. § 1857h-5(b)(1). Commenting on the liberal provisions for judicial review provided by section 307(b)(1), Senator Cooper stated during the Senate consideration of the Conference Report that the Act

> represents a firm application of pollution control procedures, while at the same time being just and incorporating throughout, due process and fairness. The bill provides many procedural protections and involves the judicial branch of the Government to a degree never before attempted in programs to achieve environmental quality.

116 CONG. REC. 42394 (1970).

104. 42 U.S.C. § 1857f-2 (1970).

105. 42 U.S.C. § 1857h-5(b)(1) (1970).

106. 42 U.S.C. § 1857c-5 (1970).

107. 42 U.S.C. § 1857c-6 (1970), as amended (Supp. II 1972).

108. 42 U.S.C. § 1857h-5(b)(1) (1970).

109. *Id.*

110. 42 U.S.C. § 1857h-5(b)(2) (1970).

> action of the Administrator with respect to which review could have been obtained under [section 307(b)(1)] shall not be subject to judicial review in civil or criminal proceedings for enforcement.[111]

The clear intent of the bar posed by section 307(b)(2) is to leave the enforcement process unencumbered by claims of individual technical and economic impossibility.[112]

Strong policy reasons support limiting challenges to the feasibility of emission standards to single judicial review proceedings. Unless these challenges are limited to the review provided by section 307(b)(1), they could be raised each and every time an emission standard is enforced. Owners of emission sources not a party to earlier enforcement proceedings would not be bound by the determinations of the reasonableness of emission standards reached in those proceedings. Accordingly, owners of emission sources would have the opportunity to relitigate the reasonableness of emission standards as applied to their individual circumstances. This result would completely undermine enforcement of the Act and vitiate the advantage of setting emission standards by general rulemaking.

Moreover, the complexity of both the technical and the legislative policy issues inherent in the establishment of emission standards militates against using a trial court in an enforcement proceeding as a forum for determining their validity. This complexity is compounded where feasibility defenses are raised in the enforcement of state implementation plans. In these proceedings a trial court would have to determine not only whether the emission standard was feasible but also whether the standard was *necessary* for the state to attain the air quality standards mandated by the Act. Where the imposition of an emission standard is necessary if a

111. *Id.*

112. The requirement that judicial review should follow immediately upon the approval or disapproval of a state implementation plan and not at the enforcement stage represents a change from the House version of the Bill. As initially adopted by the House, the provisions for federal enforcement of a state implementation plan included a review of the feasibility of emission standards:

> The court may enter such judgment and orders as it deems necessary in the public interest and the equities of the case. In so doing it must give consideration to the practicality and to the technological and economic feasibility of complying with the provisions of the plan.

H.R. REP. No. 91-1146, 2d Sess. (1970); 3 U.S. CODE CONG. & ADMIN. NEWS 5364 (1970).

state is to achieve timely compliance with these air quality standards, the emission standard must be upheld even if this means closing down the emission source.[113] However, determining the necessity of imposing an emission standard would be an extremely complex undertaking. It would also involve an infringement upon the discretion of the state agency in designing what it considers to be an "optimal" control strategy. Sustaining an impossibility defense for a major emission source could require the state to reassess the entire control strategy for the region surrounding that emission source. Unless such readjustments to a state's control strategy are consolidated and made in a single review proceeding, emission sources could be subjected to continuously changing requirements.

However, it seems that Congress may not have achieved its objective of limiting challenges to the feasibility of emission standards to a section 307(b)(1) review proceeding. This failure arises from two factors. First, the bar posed by section 307(b)(2) operates only against issues which could have been raised in a section 307(b)(1) review proceeding. Second, it is not clear from the wording of section 307(b)(2) whether it applies to state enforcement proceedings. The problem engendered by the first of these factors is discussed below. The applicability of section 307(b)(2) to state enforcement proceedings is discussed in the following section on enforcement.

A section 307(b)(1) review proceeding is clearly a proper forum for asserting claims of technical or economic infeasibility against federally promulgated emission standards.[114] Accordingly, section 307(b)(2) would apply to these issues. However, there is presently a difference of opinion among the circuits concerning the applicability of a section 307(b)(1) review for considering the feasibility of emission standards contained in state implementation plans.

The Sixth Circuit in *Buckeye Power Co. v. Environmental Protection Agency*[115] has held that the four month period within which the Administrator must approve or disapprove a state implementation plan[116] precludes the possibility of his consideration of in-

113. *See* note 69 *supra.*
114. *See* text accompanying notes 103-09 *supra.*
115. 481 F.2d 162 (6th Cir. 1973).
116. Section 110(a)(2), 42 U.S.C. § 1857c-5(a)(2) (1970).

dividual claims of technical or economic impossibility.[117] The court further held that since these issues could not be considered by the Administrator in approving a state plan, they could not be raised in a section 307(b)(1) judicial review proceeding. As a result, the court concluded that claims of impossibility must be considered in enforcement proceedings. The bar posed in section 307(b)(2) was found to be inapplicable since it operates only on issues which could have been reviewed in a section 307(b)(1) proceeding.[118]

It is submitted that the *Buckeye* court erred in rigidly construing the four month approval period to preclude any consideration of the feasibility of state emission standards by the Administrator. Whatever expediency the *Buckeye* court hoped to gain by ensuring full approval or disapproval of a state plan within four months will, in all likelihood, be lost by the delays which will undoubtedly result from litigating emission standard feasibility in enforcement proceedings.

The result reached by the Third and Fourth Circuits in *Duquesne Light Co. v. Environmental Protection Agency*[119] and *Appalachian Power Co. v. Environmental Protection Agency*,[120] respectively, is more reasonable and avoids the problem of relitigating feasibility anew each time a standard is enforced. These circuits required the Administrator to consider claims of technical and economic feasibility raised by petitioners who filed timely petitions for review within the thirty day period prescribed by section 307(b)(1). Approval of the state plans in all other respects could proceed within the four month period.[121] Thus, the state plans would re-

117. 481 F.2d at 173. The pertinent passage of the opinion concludes:

> Since we have determined that there could not have been an adequate hearing on individual claims such as those presented by the petitioners herein prior to approval of the state plans, the claims can be asserted as a defense in either federal or state enforcement proceedings.

118. *Id.*

119. 481 F.2d 1 (3d Cir. 1973).

120. 477 F.2d 495 (4th Cir. 1973).

121. The *Duquesne* court reconciled the need for expedition in obtaining federal approval of state plans with the need to have claims of feasibility resolved in a section 307(b)(1) proceeding as follows:

> [T]he Court is mindful of the desire for rapid action expressed by Congress in enacting the Clean Air Act, and the role the Act plays in protecting the nation's health by requiring clean air. Moreover, we are cognizant of the circumscribed opportunity for review provided by Congress, again manifesting an insistence on expedition. In view of the limited review proceeding, this Court holds that, except as it applies to [the

main in effect and, at least in the Third Circuit, could be enforced against any emission source which did not file timely petitions for review of emission standards under section 307(b)(1). However, since review of the feasibility of emission standards could have been obtained in a section 307(b)(1) proceeding, the bar against raising these as defenses to enforcement proceedings will remain in effect.[122]

The question of whether impossibility claims could have been asserted in a section 307(b)(1) proceeding has not yet been decided by circuits other than the Third, Fourth and Sixth. In the remaining circuits, future defendants could argue that the feasibility of emission standards could not have been challenged in a section 307(b)(1) review proceeding and, therefore, section 307(b)(2) does not apply. The argument would run as follows. It has been the policy of the Administrator not to consider the feasibility of emission standards in his approval of state implementation plans. His approval has merely been based on whether the control strategy proposed by the state would achieve requisite air quality standards if it were implemented.[123] Since the Administrator did not consider claims of individual technical or economic impossibility in approving state plans, these issues could not have been subjected to review in a section 307(b)(1) proceeding. Therefore, section 307(b)(2) would not prohibit asserting such claims as defenses to enforcement proceedings.

This argument should be rejected. Aside from the strong policy reasons against litigating the feasibility of emission standards at the enforcement stage, the argument fails on classical principles of administrative law. The failure of the Administrator to consider any relevant factor in approving a state implementation plan is

> plaintiffs], whose petitions for review were timely filed under section 307(b)(1) [42 U.S.C. § 1857h-5(b)(1)], the Pennsylvania implementation plan remains in effect.

481 F.2d at 10.

122. *See* Getty Oil Co. v. Ruckelshaus, 467 F.2d 349 (3d Cir.), *cert. denied*, 409 U.S. 1125 (1972); United States Steel Corp. v. Fri, 364 F. Supp. 1013 (N.D. Ind. 1973); West Penn Power Co. v. Train, 378 F. Supp. 941 (W.D. Pa. 1974); Granite City Steel Co. v. Environmental Protection Agency, 501 F.2d 925 (7th Cir. 1974).

123. The Administrator's position on the factors he considers in approving state implementation plans is discussed in Appalachian Power Co. v. Environmental Protection Agency, 477 F.2d 495 (4th Cir. 1973); Duquesne Light Co. v. Environmental Protection Agency, 481 F.2d 1 (3d Cir. 1973); and Buckeye Power Co. v. Environmental Protection Agency, 481 F.2d 162 (6th Cir. 1973).

clearly a ground for appealing his action.[124] The Administrator's failure or refusal to consider individual claims of impossibility in approving a state plan would not affect the right of emission source owners to challenge that approval. On the contrary, it would provide the basis for such an appeal.[125] By failing to make such a challenge within the time specified by section 307(b)(1), those sources must be considered as having waived their right to challenge the feasibility of the emission standards contained in the approved implementation plan.

Proliferation of the result reached by the *Buckeye* court would lead to utter chaos in enforcement of the Act. The circuits which have not yet ruled on the matter would be better advised to follow the Third and Fourth Circuits in holding that impossibility claims could have been raised in a section 307(b)(1) review, and that failure to do so bars their consideration as defenses to an enforcement proceeding.

Enforcement Provisions of the Act

The complexity of the dual federal-state structure of the Clean Air Act is most clearly evident in its enforcement provision.[126] Four

124. Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971).

125. *See, e.g.*, cases cited in note 123 *supra*.

126. Section 113, 42 U.S.C. § 1857c-8 (1970).

> SEC. 113. (a) (1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any requirement of an applicable implementation plan, the Administrator shall notify the person in violation of the plan and the State in which the plan applies of such finding. If such violation extends beyond the 30th day after the date of the Administrator's notification, the Administrator may issue an order requiring such person to comply with the requirements of such plan or he may bring a civil action in accordance with subsection (b).
>
> (2) Whenever, on the basis of information available to him, the Administrator finds that violations of an applicable implementation plan are so widespread that such violations appear to result from a failure of the State in which the plan applies to enforce the plan effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall give public notice of such finding, (A) during the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such plan (hereafter referred to in this section as "period of Federally assumed enforcement") (B) the Administrator may enforce any requirement of such plan with respect to any person—
>
> (A) by issuing an order to comply with such requirement, or
>
> (B) by bringing a civil action under subsection (b).

major permutations of enforcement mechanisms are possible under the Act: federal enforcement of federally promulgated new and

(3) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of section 111(e) (relating to new source performance standards) or 112(c) (relating to standards for hazardous emissions), or is in violation of any requirement of section 114 (relating to inspections, etc.), he may issue an order requiring such person to comply with such section or requirement, or he may bring a civil action in accordance with subsection (b).

(4) An order issued under this subsection (other than an order relating to a violation of section 112) shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation. A copy of any order issued under this subsection shall be sent to the State air pollution control agency of any State in which the violation occurs. Any order issued under this subsection shall state with reasonable specificity the nature of the violation, specify a time for compliance which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1)) is issued to a corporation, a copy of such order (or notice) shall be issued to appropriate corporate officers.

(b) The Administrator may commence a civil action for appropriate relief, including a permanent or temporary injunction, whenever any person—

(1) violates or fails or refuses to comply with any order issued under subsection (a); or

(2) violates any requirement of an applicable implementation plan during any period of Federally assumed enforcement more than 30 days after having been notified by the Administrator under subsection (a)(1) of a finding that such person is violating such requirement; or

(3) violates section 111(e) or 112(c); or

(4) fails or refuses to comply with any requirement of section 114.

Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given to the appropriate State air pollution control agency.

(c) (1) Any person who knowingly—

(A) violates any requirement of an applicable implementation plan (i) during any period of Federally assumed enforcement, more than 30 days after having been notified by the Administrator under subsection (a)(1) that such person is violating such requirement, or

(B) violates or fails or refuses to comply with any order issued by the Administrator under subsection (a), or

(C) violates section 111(e) or section 112(c)

shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after the first conviction of such person under this paragraph, punishment shall be by a fine of not more than

hazardous source emission standards and existing source emission standards under a federally imposed implementation plan;[127] federal enforcement of state promulgated emission standards contained in approved implementation plans;[128] state enforcement of federally promulgated new, existing and hazardous source emission standards;[129] and state enforcement of state promulgated emission standards contained in an approved implementation plan.[130]

The status of impossibility defenses in each of these mechanisms is discussed below.

Federal Enforcement of Federally Promulgated Emission Standards

Section 307(b)(2) of the Act[131] should pose a bar to raising claims of technical and economic impossibility in federal enforcement of federally promulgated emission standards. Whether the Administrator had adequately considered the technical and economic feasibility of new source performance standards under section 111 or hazardous source performance standards under section 112 (assuming such factors would be relevant) is clearly a proper subject for judicial review under section 307(b)(1).[132] Similarly, the question of whether the Administrator had given adequate consideration to these issues in promulgating a state implementation plan under section 110(c)[133] would also be appropriate for judicial review in a section 307(b)(1) proceeding. Accordingly, these issues should be barred from consideration in federal enforcement proceedings by operation of section 307(b)(2).

> $50,000 per day of violation, or by imprisonment for not more than two years, or by both.
>
> (2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six months, or by both.

127. Section 113(a)(1)-(3), 42 U.S.C. § 1857c-8(a)(1)-(3) (1970).
128. Section 113(a)(1) and (2), 42 U.S.C. § 1857c-8(a)(1) and (2) (1970).
129. Section 111(c), 42 U.S.C. § 1857c-6(c) (1970); Section 110(a), 42 U.S.C. § 1857c-5(a) (1970); Section 112(d), 42 U.S.C. § 1857c-7(d) (1970), respectively.
130. Section 110(a), 42 U.S.C. § 1857c-5(a) (1970).
131. For the text of section 307(b)(2) *see* text accompanying note 111 *supra*.
132. *See* cases cited in notes 85-87 *supra*.
133. 42 U.S.C. § 1857c-5(c) (1970).

The above result should obtain whether the Administrator proceeds by way of a direct civil or criminal court action under sections 113(b) or (c),[134] or issues a compliance order under section 113(a)(4).[135] The additional requirement in section 113(a)(4) that the Administrator shall specify a time for compliance which he "determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements,"[136] will not allow consideration of feasibility claims. Attempts to use this clause to challenge the "reasonableness" of a compliance order issued by the Administrator enforcing portions of approved state implementation plans have been unsuccessful.[137]

Federal Enforcement of State Implementation Plans

Under the federal enforcement provision of the Act, section 113,[138] the Administrator may enforce any requirement of a state implementation plan by directly commencing a civil action in accordance with section 113(b)(2)[139] only during a period of "Federally assumed enforcement" as defined in section 113(a)(2).[140] Where the Administrator has not assumed full enforcement of a state implementation plan, he may enforce the requirements of a state plan only by means of the compliance order and conference mechanism of section 113(a)(4).[141] Resort to court proceeding can be made only after the defendant fails to comply with a compliance order.

In all but the Sixth Circuit,[142] section 307(b)(2) should bar consideration of impossibility defenses regardless of the mechanism

134. 42 U.S.C. § 1857c-8(b) and (c) (1970).
135. 42 U.S.C. § 1857c-8(a)(4) (1970).
136. *Id.*
137. *See* United States Steel Corp. v. Fri, 364 F. Supp. 1013 (N.D. Ind. 1973); Granite City Steel Co. v. Environmental Protection Agency, 501 F.2d 925 (7th Cir. 1974), which reject challenges to the reasonableness of compliance schedules contained in compliance orders issued by the Administrator. Challenges to the feasibility of the emission standards enforced by a compliance order have also been rejected. *See* Getty Oil Co. v. Ruckelshaus, 467 F.2d 349 (3d Cir.), *cert. denied*, 409 U.S. 1125 (1972); West Penn Power Co. v. Train, 378 F. Supp. 941 (W.D. Pa. 1974).
138. 42 U.S.C. § 1857c-8 (1970). The text of this section is set forth in note 126 *supra.*
139. 42 U.S.C. § 1857c-8(b) (1970).
140. 42 U.S.C. § 1857c-8(a)(2) (1970).
141. 42 U.S.C. § 1857c-8(a)(4) (1970).
142. *See* text accompanying notes 115-18 *supra.*

chosen for federal enforcement. As noted above, the requirement that a compliance order specify a reasonable time for compliance has not been construed to permit consideration of feasibility claims.[143]

State Enforcement of Federally Promulgated Emission Standards

The Administrator may delegate authority to the states to enforce new source and hazardous source emission standards under section 111(c)[144] and 112(d),[145] respectively. As noted earlier, it is not clear whether section 307(b)(2) was intended to apply to state enforcement proceedings. However, it would appear reasonable for that section to apply where the states enforce federal new and hazardous source emission standards, for two reasons. First, section 307(b)(2) would apply to proceedings instituted by the Administrator in federal court to enforce these standards. Since the states are acting as the Administrator's delegate with his full authority in enforcing these standards, section 307(b)(2) should equally apply to these state enforcement proceedings. Second, any challenges to these standards would take the form of a judicial review of the action of the Administrator in promulgating them. Since these actions may be reviewed in a section 307(b)(1) judicial review

143. *See* cases cited in note 137 *supra.*

144. 42 U.S.C. § 1857c-6(c) (1970), which provides:

(c) (1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing standards of performance for new sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this Act to implement and enforce such standards (except with respect to new sources owned or operated by the United States).

(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable standard of performance under this section.

145. 42 U.S.C. § 1857c-7(d) (1970), which provides:

(d) (1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing *emission standards for hazardous air pollutants* for stationary sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this Act to implement and enforce such standards (except with respect to stationary sources owned or operated by the United States).

(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable *emission* standard under this section. (Emphasis in the Act.)

proceeding, section 307(b)(2) should apply regardless of whether the state or the federal government enforces them.

For the second reason noted above, section 307(b)(2) should also apply to state proceedings to enforce an implementation plan promulgated by the Administrator.

Therefore, impossibility defenses should not be permissible in state proceedings to enforce new and hazardous source emission standards and emission standards contained in federally promulgated state implementation plans.

State Enforcement of State Promulgated Emission Standards

It appears that section 307(b)(2) would not apply to state proceedings to enforce state promulgated implementation plans. The wording of the section is focused solely upon action of the Administrator; it does not refer to judicial review at the enforcement stage of the action of a state agency. One asserting a claim of impossibility as a defense to a state enforcement proceeding would be challenging the action of the state agency in promulgating whatever standard is being enforced, not the action of the Administrator in approving the state plan. Accordingly, it appears that there is no *specific* prohibition in the Act against state court consideration of impossibility defenses.[146]

146. This conclusion was implicitly reached in two state proceedings brought under approved implementation plans. In Commonwealth v. United States Steel Corp., 57 Pa. D. & C.2d 583 (Allegheny County Ct. C.P. 1973), a contempt proceeding was brought by the state to enforce compliance with the terms of a consent decree which established emission limitations and compliance schedules applicable to defendant's coke plant. The defendant claimed that it was technically impossible to comply with the standards contained in the consent decree. After reviewing the technical difficulties of achieving compliance, the court concluded that it lacked sufficient knowledge to determine whether compliance was technically possible. It thereupon refused to impose penalties on the defendant, and ordered the defendant, the state and county air pollution control agencies, and the Federal Environmental Protection Agency (if it chose to comply) to undertake a detailed investigation of the state of the art of coke oven emission control technology and report these findings to the court within one year. The court failed to consider whether such action was prohibited by the Act.

Similarly, in Commonwealth v. Pennsylvania Power Co., 5 ERC 1373 (Pa. Lawrence County Ct. C.P.), *aff'd*, 6 ERC 1328 (Pa. Comm. Ct. 1973), a civil contempt proceeding was dismissed on the ground that technical impossibility prevented the defendants from complying with a prior court order requiring them to develop and submit to the state agency a plan for achieving sulfur oxide emission standards imposed by the state implementation plan. Again, neither the lower nor the appellate court gave any consideration to whether its action was permissible under the Act.

However, the fact that section 307(b)(2) would not apply when a state enforces a state implementation plan does not necessarily mean that impossibility defenses are permissible under the Act. The conclusion reached by those circuits which have ruled on the permissibility of state variance procedures could be extended to preclude impossibility defenses in state enforcement proceedings.[147] Those courts have all held that section 110(f) is the exclusive mechanism for obtaining variances from the requirements of state implementation plans after the mandatory date for attainment of primary air quality standards.[148] A refusal by a state court to enforce an emission standard is, in effect, a judicially granted variance. It could therefore be argued that by sustaining impossibility defenses, state courts would be frustrating the intent of Congress to limit variances to the mechanism provided by section 110(f).

Finding section 110(f) to be the exclusive mechanism for obtaining *any* deferral of compliance with a state plan would be consistent with the purpose of the Act. None of the safeguards for protecting the public health contained in that section would necessarily be taken into consideration by a court in sustaining an impossibility defense.[149] Since protection of the public health is the paramount interest of the Act, it would be anomalous to construe the Act as permitting a mechanism for avoiding compliance in which that interest may not be safeguarded.

Furthermore, the utility of allowing impossibility defenses in state enforcement proceedings when the same defense would not be allowed in a federal enforcement proceeding is questionable. The Administrator has the power under the Act[150] to enforce the same emission standard in federal court where, except in the Sixth Circuit, the defense of impossibility could not be raised.[151] Allowing the defense in state enforcement proceedings will merely require the Administrator to duplicate enforcement at the federal level. This result is wasteful of both state and federal judicial and administrative resources.

Assuming, however, that impossibility defenses are permissible in

147. *See* cases cited in note 7 *supra*.

148. *See* text accompanying notes 13-19 *supra*.

149. Neither of the cases cited in note 146 *supra* gave any consideration to the effects which their decision might have on the public health.

150. Section 113(a), 42 U.S.C. § 1857c-8(a) (1970).

151. *See* text accompanying notes 115-18 and 138-43 *supra*.

proceedings in which a state enforces its implementation plan, there is an important limitation imposed by the Act on the use of those defenses. As a matter of federal law, the states are required to achieve ambient air quality standards within the deadlines set by the Act.[152] Any state court decision upholding a defense of impossibility would violate the supremacy clause of the United States Constitution if it prevented the state from meeting these deadlines. Therefore, a state can constitutionally sustain an impossibility defense only if it determines that the effect of its decision will not hinder the state's ability to achieve national ambient air quality standards. But both the complexity of the technical and policy issues involved in making this determination and the material interference which upholding these defenses will have with the state's administration of its air pollution control program militate against use of these defenses, even if they are permissible under the Act.

CONCLUSION

Issues of technical and economic feasibility of emission standards are important considerations under the Clean Air Act. They should be carefully considered by a state in devising an implementation plan which provides for timely attainment of air quality standards set by the Act with minimal adverse impact on the state's economic welfare. They must be considered by the Administrator in establishing emission standards for new stationary sources.

The extent to which defenses of technical and economic impossibility are permissible under the Act has not yet been fully decided by the courts. To date, only the Sixth Circuit expressly permits use of these defenses in proceedings to enforce state implementation plans. In all other circuits, section 307(b)(2) of the Act should preclude use of these defenses in federal proceedings to enforce state implementation plans. That section should also bar use of these defenses in federal and state proceedings to enforce federal emission standards.

While there appears to be no specific prohibition in the Act against use of impossibility defenses in state proceedings to enforce state implementation plans, it is suggested that the Act should be construed to bar these defenses. The issues raised by these

152. Section 110(a)(2)(A), 42 U.S.C. § 1857c-5(a)(2)(A) (1970).

defenses are not amenable to resolution in a judicial proceeding. Furthermore, it is inconsistent to allow these defenses in state court proceedings when they would not be permitted in federal proceedings to enforce the same standards.

Section 110(f) of the Act should be construed as the *exclusive* mechanism for obtaining a postponement from the requirements of state implementation plans.[153] While the procedure for obtaining a section 110(f) postponement may be cumbersome and its criteria extremely tight, it appears to be the only procedure available under the Act which ensures that the public health will not be subordinated to economic interests. It further ensures that the complex technical and policy questions raised by impossibility claims will be resolved by those with the necessary expertise to decide them. Finally, limiting impossibility claims to a section 110(f) proceeding ensures that the enforcement of state implementation plans will be unencumbered by the problem of relitigating the reasonableness of emission standards each time they are enforced.

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153. However, section 110(f) should be construed or, if necessary, amended to permit consecutive grants of postponements for periods not to exceed one year. This construction will provide flexibility for dealing with bona fide conditions of impossibility which persist beyond one year.