

Fordham Environmental Law Review

Volume 1, Number 1

2011

Article 9

Protection of the Environment in the United States

Joseph C. Sweeney*

*Fordham University School of Law

Copyright ©2011 by the authors. *Fordham Environmental Law Review* is produced by The Berkeley Electronic Press (bepress). <http://ir.lawnet.fordham.edu/elr>

PROTECTION OF THE ENVIRONMENT IN THE UNITED STATES*

JOSEPH C. SWEENEY†

TABLE OF CONTENTS

INTRODUCTION	2
I. DEVELOPMENT OF PUBLIC AWARENESS.....	3
II. THE CONSTITUTIONAL PROBLEMS OF FEDERALISM.....	4
A. <i>Sources of Federal Power</i>	5
B. <i>State Power and Federal Preemption</i>	6
III. DEVELOPMENT OF COMMON LAW REMEDIES	9
A. <i>Nuisance</i>	9
1. Private Nuisance.....	9
2. Public Nuisance	11
3. Common Law Nuisance and Federal Preemption ..	12
B. <i>Strict Trespass</i>	13
C. <i>Common Law Negligence</i>	13
IV. FEDERAL STATUTORY POLICIES.....	14
A. <i>The National Environmental Policy Act</i>	14
1. The Environmental Impact Statement	15
2. The Presidential Council on Environmental Quality	16
3. President Reagan's Executive Order	16
4. The Federal Environmental Protection Agency	17
V. COMPLAINTS OF POLLUTION	18
A. <i>The Costs of Environmental Litigation</i>	18
B. <i>Standing</i>	18
C. <i>Scope of Judicial Review of Environmental Questions</i> ...	20
VI. PRESENT STATUTORY SCHEME OF FEDERAL ENVIRONMENTAL PROTECTION	22
A. <i>Water</i>	22
1. The Refuse Act	22
2. Oil Pollution Control Act of 1924	23
3. Water Pollution Control Act of 1948	23
4. Water Quality Act of 1965	23

* This article was first prepared for and delivered at the Conference of the International Jurists Association, held on November 22, 1986 in Turin, Italy. The papers of the conference entitled "La Tutela Giuridica dell' Ambiente in Italia ed in U.S.A." will be published in Italian by the Associazione Internazionale Giuristi Italia-U.S.A..

† Professor of Law, Fordham University School of Law. The author wishes to express his gratitude to Paul E. Carter and Gregory L. Harris of the Fordham University School of Law, Class of 1988, for their valuable assistance, and to his editor Michael A. Guzzo, also of the Class of 1988. Special thanks go to Carol DeVito who patiently and expertly typed the many versions of this article.

5. Federal Water Pollution Control Acts (FWPCA) of 1972 and 1977	24
6. Exclusivity of Federal Remedy	26
7. Goals of Federal Controls and Practical Administration	27
B. <i>Air</i>	29
1. Early Congressional Attempts at Air Pollution Control	29
2. The Federal Clean Air Act Amendments of 1977 ..	31
C. <i>Noise Control</i>	36
D. <i>Toxics</i>	40
1. The Resource Conservation and Recovery Act of 1976	41
2. The Toxic Substances Control Act of 1976	42
3. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 - Superfund	42
CONCLUSION	44

INTRODUCTION

ENVIRONMENTAL protection¹ involves trial and error. It is the story of mistakes made and mistakes corrected. The system which has evolved in the United States is neither perfect nor the result of a master plan based on a rational scheme, scientific evidence or even economic considerations. Indeed, our laws have often been the product of hasty and accidental compromises in the aftermath of disaster.

The first task is to define a manageable scope for those problems which can be dealt with effectively and efficiently under the heading "environment." There is a danger in over-broad definitions of the environment — the feeling that nothing can be done at all because the problem is simply too vast. Governments will always find it easier to do nothing than to solve a problem with resolute action, so the ultimate danger of expansive treatment of political questions as environmental protection is paralysis.

This paper will review problems dealing with water, air, noise and toxic chemicals, beginning with constitutional problems affecting environmental regulation and the reluctant recognition of the environment as a priority subject for the federal government.²

1. Expressed in its broadest form, the birth, life and death of all living creatures might be included in the phrase "environmental protection." There is a great but resistable temptation to bring nuclear power, energy policy, weapons production and "Star Wars," overpopulation, ocean resources, national parks, industrial development and waste disposal within its ambit.

2. This paper will not address the special problems involved in the national and international regulation of nuclear energy, nor will it deal with the international relations problems with our neighbors, Canada and Mexico, produced by salinated river water and acid rain.

I. DEVELOPMENT OF PUBLIC AWARENESS

Public awareness of environmental concerns is essentially a product of the past twenty-five years. Although the menace of oil pollution was recognized in the international arena in 1926 at the international conference convened by President Coolidge in Washington,³ the draft convention on the prevention of it was never ratified by any nation. Excessive use of the pesticide DDT was publicly denounced by Rachel Carson⁴ in 1962. Her book, *Silent Spring*, rapidly achieved best-seller status and reached a far wider audience than the Sierra Club or the National Audubon Society had ever been able to address on environmental issues.

An issue transcending the human environment and dealing with the survival of all living creatures on Earth was also in the public consciousness in 1962 — the subject of nuclear testing in the earth's atmosphere. The crises of the Suez Canal and Hungary in 1956, and the Berlin Wall and Cuban Missile Crisis in 1961 and 1962, sensitized the public to the dangers of nuclear war and intensified public intolerance of the "fall-out" of radiation in the atmosphere from nuclear testing⁵ by the United States, United Kingdom, Soviet Union and People's Republic of China. When the political will to take the first steps toward mutual trust was finally present, the Nuclear Test Ban Treaty⁶ was negotiated and mounting public concern with the environment eased.⁷ With issues like these, the protection of the environment became a political force.

The United Nations General Assembly Sixth Committee (Legal) con-

3. PRELIMINARY CONFERENCE ON OIL POLLUTION IN NAVIGABLE WATERS (1926), T.S. No. 736-A. See also Interdepartmental Comm., Report to the Secretary of State, Oil Pollution in Navigable Waters (1926).

4. Rachel L. Carson (1907-1964) began publication of *Silent Spring* in the New Yorker on June 16, 1962. The book assumes that there was a time when all living creatures lived in harmony with their surroundings, in relationships developed over thousands of years. It postulates that the use of pesticides, especially DDT (dichlorodiphenyltrichloroethane) destroyed that harmony, leading to sterility, mortality and a "spring without voices." *Silent Spring* has been published in 16 countries. See P. Brooks, *The House of Life: Rachel Carson at Work* (1972).

DDT was banned in this country in 1971. Unfortunately, new toxic chemicals are continuously being developed by industry to meet increasing demands.

5. A historical review of the United States viewpoint of the background of the Nuclear Test Ban Treaty may be found in A. Schlesinger, Jr., *A Thousand Days*, 893-918 (1965); T. Sorensen, *Kennedy*, 617-24, 734-40 (1965). See *Hearings on Executive M, The Nuclear Test Ban Treaty, G.P.O. Before the Senate Comm. on Foreign Relations*, 88th Cong. 1st Sess. (1983). See also Dean, *Negotiating the Nuclear Test Ban Treaty*, 47 U. CHI. L. REV. 273 (1964); Schwelb, *Nuclear Test Ban Treaty and International Law*, 58 AM. J. INT'L L. 642 (1964); Schrag, *Scientists and the Test Ban*, 75 YALE L.J. 1340 (1964).

6. The Nuclear Test Ban Treaty, October 13, 1963, 14 U.S.T. 1313, T.I.A.S. No. 5433, 480 U.N.T.S. 43.

7. In thirteen years of above-ground testing (1945-1963 with moratoria), there were 336 nuclear (uranium and hydrogen) explosions. There were intermittent moratoria on testing by the United States and the Soviet Union. The Nuclear Test Ban Treaty was negotiated in Moscow in July-August, 1963 by the late Averell Harriman, Lord Hailsham and Andrei Gromyko. The Treaty was signed in Moscow on August 5, 1963, and

sidered problems of environmental protection for coastal zones in its Seabed Debates, which eventually produced resolutions⁸ leading to the 1972 Stockholm Conference on the Human Environment. This Conference produced The Declaration on the Human Environment,⁹ which its authors hoped would be regarded as a basic document of international law and policy in the tradition of The Universal Declaration on Human Rights.¹⁰ The Stockholm Declaration is an exhortation to proper environmental action, without the force of liability creating regulations. However, the generally low level of budgetary support of the United Nations Environmental Programme in Nairobi, Kenya,¹¹ is a signal to policy-makers in government and industry that environmental protection does not enjoy a high priority in international affairs. Mindful of this international laxity, we shall turn our attention to the struggle for protection of the environment in the United States.

II. THE CONSTITUTIONAL PROBLEMS OF FEDERALISM

It has always been obvious that pollution does not respect state or national boundaries. However, in the United States, polluters have been able to stop or slow proposed government actions for long periods of time with the use of constitutional doctrines, alternatively arguing that proposed state action violates federal power, while proposed federal action violates states' rights.

opened for ratifications simultaneously in Washington, London and Moscow on September 24, 1963.

President Kennedy made the following remarks when urging the Senate to give advice and consent to the Treaty:

Since the advent of nuclear weapons all mankind has been struggling to escape from the darkening prospect of mass destruction on earth . . . [y]esterday a shaft of light cut into the darkness . . . This treaty is not the millennium . . . [b]ut it is an important first step . . . This treaty is for all of us. It is particularly for our children and our grandchildren, and they have no lobby here in Washington. According to the ancient Chinese proverb, "A journey of a thousand miles must begin with a single step." Let us take that first step.

The Nuclear Test Ban Treaty has been ratified by 114 nations as of January 1, 1986. France, the People's Republic of China and Pakistan are among the nuclear power nations not party to the Treaty.

8. G.A. Res. 2398, 23 U.N. GAOR Supp. (No. 18) at 2, U.N. Doc. A/7218 (1968); G.A. Res. 2581, 24 U.N. GAOR Supp. (No. 30) at 44, U.N. Doc. A/7630 (1969); G.A. Res. 2657, 25 U.N. GAOR Supp. (No. 28) at 51, U.N. Doc. A/8028 (1970); and G.A. Res. 2850, 26 U.N. GAOR Supp. (No. 29) at 72, U.N. Doc. A/8429 (1971).

9. A/Conf. 48/14 and Corr. 1, Ch. I. See generally Report of the U.N. Conference on the Human Environment, Stockholm, 5-16 June 1972, U.N. Doc. A/Conf. 48/14 Rev.1, U.N. Sales No. E.73.II.A.14 (1972). Representatives of 114 nations at the Conference produced a Program of Environmental Action of some 200 points and the Declaration on the Human Environment.

10. G.A. Res. 217, U.N. Doc. E/800, at 135 (1948).

11. G.A. Res. 2997, 27 U.N. GAOR Supp. (No. 30) at 43, U.N. Doc. A/8730 (1972). A new initiative in the protection of the environment appeared in Spring, 1987, with the recognition by the World Bank of environmental concerns at the center of its planning processes, rather than at the periphery.

A. Sources of Federal Power

Under the federal constitution, there is no explicit duty of the federal government to protect the environment against polluters. All federal regulations affecting the environment must come from one of four sources: the power to regulate commerce between the states;¹² the power to regulate the use of publicly owned lands;¹³ the power to enter into treaties with foreign nations;¹⁴ and, the power to tax and spend.¹⁵ By far the most important of these is the commerce power.

The leading modern case which demonstrates the broad reach available to Congress in environmental policy-making under the Commerce Clause is *Hodel v. Virginia Surface Mining and Reclamation Assoc.*¹⁶ In *Hodel*, the surface coal mining industry challenged a Department of Energy regulation¹⁷ that required operators engaged in strip mining to meet rigorous performance standards.¹⁸ The coal industry argued that the Department was regulating the use of privately owned land.¹⁹ Furthermore, it contended that since land is "local," it is not "in commerce," and therefore could not be regulated under the commerce clause.²⁰

The Supreme Court noted both the devastating effect of strip mining on the environment,²¹ and that state efforts to control pollution of rivers were difficult, if not impossible.²² The Court concluded that the commerce power protected not only the channels of commerce, but also those "activities affecting commerce,"²³ and therefore could be activated

12. U.S. Const. art. I, § 8, cl. 3.

13. U.S. Const. art. IV, § 3, cl. 2. United States Government public land currently amounts to approximately 725 million acres. U.S. Bureau of the Census, Statistical Abstract of the United States: 1988, 186 (108th ed.).

14. U.S. Const. art. II, § 2, cl. 2.

15. U.S. Const. art. I, § 8, cl. 1.

16. *Hodel v. Virginia Surface Mining & Reclamation Assoc., Inc.*, 452 U.S. 264 (1981).

17. Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201-1328 (1982).

18. "Included among those selected standards are requirements governing: (a) restoration of land after mining to its prior condition; (b) restoration of land to its approximate original contour; (c) segregation and preservation of topsoil; (d) minimization of disturbance to the hydrologic balance; (e) construction of coal mine waste piles used as dams and embankments; (f) revegetation of mined areas; and (g) spoil disposal. § 515(b), 30 U.S.C. § 1265(b) (1976 ed., Supp. III)." *Hodel*, 452 U.S. at 269 (citation omitted).

19. *Hodel*, 452 U.S. at 275.

20. *Id.*

21. The Court quoted congressional findings which stated in part that: "[M]any surface mining operations . . . [cause] erosion and landslides, by contributing to floods, by polluting the water, by destroying fish and wildlife habitats, by impairing natural beauty, by damaging the property of citizens, by creating hazards dangerous to life and property by degrading the quality of life in local communities, and by counteracting governmental programs and efforts to conserve soil, water, and other natural resources." *Id.* at 277 (quoting § 101(c), 30 U.S.C. § 1201(c) (1976 ed., Supp. III)).

22. *Id.* at 280.

23. *Id.* at 277 (quoting *Perez v. United States*, 402 U.S. 146, 150 (1971)).

when a certain activity combined with others to affect commerce among the states.²⁴ Because there was a rational basis for Congress to find that strip-mining affects interstate commerce, the Department of Energy regulation was held by the Court to be a valid exercise of Congressional authority.²⁵ The Court did not answer the narrow question framed by the surface coal mining industry: whether land can be regarded as "in commerce."²⁶

In *Hodel*, the Supreme Court also ruled on a claim that the Federal regulation violated the tenth amendment to the Constitution.²⁷ Balancing federal and state interests in upholding the act, the Court concluded that the federal regulation: 1) did not impose duties on state officials, 2) did not concern matters that were indisputably attributes of state sovereignty, and, 3) did not impair, through compliance, the ability of the state to govern itself as it wished in an area of traditional state function, thus the statute is not in violation of the tenth amendment.²⁸

B. State Power and Federal Preemption

An unfortunate corollary to federal power under the Commerce Clause is the inability of states to prevent those forms of pollution which are of particular local concern. The determining factor is federal preemption, a concept whereby Congress, acting under its delegated powers, has occupied the field so completely that there is no room for any state action.

In *Ray v. Atlantic Richfield Co.*,²⁹ the Supreme Court considered the

24. *Id.* at 277 (quoting *Fry v. United States*, 421 U.S. 542, 547 (1975)).

25. *Id.* at 281.

26. *Id.* at 275. Perhaps the Court followed the tradition, begun in 1937, that those who challenge a federal regulation of business as violative of Due Process must prove the regulation to be unconstitutional, rather than the Government having to show the act to be constitutional. If, as here, the Court could discern any rational basis for the regulation, it would be regarded as beyond constitutional challenge. *Cf. West Coast Hotel v. Parrish*, 300 U.S. 379 (1937).

27. *Hodel*, 452 U.S. at 283-85. The tenth amendment states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. Const. amend. X.

28. *Id.* at 287-88. The three-part test which the Court derived from *National League of Cities v. Usery*, 426 U.S. 833 (1976), was later rejected in *Garcia v. San Antonio Metropolitan Transit Authority*, 469 U.S. 528 (1985). Nevertheless, *Hodel* has not been overruled, and its analysis remains good as restricted to the facts before the Court. Despite the victory in the Supreme Court, the original legislation, The Surface Mining Control and Reclamation Act of 1977, was ineffective because it contained exemptions for Appalachian mountain area residents to mine "house coal" in mines of two acres or less. This exemption was widely abused by major coal mining companies in the Appalachian mountain region, where large tracts were broken up into two-acre plots with small sections of unmined land between them. Finally, on April 24, 1987, Congress repealed the exemption provision which the President had approved. After ten years of evading the legislative intent, it may now be possible to restrain the environmental damage to the nation caused by the strip-mining industry.

29. *Ray v. Atlantic Richfield Co.*, 435 U.S. 151 (1978).

constitutionality of anti-pollution legislation of the State of Washington³⁰ which imposed certain controls on oil tankers using the Puget Sound that were stricter than those called for by Federal law or regulations.³¹

The Supreme Court rejected the controls as preempted by federal legislation.³² The Court based its holding on: 1) an old federal statute regulating the availability and qualifications of pilots, without mandating their use;³³ 2) a 1972 statute giving the Secretary of Transportation the power to establish design standards for vessels, which precluded states from imposing any different design standards;³⁴ and 3) the approval by the Department of Transportation of the design standards for certain tankers.³⁵ The Court also noted that the design standards adopted by the federal regulations resulted from an international agreement, and cited this as the deciding factor in precluding the adoption of different state standards.³⁶

A more convoluted example of the federal preemption problem was evinced by the Concorde/SST controversy. British Airways and Air France had sought to compel the Port Authority of New York and New Jersey to permit operation of their super-sonic transport aircraft, the Concorde, during a 16-month test period ordered by the Secretary of Transportation.³⁷

The Court of Appeals for the Second Circuit held that, while there is total federal preemption of control of flights through navigable airspace, Congress had consciously given airport owners the responsibility of establishing permissible noise levels for the airport facility.³⁸ Accordingly, the Order of the Secretary of Transportation had not preempted the pow-

30. The State of Washington had acted in accordance with a 1973 decision by the Supreme Court, *Askew v. American Waterways Operators, Inc.*, 411 U.S. 325, in which a Florida statute that imposed strict liability on vessels polluting state waters, at a time when federal law required proof of fault, was upheld. The Florida statute was subsequently repealed by the State Legislature, although it had not been found to be unconstitutional.

31. The State required that: 1) all ocean-going oil tankers of a certain weight carry a state-licensed pilot while navigating Puget Sound, 2) those tankers not designed with double bottoms and other protective devices had to be in ballast or use tugs to escort them in the Sound, and 3) that very large (VLCC) and ultra-large (ULCC) tankers be excluded from the Sound. WASH. REV. CODE § 88.16.170-88.16.190 (1988 Supp.).

32. *Ray*, 435 U.S. at 153-78.

33. 46 U.S.C. § 211-216 (1982) (originally enacted as The Coastal Licensing Act of February 18, 1793, Ch. 8, 1 Stat. 305). See *Gibbons v. Ogden* 22 U.S. (9 Wheat) 1 (1824).

34. 46 U.S.C. § 391(a) (1982) (originally enacted as The Ports and Waterways Safety Act of 1972, Pub. L. No. 92-340, 86 Stat. 424).

35. 33 U.S.C. § 1221-27 (1982).

36. 435 U.S. at 167-68. The agreement, not specified in the decision, is the Safety of Life at Sea Conventions of the International Maritime Organization, June 17, 1960 [1965], 1 U.S.T. 185, T.I.A.S. No. 5780, 536 U.N.T.S. 27.

37. *British Airways Board v. Port Authority of New York and New Jersey*, 431 F. Supp. 1216 (S.D.N.Y. 1977).

38. *British Airways Board v. Port Authority of New York*, 558 F.2d 75, 82 (2d Cir. 1977).

ers of the owner-operator to regulate noise levels. Therefore, the Port Authority's ban on Concorde take-offs and landings could not be overturned on its face.³⁹ On remand, the District Court's evidentiary hearing determined that the Port Authority's delays were unfair and discriminatory, therefore a burden on interstate commerce.⁴⁰ The Port Authority was unable to present persuasive evidence of irreparable harm to the environment; thus, it could no longer prevent the Concorde test flights by refusing to test the aircraft in actual operations.⁴¹

Another turn in the complex relations of federal-state powers can be seen in the recent case of *California Coastal Commission v. Granite Rock Co.*⁴² The Federal Forest Service approved a plan by the Granite Rock Company to quarry limestone from Mount Pico Blanco in the Big Sur Region of Los Padres National Forest on the California Coast. The California Coastal Commission attempted to enforce its permit requirements (with environmental restrictions) on this mining activity.⁴³ Granite Rock requested declaratory judgment and an injunction against the California Coastal Commission, on the ground that the state permit was preempted by the Federal Mining Act of 1872.⁴⁴ The Act allowed private citizens to enter and explore federal land for minerals, and to perfect claims on such mining sites. Preemption was also claimed under the Federal Coastal Zone Management Act⁴⁵ and the Forest Service Regulations.⁴⁶

The Supreme Court found no evidence that Congress intended to occupy the field or displace state environmental regulation, despite the ple-

39. *Id.* Nevertheless, the case was remanded for fact-finding on the issue of the reasonableness of the Port Authority's delay in promulgating noise regulations of any kind relating to the Concorde. Port Authority opposition to the Concorde test appeared to comport with the political visions of the New York and New Jersey Governors (Carey and Byrne), but the likelihood that the Concorde would be able to pass the standard jet aircraft test of 112 PNdB (see n. 238 *infra*) created a suspicion that the Port Authority was being unreasonable, arbitrary and discriminatory in its treatment of the Concorde, a type of governmental action in another context known as "stonewalling."

40. *British Airways Board v. Port Authority of New York and New Jersey*, 437 F. Supp. 804 (S.D.N.Y. 1977).

41. *British Airways Board v. Port of New York*, 564 F.2d 1002 (2d Cir. 1977), *modifying* 437 F. Supp. 804 (S.D.N.Y. 1977).

The Second Circuit affirmed the injunction against the Port Authority's "unwarranted official inaction" in refusing to set standards for S.S.T. test operations, noting: "If ever there was a case in which a major technological advance was in imminent danger of being studied into obsolescence, this is it." 564 F.2d at 1010. The District Court's injunction, however, was modified so as to permit a new, uniform and reasonable noise standard. Test landings and take-offs took place on Oct. 19 and 20, 1977, and since that time the Concorde has been in regularly scheduled service between New York and London or Paris.

42. 480 U.S. 572 (1987).

43. California Coastal Act, Cal. Pub. Res. Code § 30000 (West 1986). See § 30600 for permit and § 30106 for developmental controls.

44. Ch. 152, 17 Stat. 91 (1872), 30 U.S.C. §§ 21-54 (1982).

45. 16 U.S.C. § 1451-1464 (1982).

46. 36 C.F.R. 228.1-228.80 (1988).

nary power over federal land provided in the Constitution.⁴⁷ The Court interpreted the Forest Service Regulations as devoid of preemptive intent, and premised on the assumption of compliance with state environmental protection laws.⁴⁸

Thus it appears that state "environmental" regulations do not present the type of actual conflict with federal law that would summarily defeat them under the doctrine of Federal preemption.⁴⁹

III. DEVELOPMENT OF COMMON LAW REMEDIES

A. Nuisance

In theory, the most effective remedy for pollution damage to private citizens should be the common law cause of action, "nuisance."⁵⁰ Realistically, however, because the cause of action is dependent on enforcement by individuals, even nuisance is inadequate to resolve pollution problems. Such haphazard effort to deal with past conduct usually does not permit effective supervision of future conduct, since administrative agencies and not courts have the expert personnel required for effective monitoring and control. Nuisance differs from a strict legal action in that the remedy usually involves equitable relief (the injunction), and employs a balancing test in which the court weighs the social utility of a plaintiff's injury against the defendant's actions. This normally arises when the plaintiff establishes that his remedy at law for damages is inadequate and seeks a permanent injunction against the defendant's conduct.⁵¹

1. Private Nuisance

Private nuisance is an interference by the defendant with the use and enjoyment of the plaintiff's own land.⁵² It does not require that the defendant actually enter upon the plaintiff's land.

The weighing of the equities in a cause of action for private nuisance will not always favor the environment. For example, in *Boomer v. Atlantic Cement Co.*⁵³ the defendant had built one of the largest and most

47. *California Coastal*, 480 U.S. at 580. See U.S. Const., art. IV, § 3, cl. 2.

48. 480 U.S. at 607-608. In his dissent, Justice Scalia saw the principal issue as not environmental protection but land use control, "and the permit that [California] statute requires Granite Rock to obtain is a land use control device. Its character as such is not altered by the fact that the State may now be agreeable to issuing it so long as environmental concerns are satisfied." As land use regulation, Justice Scalia finds that the states have no independent land use authority over federal land because of exclusive federal regulation.

49. *Id.* at 1439.

50. W. P. KEETON, PROSSER AND KEETON ON THE LAW OF TORTS § 86 616, 617 n.7 (5th ed. 1984). The word is derived from the Latin "nocumentum" by way of the French word for "injure," and can be traced back to Sixteenth Century England.

51. *Id.* § 88A at 631.

52. *Id.* § 87 at 619.

53. 55 Misc.2d 1023, 287 N.Y.S.2d 112, *aff'd*, 30 A.D.2d 480, 294 N.Y.S.2d 452, *rev'd*, 26 N.Y.2d 219, 309 N.Y.S.2d 312, 257 N.E.2d 870 (1970).

modern cement factories in the world at a cost of \$45 million, and had installed the most effective devices then available to control the dust and noise created by the operation of its plant. The defendant was also the largest taxpayer and employer in town, with over 300 workers at its plant. The plaintiffs sought to enjoin the factory's operation from continuing to emit dirt, smoke and vibrations.⁵⁴

The New York Court of Appeals refused to enter what it perceived as the legislature's domain, stating, "the judicial establishment is neither equipped . . . nor prepared to lay down and implement an effective policy for the elimination of air pollution. This is an area beyond the circumference of one private law suit."⁵⁵ Determining that the granting and enforcement of an injunction would be impractical, the court awarded damages only for the permanent diminution of value of plaintiff's property.⁵⁶ In effect, the court permitted the cement company to buy out the plaintiffs cheaply, by placing a permanent servitude on their land.⁵⁷

The *Boomer* Court considered the general public interest against the disruption of an existing concern of great importance to the community and refused to order an injunction, even though the plaintiff was maintaining a nuisance. Although the surrounding valley was continuously filled with dust, the cost of abatement was regarded as too high and the court left it to health and other public agencies to seek further relief in the proper court.⁵⁸

In contrast, when a taxpayer plaintiff showed special damages coupled with zoning violations, the New York Court of Appeals upheld a private nuisance claim and issued an injunction, preventing construction of an asphalt plant and adjacent sand excavation pit.⁵⁹ The court asserted that the judicial accommodation evidenced in *Boomer* was inappropriate because the legislature had enacted a valid zoning ordinance.⁶⁰

54. 26 N.Y.2d at 222, 309 N.Y.S.2d at 312, 257 N.E.2d at 871.

55. *Id.* at 223, 309 N.Y.S.2d at 314, 257 N.E.2d at 871. The New York Court of Appeals did not follow its earlier precedent where it had granted an injunction against a million dollar pulp mill to prevent pollution of a stream, irrespective of disparity in economic consequence, because the defendant was doing substantial damage. *Whalen v. Union Bag & Paper Co.*, 208 N.Y. 1, 101 N.E. 805 (1913).

56. *Boomer*, *supra* note 54, at 228, 309 N.Y.S.2d at 319, 257 N.E.2d at 857.

57. *Id.*

58. The New York Court of Appeals noted that "techniques to eliminate dust and other annoying by-products of cement making are unlikely to be developed by any research the defendant can undertake within any short period, but will depend on the total resources of the cement industry nationwide and throughout the world." *Boomer*, 26 N.Y.2d at 225-26, 309 N.Y.S.2d at 317, 257 N.E.2d at 873. This stands in sharp contrast to the procedure of the Supreme Court in *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1907), in which the Court ultimately withheld its final judgment for some seventeen years on a pollution controversy, pending research into possible methods of abatement.

59. *Little Joe Realty, Inc. v. Town of Babylon*, 41 N.Y.2d 738, 395 N.Y.S.2d 428, 363 N.E.2d 1163 (1977). This apparent glimmer of environmental hope would never have been litigated if the municipality had properly enforced its own zoning regulation.

60. *Id.* at 746, 395 N.Y.S.2d at 434, 363 N.E.2d at 1168.

2. Public Nuisance

Where the activities of a defendant interfere with a community's right to enjoy a reasonably healthy and social existence, its individual members who have suffered damage different in kind and degree from the rest of the community may bring an action in public nuisance.⁶¹ The activities often involve minor violations of the criminal law, especially the codes concerning public health, safety and morals.

In some states, only public officials can maintain a public nuisance action.⁶² If the public official (normally the Attorney General) representing the public interest refuses to act, then the polluter can continue to pollute with impunity. In other states private citizens are allowed to sue; however, if a private citizen loses in a public nuisance action, whether because it was a "friendly" suit or because it was inadequately prepared, then the rights of all other members of the community can be foreclosed.

An unusual example of public nuisance is the case of *Spur Industries, Inc. v. Del Webb Development Co.*⁶³ The defendant operated a cattle feedlot in what had traditionally been an agricultural area. In 1954, a developer bought up farmland in the vicinity in order to build a retirement community. Both parties expanded their facilities in the years which followed until their two operations came to within 500 feet of each other. Sales resistance to new homes in the community became substantial because of the flies and odor caused by the 20-30,000 head of cattle in the feedlot, which were producing about one million pounds of manure per day.⁶⁴

Plaintiffs, developers and purchasers of retirement homes brought an action for public nuisance, alleging that they had suffered damages different in kind and degree from the rest of the relevant community.⁶⁵ The court held that the defendant had committed a public nuisance, declaring that the developer had standing to sue and had shown special injury in terms of lost sales.⁶⁶ Although plaintiffs were therefore entitled to an injunction against the feedlot's continued operation, the court ordered the developer to indemnify defendant for the cost of closing the feedlot or moving it to another location.⁶⁷ The court based its decision on the fact that since the plaintiff had brought many senior citizens to live in this

61. KEETON, *supra* note 50, § 90 at 646.

62. *Id.* § 90 at 643.

63. 108 ARIZ. 178, 494 P.2d 700 (1972).

64. *Spur Industries*, 108 Ariz. at 182, 494 P.2d at 704.

65. *Id.* at 183, 494 P.2d at 705. The court noted that if the residents of the community had sued privately, they would, at most, have been entitled to damages. *Id.* at 184, 494 P.2d at 706. If the developer-plaintiff had pursued his claim in private nuisance, there may have been no cause of action at all, because of the "coming to the nuisance" defense. *Id.* at 184-85, 494 P.2d at 706-07.

66. *Id.* at 184, 494 P.2d at 706.

67. *Id.* at 186, 494 P.2d at 708. See also Lewin, *Compensated Injunction on the Evolution of Nuisance Law*, 71 IOWA L. REV. 775 (1986).

“nuisance,” equity demanded that he also do equity.⁶⁸ This case demonstrates the unexpected problems faced by the “successful” plaintiff in nuisance.

Nuisance law has developed through the common law without consideration of the best possible solutions for a rational protection of the environment. Decisions like *Boomer* and *Del Webb* demonstrate the unpredictability and, in essence, the inadequacy of the nuisance cause of action as a remedy to ongoing pollution.

3. Common Law Nuisance and Federal Preemption

The Supreme Court had previously recognized a federal common law of nuisance in areas of national concern, such as ambient or interstate water and air.⁶⁹ However, in 1981 the Court held, at least insofar as water pollution is concerned, that Congress had substituted a statutory scheme of regulation, thereby eliminating the federal common law of nuisance.⁷⁰ Later that same year, the Court indicated that Congress might have completely preempted any cause of action under state laws of nuisance where the Clean Water Act applied.⁷¹

The Clean Water Act provides that nothing therein “shall restrict any right which any person . . . may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief”⁷² Recently, in *International Paper Co. v. Ouellette*, the Supreme Court held that this provision preempts the application of the common law of the state being affected by pollutants emanating from within the territory of another state.⁷³

Nevertheless, the Clean Water Act was held to preserve the right to bring a nuisance claim under the law of the source state, which presumably had received permission for its polluting use of the water under EPA licensing requirements.⁷⁴ The Court noted that the application of “vague and indeterminate” common law rules of affected states could seriously interfere with the implementation of the Act.⁷⁵

68. *Spur Industries*, 108 ARIZ. at 186, 494 P.2d at 708.

69. See *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1907); *Illinois v. City of Milwaukee*, 406 U.S. 91 (1972) (*Milwaukee I.*). In *Illinois*, the Court stated that federal environmental regulations might in time preempt the federal common law of nuisance, but until such time federal courts were free to appraise the equities based on all applicable federal laws. 406 U.S. at 107.

70. *City of Milwaukee v. Illinois*, 451 U.S. 304, 317 (1981) (*Milwaukee II.*). The Court held that the Federal Water Pollution Control (Clean Water) Act of 1972, Pub. L. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. § 1251 et seq. (1982)) (Clean Water Act), preempted federal common law.

71. See *Middlesex County Sewerage Authority v. National Sea Clammers Assn.*, 453 U.S. 1, 17 (1981).

72. 33 U.S.C. § 505(e) (1982).

73. *International Paper Co. v. Ouellette*, 479 U.S. 481, 493-94 (1987).

74. *Id.* at 497-99.

75. *Id.* at 496. In this case, as in *Boomer*, the source state was New York. Although the affected Vermont landowners in *Ouellette* may have retained a New York state law

B. *Strict Trespass*

The medieval writ of Trespass Quare Clausum Fregit (breaking the close), or strict trespass, is still available in some East Coast states for use in certain pollution situations. It does not require proof of fault, but merely unauthorized and unprivileged entry onto a plaintiff's land. Proof of actual damages is not required.⁷⁶

C. *Common Law Negligence*

Where defendant's negligent polluting actions cause personal injury, death, or property damage, those actual losses may be recovered in state or federal courts. Proof of fault rather than strict liability is still required.⁷⁷ A full argument on these different standards of liability took place before the House of Lords in 1956.⁷⁸

While a general shift in the burden of proof in pollution cases at common law, from the victim to the polluter under a strict liability theory, does not appear likely in the near future, it appears that narrow questions of strict liability are likely to recur as a result of legislative activity.⁷⁹

Societal concern enforcing polluter responsibility, where cheap and adequate precautions to avoid oil spills have not been taken, will advance the doctrine of common law negligence in the direction of a strict or

cause of action, there remains considerable doubt as to the availability of the traditional remedy by injunction due to the value of the pulp mill, the number of employees involved and the importance of the pulp mill to the economy. This is so despite the assumption of the dissenters that New York law and Vermont law were the same. *Id.* at 509.

76. *Kirwin v. Mexican Petroleum Co.*, (267 F.) 460, 463 (D.R.I. 1920). *See also Davis v. Georgia Pacific Corp.* 251 Or. 239, 445 P.2d 481 (1968).

77. The traditional elements of negligence are: (1) duty, (2) breach, (3) cause and (4) harm. *See* RESTATEMENT (SECOND) OF TORTS § 281 (1965). Historically, the introduction of new means of transport (particularly automobiles and aircraft) led the courts to impose strict liability. As these new means became more common, the liability regime shifted to negligence. Many years would pass before a return to strict liability under a no-fault insurance scheme would become popular.

78. *Esso Petroleum, Ltd. v. Southport Corp.*, 1956 A. C. 218. The pollution of the River Ribble, near Liverpool, had been caused by the grounding of a tanker. The master jettisoned 400 tons of fuel oil to lighten the vessel. The fuel oil was carried by wind and tide onto plaintiff's beach causing damage. Plaintiff's suit was based on common law trespass, nuisance and negligence, alleging improper navigation and unnecessary jettison of fuel. The lower court found trespass and nuisance to be inapplicable and the case proceeded on the negligence count, but the court found that the master had not been negligent in jettisoning fuel in the circumstances. The House of Lords required evidence of negligence and rejected strict liability without proof of fault. *Id.*

Lord Devlin suggested the possibility of an action based on the Admiralty doctrine of unseaworthiness, a non-fault remedy in insurance, crew desertion and personal injury cases, if plaintiffs had pleaded and proved the source of the accident to be a defective steering gear.

79. *See* Federal Water Pollution Control Act, *see infra* note 151; Resources Conservation and Recovery Act, *infra* note 256; Comprehensive Environmental Response Compensation and Liability Act, *see infra* note 270; *see also* Ports and Waterways Safety Program Pub. L. No. 92-340, 86 Stat. 424 (1972) (renumbered and amended Pub. L. No. 95-474, 92 Stat. 1471, 33 U.S.C. § 1221-1236 (1978)). *Cf.* *Maryland v. Amerada Hess Corp.*, 350 F. Supp. 1060 (D. Md. 1972).

enterprise liability.⁸⁰ In recent years, however, few environmental cases have been brought based on common law negligence because of the difficulties of proof and the possible preemption of the common law remedy under various federal statutory schemes.

IV. FEDERAL STATUTORY POLICIES

A. *The National Environmental Policy Act*

The National Environmental Policy Act of 1969⁸¹ (NEPA) fixes the high priority to be assigned to environmental questions whenever the federal government proposes any action which affects the human environment. It should be noted that this policy statement followed, rather than preceded, such important statutory controls as the Clean Air Act of 1963⁸² and the various oil pollution acts.⁸³ No new substantive rights are created by NEPA. Rather, the Act contains specific guidelines and procedures for Federal agencies to consider when planning any action which may have environmental consequences.⁸⁴ NEPA deals only with the Federal government and not the states.⁸⁵ It makes environmental protection an important priority of the United States Government, although

80. *Overseas Tankship (U.K.) Ltd. v. The Miller S.S. Co.*, 1967 A. C. 617 (Wagon Mound II). Cf. *Overseas Tankship (U.K.) Ltd. v. Morts Dock & Eng'r. Co.*, 1961 A. C. 388 (Wagon Mound I). The House of Lords, sitting as the Privy Council's Judicial Committee, gave further consideration to problems of oil pollution in two famous decisions dealing with an oil spill and fire in the harbor of Sydney, Australia. The vessel Wagon Mound was discharging fuel in a careless manner, resulting in a spill which spread to a ship repair facility and a neighboring moored vessel. The oil was set on fire by contact with hot metal from welding operations at the ship repair facility. In *Wagon Mound I* the Judicial Committee found that the polluter was liable for pollution damage to the dock owner. The polluter was not liable for the fire damage because it was not considered to be foreseeable harm. *Wagon Mound II* was brought by the damaged vessel owner using a new factual finding to support a negligence claim. The Judicial Committee considered the effect on foreseeability of the failure of defendant to take adequate and cheap precautions to avoid the potential damage from the oil spill where there could be no social utility (cost/benefit analysis) in the absence of precautions.

81. National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-47 (1982). The heart of the statute is section 4332(2)(c), which states in part: "(2) all agencies of the federal government shall . . . (c) include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on - (i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short term uses of man's environment and the maintenance and enhancement of long term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

82. Clean Air Act of 1963, 42 U.S.C. §§ 7401-7642 (1982).

83. Oil Pollution Act of 1924, 33 U.S.C. §§ 431-37 (repealed April 3, 1970); Water Pollution Control Act of 1948, 33 U.S.C. § 1251-1376 (1982).

84. See *Flint Ridge Dev. Co. v. Scenic Rivers Assoc. of Okla.*, 426 U.S. 776 (1976).

85. 42 U.S.C. § 4331(a) (1982). See *City of Boston v. Volpe*, 464 F.2d 254 (1st Cir. 1972).

no greater than other major policies.⁸⁶

1. The Environmental Impact Statement

To effectuate the policies of NEPA, the statute makes use of Environmental Impact Statements (EIS).⁸⁷ EIS are required for all proposals for legislation and other major federal actions which may "significantly [affect] the quality of the human environment."⁸⁸ Nevertheless, the EIS requirement does not apply to the annually submitted budget requests of government agencies.⁸⁹

The Supreme Court has assumed that the courts would have to enforce the submission of an EIS.⁹⁰ A frequent issue for the courts is the scope and content of an EIS, as well as the time at which it must be prepared.⁹¹ Although very few projects have been stopped by a defective EIS, the delays have been considerable. Thus, the EIS, under NEPA, has become an additional weapon for lawyers in negotiating the development of a project where federal funds are required.⁹²

86. 42 U.S.C. § 4331 (b) (1982). NEPA's stated goals are to:

"(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

87. 42 U.S.C. § 4331(b) (1982).

88. 42 U.S.C. § 4332 (2)(c) (1982).

EIS must include:

(a) The environmental impact of the proposed action;

(b) Any adverse environmental effects which cannot be avoided should the proposal be implemented;

(c) Alternatives to the proposed action;

(d) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and

(e) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. *Id.*

See also 40 C.F.R. 1502.14 for further refinements. An example of an inadequate EIS as to alternatives is discussed in *Chelsea Neighborhood Assoc. v. United States Postal Service*, 516 F.2d 378 (2d Cir. 1975). *See generally*, Friedman, *Operational Impact of NEPA and Related Environmental Laws, Regulations and Orders on Mineral Operations*, 19 ROCKY MT. MINERAL L. INST. 47 (1974), and Friedman, *Recent NEPA Effects on Industrial Development*, 9 NATURAL RESOURCES LAWYER 479 (1976).

89. *Andrus v. Sierra Club*, 442 U.S. 347 (1979).

90. In so doing, the Supreme Court has tacitly accepted the holding of the D.C. Circuit in *Calvert Cliffs Coordinating Comm. v. A.E.C.*, 449 F.2d 1109 (D.C. Cir. 1971).

91. *See Vermont Yankee Nuclear Power Corp. v. N.R.D.C., Inc.*, 435 U.S. 519 (1978); *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

92. *Vermont Yankee*, 435 U.S. 519. However, the holding in *Kleppe* limits the use of

2. The Presidential Council on Environmental Quality

The Presidential Council on Environmental Quality⁹³ (CEQ), created by President Carter under NEPA in 1977, establishes regulations for all government departments to observe when responding to the requirements of the Act. CEQ's maximum effectiveness as a government organ came shortly after its creation, when it laid down rules to determine agency responsibilities under NEPA.⁹⁴

3. President Reagan's Executive Order

In 1981, President Reagan signed an Executive Order⁹⁵ under which agencies are to take only those actions which result in a net benefit to society, by choosing methods having the least net cost and by taking into account the condition of the particular industry affected. Thus, cost-benefit analysis became enshrined at the heart of environmental protection policy in the United States. Behind the theory was the view of President Reagan and his advisers that environmental protection had placed excessive burdens on business, especially financial burdens which hurt the existing economy, and placed obstacles in the way of rapid development of land and mineral resources which impeded economic growth potential.

However, the President's great popular appeal could not be translated into a legislative mandate to reduce environmental protection legislation affecting industry, in the face of staunch opposition by environmental organizations and their allies in Congress.⁹⁶ Although the Administration has been able to stall consideration of legal and policy solutions to the domestic and international acid rain problem, President Reagan's veto of legislation reviving the Clean Water Act was over-ridden by substantial bi-partisan majorities.⁹⁷ The current political stalemate in Congress will probably mean the end of the Reagan environmental program. Thus, the 1981 Executive Order may be the most significant environmental development in the Reagan years.

injunctions in EIS litigation to situations in which there is, in fact, harm. See 427 U.S. at 401-02.

93. Council on Environmental Quality, 42 U.S.C. § 4341-47 (1982).

94. 40 C.F.R. 1500-1517.7 (1988). C.E.Q. will mediate conflicts between federal agencies as to which will be the "lead agency" in preparing an EIS. 40 C.F.R. 1501.7(b) and 1501.5.

95. Exec. Order No. 12,291, 46 Fed. Reg. 13193 (1981), *reprinted in* 5 U.S.C. § 601 at 431-34 (1982).

96. Such organizations as The Wilderness Society, The World Wildlife Fund, The Conservation Foundation, The Environmental Defense Fund, The Natural Resources Defense Council, The National Wildlife Federation, The National Audubon Society, The Friends of Earth, Inc., and The Sierra Club, opposed the President's Order.

97. See *infra* note 184. Congress overrode the presidential veto with a vote of 86-14 in the Senate, 133 CONG. REC. S. 1708 (daily ed. Feb. 4, 1987) and a vote of 401 to 26 in the House, 133 CONG. REC. H. 525-26 (daily ed. Feb. 3, 1987).

4. The Federal Environmental Protection Agency

In 1970, the Federal Environmental Protection Agency⁹⁸ (EPA) was created by an Executive Order of President Nixon for general administration of environmental concerns undertaken by the federal government. An example of the work of the EPA can be seen in the Clean Air Act of 1977.⁹⁹ The Act requires the EPA administrator to determine "national ambient air quality standards"¹⁰⁰ for various air-borne pollutants, such as nitrogen dioxide. Primary¹⁰¹ (i.e. those which protect public health) and secondary¹⁰² (i.e. those which protect public welfare) standards are to be established. The primary standards are to be attained "as expeditiously as possible,"¹⁰³ while the secondary standards are to be attained within a "reasonable time."¹⁰⁴

By 1986, the EPA had acquired the same power over federal agencies which it already had over private citizens and industry regarding hazardous waste disposal. This power to compel compliance was resisted in 1987 by the Justice Department under the theory that one executive agency may not sue another, and that such inter-agency disputes should be resolved by the Office of Management and Budget. Congress seems unlikely to adopt these views.

After a series of scandals¹⁰⁵ in the 1981-1983 period under officials who were, at best, hostile to the work of the Agency, the EPA has been brought back to the point of original effectiveness.¹⁰⁶ Briefly, the EPA is again enforcing the law. During the 1981-83 period virtually no legal actions against environmental polluters were filed. The Agency is now proceeding with enforcement of well-established environmental criteria, and it now appears that the EPA itself will be proposing new Federal

98. Reorg. Plan No. 3 of 1970, 35 Fed. Reg. 15,623, 84 Stat. 2,086. As of July 1, 1987 the EPA has published eleven volumes of regulations in 40 C.F.R., weighing 21 pounds 5.5 oz. in paperback.

99. Clean Air Amendments of 1977, 42 U.S.C. § 7401-7642 (1982).

100. 42 U.S.C. § 7409.

101. 42 U.S.C. § 7410(a)(2)(A).

102. *Id.*

103. *Id.*

104. *Id.*

105. During the past six years, resignations were forced or volunteered in the wake of various investigations into EPA operations, including the resignations of the former EPA Administrator, Mrs. Anne Burford; the Acting EPA Administrator, Mr. John W. Hernandez; the EPA Inspector General, Mr. Matthew Novick; the EPA General Counsel, Mr. Robert Perry; and three Assistant EPA Administrators: Mr. John Horton, Mr. John Todhunter and Ms. Rita Lavelle. Ms. Lavelle, Asst. Administrator for Toxic Wastes has been convicted of perjury in connection with an investigation of preferential treatment of industrial polluters.

106. William Ruckelshaus was appointed EPA Administrator by President Nixon in 1970 and was reappointed by President Reagan to the Agency in 1983. Mr. Ruckelshaus apparently succeeded in restoring morale and discipline to the Agency before his re-retirement in 1985, and was succeeded by Lee M. Thomas, a career government official with eighteen years experience in his home state (South Carolina) and Federal government.

action to protect the underground aquifers that supply about half the drinking water, and much of the water used to irrigate crops, in the United States. The proposal of new forms of Federal action will be a new experience for the Agency, but one that is long overdue.

V. COMPLAINTS OF POLLUTION

One hundred and fifty years ago an observer of the American scene recognized a trait of Americans which separates them very clearly from Continental Europeans: Americans are very litigious, with the result that almost every political dispute can become a legal dispute.¹⁰⁷ In light of this tradition, pollution-related complaints can be brought into the courts by private citizens¹⁰⁸ and public interest groups,¹⁰⁹ as well as the Federal and State governments. In addition to judicial proceedings against polluters, actions may be brought against government agencies to force them to act against polluters.¹¹⁰ Such actions are especially appropriate in instances where deadlines established by Congress have not been met.¹¹¹

A. *The Costs of Environmental Litigation*

Litigants generally must pay for the services of their own lawyers. The winning party is not entitled to attorneys' fees unless a statute specifically authorizes it,¹¹² which is very unusual.¹¹³ Polluters often consider litigation expenses part of the cost of doing business, but such expenses are usually beyond the means of private citizens. As a result, public interest groups which have the resources to pay expensive legal fees are frequently the plaintiffs in such cases.

B. *Standing*

Do public interest groups have the right to challenge environmental pollution where there is no direct injury to the property of such a group?

107. A. DeToqueville, 1 DEMOCRACY IN AMERICA 290 (ed. 1840). "The influence of legal habits extends beyond the precise limits I have pointed out. Scarcely any political question arises in the United States that is not resolved, sooner or later, into a judicial question. Hence all parties are obliged to borrow, in their controversies, the ideas, and even the language peculiar to judicial proceedings." *Id.*

108. See *Association of Data Processing Service Orgs., Inc. v. Camp*, 397 U.S. 150 (1970) (not an environmental case); see also *Sierra Club v. Morton*, 405 U.S. 727 (1972).

109. See *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973); *Sierra Club v. Morton*, 405 U.S. 727 (1972); See also *Save The Bay, Inc. v. United States*, 610 F.2d 322 (5th Cir. 1980).

110. See *Train v. City of New York*, 420 U.S. 35 (1975).

111. *Id.*

112. See *Alyeska Pipeline Service Co. v. Wilderness Society*, 421 U.S. 240 (1975).

113. See, e.g., Clean Air Act § 304d as added 84 Stat. 1706, 42 U.S.C. § 1857h-2(d) (1982) (recodified at 42 U.S.C. § 7604(d)); Federal Water Pollution Control Act, § 505d, as added 86 Stat. 888, 33 U.S.C. § 1365(d); Toxic Substance Control Act, 15 U.S.C. 2601-2629 (1982) §§ 20-21; see generally *Alyeska*, 421 U.S. at 260.

In *Sierra Club v. Morton*,¹¹⁴ the Supreme Court said they did not. Walt Disney Enterprises had planned to build a large resort community in the Sequoia National Forest. The U.S. Forest Service had approved the project.¹¹⁵ The Sierra Club, a public interest group of great influence, brought an action under Section 10 of the Administrative Procedure Act¹¹⁶ to force the Forest Service to disapprove the plan.

The Supreme Court said that in order to challenge an agency's action, a plaintiff must show injury in fact to the party seeking review,¹¹⁷ and that the interest to which plaintiff claims injury is within the zone of interests being regulated or protected by that governmental agency.¹¹⁸ The Sierra Club lacked standing because it had specifically avoided pleading injury to individual members, relying on its longstanding and well-known interest in environmental issues.¹¹⁹

Although the Sierra Club lacked standing to sue under its original allegations, the Court suggested, in dictum, that individual members of the Sierra Club who could no longer hike through beautiful mountain wilderness would suffer injury when agency action caused the loss of this opportunity.¹²⁰ These members, and the Sierra Club on their behalf, would meet the standing requirements to challenge the Service's approval of development plans.¹²¹ In the next year the Supreme Court put the dictum into action by permitting a suit by a group organized for the specific purpose of challenging a government action which would discriminate against the use of recycled products, particularly soft drink containers.¹²²

Mere standing, however, will not forecast the outcome of a case. In *Duke Power Co. v. Carolina Environmental Study Group*,¹²³ plaintiff-envi-

114. 405 U.S. 727 (1972).

115. *Id.* at 729.

116. Administrative Procedure Act, 60 Stat. 243 (1946) (codified at 5 U.S.C. § 702 (1982)).

117. *Morton*, 405 U.S. at 734-35.

118. *Id.* at 733 (citing *Assoc. of Data Processing Serv. Org., Inc. v. Camp*, 397 U.S. 150 (1970)).

119. 405 U.S. at 740.

120. *Id.* at 735. The Court had previously held that injury need not be economic to be "in fact," thereby giving standing to the injured party. See *Data Processing*, 397 U.S. at 154 and cases cited therein.

121. *Morton*, 405 U.S. at 735.

122. *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973) (challenging a schedule of rail freight rate increases by the Interstate Commerce Commission).

123. 438 U.S. 59 (1978). The Supreme Court permitted the plaintiffs to challenge the constitutionality of the Price-Anderson Act, 71 Stat. 576 (codified at 42 U.S.C. § 2210 (1982)), which contains a monetary limit on the liability of nuclear power plant operators. The plaintiffs argued that they might suffer environmental injuries in the future as a result of the construction of nuclear power plants, which would not have been built but for the limited liability of plant operators. Plaintiffs additionally argued that if there were a nuclear disaster, such a limitation of the plant operators' liability would be akin to appropriation of their property without just compensation, in violation of the fifth amendment to the Constitution. The Supreme Court rejected the contention that the

ronmentalists could challenge the monetary limitation¹²⁴ on nuclear power plant liability but the Court rejected on the merits the notion that the fifth amendment forbids limitations of liability as a taking of property without just compensation.¹²⁵

Limitation on the rights of public interest groups to sue can be seen in *California v. Sierra Club*,¹²⁶ where the Sierra Club was seeking to establish a private cause of action to enforce prohibitions in Section 10 of the Rivers and Harbors Act of 1899¹²⁷ dealing with obstructions to navigation. That statute does not explicitly create any private enforcement mechanism, but the Sierra Club argued that a private enforcement action is implied by necessity from the legislation. The Supreme Court, however, found that the statute was intended to benefit the public at large and not any specific individual or group;¹²⁸ thus, there was no evidence of Congressional intent to create a private remedy.¹²⁹

C. Scope of Judicial Review of Environmental Questions

Although the Supreme Court has indicated that there is a very wide scope of judicial review for environmental matters, there are built-in limitations to the courts' power to rule on certain environmental issues where Congress has forbade review, directly or indirectly, through broad grants of discretion. Illustrative of this type of case is *Citizens to Preserve Overton Park v. Volpe*.¹³⁰

In *Overton*, Federal statutes provided that highways were not to be built through public parks where a "feasible and prudent" alternative route existed.¹³¹ These statutes also required "all possible planning to minimize harm" before approval of highway construction through a protected area.¹³² The Secretary of Transportation had approved the use of Federal highway funds to build an interstate highway through a 342-acre city park in Memphis, Tennessee. A citizen environmental group sued in order to preserve the city park.¹³³ The Government claimed that the

statute was a deprivation of property in the sense of a "taking" for fifth amendment purposes. *Id.* at 85-88.

124. Price-Anderson Act, 71 Stat. 576, 42 U.S.C. § 2210 (1982). The monetary limitation on damages was \$560,000,000 in 1978 and remains at that level in 1988, despite proposals for its increase.

125. 438 U.S. at 74-75.

126. 451 U.S. 287 (1981).

127. Ch. 425, 30 Stat. 1121, 1151, 33 U.S.C. § 403 (1982).

128. *California v. Sierra Club*, 451 U.S. at 292-98. See also *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978), for a further discussion of judicial review of administrative actions for rule-making.

129. *California v. Sierra Club*, 451 U.S. at 294.

130. 401 U.S. 402 (1971).

131. *Id.* at 404-5.

132. *Id.* at 405.

133. *Id.* at 406. Standing was attained through proof of injury in fact to a protected interest of the party seeking review, *Id.* at 410, under the tests which the Court would later endorse in *Sierra Club v. Morton*, 405 U.S. 727 (1972).

Secretary's approval was discretionary activity which could not be reviewed by the courts.¹³⁴ The Supreme Court noted that the Administrative Procedure Act presumes judicial review of agency actions except within narrow exemptions for action committed to agency discretion.¹³⁵ Discretion must be granted "in such broad terms that in a given case there is no law to apply."¹³⁶

The Supreme Court noted that there was no indication that Congress sought to prohibit review under these statutes, and held that the words "feasible and prudent" in the statute provide criteria rather than discretion, and that actions taken thereunder can be reviewed by the courts.¹³⁷

Although the Secretary's actions were subject to judicial review, the standard of that review was limited. Outside certain narrow excep-

134. *Overton*, 401 U.S. at 411. See 5 U.S.C. § 701(a)(2). See generally *Universal Camera Corp. v. NLRB*, 340 U.S. 498 (1951); *Consolidated Edison Co. v. NLRB*, 305 U.S. 197 (1938).

135. *Overton*, 401 U.S. at 410, quoting S.REP. NO. 752, 79th Cong. 1st Sess., 26 (1945) (report on the Administrative Procedure Act). See 401 U.S. at 413 for the standard of review, as follows:

"[F]or that we must look to § 706 of the Administrative Procedure Act, 5 U.S.C. § 706 (1964 ed., Supp. V), which provides that a 'reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found' not to meet six separate standards.³⁰

³⁰ To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall-

- (1) compel agency action unlawfully withheld or unreasonably delayed; and
- (2) hold unlawful and set aside agency action, findings, and conclusions found to be-
 - (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
 - (B) contrary to constitutional right, power, privilege, or immunity;
 - (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
 - (D) without observance of procedure required by law;
 - (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
 - (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error. 5 U.S.C. § 706 (1964 ed. Supp. V).

401 U.S. at 413-14.

136. *Overton*, 401 U.S. at 410.

137. *Id.* at 409-13. "No feasible and prudent alternative" is a "clear and specific" directive. The Agency was not adjudicating a dispute, such as the grant of a license or the imposition of a sanction, nor making a change in the nature of the conduct required. Thus, the standard for review of the administrative action was not whether the action was "unsupported by substantial evidence," nor whether "unwarranted by the facts," but that the actual choice was not arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law. " *Id.* at 416.

tions,¹³⁸ the standard applied to the review of an agency action is that the action must not have been "arbitrary and capricious" on the basis of the whole record. *Overton* also seems to establish that the decision not to prepare an EIS is reviewable.¹³⁹

VI. PRESENT STATUTORY SCHEME OF FEDERAL ENVIRONMENTAL PROTECTION

A. *Water*

1. The Refuse Act

The Rivers and Harbors Act of 1899¹⁴⁰ (The Refuse Act) was originally intended to prevent obstruction of navigable waters in interstate commerce.¹⁴¹ The statute has been incorporated into subsequent legislation,¹⁴² and the Supreme Court has interpreted it as protecting the water-

138. *Id.* at 410-414. See 5 U.S.C. § 706(2)(A) (1982).

139. *Overton*, 401 U.S. 410-11. One of the most controversial decisions on the scope of review is the snail darter case which brought the courts into disrepute and ridicule because of the apparent waste of resources. In *Hill v. T.V.A.*, 549 F.2d 1064 (6th Cir. 1977), the Court of Appeals issued an injunction against the completion of construction of a new hydro-electric dam (The Tellico Dam) in the Little Tennessee Valley because the dam would threaten an endangered species of fish, the snail darter. The project had previously been halted for more than a year and a half by a preliminary injunction in an independent action, alleging failure by T.V.A. to comply with the requirements of NEPA. See *Environmental Defense Fund v. T.V.A.*, 339 F. Supp. 806 (E.D. Tenn. 1972), *aff'd*, 468 F.2d 1164 (6th Cir. 1972). The district court ultimately concluded that the requirements had been met and allowed the project to continue. See *Environmental Defense Fund v. T.V.A.*, 371 F. Supp. 1004 (E.D. Tenn. 1973), *aff'd*, 492 F.2d 466 (6th Cir. 1974).

Most of the dam had already been completed, at considerable cost, but in *T.V.A. v. Hill*, 437 U.S. 153 (1978), the Supreme Court found that Congress had determined that higher priority be given to endangered species, so that the injunction must follow despite the enormous cost of the uncompleted dam. The backlash effect was compounded by revelations that scientists were in error concerning the extinction of the snail darter, which was thriving in other habitats. After the Supreme Court decision Congress enacted a law to permit the dam to be built, in 1979. 42 U.S.C. § 4321 (1982). See Sec. 7 of the Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884, 886 (1973) (codified as amended at 16 U.S.C. § 1536 (1982)). Under this statute, 425 species have been "listed" as threatened or endangered and entitled to protection.

140. Ch. 425, 30 Stat. 1152, 33 U.S.C. § 407 (1982). Section 13 of the Act states: "It shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water"

141. See *United States v. Standard Oil Co.*, 384 U.S. 224, 226-30 (1966); *United States v. Republic Steel Corp.*, 362 U.S. 482, 489-91 (1960); see generally Kashiwa, *The Refuse Act and Protection of Water Quality*, 9 HOUS. L. REV. 676 (1972). The Fifth Circuit has found that the government's remedy under the Refuse Act is precluded by the FWPCA, *United States v. Big Sam*, 681 F.2d 432 (5th Cir. 1982), *cert. denied*, 462 U.S. 1132 (1983).

142. 33 U.S.C. § 407 (1982).

ways from pollution by forbidding the discharge of refuse matter or industrial waste into navigable waters.¹⁴³

2. Oil Pollution Act of 1924

The Oil Pollution Act¹⁴⁴ was enacted because of the first international pollution conference; the same conference that had produced the 1926 unratified convention.¹⁴⁵ However, this statute was ineffective because of the failure to prepare administrative regulations.¹⁴⁶

There was no other federal statute on water pollution until 1948. A major mistake in the attempt to protect the coastal zones from oil pollution occurred in 1966, when the 1924 statute was amended to replace the government's simple burden of proof (that there had been a discharge) with a new requirement of gross negligence or willful spilling, leaking, pumping, pouring, emitting or emptying of oil.¹⁴⁷

3. Water Pollution Control Act of 1948

The Water Pollution Control Act¹⁴⁸ is directed only at pollution of interstate waters which endanger the health or welfare of persons in a state other than that in which the discharge originates.

4. Water Quality Act of 1965

The Water Quality Act of 1965¹⁴⁹ required states to adopt water quality standards for interstate waters within their borders. These standards had to be approved by the Secretary of Health, Education and Welfare. If this approval was not given, an elaborate procedure was necessary to enforce revisions.¹⁵⁰ Even with approved standards in place, however, little guidance was available to determine levels of discharge to be pro-

143. *United States v. Standard Oil Co.*, 384 U.S. 224 (1966).

144. Ch. 315, 43 Stat. 604, 33 U.S.C. § 431, *repealed by* Act of April 3, 1970, Pub. L. No. 91-224, Title I, § 108, 84 Stat. 113.

145. *See supra* note 3. The Oil Pollution Act was also a response to *United States v. Crouch*, an unreported Circuit Court of Appeals case in 1922, holding that Sec. 13 of the Refuse Act was inapplicable to polluting deposits which did not obstruct navigation. *See United States v. Standard Oil Co.*, 384 U.S. 224, 229, note 5 (1966).

146. S. REP. NO. 66, 68th Cong., 1st Sess.; H.R. REP. NO. 794, 68th Cong., 1st Sess.; *see also Standard Oil*, 384 U.S. at 229 n.5. *See C. Lettow, The Control of Marine Pollution in Federal Environmental Law*, 596, 602 (E. Dolgin & T. Guilbert eds. 1974).

147. The Clean Waters Restoration Act of 1966, 33 U.S.C. § 3432 (3) (Supp. 1967). Act of Nov. 1, 1966, Pub. L. No. 89-753, tit. II, § 211 (a), 80 Stat. 1246, 1252-53. This misconceived statute was cynically labelled Clean Waters Restoration, but was repealed in 1968.

148. Ch. 758, 62 Stat. 1155, 1155-56 (1948), 33 U.S.C. §§ 1251, 1371 (1982).

149. Pub. L. No. 89-234, 79 Stat. 903, 908 (1965) (codified as amended at 33 U.S.C. §§ 1251-1376 (1982)).

150. Water Quality Act, § 6, 79 Stat. 903, 905-906 (1965). *See generally* R. Zener, *The Federal Law of Water Pollution Control in Federal Environmental Law*, 682, 715-19 (E. Dolgin & T. Guilbert eds. 1974); J. Quarles, Jr. (EPA General Counsel), Address before the American Bar Ass'n National Institute, October 26, 1972, 3 Environment Reporter, Current Developments 794 (Nov. 1972).

hibited, or the responsibilities of industrial dischargers to modify their practices.

5. Federal Water Pollution Control Acts (FWPCA) of 1972 and 1977

The intent of the Federal Water Pollution Control Act was to establish a comprehensive plan to clean up oil pollution with a liability scheme attached.¹⁵¹ Liability under FWPCA is imposed, without proof of fault, for the cost of removing an oil spill. Only four defenses are available: act of God; act of war; negligent act of the U.S. government; and acts (or omissions) of third parties.¹⁵² This liability is limited, however, to \$150 per ton of the vessel's gross tonnage up to a maximum amount of \$14,000,000. Evidence of financial responsibility to meet liabilities under FWPCA must be established by vessel operators (over 300 gross tons) using any port or navigable waters of the United States.¹⁵³ Proof of willful negligence or willful misconduct within the privity or knowledge of the owner will result in unlimited liability.¹⁵⁴ This legislation was not intended to deal with private claimants, but only with the United States Government's claims for cleanup of oil spills.¹⁵⁵ Special legislation has

151. Pub. L. No. 92-500 86 Stat. 816 (1972), 33 U.S.C. §§ 1251-1376, amended by the Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566, 1582. A 1970 statute, The Water Quality Improvement Act, Pub. L. No. 91-224, 84 Stat. 91 (1970), had introduced the concept of the government's special cleanup cost recovery. This 1970 statute was amended and reenacted as The Federal Water Pollution Control Act of 1972, which has been described as a comprehensive program for controlling and abating water pollution. *Train v. City of New York*, 420 U.S. 35, 37 (1975). The statute authorized appropriation for a \$35 million revolving fund for cleanup. Destruction of polluting vessels was authorized. 86 Stat. 816, 865-69. A National Contingency Plan for removal of oil spills was to be established. This plan is now memorialized in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. § 300.

152. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816, 867 (codified as amended at 33 U.S.C. § 1321 (1982)). See generally, Healy and Paulsen, *Marine Oil Pollution and the Water Quality Improvement Act of 1970*, 1 J. MAR. L. & COMM. 537 (1970).

153. 33 U.S.C. § 1321(f)(1) (1982).

154. *Id.* See *Tug Ocean Prince, Inc. v. United States*, 584 F.2d 1151, 1164 (2d Cir. 1978), cert. denied, 440 U.S. 959 (1979). The Second Circuit here defined the statutory phrase "willful misconduct within the privity and knowledge of the owner," not elsewhere defined, in terms similar to those already applied to the treaty term "willful misconduct" in the 1929 Warsaw Convention. *Id.* at 1162-63. *Tug Ocean Prince* denied limitation on the entire record. *Id.* at 1163. See also *Steuart Transportation Co. v. Allied Towing Corp.*, 596 F.2d 609, 614 (4th Cir. 1979) where limitation was granted under FWPCA, although denied under the 1851 "global" Limitation of Liability Act, 46 U.S.C. § 183(a) (1982).

155. Costs reimbursable to the government are the actual cleanup expenses by the U.S. Coast Guard. See *United States v. Hollywood Marine, Inc.*, 519 F. Supp. 688, 692 (S.D. Tex. 1981).

While this United States legislation was affected by international developments, it should be noted that the United States is not a party to either of the international conventions on oil pollution liability, or their protocols, despite efforts of the Department of Transportation to achieve ratification in recent years. Earlier opposition centered on the low level of recoveries. The international scheme was prepared in the period 1969-1971 following the disastrous Torrey Canyon oil spill of March, 1967. See, Sweeney, *Oil Pollu-*

also been enacted to deal with the Trans Alaska Pipeline¹⁵⁶ as well as Deepwater Ports.¹⁵⁷

The inclusion of the phrase "water quality standards" in 1965 evinced Congress' implicit acceptance of the idea that use of water for waste disposal was acceptable. The 1972 amendments, however, rejected this doctrine on the ground that no one should expect to be able to pollute.¹⁵⁸ An additional major change in 1972 was the extension of the Act's coverage from "interstate waters," or the historical definition of "navigable waters of the United States," to simply "waters of the United States."¹⁵⁹

The Federal Clean Water Act of 1977¹⁶⁰ amended and reenacted the

tion of the Oceans, 37 FORDHAM L. REV. 155 (1968), and Sweeney, *Environmental Protection by Coastal States: The Paradigm from Marine Transport of Petroleum*, 4 GA. J. INT'L. & COMP. L. 278 (1974).

The present international scheme to compensate private owners for damages to their property caused by an oil spill *and* to compensate governments for clean up expenses involves two tiers of liability: the owners of the transport service (the shipowner) and the cargo owner. The 1969 IMCO Convention on Civil Liability, entered into force on May 6, 1975, is based on fault, with a "reverse" burden of proof: that is, the vessel owner must establish *non-fault*. Defenses are: act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; intentional act of a third party or the negligence or wrongful act of "any Government or other authority responsible for the maintenance of lights or other navigational aids . . ." See *International Convention on Civil Liability for Oil Pollution Damage*, 9 INT'L LEGAL MATERIALS 45, 47-48 (Nov. 29, 1969). Liability is limited, however, to 2000 gold (Poincare) francs per ton of net limitation tonnage (\$134 U.S. as of 1969) with a maximum limit on recovery of 210,000,000 (\$14,000,000 U.S. as of 1969). *Id.*

Opposition to this Convention by the United States and other coastal states led to the 1971 Fund Convention, whereby pollution damages in excess of those covered by the 1969 IMCO Civil Liability Convention, with a maximum recovery of 450,000,000 (\$30,000,000 U.S. as of 1971), can be secured from the Fund if the pollution damage resulted from an incident involving one or more ships. Defenses are an act of war, hostilities, civil war or insurrection. Warships and other non-commercial government vessels are not covered. See *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, (Dec. 18, 1971) 11 INT'L LEGAL MATERIALS 284, 286-87 (1972).

Both Conventions were amended in 1976 to change the unit of account from gold francs to the Special Drawing Right (S.D.R.) of the International Monetary Fund, 15 INT'L LEGAL MATERIALS 499 (1976), and again in 1984 to increase the limitation of liability amounts. 23 INT'L LEGAL MATERIALS 195 (1984).

See generally, Note, *Oil Spills and Cleanup Bills: Federal Recovery of Oil Spill Cleanup Costs*, 93 HARV. L. REV. 1761 (1980); Healy, *International Convention on Civil Liability for Oil Pollution Damage*, 1969, 1 J. MAR. L. & COMM. 317 (1970); Goldie, *Liability for Oil Pollution Disasters: International Law and the Delimitation of Competences in a Federal Policy*, 6 J. MAR. L. & COMM. 303 (1975); Hardy, *International Control of Marine Pollution*, 11 NAT. RESOURCES J. 296 (1971); Greenberg, *IMCO: An Environmentalist's Perspective*, 8 CASE W. RES. J. INT'L L. 131 (1976).

156. 43 U.S.C. §§ 1651-55 (1982).

157. 33 U.S.C. §§ 1501-24 (1982).

158. See S. REP. NO. 92-414, 92d Cong., 1st Sess. 42 (1971) reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS 3668, 3742-43. R. Zener, *supra* note 150, at 694.

159. Federal Water Pollution Control Act, § 502(7), 86 Stat. 816, 886 (codified as amended at 33 U.S.C. § 1362(7) (1982) (extending commerce clause authority to regulate water pollution as broadly as possible).

160. 33 U.S.C. §§ 1251-1376 (1982).

1972 legislation, renaming it the Clean Water Act. The most important change made by the 1977 Amendments was the removal of the maximum liability limit for oil spills.¹⁶¹ The amount of liability for ocean going vessels is now \$150 per ton (minimum \$250,000 for tankers) with no maximum amount, while inland oil barges are liable in the amount of \$125 per ton with a maximum limit of \$125,000.¹⁶² Furthermore, protection of the coastal zones has been extended to 200 miles from the coast, in accordance with new Fisheries legislation and the proposals for the Law of the Sea Convention (III) on the Exclusive Economic Zone.¹⁶³

6. Exclusivity of Federal Remedy

Congressional language concerning other remedies found at several places in the FWPCA leaves in doubt the question whether the statutory remedies under FWPCA are exclusive of traditional remedies either under common law or in Admiralty.¹⁶⁴

Exclusivity of remedy against the polluter for the government's cleanup costs is clear. In *re Oswego Barge Corp.*,¹⁶⁵ there had been an oil spill following a grounding in the St. Lawrence Seaway. The United States spent \$8,062,981 to clean up United States territorial waters, and paid an additional \$768,265 to Canada for Canadian government cleanup expenses. In addition to its claim under FWPCA, the United States made additional claims against the vessel owner under traditional maritime law (tort) and federal common law public nuisance. These claims, however, were dismissed as preempted by FWPCA. The Second Circuit noted the statutory language preserving non-FWPCA remedies against third parties, but felt it would create an anomaly for remedies against owners to be inferred while remedies against third parties were expressly preserved; accordingly, non-FWPCA claims asserted against owners were found to have been preempted.¹⁶⁶

In *M/V Big Sam*,¹⁶⁷ the vessel *Big Sam* collided with a tanker barge causing an oil spill. In addition to a FWPCA claim, the government brought suit against the *Big Sam*'s owner and charterer under both the Refuse Act and maritime tort. The Fifth Circuit held that the remedy provided under FWPCA was not exclusive, and allowed the United

161. 33 U.S.C. § 1321 (P) (1982), reprinted in 1977 U.S. CODE CONG. & ADMIN. NEWS. 4326, 4389.

162. 33 U.S.C. § 1321(f)(1) (1982).

163. 1977 U.S. CODE CONG. & ADMIN. NEWS. 4326, 4390.

164. See, e.g., 33 U.S.C. § 1321 (f)(1) (1982) ("[N]otwithstanding any other provision of law"). See also 33 U.S.C. § 1321(g) (1982) (dealing with third party liability). 33 U.S.C. § 1321(h)(2) (1982) (rights against third parties who caused or contributed to discharges). See generally, Comment, *Federal Water Pollution Control Act - The Federal Government's Exclusive Remedy for Recoupment of Oil Spill Cleanup Costs*, 53 TUL. L. REV. 1421 (1979).

165. *In Re Oswego Barge Corp.*, 664 F.2d 327 (2d Cir. 1981). See also *U.S. v. Dixie Carriers, Inc.*, 627 F.2d 736 (5th Cir. 1980).

166. *Oswego Barge*, 664 F.2d at 341.

167. *United States v. M/V Big Sam*, 681 F.2d 432 (5th Cir.1982).

States to pursue non-FWPCA remedies against (non-discharging) third parties whose actions caused oil spills.¹⁶⁸ In denying rehearing *En Banc*, the Fifth Circuit noted that the statute's distinction between owners and third parties was illogical, but stated that this inconsistency would have to be corrected by Congress.¹⁶⁹

Thus far, cases have dealt with the question of the government's remedy against polluters and the government's remedy against "sole cause" third parties. These cases have introduced confusion into the question of overall liability, and must be addressed in any future revision of the statute.¹⁷⁰ Although seven congresses have considered bills to deal with liability and comprehensive treatment for the oil pollution problem, and two administrations have urged Senate advice and consent to the international treaties, courageous positive action has yet to be taken.

7. Goals of Federal Controls and Practical Administration

Prior to the 1972 and 1977 legislation, there was no effective enforcement of the water quality standards prescribed by the states.¹⁷¹ But in 1972, Congress established a national goal of eliminating polluting discharges into navigable waters by 1985.¹⁷²

In the first of two preliminary stages, to be achieved in 1977, industrial point sources of water pollution were to adopt mitigating measures to meet the standard of the best practicable control technology currently available (BPT).¹⁷³ The second stage, to be met in 1983, set a higher standard: the best available technology economically achievable.¹⁷⁴ Public health concerns led to pollution source limitations with an ample margin of safety; the waters were to be both "fishable" and "swim-

168. *Id.* at 439-40.

169. *Id.* at 438-39.

170. On March 17, 1987, Congressman Jones (D.N.C.), Chairman of the House Committee on Merchant Marine and Fisheries, introduced the Comprehensive Liability and Compensation Response Act of 1987, H.R. 1632, 100th Cong. 1st Sess. (1987), which encompassed a number of the problems that have surfaced in the legislation and the common law in the past 20 years.

In the first place, H.R. 1632 would replace Section 311 of FWPCA, and would "pre-empt" state laws as well as three limited federal pollution funds: The Trans Alaska Pipeline Liability Fund, *supra* note 156; The Deepwater Port Liability Fund, *supra* note 157; and The Outer Continental Shelf Lands Act 43 U.S.C. §§ 1331-56 (1982). Secondly, the statute would establish uniform liability and liability limits which are in line with the 1984 I.M.O. Protocol to the 1969 Civil Liability Convention, and substantially in excess of the 1977 limits in current law.

171. *EPA v. State Water Resources Control Board*, 426 U.S. 200, 202-3 (1976).

172. Federal Water Pollution Control Act Amendments of 1972 § 101(a)(1), 33 U.S.C. § 1251(a)(1) (1982).

173. Federal Water Pollution Control Act Amendments of 1972, § 301(b)(2)(A), 86 Stat. 816, 33 U.S.C. § 1311(b)(1)(A) (1972), amended by Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1583.

174. Federal Water Pollution Act Amendments of 1972, § 301(b)(2)(A), 86 Stat. 816, 33 U.S.C. § 1311(b)(2)(A) (1972), amended by Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1583.

mable."¹⁷⁵ Additionally, the EPA Administrator was directed to develop standards limiting the amounts of toxic substances to be found in waters subject to the statute, beginning with a statutory schedule of substances which was subject to addition at the Administrator's discretion.¹⁷⁶

Section 402 of the statute¹⁷⁷ authorized the EPA Administrator to grant permits for polluting discharges, removing any penalty for polluting up to such limits. This permit scheme is known as the National Pollution Discharge Elimination System (NPDES) — a bureaucratic misnomer whereby permission to pollute waters is granted under the name of pollutant elimination.¹⁷⁸ In granting permits, the Administrator was to consider a schedule of eventual improvements that would enable the polluter to meet the 1977, 1983 and 1985 goals.

In the first five years of the program 42,000 dischargers applied for permits.¹⁷⁹ The EPA Administrator attempted to mitigate the burden of reviewing each of these thousands of applications by establishing regulations for permitted levels of polluting discharges based on industry classification.¹⁸⁰ A major industrial producer, Du Pont Chemical, challenged this action as quasi-legislative and unauthorized under the statute, arguing that each permit request must be evaluated individually.¹⁸¹

Once granted, some have suggested that the permits be viewed as transferable private property.¹⁸² Under this view, a polluter in possession of a permit would be able to sell the permit, or perhaps a portion thereof, to allow others to pollute, much in the same way airlines are able

175. See Federal Water Pollution Control Act Amendments of 1972 § 302, 33 U.S.C. § 1312(a) (1982) (wildlife and recreation uses "in and on" the water).

176. 33 U.S.C. § 1317 (1982), amended by Clean Water Act of 1977, §§ 53(a), (b), 54(a), Pub. L. No. 45-217, §§ 53(a), (b), 54(a), 91 Stat. 1589-91. See generally, Silver, *Problems in Attempting to Translate Statutory Standards into Emissions Limitations Under Air and Water Pollution Control Legislation*, 22 VILLANOVA L. REV. 1122 (1977).

177. 33 U.S.C. § 1342 (1982).

178. See generally, Arnold, *Effluent Limitations and NPDES: Federal and State Implementation of the Federal Water Pollution Control Act Amendments of 1972*, 15 BOS. COLL. INDUSTRIAL & COMMERCIAL L. REV. 767 (1974); Davis & Glasser, *The Discharge Permit Program Under the Federal Water Pollution Control Act of 1972 - Improvement of Water Quality Through the Regulation of Discharges from Industrial Facilities*, 2 FORD. URB. L.J. 179 (1974); R. Hall, *The Evolution & Implementation of EPA's Regulatory Program to Control the Discharge of Toxic Pollutants to the Nation's Waters*, 10 NAT. RES. LAWYER 507 (1977); Hall, *The Clean Water Act of 1977*, 11 NAT. RES. LAWYER 343 (1978). There is no similar provision for air pollution.

179. See *E.I. DuPont de Nemours & Co. v. Train*, 430 U.S. 112, 132 (1977).

180. 430 U.S. at 122. Current regulations may be found in 40 C.F.R. § 125 (1987).

181. 430 U.S. at 132-33. Although the statutory language was unclear on this point, the Supreme Court held that the decision of the EPA Administrator to issue a legislative type of regulation was reasonable in view of the "impossible burden" of individual adjudications. *Id.*

182. See Rose-Ackerman, *Market Models for Water Pollution Control*, 25 Public Policy 383, 387-89 (1977); R. DeLucia, *An Evaluation of Marketable Permit Systems*, EPA Socioeconomic Environmental Series No. EPA-60015-74-030 (1974); J. Dales, *Pollution, Property and Prices*, 77-100 (1968).

to sell landing rights (slots) at very busy urban airports.¹⁸³

In February, 1987, Congress passed, over President Reagan's veto, a revived and amended Water Quality Act¹⁸⁴ designed to expand and strengthen the original Clean Water Act of 1977, and to commit additional resources to this vital task.

B. Air

1. Early Congressional Attempts at Air Pollution Control

Visible air pollution first attracted public attention in 1955, after it was clearly understood that automobile emissions created the infamous smog of Los Angeles. Non-stationary sources (such as automobiles) produce carbon monoxide, nitrogen oxide, hydrocarbons and particulates which, after complex chemical processes, produce smog. Stationary sources (such as power plants and industrial processes) release sulfur oxides, nitrogen oxides and particulates into the atmosphere that are not always visible; therefore, political priority was awarded to non-stationary source pollutants and regulation of stationary sources came more gradually.

The first federal legislation involving the air quality of the nation was the Air Pollution Control - Research and Technical Assistance Act of 1955.¹⁸⁵ This act provided financial assistance to states which sought to control air pollution, but did not require states to take any action. The Clean Air Act of 1963¹⁸⁶ entailed minimal federal intervention through the Secretary of Health, Education and Welfare, by means of financial assistance, research and development, where interstate air pollution was found.¹⁸⁷ In 1965, minimal controls with federal enforcement machinery were introduced for new model automobiles.¹⁸⁸ The Air Quality Act of 1967¹⁸⁹ authorized Federal officials to enforce state air pollution standards after notification, and a 180-day grace period permitting state ac-

183. See generally, Trumbull, Federal Control of Stationary Source Air Pollution, 2 Ecology L.Q. 283 (1972). Similar arguments are made respecting "rights to emit" caused by new and unused emission reduction credits which may be "banked" for future use under the Clean Air Act, 42 U.S.C. § 7473(c) (1982).

184. The bill, S. 1128, had passed in both the Senate and House by unanimous votes. See 132 CONG. REC. H. 10,532 (daily ed. Oct. 15, 1986). On November 6, 1986, President Reagan pocket vetoed legislation expanding and strengthening the Clean Water Act, the Water Quality Act of 1986, stating: "Unfortunately, this bill so far exceeds acceptable levels of intended budgetary commitments that I must withhold my approval."

Congress overrode the Presidential veto with a vote of 86 to 14 in the Senate, 133 CONG. REC. S.1708 (daily ed. Feb. 4, 1987) and a vote of 401 to 26 in the House, 133 CONG. REC. H.525-26 (daily ed. Feb. 3, 1987).

185. Pub. L. No. 84-159, 69 Stat. 322 (1955).

186. Pub. L. No. 88-206, 77 Stat. 392 (1963).

187. *Id.* The policy was to encourage municipal, state and interstate action to abate air pollution. Automotive emissions were gently treated by encouragement of research with annual reports to Congress by the Secretary of Health, Education and Welfare.

188. Pub. L. No. 88-206, 77 Stat. 392. See also Green, *State Control of Interstate Air Pollution*, 33 LAW & CONTEMP. PROB. 315 (1968).

189. Pub. L. No. 90-148, 81 Stat. 485 (1967).

tion to achieve compliance.¹⁹⁰

Because the environmental and health effects of the atmospheric release of toxic pollutants are not yet fully understood, there have been, and continue to be disagreements as to the quantities which can be safely absorbed by society for its economic welfare. Even after the deleterious effects of air pollution on human health were acknowledged, the business community resisted pressures to bow to environmental concerns in making its decisions. This was due to the substantially higher costs that such compliance entailed: for the stationary source it would mean new methods of filtering, washing and electrostatic action, instead of the traditional smokestack; for the non-stationary source it would mean new fuel sources or more efficient internal combustion engines. Thus, the cost-benefit analyses typically utilized in business decisions involving air pollution issues impeded the regulatory process. For example, the mandated reduction of non-stationary source pollutants economically challenged the American automobile industry which was already in trouble because of foreign competition.

By 1970, the EPA listed National Ambient Air Quality Standards (NAAQS) for seven pollutants: total suspended particulates (TSP), sulfur oxides, carbon monoxide, nitrogen dioxide, ozone hydrocarbons and lead. Thus these became the principal concern of EPA, awaiting further research on other pollutants of the clean air.

Later that year, Congress significantly amended the Clean Air Act¹⁹¹ by imposing a requirement that states meet air quality standards to be established under the Act within specified periods.¹⁹² The statutory

190. *Id.* See also, Middleton, *Summary of the Air Quality Act of 1967*, 10 ARIZ. L. REV. 25 (1968).

191. Pub. L. No. 91-604, 84 Stat. 166 (1970), 42 U.S.C. §§ 1857-1858a (1970) (amended 1977).

192. See Pub. L. No. 91-604, §§ 111-112, 84 Stat. 1676, 1683-86 (1970) (introducing new regulations of new stationary sources and new national emission standards for hazardous air pollutants). Section 113 of this Act deals with enforcement actions. 84 Stat. 1676, 1686.

The idea of National Standards for Air Quality was once considered to be a radical departure from states' rights. Under the 1967 Act (Pub. L. No. 90-148, 81 Stat. 485) States were to establish ambient air standards *within* air quality regions and to develop plans to attain or implement the standards. *Ambient Air Quality* generally means the amount of pollution in the atmosphere of an area over time, usually "parts per million." See National Air Pollution Control Administration (H.E.W.), *Guidelines for the Development of Air Quality Standards and Implementation Plans* (May, 1969). While "parts per million" has the ring of scientific accuracy it also has the vagueness preferred by industry and administrators as to whether over-all goals have been met. For a criticism of the 1967 procedures, see J. Esposito, *Vanishing Air*, 152-181 (1970), a report for Ralph Nader's Center for the Study of Responsive Law. The National Air Pollution Control Administration (of H.E.W.) was to determine "air quality control regions" based on meteorological and topographical data, but the fixing of a maximum allowable release of pollutants into the air was to be achieved by the states. The frustrations and failures of the procedure in individual cases are amply demonstrated in *United States v. Bishop Processing Co.*, 287 F. Supp. 624 (D. Md. 1968), *aff'd*, 423 F.2d 469 (4th Cir. 1970) *cert. denied*, 398 U.S. 904 (1970) which concerns a twenty year struggle against noxious gases

changes were made necessary by the failure of states to act under the earlier provisions. Congress also provided that new stationary sources of pollution could not exceed the national standard,¹⁹³ and that when old stationary sources were modified by any physical changes,¹⁹⁴ or by changes in the method of operation which increased emissions of pollutants,¹⁹⁵ then the old stationary sources were required to meet the new national standard.¹⁹⁶

2. The Federal Clean Air Act Amendments of 1977

Under The Federal Clean Air Act Amendments of 1977,¹⁹⁷ the earlier statutes were completely revised and the entire package codified as Air Pollution Prevention and Control. The amendments required the EPA Administrator to establish NAAQS,¹⁹⁸ to protect public health and public welfare *free* of a consideration of the difficulties incurred in complying with the standards.¹⁹⁹ However, the EPA Administrator could consider such economic and technological difficulties with respect to the timetable

and odors emitted by a rendering and animal reduction plant. The 1970 statute reserves primary responsibility for assuring air quality to the states (42 U.S.C. 7407(a) (1982)), EPA has become the "legislator" for stationary and non-stationary source pollutants under its authority to determine standards.

193. Pub. L. No. 91-604, § 111(d), 84 Stat. 1676, 1684 (1970) (codified as amended at 42 U.S.C. § 7411(d) (1982)).

194. Pub. L. No. 91-604, § 111(a)(2)-(4), 84 Stat. 1676, 1683 (1970).

195. *Id.* § 111(a)(4).

196. *Id.* § 111(e); *see also id.* § 112(c).

197. Pub. L. No. 95-95, 91 Stat. 685 (1977) (codified as amended at 42 U.S.C. §§ 7401-7626 (1982)).

198. 42 U.S.C. § 7409(a) (1982).

199. 42 U.S.C. § 7408(a). Under the statutory formula in 42 U.S.C. § 7409(b) (1982), primary NAAQS are requisite to protect public health, with an adequate margin of safety, 42 U.S.C. § 7409(b)(1), whereas secondary NAAQS are requisite to protect the public welfare, 42 U.S.C. § 7409(b)(2).

States are to respond to NAAQS with *State Implementation Plans* (SIP), adopted after notice and a hearing. Primary NAAQS were to be attained within 3 years from approval of the SIP, whereas secondary NAAQS were to be attained within a reasonable time. 42 U.S.C. § 7410(a)(2)(A) (1982).

Congress also dealt with state inadequacies by vesting the EPA Administrator with the authority to amend SIPs to insure compliance with NAAQS. 42 U.S.C. § 7410(c)(1). *See also* 42 U.S.C. § 7413(a)(2).

Approved SIPs may be enforced in state or federal court. 42 U.S.C. § 7413 (1982).

EPA remains free to correct its own earlier interpretations of the complex statutory formulae. *See* *Montana Power Co. v. EPA*, 608 F.2d 334 (9th Cir. 1975).

Since states have considerable discretion in the definition of stationary sources for the purpose of SIPs, there has arisen the concept of "*Bubbles*," whereby new construction which might increase emissions to an impermissible level can still be approved if reductions in emissions elsewhere in the operation are achieved by closing already approved facilities. Despite policy disagreements in the circuits (*ASARCO, Inc. v. EPA*, 578 F.2d 319 (D.C. Cir. 1978); *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979); *Natural Resources Defense Council, Inc. v. Gorsuch*, 685 F.2d 718 (D.C. Cir. 1982)), the Supreme Court has given broad approval to the Bubble Concept; *see, e.g., Chevron USA, Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

for compliance.²⁰⁰ In other words, cost—benefit analysis is relevant to the—question of the timetable by which NAAQS are to be achieved, but not to setting the standards themselves.²⁰¹

The NAAQS have precipitated a number of problems in the area of automobile emissions regulation.²⁰² In contrast to the approach of the New York courts in *Boomer*,²⁰³ which did not order defendants to alter their mode of operation and cease polluting due to the belief that the technology involved would not improve, Congress attempted to force technological change in the automobile industry.²⁰⁴ The 1970 Act required that then permissible exhaust emissions of hydrocarbons and carbon monoxide be reduced by 90% by the 1975 model year.²⁰⁵ The 1975 model year emission reduction requirement could be suspended by the EPA for one year if "effective control technology, processes, operating methods or other alternatives [were] not available or [had] not been available for a sufficient period of time. . . ."²⁰⁶ This suspension was granted to the industry in 1973.²⁰⁷ By 1974, Congress had relented on its

200. 42 U.S.C. § 7410(e) (1982).

201. In *Union Electric Co. v. EPA*, 427 U.S. 246, *reh. denied* 429 U.S. 873 (1976), state enforcement actions were approved in a setting to encourage state authority to grant special treatment by variances. (Variances granted by state environmental agencies are subject to EPA approval and are considered to be revisions of an SIP under 42 U.S.C. § 7410(a)(3)(A) (1982)). Missouri's SIP included emission limits on sulfur dioxide which would have forced technological changes on coal burning energy generation by St. Louis Union Electric Co. which, the utility claimed, were economically and technologically infeasible and invalid under 42 U.S.C. § 7410 as *not* practicable or reasonable. The EPA Administrator had approved the SIP so that the argument that states were not permitted to impose technological change on their own initiative in violation of federal uniformity was not appropriate. In its opinion, however, the Supreme Court's support for EPA approval of the Missouri SIP was based on the idea that infeasibility for economic or technological reasons was *not* part of the factors to be considered by EPA on a state SIP. 427 U.S. 246. Thus, states are to be free to select the *political* mixture of types of controls to achieve the NAAQS standards. For EPA disapproval of an SIP, *see Kennecott Copper Corp. v. Train*, 526 F.2d 1149 (9th Cir. 1975), *cert. denied*, 425 U.S. 935 (1976). (Nevada SIP). As a result of this decision Congress added a so-called "tall stacks" provision to 42 U.S.C. § 7423 (1982). Further protections for industry are found in 42 U.S.C. § 7413(d).

202. The first federal concern with automobile exhaust emissions came in the 1963 Amendments. Pub. L. No. 88-206, § 6, 77 Stat. 392 (1963), concerned with research and development only, but in 1970 automobile exhaust emissions were drastically controlled for the first time. Pub. L. No. 91-604, § 202(b), 84 Stat. 1676 (1970), 42 U.S.C. § 1857 (1970) (amended 1977), beginning with mandated reductions of hydrocarbons and carbon monoxide in exhaust emissions.

203. *Boomer v. Atlantic Cement Co., Inc.*, 26 N.Y.2d 219, 309 N.Y.S.2d 312, 257 N.E.2d 870 (1970). *See supra* notes 53-60.

204. *See International Harvester Co. v. Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973).

205. Pub. L. No. 91-604, § 202(b), 84 Stat. 1676, 1690 (1970), 42 U.S.C. § 1857(f)(i) (1970) (amended 1977).

206. *Id.* § 6(a), 84 Stat. 1676, 1692 (1970). For a critical view, *see Currie, Relaxation of Implementation Plan Under the 1977 Clean Air Act Amendments*, 78 MICH. L. REV. 155 (1979).

207. The 1972 auto industry application for the suspension of the 1975 model year deadline was denied by the EPA Administrator because he could not certify at that time that the technology was unavailable, and in fact predicted that the technology would be

1975 goals by permitting the EPA Administrator to extend the 1975 deadline to 1977 on proof of a good faith attempt to comply with the 1975 standards.²⁰⁸

Regarding the 1977 Act's 1983 goal of limiting pollution sources by the "best available technology economically achievable,"²⁰⁹ Congress actually relaxed the earlier requirements by enacting several revisory measures.²¹⁰ The 1983 deadlines for toxic pollutants were extended on the condition that the best available emission control technology, taking into account the costs of compliance, be employed.²¹¹ The deadline was simi-

available by the 1975 model year. *See International Harvester Co. v. Ruckelshaus*, 478 F.2d 615 (D.C. Cir. 1973). The EPA's unexplained assumptions underlying predictions of available technology were remanded for further review. The practical consideration was the unfairness to complying manufacturers of last minute Congressional absolution of non-complying manufacturers. 478 F.2d 615. In 1973 the EPA Administrator granted the suspension.

208. Pub. L. No. 93-319, § 5, 88 Stat. 258 (1974). The EPA Administrator extended the suspension in 1975 but new legislation, the Clean Air Act Amendments of 1977, revised the provisions. *See* Title II, Pub. L. No. 95-95, §§ 201-226, 91 Stat. 751-769 (1977) (codified as amended at 42 U.S.C. §§ 7401-7626 (1982)). The "escape hatch" of the 1977 legislation for new motor vehicles now provides (42 U.S.C. § 7521(a)(3)(C)):

"Action revising any standard for any period may be taken by the Administrator under subparagraph (B) only if he finds-

- (i) that compliance with the emission standards otherwise applicable for such model year cannot be achieved by technology, processes, operating methods, or other alternatives reasonably expected to be available for production for such model year without increasing cost or decreasing fuel economy to an excessive and unreasonable degree; and (ii) the National Academy of Sciences has not, pursuant to its study and investigation under subsection (c) of this section, issued a report substantially contrary to the findings of the Administrator under clause (i)."

Respecting carbon monoxide, hydrocarbons and nitrogen oxides, "escape hatch" waiver provisions are found in 42 U.S.C. § 7521(b)(5)(C):

"... The Administrator may grant such waiver if he finds that protection of the public health does not require attainment of such 90 percent reduction for carbon monoxide for the model years to which such waiver applies in the case of such vehicles and engines and if he determines that-

- (i) such waiver is essential to the public interest or the public health and welfare of the United States;
- (ii) all good faith efforts have been made to meet the standards established by this subsection;
- (iii) the applicant has established that effective control technology, processes, operating methods, or other alternatives are not available or have not been available with respect to the model in question for a sufficient period of time to achieve compliance prior to the effective date of such standards, taking into consideration costs, driveability and fuel economy; and
- (iv) studies and investigations of the National Academy of Sciences conducted pursuant to subsection (c) of this section and other information available to him has not indicated that technology, processes, or other alternatives are available

See also 42 U.S.C. § 7521(b)(6)(A) and (B) for nitrogen oxide waivers.

209. 42 U.S.C. § 7521(a)(3)(A)(iii) (1982).

210. Pub. L. No. 95-95, § 109, 91 Stat. 685, 697 (1977) (codified as amended at 42 U.S.C. § 7411(g) (1982)). The categories were revised to be: toxic pollutants, conventional pollutants and non-conventional (i.e., unclassified) pollutants.

211. 42 U.S.C. § 7521(a)(3)(A)(i) (1982).

larly extended for conventional pollutants on the condition that polluters employ the best system of continuous emission reduction.²¹²

These new categories and the new standard are to be determined using cost-benefit analysis.²¹³ That is, the cost of attaining a reduction in effluents is to be compared with the benefits derived from such a reduction. Considerable litigation has been brought by industry groups regarding the methods of weighing various factors in a cost-benefit analysis. For example, in *EPA v. National Crushed Stone Ass'n*,²¹⁴ the Supreme Court sustained the Agency's cost-benefit analysis under the best practicable technology standard²¹⁵ against attack by the industry, which tried to impose its views of a proper cost-benefit analysis on the Agency.²¹⁶

In addition to legislative relaxation of emission standards, there has arguably been a further reduction in the efficacy of these standards through a retroactive interpretation by the EPA of fuel efficiency under the Automobile Fuel Efficiency Act of 1980.²¹⁷ Under the Act, the already permissive standards for auto manufacturers were to be applied to an entire "sales fleet" of models on a "sales weighted" basis, rather than to each specific model in a manufacturer's line for a particular year.²¹⁸ The standard was referred to as the "CAFE" (Corporate Average Fuel Economy). Penalties to be imposed annually by the Department of Transportation were fixed at \$5.00 per tenth of a mile by which the CAFE exceeded the target fuel economy, multiplied by the number of cars in the manufacturer's sales fleet.²¹⁹ These new factors might reduce manufacturers' potential liability by permitting them to apply subsequent fuel economy improvements to unsatisfactory results as a three year "carry forward" or "carry back."²²⁰

Congress provided additional discretion to the EPA in the development of the fuel economy tests after 1975. Congress authorized the EPA to develop procedures which would be more accurate or easier to administer than the 1975 model year tests provided in the statute,²²¹ although such revised or substituted provisions were required to yield "compara-

212. 42 U.S.C. § 7411(a)(1)(C) (1982).

213. The 1977 Clean Air Act Amendments in 42 U.S.C. § 7617 (1982) require the EPA Administrator to prepare an "economic impact assessment" before adoption of new or revised standards, analyzing costs of compliance, inflation, competition costs to consumers and energy use.

214. 449 U.S. 64 (1980).

215. *Id.* at 76-77.

216. 449 U.S. 64. Plaintiffs requested variances from the Standard granted to them based on financial inability to adopt the measures required. *Id.*

217. Pub. L. No. 96-425, 94 Stat. 1821, amending the Motor Vehicle Information and Cost Savings Act of 1972, Pub. L. No. 92-513, 86 Stat. 947 as amended by Pub. L. No. 94-163, 89 Stat. 871, 901 (1975).

218. 15 U.S.C. § 2003(a) (1982).

219. 15 U.S.C. § 2008(b)(1) (1982) (characterized as the "Gas Guzzler" tax).

220. 15 U.S.C. § 2002(e).

221. 15 U.S.C. § 2003(d)(1).

ble" results.²²²

In 1979 Ford and General Motors challenged the testing procedures administered after 1975 by the EPA, asserting that the test results under the revised procedures were flawed since their measured fuel economies for those years were worse than that of the 1975 model year.²²³ The Sixth Circuit's response required the EPA to develop procedures to establish an adjustment factor for current test results, in order to determine the CAFE. Under the Sixth Circuit's order, the EPA was to determine which specific test procedures should be adjusted, and how great those adjustments should be; accordingly, the EPA's new rule, promulgated after three and a half years of study, granted "manufacturer-specific CAFE adjustments" to compensate for the adverse impact of the post-1975 changes in test procedures.²²⁴

The EPA also established regulations to determine the CAFE effects of future procedural changes in testing, including a prospective change effecting 1987 model year vehicles with over 6200 accumulated miles.²²⁵ Essentially these new formulae would yield higher fuel economy ratings for Ford and GM, thereby reducing the financial penalties for their failure to meet the standards by the required deadline. Restating this proposition unfairly, the community can get clean air only through financial sacrifice by consumers.

In challenging the EPA's new rule, the Center for Auto Safety successfully argued that the EPA's retroactive CAFE adjustments were applied only in a manner which was favorable to the manufacturers' position.²²⁶ The Court disapproved of the EPA's refusal to make retroactive negative adjustments; accordingly, the EPA decision to apply the CAFE adjustments only to cars with higher mileage accumulation limits was reversed and remanded.²²⁷

The consequences of repeated postponements of auto emission controls can be seen and felt in the skies above American cities. A December, 1985 EPA study noted that although the Clean Air Act sets a maximum

222. 15 U.S.C. § 2003(d)(1) reads in part, "Procedures so established with respect to passenger automobiles (other than for purposes of Section 2006 of this title) shall be the procedures utilized by the EPA Administrator for model year 1975 (weighed 55 percent urban cycle and 45 percent highway cycle), or procedures which yield comparable results."

223. *General Motors Corp. v. Costle*, 698 F.2d 1219 (6th Cir. 1982).

224. 50 Fed. Reg. 27,172 (1985), codified in 40 C.F.R. Part 600 (1987) (Fuel Economy of Motor Vehicles).

225. 50 Fed. Reg. 27,180-181.

226. *Center for Auto Safety v. Thomas*, 806 F.2d 1071, 1074 (D.C. Cir. 1986). The test procedure changes involved distance measurement, inertia weight categories, dynamometer controllers, laboratory humidity, exhaust gas samplers, test dual properties and energy-efficient oils. *Id.*

227. *Id.* at 1076. The Center for Auto Safety had argued, and it was conceded, that if adjustments in road load power settings and mileage accumulation limits had been made retroactively, they would have negated the manufacturers' gains from the CAFE adjustments already authorized by the EPA.

allowable carbon monoxide level of *nine* parts of carbon monoxide molecules per million molecules of air, Los Angeles has 27.4 parts per million, Denver has 24.0, Phoenix has 20.3, Newark has 17.7, New York City has 16.0, Minneapolis-St. Paul has 14.7, Boston has 14.1, Baltimore has 13.9, Washington has 13.8, and Chicago has 13.3.²²⁸

The failures recorded above demonstrate that tougher legislation and tougher administration are required. Non-complying cities were supposed to suffer losses in federal highway funding after a December 31, 1987 deadline. It appears that an additional seventy-three communities will join the seventy-one communities already supposedly penalized for failure to comply, or even to demonstrate a "good faith" effort to comply, with EPA standards. The economic considerations which dictated that present day automobiles need not have improved fuel efficiency may eventually force limits on the number of future automobiles to be manufactured or sold or operated in the United States.

C. Noise Control

In the public mind, the concept of noise control has always been associated with the problem of airport noise.²²⁹ Private citizen action against jet noise at airports is impractical because of the very narrow scope of relief in the traditional over-flight action,²³⁰ and the impossibility of win-

228. N.Y. Times, April 12, 1987, § 4, at 26E, col. 1. The deadline for compliance was Dec. 31, 1987. See 42 U.S.C. § 7502(a) (1982).

Sanctions for failure to meet approved SIPs include limits on the construction of major new stationary sources (42 U.S.C. § 7410(a)(2)(I)) and restrictions on federal assistance to all manner of projects except those dealing with safety, mass transit and transportation projects related to air quality improvement. 42 U.S.C. § 7506. This would appear to target highway construction.

229. Airport runways have been extended to accommodate commercial jet aircraft the noise of which (especially prior to take-off) is of a different volume and intensity than that produced by propeller driven aircraft. Accompanying the technology change in the aviation industry has been the expansion of city suburbs to border the newly expanded airports. The transformation of commercial aviation to jets was accomplished in the period from 1959 to 1962.

230. See *Batten v. United States*, 292 F.2d 144 (10th Cir.1961), modified in 306 F.2d 580 (10th Cir. 1962), cert. denied 371 U.S. 955. See also *City of Newark v. Eastern Airlines*, 159 F. Supp. 750 (D.N.J. 1958); Harvey, *Landowners Rights in the Air Age: The Airport Dilemma*, 56 MICH. L. REV. 1313 (1958).

Where there has been direct overflight which "enters the close" of the landowner, thereby destroying his livelihood, the Supreme Court has created a remedy by Inverse Condemnation; the nearby federal airport is required to extend its land takings by eminent domain to include the complainant's land. See *United States v. Causby*, 328 U.S. 256 (1946). The remedy has been extended to cases involving airports owned by municipalities. See *Griggs v. Allegheny County*, 369 U.S. 84 (1962) and *Baker v. Burbank-Glendale-Pasadena Airport Authority*, 39 Cal.3d 862, 218 Cal. Rptr. 293, 705 P.2d 866 (1985), cert. denied, 475 U.S. 1017 (1986). See also Carroll, *Airport Noise Pollution Damages*, 15 Urb. 621 (1983).

State constitutions may go beyond land takings so as to require state governments to compensate for damage which did not involve "taking" or overflight. See *Alevizos v. Metropolitan Airports Comm'n*, 298 Minn. 471, 216 N.W.2d 651 (1974). See also *Martin v. Port of Seattle*, 64 Wash.2d 309, 391 P.2d 540 (1964), cert. denied 379 U.S. 989 (1965);

ning the social utility analysis of a nuisance action.²³¹ Accordingly, efforts moved from the courts into the political arena when local ordinances attempted to limit jet operations.²³² The Supreme Court, however, has held that federal preemption will make it impossible for the local community or even the state to control commercial jet aircraft as *sovereigns*.²³³ The question of the authority of the municipality to regulate as *landlords* of the airport²³⁴ has not been definitely determined by the Supreme Court, but it appears that the landlord status may not be abused so as to impede federal power under the Commerce Clause.²³⁵

The Federal Aviation Agency (FAA),²³⁶ created in 1958 to succeed to the aviation safety responsibilities of the Civil Aeronautics Authority, proceeded slowly and cautiously in addressing airport noise. A 1966 Report of the Jet Aircraft Noise Panel²³⁷ concluded that solutions could only come from the federal government, a source supposedly not compromised by economic interests.²³⁸ It was not until 1968 that a compro-

Thornburg v. Port of Portland, 233 Or. 178, 376 P.2d 100 (1962); Baker v. Burbank - Glendale - Pasadena Airport Auth., 39 Cal.3d 862, 218 Cal.Rptr. 293, 705 P.2d 866 (1985), *cert. denied*, 475 U.S. 1017 (1986); Greater Westchester Homeowners Ass'n v. City of Los Angeles, 26 Cal.3d 86, 160 Cal.Rptr. 733, 603 P.2d 1329 (1979), *cert. denied*, 449 U.S. 820 (1980); Nestle v. City of Santa Monica, 6 Cal.3d 920, 101 Cal.Rptr. 568, 496 P.2d 480 (1972).

231. *See generally*, Hyde v. Somerset Air Service, 1 N.J.Super. 346, 61 A.2d 645 (1948); Atkinson v. Bernard, 223 Or. 624, 355 P.2d 229 (1960). *See also* Thornburg v. Port of Portland, 244 Or. 69, 415 P.2d 750 (1966) (an appeal on rehearing of the action in note 230 *supra*); Loma Portal Civic Club v. American Airlines, Inc., 61 Cal.2d 582, 39 Cal.Rptr. 708, 394 P.2d 548 (1964) (public policy against enjoining aircraft operations). *Cf.* Long v. City of Charlotte, 306 N.C. 187, 293 S.E.2d 101 (N.C. 1982); Drybread v. City of St. Louis, 634 S.W.2d 519 (Mo. Ct. App. 1982).

232. Allegheny Airlines, Inc. v. Village of Cedarhurst, 238 F.2d 812 (2d Cir. 1956) (ordinance forbidding overflight at less than 1,000 feet unconstitutional); American Airlines, Inc. v. Town of Hempstead, 398 F.2d 369 (2d Cir. 1968), *cert. denied*, 393 U.S. 1017 (1969) (ordinance controlling noise). *See also* Town of East Haven v. Eastern Airlines, 331 F.Supp. 16 (D. Conn. 1971); *Supplementary Opinion*, 333 F. Supp. 338 (D. Conn. 1971), *aff'd* 470 F.2d 148 (2d Cir. 1972), *cert. denied* 411 U.S. 965 (1973).

233. City of Burbank v. Lockheed Air Terminal, Inc., 411 U.S. 624 (1973). *See also* Krueger v. Mitchell, 112 Wis.2d 88, 332 N.W.2d 733 (1983).

234. *See* Port of New York Authority v. Eastern Air Lines, Inc., 259 F. Supp. 745 (E.D.N.Y. 1966); *Cf.* San Diego Unified Port District v. Gianturco, 457 F. Supp. 283 (S.D. Cal. 1978), *aff'd*, 651 F.2d 1306 (9th Cir. 1981), *cert. denied*, 455 U.S. 1000 (1982). *See also* Air Transport Ass'n v. Crotti, 389 F. Supp. 58 (N.D. Cal. 1975).

235. British Airways Board v. Port Authority of New York and New Jersey, 564 F.2d 1002 (2d Cir. 1977). *See supra* note 42.

236. Federal Aviation Act of 1958, Pub. L. No. 85-726, 72 Stat. 731 (1958).

237. The President's Office of Science and Technology was directed to prepare a program for the control of aircraft noise by President Johnson in 1965. In 1966 the Office published its report, "Alleviation of Jet Aircraft Noise Near Airports" Office of Science and Technology (1966), General Conclusion.

238. *Id.* Conclusion 4. The perceived noise level in decibels (PNdB) at levels below 90 did not produce complaints at the Los Angeles International Airport, while many complaints were made when the noise was above the 105 PNdB level. (Conclusion 5). The Port of New York Authority had concluded in 1964 that the maximum noise level on the ground for take-off would be 112 PNdB. Port of New York Auth. v. Eastern Airlines, Inc., 259 F. Supp. 745 (E.D.N.Y. 1966). *See also* Werlich & Krinsky, *The Aviation Noise*

mise satisfactory to the elements of the aviation industry — the carriers, the composite aircraft manufacturers and the jet engine and other component manufacturers — was achieved.²³⁹ By January, 1969, the FAA had authored Noise Control Regulations.²⁴⁰

In 1972, Congress enacted the Federal Noise Control Act,²⁴¹ which provided that the EPA Administrator research the aircraft noise problem and deliver a Report to Congress by July of 1973.²⁴² In response to the Report, amendments to the FAA statute were enacted whereby, after consultation between the EPA and the FAA, regulations promulgated by the FAA would provide for the control and abatement of aircraft noise and sonic booms.²⁴³

An important case concerning Federal preemption in noise regulation is *City of Burbank v. Lockheed Air Terminal, Inc.*²⁴⁴ The City of Burbank adopted a curfew ordinance applicable to the Hollywood-Burbank Airport forbidding the take-off and landing of jet aircraft between 11 p.m. and 7 a.m. The Supreme Court held the curfew ordinance to be unconstitutional.²⁴⁵ No express preemption existed,²⁴⁶ but the pervasive nature of Federal regulation of aircraft noise (including the 1972 Federal Noise Control Act) led to the conclusion of preemption. There was no room for local curfews or other local controls because the many factors being considered by the Administration required a uniform and exclusive system of federal regulation.²⁴⁷

Abatement Controversy: Magnificent Laws, Noisy Machines and the Legal Liability Shuffle, 15 LOY. L.A.L. REV. 69 (1981).

239. Control and Abatement of Aircraft Noise and Sonic Boom Amendment to the Federal Aviation Act of 1958, Pub. L. No. 90-411, 82 Stat. 395, 49 U.S.C. app. § 1431 (1968). See Larsen, *Improving the Airport Environment: Effect of the 1969 FAA Regulation on Noise*, 55 IOWA L. REV. 808 (1970). A new section 611 K permitted revocation of airworthiness certificates under criteria of economic reasonableness, technological practicability and appropriateness. 14 C.F.R. § 36.5.

240. 14 C.F.R. § 36. See also Noise Pollution and Abatement Act of 1970, 49 U.S.C. §§ 1854-1858 (1964).

241. Noise Control Act of 1972, Pub. L. No. 92-574, 86 Stat. 1234, 42 U.S.C. §§ 4901-4918 (1982).

242. *Id.* § 4904.

243. *Id.* 14 C.F.R. § 36. EPA and FAA collaboration may be illustrated by the 1977 Amendments to the FAA Aircraft Noise Standards, 42 Fed.Reg. 12, 360 (1977).

244. *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624 (1973). In *Lockheed Air Terminal v. City of Burbank*, 318 F. Supp. 914 (C.D. Cal. 1970), the District Court ruled in a declaratory judgment that the ordinance was unconstitutional and enjoined enforcement. The Court of Appeals affirmed because the *field* had been preempted by Congress, and the particular ordinance directly conflicted with an F.A.A. order concerning runway use. 457 F.2d 667 (9th Cir. 1972). The *Burbank* case should be compared with *Askew v. American Waterways*, 411 U.S. 325 (1973). See *supra* note 34. Justice Douglas, here the federalist and author of the 5-4 majority decision, had in that term refused, as a naturalist, to interfere with local regulation to protect the environment in the unanimous decision in *Askew*.

245. 411 U.S. at 633. *Accord* *Northwest Airlines v. Minnesota*, 322 U.S. 292, 303 (1944).

246. 411 U.S. at 639-40.

247. *Id.* at 652. The dissent of Justice Rehnquist found preemption only in the regula-

Although the FAA and the EPA were concerned with the peripheral problems of runway use and curfews, the central problem of noisy first generation jet aircraft, built under earlier airworthiness certificates, was by-passed. Finally in December, 1976, the FAA, encouraged by President Ford and Secretary of Transportation William T. Coleman, promulgated rules to solve the problem.²⁴⁸ The years of the Carter Administration were devoted to the de-regulation of the domestic commercial aviation industry. Proposals to force technological change on noise levels were mixed with cost-benefit analyses of the retrofit change and various schemes to fund it.²⁴⁹ Finally, at the beginning of the 1980 Election Year, Congress enacted and President Carter approved the 1980 Airport Safety and Noise Abatement Act.²⁵⁰

The Act is replete with compromises and special interest protections, but it encourages local proprietors to devise solutions to the noise problem by means of grants of federal money for noise abatement, and the publication of Noise Exposure Maps.²⁵¹ As the present fleet of noisy jet aircraft are phased out we may well see a reduction in airport noise in the 1990's and its elimination in the new century. Public attention is now directed to the economic distress of the aviation industry — the direct result of deregulation, rather than to the noise problem. However, the noise pollution concerns of the United States government have resulted in the beginning of international efforts to deal with the airport noise problem.²⁵²

tion of aircraft *in flight* in the 1958 and 1968 legislation but not over the ground space of airports and states that the 1972 legislation clearly intended to maintain the status quo. 41 Fed.Reg. 56016-56 (Dec. 23, 1976) incorporated in 14 C.F.R. §§ 91.301-91.311. See Comment, *Current State of the Law in Aircraft Noise Pollution Control*, 43 J. AIR L. & COMM. 199 (1977); Rockett, *Airport Noise: Did the Airport Safety and Noise Abatement Act of 1979 Solve the Problem?*, 52 J. AIR L. & COMM. 499 (1986). The effect of the change was to eliminate older, noisier aircraft (which were also wasteful of then expensive fuel), and to force the "retrofit" or reconstruction of newer, less noisy aircraft.

248. "Operating Noise Limits," 14 C.F.R. § 91-305 (1977) (new subpart). The carriers were to be in compliance with the new standards as to 50% of their fleet by January 1, 1981, and 100% by January 1, 1983, later extended by Congress to January 1, 1986. 49 U.S.C. §§ 2123-4 (1983). Some further extensions were granted, 50 Fed.Reg. 41,327 (1985), 14 C.F.R. § 31.5.

249. 42 U.S.C. § 4905(c) (1982). See also *Lineas Aereas del Caribe, S.A. v. Department of Transportation*, 791 F.2d 972 (D.C. Cir. 1986).

250. "Aviation Safety and Noise Abatement Act of 1979", Pub. L. No. 96-193, 94 Stat. 50 (1980) (codified as amended at 49 U.S.C. §§ 2101-2108 (1982)). See also FAA Noise Regulations, 1980, 14 CFR § 36.1-1581.

251. 49 U.S.C. § 2103 (1982). The statute puts severe limits on suits by property owners acquiring interests in lands surrounding an airport after February 18, 1980, unless the owner can show significant change in the type or frequency of airport operations, airport layout, airport flight patterns or an increase in nighttime operations. 49 U.S.C. § 2107 (1982).

252. The International Civil Aviation Organization (ICAO), a specialized agency of the United Nations, called a Special Meeting on Aircraft Noise on November 24, 1969, at Montreal, which led to the establishment of the ICAO Committee on Aircraft Noise and a new Annex 16 on Aircraft Noise, approved April 2, 1971. See ICAO Doc. 8857 NOISE (1969).

D. *Toxics*

Just when the environmentalists of the 1960's thought that environmental problems were manageable, that the automobile exhaust emissions which caused the infamous smog over Los Angeles could be eliminated, and that the river and ocean pollution caused by crude petroleum could be reduced, the public was shocked by the realization that toxic chemicals were being deliberately and accidentally released into the air and water in the course of their manufacture, storage, transportation and disposal. By 1980 the situation could only be described as an environmental emergency.

One of the most frightening aspects of the toxics problem is the disposal of waste chemicals in such a manner as to imperil supplies of drinking water. Of the more than 50,000 dump sites in the U.S., 20,000 are said to be seriously contaminated, and at least 2,000 have been identified as presenting imminent threats to human health.²⁵³ According to EPA figures, each site will require an average of \$3.6 million to clean, making the total cost approximately \$7.2 billion.²⁵⁴

A well-known incident involved a community located near Niagara Falls called Love Canal, New York. This residential suburb had been built over a concealed dump in which some 352,000,000 pounds of industrial chemical wastes were buried. In August 1978, the New York Health Commissioner declared a health emergency and President Carter designated Love Canal as a Federal Disaster Area. New York State began buying 240 abandoned homes at a cost of \$10 million, and spent an additional \$22 million on relocation. In 1982, when additional traces of the chemical dioxin appeared, more homes had to be abandoned; the related cleanup and litigation continues.²⁵⁵

A major problem with toxic wastes has been that many of the chemicals involved were not originally identified as toxic. For example, polychlorinated biphenils (PCB's) were used for some 45 years before their dangers became evident. Indeed, at one time the toxicity of chemical wastes was erroneously thought to be removed by penetrating soil and rock over decades. In addition, certain toxics like DDT continue to be used extensively, notwithstanding their recognized destructive effect on the environment.²⁵⁶

Furthermore, the chemical industry is constantly developing new synthetic chemicals of unknown toxicity and long-term effects.²⁵⁷ It is very difficult for government agencies to keep abreast of all of the vital activities of the chemical industry. Congress has cautiously begun to attempt the long process of regulating the development of new toxic chemicals,

253. S. REP. NO. 848, 96th Cong., 2d Sess. 2 (1980).

254. *Id.*

255. See Bauver, Love Canal: Common Law Approaches to a Modern Tragedy, 11 *Env. L. Nw. U.* 133 (1980).

256. See *supra* note 4, at 192-204.

257. *Id.* at 7-9.

and the clean-up of waste dumps and accidental spills. Meanwhile the EPA, lacking in zeal and skill, shuffled toxic wastes from site to site in pitiful response to the national environmental emergency.

1. The Resource Conservation and Recovery Act of 1976

Under the Resource Conservation and Recovery Act of 1976 (RCRA),²⁵⁸ the EPA Administrator determines the criteria considered in identifying hazardous wastes, taking into account: toxicity, persistence, biodegradability, potential for accumulation in tissue, and related factors including, flammability and corrosiveness.²⁵⁹

RCRA also requires the EPA Administrator to establish standards for the generation, transportation and disposal of toxic chemicals.²⁶⁰ Key to the Act's regulation of these chemicals is a mandatory record keeping of their histories from manufacture to disposal.²⁶¹

The RCRA system requires businesses to obtain permits to generate, transport or dispose of toxic chemicals.²⁶² The EPA can inspect chemical facilities at any time.²⁶³ The Act provides for civil and criminal penalties for violations of its provisions,²⁶⁴ but there are more than 50,000 firms subject to RCRA, and not enough inspectors to carry out the task of supervision. Perhaps appreciating the enormity of its task, Congress included a provision in RCRA which states that nothing in the Act is to be construed as prohibiting any State from imposing its own more stringent requirements.²⁶⁵

Recent case law indicates that RCRA strict liability can be imposed on acts of disposal occurring prior to the Act's passage in 1976.²⁶⁶

258. Pub. L. No. 94-580, 90 Stat. 2795 (1976) (codified as amended at 42 U.S.C. §§ 6901-6987 (1982 & Supp. IV 1986)).

259. 42 U.S.C. § 6921(a).

260. 42 U.S.C. §§ 6922-24.

261. 42 U.S.C. § 6921(b)(3)(B).

262. 42 U.S.C. § 6925.

263. 42 U.S.C. § 6927.

264. Criminal penalties are specified at 42 U.S.C. § 6928(d)-(f); civil penalties at 42 U.S.C. § 6928(g).

265. 42 U.S.C. § 6929.

266. *United States v. Northeastern Pharmaceutical & Chemical Co.*, 579 F. Supp. 823 (W.D. Mo. 1984), rev'd in part on other grounds sub nom *NEPACCO II*, 810 F.2d 726 (8th Cir. 1986), cert. denied, 108 S. Ct. 146 (1987). The District Court had rejected the RCRA claim because negligence had not been alleged or proved.

Strict liability was held to be the standard of the 1976 legislation and the 1984 amendments, 810 F.2d at 738. While conceding that the purpose of the 1984 amendments was to "clarify" the liability language, the Eighth Circuit found that the the 1984 Amendments had merely legislated the intent of the 94th Congress to impose liability upon past non-negligent off-site generators and transporters of hazardous waste. See H.R. REP. NO. 1133, 98th Cong., 2d Sess. 119, reprinted in 1984 U.S. CODE CONG. & ADMIN. NEWS 5649, 5690.

The District Court also found that RCRA did not apply to past non-negligent off-site generators and transporters of hazardous substances, but it did apply CERCLA retroactively despite denying the recovery of cleanup costs incurred before the effective date of the CERCLA statute. Applying a strict liability standard with joint and several responsi-

2. The Toxic Substances Control Act of 1976

Whereas RCRA aims to regulate existing sources of toxic pollution, the Toxic Substances Control Act of 1976²⁶⁷ is concerned with the testing of new chemical substances.²⁶⁸ Under the Act, manufacturers must give notice to the EPA before manufacturing any new chemical substances.²⁶⁹

The policy of the Act places the burden on the manufacturer to develop adequate data regarding the effects of the proposed toxic substance.²⁷⁰ The EPA is empowered to regulate any toxic substance which presents an unreasonable risk of injury to health or the environment, although its authority should not "create unnecessary economic barriers to technological innovation."²⁷¹

3. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 - Superfund

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund)²⁷² was the result of hasty compromise at a special session of Congress in 1980. Superfund encompasses hazardous and polluting substances other than oil and gas.²⁷³ It authorizes the President to prepare a National Contingency Plan in dealing with hazardous and polluting toxic substances in order to protect human health and welfare, as well as the environment.²⁷⁴ President Reagan signed an Executive Order in August, 1981, in which he delegated the responsibility for Plan amendment and all other Plan-related functions vested in him by the Superfund Act to the EPA Administrator.²⁷⁵ However, this executive order was subsequently revoked in 1987.²⁷⁶

The Plan authorizes the federal government to use Superfund money to cleanup releases into the environment of hazardous, polluting or toxic

bility, the District Court found NEPACCO liable as an owner or operator under CERCLA, 579 F. Supp. at 844. See 42 U.S.C. § 9607(a)(1) (1982).

267. Toxic Substances Control Act, 15 U.S.C. §§ 2601-29 (1976), amended by 15 U.S.C. §§ 2642-2654 (1986) (amendments contain provisions which address the problem of emergency response to the asbestos hazard).

268. 15 U.S.C. § 2603 (1976).

269. 15 U.S.C. § 2604(b).

270. 15 U.S.C. § 2601(b).

271. *Id.*

272. The Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (1980) (codified as amended at 42 U.S.C. §§ 9601-9657 (1982 & Supp. IV 1986)). See Note, *Recovery of Clean Up Costs Under CERCLA*, 13 *ECOLOGICAL L.Q.* 181 (1986).

273. 42 U.S.C. § 9601 (14).

274. 42 U.S.C. § 9605 (1982 & Supp. IV 1986). See Note, *Federal and State Remedies to Cleanup Hazardous Waste Sites*, 84 *U. MICH. L. REV.* 379 (1986). See also *Exxon Corp. v. Hunt*, 481 A.2d 271, 97 N.J. 526 (1984), probable jurisdiction, 105 S. Ct. 3474 (1985).

275. Ex. Ord. No. 12316, Aug. 14, 1981, 46 F.R. 42237, amended by Ex. Ord. No. 12418, May 5, 1985, 48 F.R. 20891.

276. Ex. Ord. No. 12580, Jan. 23, 1987, 52 F.R. 2929. See 42 U.S.C. § 9615 (1986).

substances by owners or operators of disposal sites or vessels and other transport facilities.²⁷⁷ Such owners or operators are liable for cleanup costs. The only statutory defenses to liability are acts of God, acts of war and acts or omissions by a third party.²⁷⁸

Superfund is a trust fund, financed by taxes on chemical feedstocks, crude oil and imported petroleum products, and penalties and related sources from producers, which is used to cover the response costs of the government.²⁷⁹ Since Superfund is a limited resource, it does not preempt state efforts to create other funds to compensate for hazardous waste cleanup costs.²⁸⁰

Superfund legislation came up for renewal during the 1986 Congressional election campaign, was approved by both houses and, despite initial indications of a possible veto because of its tax provisions, was signed into law by the President.²⁸¹ The 1986 Amendments specify timetables for cleanup as well as cleanup standards.²⁸² Provisions for the community's involvement in the cleanup,²⁸³ and for private damage suits against toxic waste dumpers are also included.²⁸⁴ Most important, however, was the substantial increase in funding that the amendments provided.²⁸⁵

One critical issue now in litigation is whether the Act creates liability for the clean up of spills which had occurred prior to its enactment. This issue was presented to the Eighth Circuit in *United States v. Northeastern Pharmaceutical & Chemical Co.*²⁸⁶

A dissolved Delaware corporation was a chemical manufacturer, transporter of waste products, and operator of a hazardous waste dump site. The corporation dumped eighty-five 55-gallon drums of toxic waste at a site in 1971. The EPA learned of the hazardous wastes in 1979, and began cleanup activity in April, 1980.²⁸⁷ The EPA sued to recover reimbursement costs pursuant to RCRA in August, 1980.²⁸⁸

On December 11, 1980, the Superfund legislation was enacted. The cleanup of the site occurred between June and November of 1981, and in August, 1982, an amended complaint pursuant to the Superfund legisla-

277. 42 U.S.C. § 9604(a) (1982 & Supp. IV 1986).

278. 42 U.S.C. § 9607(b).

279. 42 U.S.C. § 9631-41.

280. 42 U.S.C. 9604(d).

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

282. Pub. L. No. 99-499, § 121, 100 Stat. 1613, 1672 (1986) (codified as amended at 42 U.S.C. §§ 9604-9606 (Supp. IV 1986)).

283. *Id.* §§ 300-330, 42 U.S.C. §§ 11001-11050 (Supp. IV 1986).

284. *Id.* § 107, 42 U.S.C. § 9607 (Supp. IV 1986).

285. The 1980 Superfund provided \$1.6 billion over 5 years while the 1986 renewal provides \$8.5 billion over 5 years. Pub. L. No. 99-499, §§ 501-531, 100 Stat. 1613 (1986). The House voted 386 in favor, 27 opposed, 132 CONG. REC. H.9634 (daily ed. Oct. 8, 1986), and the Senate voted 88 in favor, 8 opposed, 132 CONG. REC. S.14943 (daily ed. Oct. 3, 1986).

286. 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 108 S. Ct. 146 (1987).

287. *Id.* at 730.

288. *Id.*

tion was filed.²⁸⁹

On appeal the defendant argued that CERCLA cannot be applied to acts committed before the effective date of the statute (December 11, 1980), and that the new strict liability standard would violate due process by the taking of property without compensation.²⁹⁰

Despite the presumption against retroactive application and the absence of expressly retroactive language, the Appeals Court found that Congress intended CERCLA to have a retroactive effect since the statutory language refers to actions and conditions in the past tense, and the statutory scheme was described as "overwhelmingly remedial and retroactive."²⁹¹

The Appeals Court held that due process had been satisfied because there was a rational legislative purpose for retroactive application of the legislation,²⁹² and because Congress had not acted in an arbitrary and irrational manner in imposing liability for cleanup on those parties who created and profited from hazardous waste sites, and on the industry as a whole.²⁹³ The Court considered the cleanup as an abatement of an imminent and substantial danger to public health and the environment by the removal of a public nuisance, rather than as a taking of property.²⁹⁴

CONCLUSION

This short review of legislative and judicial solutions to complex problems of the human environment demonstrates that many problems

289. *Id.*

290. *Id.* at 733-734. A related issue is the question of whether private citizens may bring civil actions against polluters, seeking injunctions and civil penalties to the government, for past violations of a NPDES permit. See *supra* note 177. See *Chesapeake Bay Found., Inc. v. Gwaltney of Smithfield, Ltd.*, 791 F.2d 304 (4th Cir. 1986), reversed 108 S. Ct. 376 (1988). Cf. *Hamker v. Diamond Shamrock Chem. Co.*, 756 F.2d 392 (5th Cir. 1985). In *Gwaltney of Smithfield v. Chesapeake Bay Foundation, Inc.*, 108 S. Ct. 376 (1988) the Supreme Court held that there was no federal jurisdiction for wholly past violations but there would be for good faith allegations of "continuous" or "intermittent" violations.

291. *Northeastern Pharmaceutical*, 810 F.2d at 733.

292. *Id.* at 734.

293. *Id.* (applying the rationale of a Ninth Circuit District Court in the lengthy litigation involving environmental contamination by improper hazardous waste disposal procedures at the U.S. Army's Rocky Mountain Arsenal at Denver). The lower court had held that Congress implicitly authorized the retroactive application of the cleanup cost provisions by affirmatively limiting retroactive application of natural resource damages to natural resources, the most serious public danger. This, in turn, prompted Congress to enact the entire CERCLA with a general retroactive scheme. In addition, an interpretation forbidding retroactivity would penalize the government for prompt response, and would result in an undeserved windfall to those who had created and then abandoned the most egregious sites. See *United States v. Shell Oil Co.*, 605 F. Supp. 1064 (D. Colo. 1985).

294. *Northeastern Pharmaceutical*, 810 F.2d at 734. The Trial Court had also limited clean up costs to those costs incurred *after* the enactment of CERCLA, thereby excluding costs incurred from April to December, 1980, but the Eighth Circuit rejected this limitation and reversed in part. *Id.* at 737.

have yet to be solved. Our society has not confronted the problem of assigning the costs of pollution prevention among past, present and future generations in an equitable manner, but we do recognize that the future and the past are tied to the necessity of human action to correct human errors and failings. President Kennedy expressed this thought very eloquently a quarter of a century ago:

Our problems are man-made - therefore, they can be solved by man. And man can be as big as he wants. No problem of human destiny is beyond human beings. Man's reason and spirit have often solved the seemingly unsolvable - and we believe they can do it again.²⁹⁵

295. President John F. Kennedy, American University Speech, June 10, 1963, reprinted in Public Papers of the President, Vol. 3, at 232.

