

1983

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Recommended Citation

Julian H. Spierer, *The Ocean Dumping Deadline: Easing the Mandate Millstone*, 11 Fordham Urb. L.J. 1 (1983).

Available at: <https://ir.lawnet.fordham.edu/ulj/vol11/iss1/1>

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Cover Page Footnote

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THE OCEAN DUMPING DEADLINE: EASING THE MANDATE MILLSTONE

*Julian H. Spierer**

I. Introduction

The past twenty years have witnessed a radical transformation in national governmental activity. The federal government has appropriated a role for itself in a wide range of functions formerly either the exclusive responsibility of state and local governments¹ or outside the traditional scope of governmental concerns completely.²

This new breadth of national governmental interest has been accompanied by an expansion of the federal government's enforcement powers.³ One major new weapon in the federal arsenal that has

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1. In the 1960's, for a wide variety of reasons, the historic constraints upon federal activity tended to dissolve and the federal government found a legitimate national interest in virtually every activity of state and local governments. ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, PUB. A-77, A CRISIS OF CONFIDENCE AND COMPETENCE 4 (1980) [hereinafter cited as CRISIS OF CONFIDENCE]. As it had been put rather dramatically, "entries in the *Congressional Record* and the minutes of a city council meeting have become increasingly similar." ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, PUB. A-86, AN AGENDA FOR AMERICAN FEDERALISM: RESTORING CONFIDENCE AND COMPETENCE 40 (1981) [hereinafter cited as AGENDA]. Federal programs were enacted dealing with such traditionally local concerns as arson control, school security, rat infestation, noise abatement, home insulation and pothole repair. *Id.* at 41.

2. In the words of the members of the President's Commission for a National Agenda for the Eighties, there has developed since the mid-1960's "an obliteration of the distinction between private and public concerns." PRESIDENT'S COMMISSION FOR A NATIONAL AGENDA FOR THE EIGHTIES, URBAN AMERICA IN THE EIGHTIES 88 (1980) (report of Panel on Policies and Prospects for Metropolitan and Non-Metropolitan America). This broad expansion of federal interest into areas of historic private concern dated from the enactment of such legislation as: Consumer Product Safety Act, Pub. L. No. 92-573, 86 Stat. 1207 (1972) (codified at 15 U.S.C. §§ 2051-2081 (1976 & Supp. IV 1980)); Occupational Safety and Health Act, Pub. L. No. 91-596, 84 Stat. 190 (1970) (codified at 29 U.S.C. §§ 651-678 (1976 & Supp. IV 1980)); Civil Rights Act of 1964, Pub. L. No. 88-352, 78 Stat. 241 (codified at 42 U.S.C. §§ 1971, 1975a-d, 2000a to 2000h-6 (1976 & Supp. IV 1980)); Voting Rights Act of 1965, Pub. L. No. 89-110, 79 Stat. 437 (codified at 42 U.S.C. §§ 1973 to 1973p (1976 & Supp. IV 1980)); Equal Employment Opportunity Act, Pub. L. No. 88-352, 78 Stat. 241 (1970) (codified as amended at 42 U.S.C. §§ 2000e-6, -8, -9, -13 to -17 (1976 & Supp. IV 1980)).

3. With the expansion in areas of federal concern has come, in the words of one Senator, a "proliferation of federal powers." CRISIS OF CONFIDENCE, *supra* note 1, at

emerged is the recruitment of state and local governmental machinery in the service of national ends.⁴ Not only could state and local actors contribute their greater familiarity with particular needs and conditions, but their help could also be enlisted at a relatively modest cost to the national treasury.⁵

26. In addition to the massive recruitment of state and local governments, *see* note 4 *infra* and accompanying text, the federal government has increasingly enlisted favorable private action through grants-in-aid, credit assistance, tax incentives and regulations. A study by the Advisory Commission on Intergovernmental Relations documents the vast increase in the federal government's use of these powers during the last twenty years as a means for extending federal influence beyond what would otherwise be the reach of the federal bureaucracy and budget. *CRISIS OF CONFIDENCE*, *supra* note 1, at 39-103.

4. Professor Daniel J. Elazar summarizes this process well. He states that "[i]n the 1950s the federal government became actively involved in a supportive role in virtually every field of governmental endeavor, other than the most utterly local. The 1960s witnessed a shift in that involvement—from supporting state and local initiatives to taking the initiative and requiring the states and localities to conform to federally established directions. This led, in turn, in the early 1970s to increasing federal preemption of state and local powers, and in the mid-1970s to the notion that the federal government was the policymaker by right, while the states and localities were merely convenient administrative arms to be subjected to all kinds of federal regulations, whether authorized by Congress or not." *ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS*, PUB. A-87, *HEARINGS ON THE FEDERAL ROLE* 84 (1980). The evolution of this relationship is evident in the area of garbage disposal. Federal intervention in this traditionally local area of concern began with the creation of a simple research and grant program in the Solid Waste Disposal Act, Pub. L. No. 89-272, Title II, 79 Stat. 997 (1965). State and local governments retained primary responsibility for disposal sites and methods. In 1976, this law was amended by the Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795, which continued to provide grants-in-aid. The new act included regulation by permit of hazardous wastes, the establishment of federal standards covering every aspect of the disposal of hazardous wastes, and the requirement that the use of all open dumps be eliminated in seven years. *ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS*, PUB. A-83, *PROTECTING THE ENVIRONMENT: POLITICS, POLLUTION AND FEDERAL POLICY* 28-29 (1981) [hereinafter cited as *PROTECTING THE ENVIRONMENT*].

5. "Federal grants-in-aid provided Congress with a facile way to co-opt state and local resources, and to enlist state and local policymakers and administrators in domestic program aims." *ADVISORY COMMITTEE ON INTERGOVERNMENTAL RELATIONS*, PUB. A-78, *THE CONDITION OF CONTEMPORARY FEDERALISM: CONFLICTING THEORIES AND COLLAPSING CONSTRAINTS* 158 (1981) [hereinafter cited as *FEDERALISM*]. Among the many excellent examples of this attempt at "leveraging" federal resources is aid to handicapped students. Under the Education of the Handicapped Act, 20 U.S.C. §§ 1401-1461 (1976 & Supp. IV 1980), strict and burdensome standards are established for the education in local schools of handicapped children. The grants which accompany the program cover only a small percentage of the local costs of implementing the standards. In New York City, the expense of educating handicapped children rose between 1975 and 1981 from \$190 million to almost \$300 million, exclusive of federal support. The federal compensation in fiscal year 1980 was slightly more than \$8 million. On a per pupil basis, the federal government contributed \$160 towards an overall expense of \$6,600. *Hearings before the Subcomm. on Select Education of the*

At first the growth in federal responsibilities and federal powers met with favor from the public and from state and local government officials.⁶ In at least one important area, the environment, national guidelines served to overcome the competitive disadvantages resulting from strictly local standards.⁷ Moreover, the federal grants-in-aid⁸ used to encourage favorable local action permitted expanded local governmental activity at reasonable cost⁹ and preserved much local governmental autonomy.¹⁰

In recent years, however, this expanded federal activity increasingly has been viewed with alarm.¹¹ Federal grants-in-aid often are conditioned upon the acceptance of strict and burdensome rules or have simply been replaced by federal mandates and regulations.¹²

House Comm. on Education and Labor, 96th Cong., 2d Sess. (1980) (statement by Representatives from New York City Office of Management and Budget).

6. "Until the mid-1960s the advocates of a more extensive federal role could point a stern finger at the shortcomings of state and local governments, at the seriousness of domestic problems and the very limited national responses to them." *CRISIS OF CONFIDENCE, supra* note 1, at 29-30. The fiscal and political benefits of initiating and supporting programs without having to strain local resources were difficult for state and local officials to resist. *FEDERALISM, supra* note 5, at 128.

7. The National League of Cities, the United States Conference of Mayors and the National Association of Counties were among the earliest major supporters of federal pollution control legislation. National standards were desirable in that they prevented one locality from seeking an unfair economic advantage through more lenient antipollution policies. *PROTECTING THE ENVIRONMENT, supra* note 4, at 3. An unfair economic advantage could result where one locality sought to attract industry by relaxing its pollution policies. Business concerns would prefer localities with looser standards to those with stricter standards.

8. State and local grants are intergovernmental fiscal transfer programs which, as of 1980, were approximately 500 in number and were responsible for distributing \$88 billion in federal funds, representing 3.4% of the gross national product and 23.2% of overall state-local outlays. *AGENDA, supra* note 1, at 3.

9. For example, under the Clean Water Restoration Act of 1966, Pub. L. No. 89-753, 80 Stat. 1246, federal grants were available to assist state and local efforts in developing procedures to correct water pollution problems. S. REP. No. 1367, 89th Cong., 2d Sess. 6, *reprinted in* 1966 U.S. CODE CONG. & AD. NEWS 3969, 3974. In addition, states were required to contribute funds to such programs. *Id.* Thus, the allocation of grants under the Act permitted expanded governmental activity in the area of water pollution by providing more money to states and municipalities. The cost of providing such grants remained reasonable since the federal government was contributing only part of the funds.

10. *FEDERALISM, supra* note 5, at 133.

11. "One result of . . . continuing administrative conflict and frustration is that federal and state-local officials now view each other more as adversaries rather than as partners. 'Cooperative federalism,' some say, has degenerated into a 'paranoid partnership' of conflict between two levels: 'them' and 'us'." *CRISIS OF CONFIDENCE, supra* note 1, at 8.

12. In many instances, the burdensome conditions attached to grants relate to the accomplishment of a federal priority in the area of the grant program. For example, the Education Amendments of 1972, Pub. L. No. 92-318, Title IX, 86 Stat. 235, 373 (codified at 20 U.S.C. §§ 1001-1089, 1121-1132, 1134-1145c (1976)), prohibit dis-

the objects of federal compulsion have expanded¹³ to include the state and local governments themselves whose traditional activities, particularly in the environmental area, have been regarded as thwarting national goals.¹⁴ This complex array of often inflexible and costly

crimination on the basis of sex in any "education program or activity receiving federal financial assistance." *Id.* This has required extensive revisions in certain programs in local schools, particularly in the areas of athletics and vocational education. Other conditions, often called cross-cutting requirements, are applicable generally to federal grants and often promote a social objective only tangentially related to the subject of the grant. This network of restrictions emanated, as of 1976, from more than 25 separate statutes and covered "nondiscrimination, environmental protection, planning and project coordination, relocation and real property acquisition, labor and procurement standards, public employee standards, and access to government information and decision processes." *CRISIS OF CONFIDENCE*, *supra* note 1, at 84. The movement towards regulations and mandates is illustrated in the solid waste disposal area, *see* note 4 *supra*, by the shift from federal grants facilitating local research into open dump alternatives, to a requirement that all open dumps be phased out over seven years. Another example of this movement was in the area of water pollution control. The encouragement through grants of sewage plant construction in early legislation was augmented by a requirement for enforceable state water quality standards in later legislation. Eventually this requirement came to be accompanied by strict directions as to the technology which local plants must employ in cleaning wastewater discharges. *PROTECTING THE ENVIRONMENT*, *supra* note 4, at 27-29.

13. While federal efforts to promote broad domestic policies and regulate national behavior expanded widely during the New Deal and the post World War II period, these efforts were directed at first almost exclusively at private behavior. *AGENDA*, *supra* note 1, at 3. Beginning in the 1960's, however, primarily in the fields of civil rights and the environment, the federal government sought to regulate the activities of state and local governments. In addition to the statutes which are the principal focus of this Article, legislation restricting state and local government behavior unconditioned on the receipt of federal grants-in-aid include: Age Discrimination in Employment Act of 1967, Pub. L. No. 90-202, 81 Stat. 602 (codified at 29 U.S.C. §§ 621-634 (1976)); Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified at 33 U.S.C. §§ 1251-1376 (1976)); Safe Drinking Water Act, Pub. L. No. 93-523, 88 Stat. 1660 (1974) (codified at 42 U.S.C. §§ 300f to 300j-q (1976)); Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (codified at 42 U.S.C. §§ 1857c to 1857c-10 (1976)); Equal Employment Opportunity Act of 1972, Pub. L. No. 92-261, 86 Stat. 103 (codified at 42 U.S.C. §§ 2000e-6, -8 to -9, -13 to -17 (1976 & Supp. IV (1980))). *See also* *CRISIS OF CONFIDENCE*, *supra* note 1, at 95. Moreover, the extensive "cross-cutting" requirements, *see* note 11 *supra*, which are applicable to grant programs generally also regulate state and local government recipients of federal grant funds. In addition, each grant program contains conditions applicable to the particular grant in question. A recent inventory disclosed approximately 1357 federal rules and regulations applicable to cities or counties of which 324 were direct orders and 1033 were conditions of aid. All but 14 of these had been imposed since 1960. C. LOVELL, *FEDERAL AND STATE MANDATING ON LOCAL GOVERNMENTS: AN EXPLORATION OF ISSUES AND IMPACTS* 56, 71 (1979).

14. For example, the purpose of the Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. No. 92-532, 86 Stat. 1052 (codified at 33 U.S.C. §§ 1401-1445 (1976 & Supp. IV 1980)), was to regulate the dumping of all types of materials into

federal regulations and rules directed at state and local governmental behavior has been described by one mayor as the "mandate millstone."¹⁵

This Article examines the development of that mandate millstone as it has burdened or threatened to burden the ocean dumping of sewage sludge by New York City. It reviews the method by which the city has traditionally disposed of its sewage sludge in the ocean waters surrounding the city and how the city's disposal practices would have been altered radically had the city been forced to implement a plan, pursuant to United States Environmental Protection Agency (EPA) regulations, to end its ocean dumping by December 31, 1981. The Article traces the legislative history of the imposition of this rigid deadline, as well as the problems it posed and the development of widespread opposition to its enforcement. It discusses recent events which have spared New York City from conforming to the deadline and what these events portend for ocean dumping practices in general. Finally, it considers the implications of these events for the development of the mandate millstone and for the process through which that millstone can be eased without undermining legitimate national goals.

II. The Emergence of the Environmental Movement

National concern over the quality of the environment in general, and water in particular, is a recent phenomenon. Until the post World War Two period, environmental regulation was viewed principally as a matter of parochial interest in furtherance of a state or local government's police power to protect the health, safety and welfare of the people.¹⁶ The country's abundant resources were felt to be unlimited and quite fit for industrial exploitation in the service of profits and jobs.¹⁷

the ocean. *Id.* New York City's prior practice of unregulated sludge dumping into the ocean, *see* notes 13 *supra* and 15-64 *infra* and accompanying text, conflicted with this goal.

15. E. Koch, *The Mandate Millstone* (1980) [hereinafter cited as *Mandate Millstone*].

16. *PROTECTING THE ENVIRONMENT*, *supra* note 1, at 5.

17. Even the approaches taken by Gifford Pinchot, John Muir and Theodore Roosevelt, respectively, may be understood, at best, as an attempt to institute more effective management of these natural resources for commercial purposes. J. WHITAKER, *STRIKING A BALANCE: ENVIRONMENT AND NATURAL RESOURCES POLICY IN THE NIXON-FORD YEARS 20* (1976). State antipollution laws enacted prior to the 1950's dealt primarily with direct threats to human health such as waterborne germs found to cause typhoid. *PROTECTING THE ENVIRONMENT*, *supra* note 4, at 2, 3 & n.4.

The growth in environmental protection measures in the 1950's and 1960's had many origins. It was due in part to the emerging awareness of the threats to health and amenities posed by the overexploitation of our natural resources.¹⁸ In addition, Americans came to value the quality of life after World War Two which newly acquired affluence enabled them to afford and appreciate. This new wealth also provided the resources for the scientific establishment to identify the less visible threats to human health and the nation's resources. The environmental movement might have received further impetus from the absence of other major national challenges—no continent to tame, empires to build, great wars to be fought or economic adversity to overcome.¹⁹

Initially, national environmental activity focused principally upon cleaning our country's air and streams. From the enactment of the Water Pollution Control Act in 1948,²⁰ which represented federal recognition of clean water as a national goal through the funding of state research and technical activities,²¹ the environmental movement in the Congress gathered momentum. In the Air Pollution Control Act²² the federal government replicated the actions it had taken seven years before in the Water Pollution Control Act.²³ The federal govern-

The few federal statutes which affected the use of the nation's air and water were enacted under authority of the commerce clause of the Constitution, U.S. CONST. art. 1, § 8; *see also* PROTECTING THE ENVIRONMENT, *supra* note 4, at 5, and were intended generally to enhance orderly exploitation of the environment. J. WHITAKER, *supra*, at 20.

18. As Theodore White wrote in an essay for Life magazine in June 1970: "The two natural containers of the environment, the air and the water, finally vomited back on Americans the filth they could no longer absorb." White, *How Do We Get From Here to There?*, 68 LIFE MAG. 36, 38 (June 26, 1970).

19. J. WHITAKER, *supra* note 17, at 24-25.

20. Pub. L. No. 80-845, 62 Stat. 1155 (1948).

21. The Surgeon General was placed in charge of developing programs to eliminate or reduce water pollution and was instructed by the Act to cooperate with the states in developing such programs. *Id.* § 2(a), (b), at 1155-56. Pollution of interstate waters was declared a public nuisance and the Surgeon General was required to give formal notification to persons causing pollution which constituted a public nuisance. If the nuisance continued unabated, the Federal Security Administrator was empowered to hold hearings to determine the means to insure abatement of the pollution. If after such steps the pollution continued, the Federal Security Administrator could, with the consent of the state water pollution agencies, request the Attorney General to file suit on behalf of the United States for abatement of the pollution. *Id.* § 2(d), at 1156-57.

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

23. As in the Water Pollution Control Act, Congress in the Air Pollution Control Act recognized the damage air pollution causes and declared it to be congressional policy to achieve clean air by funding state research and technical activities. *Id.* § 1, at 322. In addition, the Surgeon General was placed in charge of developing pro-

ment for the first time added an enforcement mechanism, albeit weak, for improving state water quality²⁴ with the Water Pollution Control Act Amendment of 1956.²⁵ Subsequent water bills in 1961,²⁶ 1965²⁷ and 1966²⁸ expanded the size of federal activity. A similar pattern occurred with respect to air quality with congressionally generated measures in 1963,²⁹ 1965³⁰ and 1967.³¹

The federal role came of age, however, during the years 1969 to 1972, reflecting an explosion in public environmental concern.³² The federal position in the environmental area became firmly institutionalized. The enactment of the National Environmental Policy Act on January 1, 1970,³³ the creation of the Council on Environmental Quality,³⁴ the establishment of the Environmental Protection Agency

grams designed to reduce air pollution and was instructed by the Act to cooperate with the states to develop such programs. *Id.* § 2, at 322.

24. The Surgeon General, upon reasonable belief of the occurrence of water pollution, was empowered to notify state water agencies or governors of the states and to call such parties to a conference to determine ways of ending the pollution. The Surgeon General, upon belief that effective progress was not being made, could at the conclusion of the conference recommend appropriate remedial action. If thereafter the pollution continued unchecked, the Secretary of Health, Education and Welfare could impanel a board which would determine if the pollution was being controlled. This board could make recommendations for remedial measures. If the pollution continued unabated after these steps, the Secretary, with the consent of the state water pollution agencies, could request the Attorney General to file suit on behalf of the United States to secure abatement of the pollution. *Id.* § 8, at 504-05.

25. Pub. L. No. 84-660, 70 Stat. 498 (1956).

26. Federal Water Pollution Control Act Amendments of 1961, Pub. L. No. 87-88, 75 Stat. 204.

27. Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903.

28. Clean Water Restoration Act of 1966, Pub. L. No. 89-753, 80 Stat. 1246.

29. Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (1963).

30. Clean Air Act Amendments, Pub. L. No. 89-272, 79 Stat. 992 (1965).

31. Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485. For a discussion of federal legislation addressing the problems of air and water pollution, see *generally* PROTECTING THE ENVIRONMENT, *supra* note 4, at 10-15.

32. In May, 1969, only 1% of the American public believed pollution and ecology issues were important. Two years later, that figure had risen to 25%. OPINION RESEARCH CORPORATION POLLS, *cited in* J. WHITAKER, *supra* note 17, at 8-9. In December, 1970, a Harris Poll concluded that Americans perceived pollution as "the most serious problem" facing their communities. *Id.* at 9. Time magazine characterized the environment as the "gut issue of the year that can unify a polarized nation in the 1970's." *Fighting to Save the Earth from Man*, TIME MAG., Feb. 2, 1970, at 56. On April 22, 1970, the first Earth Day generated a "national outpouring of concern for cleaning up the environment." *Id.* at 2.

33. Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified at 42 U.S.C. § 4331(a) (1976)).

34. The Council on Environmental Quality was created by the National Environmental Policy Act of 1969, *id.*, which set forth a congressional declaration of national

on December 2, 1970,³⁵ and the adoption of the Clean Air Act Amendments of 1970³⁶ manifested the federal government's ability and willingness to set strict and enforceable timetables for the purification of the nation's air and water. On October 18, 1972, the federal government's commitment to pollution-free water and air reached a peak when Congress overrode the President's veto of the Federal Water Pollution Control Act Amendments of 1972.³⁷

Due perhaps to the less visible evidence of environmental harm, concern over the purity of the nation's coastal, as opposed to internal, waters was quite slow to emerge. But when the public, the press, the scientific community and the Congress did address the problem of the oceans, the path from research to regulation proceeded at a vastly accelerated pace.³⁸ Indeed, only three years elapsed from the date of dissemination of the first major government-sponsored study of ocean pollution³⁹ to the enactment of a statute strictly controlling all ocean waste disposal.⁴⁰ In this respect, government regulation of ocean dumping appears to be a paradigm for the explosion of federal regulation in general and of environmental regulation in particular.

Waste disposal in the ocean was an early object of federal legislation. This legislation, however, was addressed to the navigational, as opposed to the environmental, risks posed by ocean dumping. Troubled by the prospect that the disposal of wastes at the mouths of harbors could frustrate the dredging operations of the Department of

environmental policy establishing a "continuing policy of the Federal Government . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." *Id.*

35. Reorganization Plan No. 3 of 1970, 84 Stat. 2086.

36. Pub. L. No. 91-604, 84 Stat. 1676. Some of the measures in the Clean Air Act Amendments (Pub. L. No. 91-604) include: § 107. Air Quality Control Regions; § 108. Air Quality Criteria and Control Techniques; § 109. National Ambient Air Quality Standards; § 110. Implementation Plans; § 112. National Emission Standards for Hazardous Air Pollutants.

37. The record of the veto is located at 118 CONG. REC. 36879, 37060-61 (1972). The Federal Water Pollution Control Act Amendments of 1972 are located at Pub. L. No. 92-500, 86 Stat. 816. Some of the measures in the Water Pollution Control Act amendments include: § 301. Effluent Limitations; § 302. Water Quality Related Effluent Limitations; § 303. Water Quality Standards and Implementation Plans; § 304. Information and Guidelines; § 305. Water Quality Inventory; § 307. Toxic and Pretreatment Effluent Standards.

38. See notes 65-113 *infra* and accompanying text.

39. REPORT OF THE U.S. COMMISSION ON MARINE SCIENCE, ENGINEERING, AND RESOURCES, OUR NATION AND THE SEA: A PLAN FOR NATIONAL ACTION (1969).

40. Marine Protection Research and Sanctuaries Act of 1972, Pub. L. No. 92-532, 86 Stat. 1052 (codified at 33 U.S.C. §§ 1401-1445 (1976 & Supp. IV 1980)).

the Army's Corps of Engineers, the Congress enacted in 1888 the New York Harbor Act.⁴¹ Together with the Rivers and Harbors Act and the Refuse Act,⁴² this statute gave general authority to the Secretary of War to prevent any ocean dumping which would obstruct navigation and the free flow of commerce.⁴³ The Refuse Act forbade any dumping into navigable waters without a permit from the Chief of the Corps of Engineers.⁴⁴ Coupled with the Oil Pollution Act, 1924,⁴⁵ which banned oil discharges into coastal waters, this scheme of federal regulation was based on a strict interpretation of the commerce clause⁴⁶ and reflected the predominant view that federal regulation was proper to further orderly national economic development and to enhance the national defense.⁴⁷ Apart from this federal regime, the only constraints on ocean dumping were those which might have arisen from the common law prohibition against public nuisances.⁴⁸

41. Ch. 496, 25 Stat. 209 (1888).

42. Ch. 299, 28 Stat. 338, 360-62 (1894); ch. 425, § 13, 30 Stat. 1121, 1152 (1899).

43. *Id.* at 30 Stat. 1121, 1152.

44. *Id.*

45. Pub. L. No. 68-238, 43 Stat. 604.

46. PROTECTING THE ENVIRONMENT, *supra* note 4, at 5.

47. See J. WHITAKER, *supra* note 17, at 20.

48. In *New Jersey v. City of New York*, 283 U.S. 473 (1931), the Supreme Court enjoined the city from dumping garbage off New Jersey's shores, on the grounds that the dumping constituted a public nuisance.

In 1917, after a reduction plant was destroyed by fire and a contractor went out of business, New York City sought and received permission from the Corps of Engineers' supervisor of the New York harbor to dispose of its garbage at sea. While the city subsequently installed some incinerating plants, it continued to dump large quantities of garbage in the New York Bight. When foreign matter washed up on New Jersey beaches near the Bight, prompting complaints from New Jersey residents, the area of dumping was moved to sites 10, 12.5 and, finally, 22.2 miles from the New Jersey shore. Nevertheless, the governor and the legislature of New Jersey continued to object that New York's garbage was being cast up on New Jersey beaches, making bathing there impracticable, tearing fish nets and interfering with fish populations. *Id.* at 478-80. On May 20, 1929, New Jersey filed suit against the City of New York in the United States Supreme Court asserting that Court's original jurisdiction under art. III, § 2, of the Constitution, covering suits between a state and citizens of another state. New Jersey alleged that the city's garbage dumping was creating a public nuisance and causing great and irreparable injury. The Supreme Court appointed a special master whose findings, conclusions and recommendations supported New Jersey in most particulars. The Supreme Court approved and adopted the findings, and, after further proceedings, enjoined the city from further dumping. The Court also rejected the city's contention that, because the site of the acts purporting to create the nuisance was not within the waters of New Jersey or the United States, the Court was without jurisdiction. The Court found that the property of New Jersey and its citizens alleging injury were properly within its jurisdiction. Finally, the Court held that the grant to the city by the federal harbor supervisor of

III. New York City Ocean Dumping Procedures

New York City's ocean dumping practices have changed little, except in the quantity of material dumped, since 1924.⁴⁹ Presently, four city-owned barges travel from municipal wastewater treatment plants⁵⁰ to the New York Bight Apex, a triangle in the ocean formed by the tips of the Long Island and New Jersey shores.⁵¹ Their cargo consists of New York City-generated sewage sludge, the semiliquid sediment resulting from various wastewater treatment processes in use at the twelve city wastewater treatment plants.⁵² Wastewater sludge contains biodegraded organic matter, inorganic solids and various chemicals used in the wastewater treatment process. In the city's case, the sludge also contains large quantities of heavy metals which result from stormwater run-off and industrial point point deposits.⁵³ Upon reaching the Bight, the barges discharge the sludge directly into the ocean. Once deposited through the turbulent wake of the barges, the sludge rapidly disperses.⁵⁴

permits to dump was not a defense to a suit for damages caused by the dumping. *Id.* at 476-78, 480, 482-83. This suit and order might have appeared to hold out promise for relief against any harm allegedly caused by the city's dumping of sewage sludge. The entire focus of the later debate shifted, however, to federal legislative relief, reflecting the extent to which the President and the Congress came to be viewed as the principal champions of environmental reform.

For possibly the only public reference to a common law remedy for any sludge dumping complaint, see *Public Hearing Before New Jersey Assembly Comm. on Air and Water Pollution and Public Health Concerning Pollution of Coastal Waters* (Mar. 4, 1970) (statement of Louis Pinata of U.S. Army Corps of Engineers) [hereinafter cited as *New Jersey Hearings*].

49. See generally *Petition for Commencement of Rule Making Proceedings, In re Petition of the City of New York, Francis X. McArdle, Commissioner of Environmental Protection, Before the United States Environmental Protection Agency* (June 27, 1980) [hereinafter cited as *Petition*]. See note 157 *infra* for discussion of this petition.

50. CAMP, DRESSER & MCKEE, FINAL TECHNICAL REPORT AND ENVIRONMENTAL ASSESSMENT STATEMENT FOR NEW YORK CITY SLUDGE MANAGEMENT PLAN STAGE 1, 6 (1978) [hereinafter cited as FINAL ENVIRONMENTAL ASSESSMENT STATEMENT].

51. The New York Bight Apex is approximately 12 miles from the intersection of the Hudson River and the Atlantic Ocean.

52. FACT SHEET, NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION, FOR USE BY THE HOUSE COMM. ON MERCHANT MARINE AND FISHERIES (1980) [hereinafter cited as FACT SHEET].

53. FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50, at 2.

54. NATIONAL ADVISORY COMMITTEE ON OCEANS AND ATMOSPHERE, THE ROLE OF THE OCEAN IN A WASTE MANAGEMENT STRATEGY '50 (1981) [hereinafter cited as NACOA REPORT]. After 30 minutes, the ocean waters have diluted the sludge more than one hundred-fold. *Id.*

Despite the popular characterization of the sludge as a "thick black" mass,⁵⁵ the material consists of only three percent solids.⁵⁶ The barges deposit approximately 8,300 wet tons of sludge daily, for a total of more than 3 million wet tons per year.⁵⁷ As a result of (1) federally mandated additional treatment of the sludge which will increase its solid components,⁵⁸ and (2) the general growth in the production of wastes, the amount of solid wastes which the city projects it will have to dump in the future will grow to almost 150 thousand tons per year by 1985, a fifty percent increase, and 183 to 219 thousand tons by the year 2000, more than a one hundred percent increase.⁵⁹

The Bight Apex dump site was originally selected by the New York metropolitan area communities for "environmental and esthetic reasons."⁶⁰ An area of approximately 6.6 square nautical miles with an average depth of 90 feet,⁶¹ the Bight has become one of the largest underwater dumping grounds in the world.⁶² In addition to the 5 million wet metric tons of sewage sludge it receives annually, it is also the dump site for 1 million tons of industrial acid wastes, 100 million tons of dredged material and one quarter of a million tons of cellar dirt.⁶³ Furthermore, substantial additional potentially toxic contaminants come from the discharge of the Hudson-Raritan estuary and from atmospheric fallout.⁶⁴

55. Omang, *U.S. Faces the Problem of Disposing of the Undisposable*, Washington Post, Mar. 14, 1980, at A9, col. 1 (concerning New York City's efforts to dispose of its sewage sludge).

56. FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50, at 1, 20.

57. FACT SHEET, *supra* note 52. Three million wet tons equals almost 91 thousand tons of solid wastes. *Id.*

58. For a discussion of the federally mandated treatment, see *Petition*, *supra* note 49, at 4-8.

59. FACT SHEET, *supra* note 52.

60. *Petition*, *supra* note 49, at 4.

61. 40 C.F.R. § 228.12 (1982).

62. See NACOA REPORT, *supra* note 54, at 65 (types of wastes and amounts dumped in the Bight).

63. *Id.*

64. *Id.* The Hudson-Raritan estuary is the point where the currents of the Hudson and Raritan Rivers meet the tide of the Atlantic Ocean. Whatever the behavior of these other materials might be in the Bight, sewage sludge, which has generated the greatest amount of federal legislative concern, disperses quite efficiently in the Bight. It does not accumulate in the sediments at the dumpsite, generates "only insignificant quantities" of floating material in a properly operated sewage sludge operation and does not apparently cause any significant change in the turbidity, or muddiness, of the surface waters in the Bight, *id.* at 52, 59. There does, however, appear to be some accumulation of organic material in the adjacent Christiansen Basin at the head of the Hudson Shelf Valley, *id.* at 58. Moreover, while an area of 11.1 km in radius centered at the sewage sludge dumpsite was closed to shellfish harvesting in 1970 due

IV. The Enactment of the Marine Protection, Research, and Sanctuaries Act

During the growth in environmental awareness and activity in the 1950's and 1960's,⁶⁵ the oceans received scant attention.⁶⁶ In 1966, the Congress first mandated a comprehensive investigation of marine issues.⁶⁷

The Congress, however, seemed to be moved far more by a desire to exploit more effectively "our underdeveloped marine resources" than to end any damage which may have been caused by over-exploitation.⁶⁸ This first investigation and a subsequent report prepared for

to high coliform or bacterial densities in the water, the contribution of sewage sludge to coliform densities is "negligible." *Id.* at 66. Furthermore, the high concentration of toxic metals in the city's sludge has not led to unhealthful concentrations in seafood taken from the Bight. *Id.* at 68. While diseased fish are found in the Bight, there is "no recorded evidence of acute toxicity resulting" from the sludge. *Id.* at 70-71.

The financial cost to the city of its sludge dumping is relatively modest. While capital expenses depend upon the lifespan of the sludge barges, operating expenses are calculated at approximately \$3.5 million annually. Letter from Edward Koch, Mayor of City of New York to Honorable Norman E. D'Amours (March 26, 1982).

65. See notes 18-37 *supra* and accompanying text.

66. This probably reflected the absence of any immediately perceivable harm from ocean dumping, the belief that the oceans were outside the purview of domestic legislation and the difficulty of conducting rigorous scientific investigations given the ocean's vastness and mutability.

67. Marine Resources and Engineering Development Act of 1966, Pub. L. No. 89-454, 80 Stat. 203. Under § 5a of the Marine Resources and Engineering Development Act, the President was empowered to establish a Commission on Marine Science, Engineering and Resources. This commission was to make a comprehensive investigation and study all the aspects of marine science. *Id.* § 5b, at 206. Indeed with respect to ocean dumping, the final report of the Commission, issued in January 1969, noted that the ocean's "ability to assimilate waste material is immense," and that "for every person on earth there is the equivalent ocean volume of one square mile, 500 feet thick." REPORT OF THE U.S. COMMISSION ON MARINE SCIENCE, ENGINEERING AND RESOURCES, OUR NATION AND THE SEA: A PLAN FOR NATIONAL ACTION 74 (1969). It concluded simply that the then existing legislation offered a "powerful instrument for controlling pollution" and suggested merely expanding the authority of the Corps of Engineers to deny a dumping permit from obstructions to navigation to include threats to the ocean environment. *Id.* at 76. The commission's proposal may have been based on the Florida District Court's Decision in *Zabel v. Tabb*, 296 F. Supp. 764 (M.D. Fla. 1969), which limited the Corps' authority to deny dumping permits to cases solely involving interference with navigation. However, on appeal, the court of appeals reversed the district court, ruling that the Corps could deny permits for solely ecological reasons. *Zabel v. Tabb*, 430 F.2d 199 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

68. The purposes of federal oceanographic activities were to accelerate development and knowledge of marine resources; encourage private investment in exploration and development of marine environment; preserve the United States' role as a leader in the field of marine science; advance education and training in marine science; develop and improve vehicles, equipment and instruments for use in marine

the Bureau of Solid Waste Management⁶⁹ both concluded that ocean-dumping was not inherently damaging to the ocean environment. A third study, however, conducted by the United States Marine Laboratory, arrived at a different conclusion and was to have a disproportionate impact.⁷⁰

On February 8, 1970, an article concerning the dumping of sewage sludge appeared on the front page of the *New York Times*.⁷¹ The article reported that the dumping and dredging spots in the New York Bight had created a “‘dead sea’ that is spreading toward New York and New Jersey beaches, according to a report by the United States Marine Laboratory (Sandy Hook Study).”⁷²

The interim report of the Sandy Hook Marine Laboratory was based principally upon two series of tests.⁷³ On the basis of these tests,

studies and development; provide close cooperation among public and private agencies involved in marine activities and provide for cooperation by the United States with other nations and international organizations in marine science activities. Pub. L. No. 89-454, 80 Stat. 203, 204 (1966).

69. D. SMITH & R. BROWN, OCEAN DISPOSAL OF BARGE-DELIVERED LIQUID AND SOLID WASTES FROM U.S. COASTAL CITIES (1971). The Dillingham Corporation conducted a study for the Bureau of Solid Waste Management, which entailed a field and literature study from June 1968 through October 1969 of the ocean disposal practices of 20 cities. *Id.* at viii. Its report, published in 1971, concluded, in rather balanced fashion, that some disposal operations were “demonstrably or intuitively incompatible with maximum utilization of the sea” while others would “enhance or at least not damage the marine environment.” *Id.* at 61.

70. This study, conducted by the Sandy Hook Marine Laboratory of the U.S. Department of Interior, at the request of the United States Army Engineer Coastal Engineering Research Center, examined the effects of water disposal practices in the New York Bight. It resulted in an interim report submitted to the Corps on December 3, 1969. EFFECTS OF WASTE DISPOSAL IN THE NEW YORK BIGHT—AN INTERIM REPORT FOR JANUARY 1, 1970, reprinted in *Waste Disposal in the Coastal Waters of New York Harbor: Hearing on H.R. 15915 Before the Subcomm. on Rivers and Harbors of the House Comm. on Public Works*, 91st Cong., 2d Sess. 53 (1970) [hereinafter cited as the SANDY HOOK STUDY]. The Center, in turn, commissioned the Smithsonian Institute to evaluate the interim report. *Id.*

71. N.Y. Times, February 8, 1970, § 1a, at 1, col. 1. (The article was entitled “Dead Sea Rising at Harbor Mouth”).

72. The interim report, the article said, had been released the preceding day by Representative Richard L. Ottinger of New York who claimed that the dumping was “poisoning marine life and endangering the health of those who eat sea food caught in the polluted area.” Representative Ottinger also charged the Corps with “‘sitting’” on the interim study. *Id.* He challenged President Nixon to order the issuance of dumping permits to stop. *Id.* at 68, col. 4.

73. In one series of tests, several thousand “sea-bed” and “surface” drifters were released from sampling stations located in the New York Bight area. These drifters were used to measure certain features characteristic of the Bight such as ocean currents, salinity and water temperature. SANDY HOOK STUDY, *supra* note 70, at 70-73. In another series of tests, water and sediment samples were subjected to chemical analysis. *Id.* at 55-58.

the study concluded that the dredging spoil areas tended to move shoreward and that the sludge area was severely impoverished of normal bottom life.⁷⁴ While the interim report cautioned that its findings as to the environmental harm or the movement of the dumped materials would be best assessed after the final report was made,⁷⁵ these disclaimers received scant attention from the press, the public or the Congress which were caught in the throes of the environmental revolution.⁷⁶

The effect of the release of the interim report was dramatic.⁷⁷ On February 15, 1970, the Governor of New Jersey released a statement in which he cited evidence "that harbor dredgings dumped at the sea disposal site are finding their way to the New Jersey coastline," "disposal sites and their environs are devoid of marine life" and that "the invasion of the red tide—a proliferation of toxic microorganisms—which afflicted [New Jersey] beaches two summers ago may have [had] its genesis in the nutrient materials at the dump site."⁷⁸ The Governor recommended that, by agreement or congressional enactment, all sewage dumping be phased out, the dump site be immediately moved 100 miles out to sea, all future Corps of Engineers permits be conditioned upon a pledge for the termination of dumping and that New York State's concurrence be sought.⁷⁹

Shortly thereafter, on February 23, graphic slides purporting to show the depleted marine life at the dump sites were presented at congressional hearings.⁸⁰ As a result of the aforementioned events,

74. *Id.* at 79.

75. *Id.* at 53.

76. These disclaimers were reinforced by the subsequent critique conducted by a team of scientists assembled by the Smithsonian Institute to study the report. See note 70 *supra*. The findings also appeared at a time when the issue of ocean waste disposal otherwise was being debated widely due to a strike by the New Jersey operators of the tugboats responsible for carrying sludge to the dumpsites. The White House ultimately was asked to intervene to have the Coast Guard perform the sludge dumping service. *New Jersey Hearings, supra* note 48, at 50, 57-58 (statement of New Jersey Governor William T. Cahill).

77. While the report had been "virtually ignored" when it came out several months before, *id.* at 105 (statement of New Jersey Assemblyman Azzolina), its presentation at a congressional hearing and linkage to the health threats posed by the New Jersey tugboat operators' strike precipitated a prompt series of reactions. See notes 76 *supra* and 85 *infra* and accompanying text.

78. *New Jersey Hearings, supra* note 48, at 53-54 (statement of New Jersey Governor William T. Cahill).

79. *Id.* at 54-56.

80. *Waste Disposal in the Coastal Waters of New York Harbor: Hearings on H.R. 15915 Before the Subcomm. on Rivers and Harbors of the House Comm. on Public Works, 91st Cong., 2d Sess. (1970)*. In the following week, on March 4, as a result of the "complaints and letters of many citizens of the state that are concerned about the

President Nixon, on April 15, proposed legislation to stop the dumping of polluted dredge spoils in the Great Lakes. President Nixon noted that the nation had only begun "to find out that the ecological effects of ocean dumping, and current disposal technology [was] not adequate to handle wastes of the volume [then] being produced."⁸¹ He indicated that he had directed the chairman of the newly-created Council on Environmental Quality⁸² to work with other federal agencies on a "comprehensive study of ocean dumping" and "to recommend further research needs and appropriate legislation and administrative actions."⁸³

On October 7, President Nixon sent to Congress a message on ocean pollution in which he transmitted the report of the Council on Environmental Quality and endorsed its findings and recommendations.⁸⁴ The President indicated an intention to submit specific legislative proposals to the next Congress in order to implement the Council's recommendations.⁸⁵

problem of pollution along our New Jersey coastal waters," a New Jersey State Assembly Committee held hearings on the interim report. *New Jersey Hearings*, *supra* note 48, at 2 (statement of Chairman Kenneth Wilson).

Although some witnesses pointed to the absence of any evidence that any spoils had ever washed up on New Jersey or Long Island beaches, *see, e.g., id.* at 244-45 (statement of J. Vanovick, Director, Monmouth County Sewage Advisory Committee), the predominant theme was expressed by the Director of New Jersey's Division of Clean Air who said any doubts had to be resolved "in favor of protection of the environment rather than . . . in favor of . . . reduced cost of operations," *id.* at 63 (statement of Richard Sullivan), and that immediate steps had to be taken, as a minimum, to establish, by congressional action, numerous environmental preconditions to the grant of any permit for dumping. *Id.* at 69-70.

81. President's Message to Congress on Waste Disposal, 6 WEEKLY COMP. PRES. DOC. 525, 526 (Apr. 15, 1970).

82. *See* note 34 *supra*.

83. President's Message to Congress on Waste Disposal, *supra* note 81, at 526.

84. President's Message to the Congress transmitting the Report of the Council on Environmental Quality, 6 WEEKLY COMP. PRES. DOC. 1348 (Oct. 7, 1970).

85. As summarized by the President, the Council's conclusions were as follows:

- the current level of ocean dumping is creating serious environmental damage in some areas.
- the volume of wastes dumped in the ocean is increasing rapidly.
- a vast new influx of wastes is likely to occur as municipalities and industries turn to the oceans as a convenient sink for their wastes.
- trends indicate that ocean disposal could become a major nationwide environmental problem.
- unless we begin now to develop alternative methods of disposing of these wastes, institutional and economic obstacles will make it extremely difficult to control ocean dumping in the future.
- the nation must act now to prevent the problem from reaching unmanageable proportions.

Id.

The Council's study recommended legislation which (1) required a permit from the Administrator of the Environmental Protection Agency for the transportation or dumping of all materials into the oceans, (2) authorized the EPA Administrator to ban the ocean dumping of specific materials and designate safe sites and (3) established penalties for violations and relevant enforcement procedures.⁸⁶

As to the specific practice of sludge dumping, the Council recommended that ocean dumping of undigested sludge be "stopped as soon as possible" and that ocean dumping of digested (treated) sludge "be phased out."⁸⁷ In the case of the latter suggestion, the Council recognized that where "substantial facilities and/or significant commitments exist, continued ocean dumping may be necessary until alternatives can be developed and implemented."⁸⁸

President Nixon, in his February 8, 1971 environmental message to the Congress, characterized the Council's report as concluding that "ocean dumping is not a critical problem now."⁸⁹ Nevertheless, armed with the Council's strong recommendations and continuing public pressures, the President announced that the nation's policy should be

86. COUNCIL ON ENVIRONMENTAL QUALITY, OCEAN DUMPING, A NATIONAL POLICY v-vi (1970) [hereinafter cited as CEQ REPORT]. In exercising his authority under such legislation, the Administrator would adhere to the principle that where the "best indicators" are that any material being dumped could create adverse conditions, such dumping should be phased out. Only where further information "conclusively proves that such dumping does not damage the environment, including cumulative and long-term damage," would ocean dumping be conducted "under regulation." *Id.* at vi.

87. *Id.*

88. *Id.* In making these draconian recommendations, the Council had before it, according to a recent study, "little hard data on the detrimental effects of these dumping practices." NACOA REPORT, *supra* note 54, at 10. It faced evidence of an accelerated growth in ocean disposal of wastes, some analyses of the concentrations of potentially toxic materials in these wastes and research on the concentrations of such materials which might be harmful to marine life. From this information, according to the recent critique, they could "only infer possible deleterious effects" and "some of the arguments are not very persuasive." *Id.* The Council's report also contains several generally unsubstantiated assumptions about the safety and cost of alternative methods of waste disposal. *See, e.g.*, CEQ REPORT, *supra* note 86, at 23. The report is perhaps best understood as a policy document issued in response to the call of a President wishing to maintain his leadership in the environmental area, dealing with a subject which was arousing heated public and media passions. It was promulgated by an agency which had received only recently its legislative mandate to review federal programs so as "to create and maintain conditions under which man and nature can exist in productive harmony." Pub. L. No. 91-90, 83 Stat. 852 (1970).

89. President's 1971 Environmental Program, 7 WEEKLY COMP. PRES. DOC. 187, 194 (Feb. 8, 1970).

"[to ban] unregulated ocean dumping of all materials and [to place] strict limits on ocean disposal of any materials harmful to the environment."⁹⁰ The EPA Administrator transmitted to Congress two days later a bill "to regulate the dumping of materials in the oceans" which was designed to "implement the recommendations" of the Council's report.⁹¹ The bill became law on October 23, 1972.⁹²

As enacted, the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA) closely resembled the draft bill proposed by the Administration. The drafters of the act acknowledged its origin in the Council of Environmental Quality's report which, in the words of the Senate Committee, summarized "the need for clear national policy and legislation to regulate the pollutants being added to the oceans by the United States."⁹³

90. *Id.* at 195.

91. Letter from William D. Ruckelshaus, EPA Administrator, to Spiro T. Agnew, President of the Senate, February 10, 1971, *reprinted in* 1972 U.S. CODE CONG. & AD. NEWS 4253. On July 17, the House Committee on Merchant Marine and Fisheries received the President's bill and thereafter unanimously reported out a similar measure. 117 CONG. REC. 25,288 (1971). The full House adopted the bill with only minor adjustments on September 9, by a vote of 305 to 3. *Id.* at 31,159. In the Senate, the Commerce Committee unanimously reported out a similar version which, after review and approval by the Public Works Committee, *id.* at 40,844, passed the Senate, with only minor amendments, on November 24, by a vote of 73 to 0. *Id.* at 43,078. The measure was tied up in a conference committee for almost a year as the Congress considered the more sweeping provisions of the Federal Water Pollution Control Act Amendments of 1972. *Id.* at 43,141; 118 CONG. REC. 36,042 (1972).

92. Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. No. 92-532, 86 Stat. 1052 (1972); *see* "Ocean Dumping: House and Senate Pass Controls," 1971 CONG. Q. ALMANAC 720 (1972). This bill became law just five days after the Congress overrode the President's veto of the Water Pollution Control Act amendments, probably the most comprehensive environmental legislation in the nation's history. *See* note 37 *supra*.

93. S. REP. No. 451, 92nd Cong., 2d Sess., *reprinted in* 1972 U.S. CODE CONG. & AD. NEWS 4234, 4235 [hereinafter cited as SENATE REPORT].

The Congressional debate reflected much of the aroused passions over the prospect of a seriously polluted ocean. A typical comment was made by one of the House conferees who stated that the legislation "marks a turning point in man's destructive use of the seas as a garbage dump." 118 CONG. REC. 36,042 (1972) (statement of Rep. Mosher). Another House conferee seemed to have the Sandy Hook interim report in mind when he recited, among the evils which this legislation purportedly would correct, "areas of ocean bottom . . . suffocated and turned into 'ocean deserts'" and "beaches . . . closed to swimming and shellfish beds closed to harvesting." 118 CONG. REC. 36,041, 36,042 (1972) (statement of Rep. Lennon). The MPRSA accomplished the following:

- Declared that "unregulated dumping of material into ocean waters endangers human health, welfare, and amenities, and the marine environment, ecological systems, and economic potentialities." (§ 2(a)).
- Declared that it was national policy "to regulate the dumping of all types of materials into ocean waters." (§ 2(b)).

In promulgating its regulations under the MPRSA, the EPA faced a difficult dilemma. On one hand, the Congress,⁹⁴ public⁹⁵ and press⁹⁶ clearly believed that ocean dumping posed grave health and environmental risks. Popular sentiment and the legislative history⁹⁷ seemed to dictate the strictest possible standards for any continued dumping. Indeed, the research program created by the MPRSA was to be conducted with the explicit purpose of "determining means of minimizing or ending all dumping of materials within five years of the effective date of the Act."⁹⁸

On the other hand, the EPA faced several factors which militated in favor of a cautious approach. First, there was little scientific data on what kinds or quantities of materials might actually threaten human health or the environment.⁹⁹ Second, the EPA faced a heavy reliance by municipalities on ocean dumping¹⁰⁰ and the possibility of substan-

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- Prohibited the transport or dumping of any radiological, chemical or biological warfare agent or any high-level radioactive waste. (§ 101).
 - Prohibited the transport or dumping of other material (other than dredged materials) except when authorized by permit by the Administrator of the EPA after notice and opportunity for public hearing where the Administrator determined that "such dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities." (§ 102(a)).
 - Directed the Administrator to establish criteria for evaluating permit applications and to consider such factors as the need for the dumping, the effect of such dumping on human health and welfare, fisheries resources, shore lines and beaches, and appropriate locations and methods of disposal, including land-based alternatives. (§ 102(a)).
 - Authorized the Secretary of the Army to issue permits for the transport and dumping of dredged materials but required him to apply the EPA guidelines and gave a veto to the EPA Administrator. (§ 103).
 - Established civil and criminal penalties and authorized civil suits to enforce violations. (§ 105).
 - Directed the Secretary of Commerce to initiate a comprehensive program of monitoring and research regarding the effects of ocean dumping. (§ 201).
 - Set the effective date of Title I of the Act, the permit title, at six months after enactment which was April 23, 1973. (§ 110(a)).

Pub. L. No. 92-532, 86 Stat. 1052.

94. See note 93 *supra* and accompanying text.

95. See notes 78-79 *supra* and accompanying text.

96. See note 71 *supra* and accompanying text.

97. See note 93 *supra* and accompanying text.

98. 33 U.S.C. § 1443 (1976).

99. In its report on the bill, the Senate Commerce Committee had acknowledged that "there still remains much which is unknown concerning the impact of man's dumping into the ocean environment." SENATE REPORT, *supra* note 93, at 4237.

100. See, e.g., *Petition*, *supra* note 49, at 4.

tial additional costs if any alternative had to be adopted.¹⁰¹ Third, very little was known of the environmental and health risks which might be posed by any of the possible alternatives.¹⁰² Finally, although the MPRSA set forth a rather long list of explicitly non-exclusive factors which the Administrator had to consider in promulgating evaluative criteria,¹⁰³ the Act¹⁰⁴ and legislative history offered little guidance as to what weight to give any one of the factors.¹⁰⁵

The EPA issued its first set of regulations on April 5, 1973, without establishing any criteria for evaluating permit applications other than the general standards set forth in the Act.¹⁰⁶ These interim regulations and the MPRSA were to become effective upon the same date.¹⁰⁷

Several weeks later, on May 16, the EPA issued interim criteria for use in evaluating permit applications, and it invited relevant public comment.¹⁰⁸ On October 15, 1973, after considering thirty-seven submissions on its interim criteria, including a comment from New York City, the EPA promulgated its final regulations and criteria.¹⁰⁹

101. See *Hearings Before the Subcomm. on Oceanography of Comm. on Merchant Marine and Fisheries*, 96th Cong., 1st Sess. 3, 4 (1979) (testimony of Edward I. Koch, Mayor of New York City) (attached as appendix in Declaration of Caroline Gabel, Congressional Liaison Officer for the United States EPA, filed in *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981)) [hereinafter cited as Koch Testimony].

102. Indeed, the first criticism of the use of alternative media for sludge dumping appeared in 1977. See note 191 *infra*.

103. Some of these factors include: (A) The need for the proposed dumping; (B) The effect of such dumping on human health and welfare; (C) The effect of dumping on fisheries resources, plankton, fish, shellfish, wildlife, shore lines, and beaches; (D) The effect of such dumping on marine ecosystems; (E) Persistence and permanence of the effects of such dumping; (F) The effect of dumping particular volumes and concentrations of materials. Pub. L. No. 92-532, § 102a, 86 Stat. 1052, 1054 (1972).

104. *Id.*

105. S. REP. NO. 451, 92d Cong., 2d Sess. 1, 12-13, *reprinted in* 1972 U.S. CODE CONG. & AD. NEWS 4234, 4245-46.

106. 38 Fed. Reg. 8726 (1973). The relevant provisions of the interim regulations included: Part 220. General; Part 221. Applications; Part 222. Action on Applications; Part 223. Contents of Permits; Part 224. Records; Part 225. Corps of Engineers Permits; Part 226. Enforcement.

107. *Id.* The effective date of the Act was April 23, 1973. Pub. L. No. 92-532, § 110a, 86 Stat. 1052, 1060 (1972).

108. 38 Fed. Reg. 12,862 (1973). The relevant provisions of the interim criteria included: Part 227. Ocean Dumping; Part 227.10. General Grounds for Issuance of Permits; Part 227.20. Prohibited Acts; Part 227.30. Strictly Regulated Dumping; Part 227.40. Emergency Permits and Interim Special Permits; Part 227.50. Generally Regulated Dumping and Disposal Acts; Part 227.60. Disposal of Dredged Materials.

109. 38 Fed. Reg. 28610 (1973). The comment from the City of New York consisted of an observation by the New York Conservation Department. The Department felt that § 220.4 of the interim regulations would allow the EPA to issue permits to dump in New York territorial waters without New York's consent. The section was

The EPA, in order to cope with the dilemma, adopted a solomonic solution in its final regulations and criteria. The agency virtually ignored the mitigating factors available under the Act¹¹⁰ in favor of almost complete reliance upon a review considering only the impact of the dumping upon the environment. Any materials demonstrably harmless could be dumped under a general permit.¹¹¹ The dumping of any potentially harmful materials was to be permitted pursuant to a special permit, but only if the toxic components were present in trace amounts.¹¹² In establishing these regulations the EPA, in effect, elected to take, in the words of its Assistant Administrator, "a strict,

rewritten to ensure that such an event could not occur. *Id.* The relevant provisions of the final regulations included:

Part 220 General; § 220.1 Purpose and scope; § 220.2 Definitions; § 220.3 Categories of permits; § 220.4 Delegation of authority.

Part 221 Applications; § 221.1 Application forms for special permits; § 221.2 Other information; § 221.3 Applicant; § 221.4 Adequacy of information; § 221.5 Processing fees.

Part 222 Action on applications; § 222.1 General; § 222.2 Tentative determinations; § 222.3 Notice of applications; § 222.4 Issuance or denial of permits without hearings; § 222.5 Initiation of hearings; § 222.6 Time & place of hearings; § 222.7 Notice of hearings; § 222.8 Conduct of hearings; § 222.9 Recommendations of presiding officer; § 222.10 Issuance of permits after hearings.

Part 223 Content of permits; § 223.1 Contents of permits; § 223.2 Generally applicable conditions of permits.

Part 224 Records; § 224.1 Records of permittees; § 224.2 Reports.

Part 225 Corps of Engineers Permits; § 225.1 General; § 225.2 Review of corps permit applications; § 225.3 Waiver.

Part 226 Enforcement; § 226.1 Civil penalties; § 226.2 Enforcement of hearings; § 226.3 Determination; § 226.4 Final action.

Part 227 Criteria for evaluation of permit applications; § 227.1 General grounds for issuance of permits; § 227.2 Prohibited acts; § 227.21 Materials for which no permit will be issued; § 227.22 Other prohibited materials; § 227.3 Strictly regulated dumping; § 227.31 Materials requiring special care; § 227.32 Hazards to fishing or navigation; § 227.33 Large quantities of materials; § 227.34 Acids and alkalis; § 227.35 Containerized wastes; § 227.36 Materials containing living organisms; § 227.4 Implementation plan requirements for interim permits; § 227.5 Less strictly regulated dumping and disposal acts; § 227.51 Wastes of nontoxic nature; § 227.52 Solid wastes; § 227.6 Disposal of dredged material; § 227.61 Unpolluted dredged material; § 227.62 Disposal of unpolluted dredged material; § 227.63 Polluted dredged material; § 227.64 Disposal of polluted dredged material; § 227.65 Revision of test procedures; § 227.7 Definitions; § 227.71 Limiting permissible concentrations; § 227.72 Release zone; § 227.73 Mixing zone; § 227.74 High level radioactive wastes; § 227.8 Amendment of criteria. *Id.* at 28613-621.

110. Some of the mitigating factors include: (1) The need for proposed dumping; (2) Probable impact of requiring use of alternate locations or methods upon consideration affecting public interest; (3) The effect (of dumping) on alternate uses of oceans such as scientific study, fishing and other living and non-living resource exploitation. Pub. L. No. 92-532, § 102a, 86 Stat. 1052, 1054 (1972).

111. 38 Fed. Reg. 28610, 28613 (§ 220.3 (a)), 28620 (§§ 227.5-.52) (1973).

112. *Id.* at 28614 (§ 220.3(b)), 28619 (§ 227.3), 28621 (§ 227.7).

highly restrictive approach toward applying the criteria embodied in the [A]ct."¹¹³ With little scientific information as to the impact of particular dumping practices, the EPA elected to ban all dumping which might conceivably be harmful to the environment.¹¹⁴

This harsh approach to the impact criteria was then substantially qualified through what critics of the EPA found to be an excessively lenient approach towards granting exceptions from the strict environmental standards. Upon a showing of a plan either to meet the special permit environmental criteria or to end ocean dumping, municipalities such as New York City could and did become eligible for an interim permit even though their wastes were deemed by the regulations to be degrading the environment.¹¹⁵ The EPA regulations also established an interim permit process for municipalities which could not qualify for a special permit.¹¹⁶ Such dumpers were made eligible for an interim permit by showing that they were implementing either a plan to have their wastes meet the environmental criteria established for the granting of a special permit or a plan to end their dumping entirely.¹¹⁷

By setting strict environmental criteria and then easing the permit process for municipalities, the EPA (1) seemed to meet the demands of those who wanted a firm standard for environmental regulation while (2) ameliorating the most serious effects of establishing such a firm environmental regime. This tortuous solution, arguably questionable under the law, still might have worked if the environmental hysteria over ocean dumping had had a chance to subside. But this was not to be.

V. Renewed Furor Over Ocean Dumping

In December, 1973, less than two months after the EPA issued its final regulations, the *New York Times* reported that a team of scientists from Brooklyn College were conducting a study on the growing practice of dumping sewage sludge into the ocean.¹¹⁸ The scientists

113. *Joint Hearings on H.R. 5710 and H.R. 6282 Before the Subcomm. on Fisheries and Wildlife Conservation and the Environment and the Subcomm. on Oceanography of the Comm. on Merchant Marine and Fisheries*, 94th Cong., 1st Sess. 8 (1975) (testimony of J.L. Agee, Assistant Administrator of the EPA) [hereinafter cited as *Joint Hearings*].

114. See note 99 *supra*.

115. 38 Fed. Reg. 28614 (§ 220.3(d)) (1973).

116. *Id.*

117. *Id.* (§ 220.3(d)2).

118. *N.Y. Times*, Dec. 11, 1973, at 1, col. 5.

had found that sludge had oozed as close as half a mile to a beach on the south shore of Long Island, New York.¹¹⁹ The article recounted the surprise of one of the scientists who noted that only three months earlier the sludge had been no closer than one mile from the beach.¹²⁰

This report that sewage sludge was purportedly on the move and was located only several thousand feet from some of the most crowded bathing beaches in the world had understandable effects. If, as the story suggested, the sludge had oozed over five miles in two and one-half years and was bringing meningitis, polio, hepatitis and encephalitis in its wake,¹²¹ the public had a right to immediate and firm corrective action.

Under the authority of the MPRSA and acting through its National Oceanic and Atmospheric Administration (NOAA), the Commerce Department had begun the New York Bight Marine Ecological Systems Analysis Project (MESA) in May, 1973.¹²² At the time of the *New York Times* account,¹²³ however, its technical report was over a year from completion. As an interim measure, until the MESA study could determine whether dumping at the New York Bight was "adversely affecting the quality of the beaches," the EPA announced in March, 1974, its requirement that the dump site be moved by 1976.¹²⁴ The agency also set forth its intention to phase out all ocean dumping in the Bight by 1981.¹²⁵ In 1975, the EPA notified all municipal ocean dumpers in the New York area that an environmental impact study would be conducted with the object of moving the sludge disposal site an additional fifty-three miles out to sea.¹²⁶

119. *Id.*

120. *Id.* A briefing paper distributed to the author of the story raised the concern that toxic materials, including the hepatitis and encephalitis viruses, might find their way "into the human food chain through seafood" and that the air over the shallow waters could be made "conducive to meningitis and polio." One of the scientists held out the risk that most of the Long Island barrier beaches would have to be closed to swimming. *Id.* at 90, col. 1. The scientist also indicated findings of sludge two and one-half miles from Jones Beach and one to two miles off the Fire Island lighthouse. *Id.* at 90, col. 2.

121. *See* note 120 *supra*.

122. NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION, OCEAN DUMPING IN THE NEW YORK BIGHT 11 (1975).

123. *See* notes 119-20 *supra* and accompanying text.

124. N.Y. Times, Mar. 23, 1974, at 1, col. 6 (the EPA also advised 144 local administrations to develop alternative methods of disposing of sludge). *Id.*

125. Letter of Notification from the EPA Region II office to all municipalities using the existing dumpsite in the New York Bight, October 2, 1974, *quoted in* A. REED, OCEAN WASTE DISPOSAL PRACTICES 278 (1975).

126. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL IMPACT STATEMENT ON THE OCEAN DUMPING OF SEWAGE SLUDGE IN THE NEW YORK BIGHT 1, 84-85 (1978).

Evidence began to accumulate rapidly in the MESA study which questioned the findings of the Brooklyn College inquiry. In particular, the study contradicted any conclusion that the sludge was migrating from the dump site, let alone the suggestion that it had reached a point only one-half mile from the Long Island coast.¹²⁷

While these scientific findings did discourage any precipitous action by the EPA to halt immediately all ocean dumping of sewage sludge, the findings could not fully arrest the pressures for an ultimate phasing out of the dumping.¹²⁸ For example, when the City of Philadelphia sought to delete a condition in its dumping permit requiring the cessation of ocean dumping by the end of 1980, the EPA Administrator, in an action later cited by a federal court,¹²⁹ ruled on September 25, 1975, that the absence of evidence of current harm could not vitiate the need to eventually halt ocean dumping.¹³⁰ The Administra-

127. On February 20, 1975, the manager of the MESA project testified before a congressional committee that the project's core and grab samples disclosed little accumulation of sludge even at the dump site itself. He noted that the bathymetry at the site was essentially the same as it had been 20 years before. He challenged the use of the scare language in the N.Y. Times story and indicated that the so-called "sludge" recovered off Long Island beaches simply may have been degraded organic material of natural origin which was virtually indistinguishable from the residue of human waste. He concluded as follows: "In sum, there is no evidence of a massive general movement of sewage sludge toward Long Island beaches. On the contrary, evidence suggests that millennia of natural discharges and 40 years of dumping sewage sludge have produced a well-established, rather stable distribution of organic-rich muds in the New York Bight." *Hearing before the New York State Select Comm. on Environmental Conservation*, February 20, 1975 (statement of R.L. Swanson, Manager, New York Bight Marine EcoSystems Analysis Project), *quoted in* A. REED, *OCEAN WASTE DISPOSAL PRACTICES* 279, 285 (1975). At least one scientist even argued that the oceans were an appropriate place for waste disposal and implied that the MPRSA had been ill-conceived and was based on "inadequate knowledge of the sea." Bascon, *The Disposal of Waste in the Ocean*, *SCI. AM.*, Aug. 1974, at 16.

128. The pressures were evidenced in the (1) legislative requirement of the MPRSA to end unregulated dumping, Pub. L. No. 92-532, 86 Stat. 1052 (1972), (2) congressional statements made during the enactments of the MPRSA, *see* note 93 *supra*, and (3) the newspaper reports of the SANDY HOOK STUDY, *supra* note 70.

129. *Ad Hoc EPA hearing*, *cited in* *Maryland v. Train*, 415 F. Supp. 116, 120 (D. Md. 1976). A number of states, including Maryland, challenged the EPA's issuance of a permit allowing Camden, New Jersey, to use an ocean dumping site in the Atlantic Ocean for sewage sludge. The basis of the challenge was the EPA's failure to prepare an environmental impact statement prior to issuance of a dumping permit and failure to hold a hearing concerning the issuance of a dumping permit, prior to such issuance. The district court held that preparation of an impact statement was not required. The court went on to rule that the EPA was required to hold a hearing, but the failure to do so did not warrant an injunction against continued dumping pending the hearing. *Id.* at 117.

130. *Id.* at 120.

tor ruled that, for the City of Philadelphia to prevail, it would have to prove that "its continued dumping will not contribute to a general deterioration of the ocean or that such deterioration will not eventually cause adverse effects. . . . [T]he ocean is not an infinite sink . . . , such potential harm is what Congress meant to include when it extended the Act to consideration of endangerment of the ocean."¹³¹ Not surprisingly, Philadelphia could not meet the burden of proof that its sludge would not at some indefinite point cause adverse effects.¹³²

While the ultimate phasing out of harmful sewage sludge dumping was clearly the EPA's goal,¹³³ the EPA still viewed the issue with some flexibility. As stated by its Assistant Administrator for Water at congressional hearings on April 24, 1975, the EPA regarded its responsibility "as covering the entire environment" and was prepared to permit continued ocean dumping if "it is conclusively demonstrated that ocean disposal of sewage sludge is the most acceptable environmental alternative for ultimate disposal within the limitations of available technology."¹³⁴ This was admittedly a difficult test to meet. Yet even this limited flexibility, grounded in a balancing of relative environmental harms, shortly succumbed to the next round of public hysteria.

VI. The 1977 Amendments: Establishment of an Ocean Dumping Deadline

On June 3, 1976, an explosion destroyed two sewage storage tanks on Long Island, sending over one million gallons of sludge onto nearby beaches.¹³⁵ Just as some of these beaches were being reopened on June 19, another "mysterious incursion of sewage" forced their immediate closing.¹³⁶ In an editorial four days later, the *New York Times* took the occasion of the beach pollution to note that "an abused environment will sooner or later take its toll." The editorial also asked the question whether sewage sludge dumped in the ocean could "be better disposed of as land-fill and where?"¹³⁷

131. *Id.*

132. Philadelphia ceased its ocean dumping of sewage in November, 1980. OFFICE OF WATER REGULATIONS AND STANDARDS CRITERIA AND STANDARDS DIVISION, OCEAN DISPOSAL AND DISCHARGE PROGRAM REVIEW AND REDIRECTION 4 (1981) [hereinafter cited as INTERNAL EPA REPORT].

133. See note 114 *supra* and accompanying text.

134. *Joint Hearings, supra* note 113, at 12, 13 (testimony of J. L. Agee).

135. N.Y. Times, June 4, 1976, at A1, col. 1. Sixty three beaches were closed as a result of the explosion. *Id.*

136. *Id.*, June 23, 1976, at A1, col. 1. The beaches were closed the next day. *Id.*

137. *Id.*, June 24, 1976, at 32, col. 2. In a summary article the same day, the Times reporter who two years before broke the story of the sludge allegedly oozing towards Long Island beaches recalled that account and noted that "officials agree

The furor slowly abated as the beaches were reopened and a computer model used by the Brookhaven National Laboratory traced the spread of the pollution to a combination of raw sewage from New York and New Jersey, dumpings from ocean-going ships, charred wood from recent pier fires, and floatables from the sludge tank explosion.¹³⁸ The public pressure to end sludge dumping might have subsided had not another environmental event only weeks later rekindled the debate. On July 8, 1976, the *New York Times* reported a huge fish kill off New Jersey in an area "at least 55 miles long and 30 miles wide."¹³⁹ While the head of NOAA's MESA program was quoted as saying he saw nothing to indicate that sewage sludge was the cause of the problem, the President of the American Littoral Society believed that sewage sludge was the cause.¹⁴⁰

On June 28, 1976, shortly before the report of the fish kill was published, the EPA issued a proposed revision of the ocean dumping regulations and criteria.¹⁴¹ The proposed regulations continued to provide for the issuance of special permits to dump if strict environmental criteria were met. The criteria were to be based not on the simple presence of certain specific toxic constituents, but rather on the

nothing has been done" to change the sludge disposal practices. He also indicated that while "some of the material found on the beaches appeared yesterday to be fresh garbage and sewage," sewage sludge "is a key factor in most investigations." The article further indicated that the EPA "was forced to back down" from its plan to move the dump site further out to sea by pressure from cost-conscious local officials. The story contained a disclaimer from the EPA deputy regional director who said sludge was not implicated in the pollution, which he blamed on raw sewage from Manhattan and ship discharges—"the same old stuff that's been going out of New York harbor since the City was founded." He ascribed the heavier than usual pollution simply to an extraordinary shift in the normal winds and currents which usually carried the waste away from shore. But the article also contained strong charges of inadequate monitoring of sludge dumping from the New York State's Parks and Recreation Commissioner and his aide. *Id.*, at 57, col. 7.

138. *Id.*, June 27, 1976, § 1a, at 1, col. 2.

139. *Id.*, July 8, 1976, at 35, col. 8. Sandy Hook Marine Laboratory officials suggested it might have been the biggest kill in the area since 1968. *Id.*

140. *Id.*

141. 41 Fed. Reg. 26,644, 26,646 (1976) (to be codified at 40 CFR §§ 220-229). Some of the relevant revisions included: Part 220. General; Part 221. Applications for ocean dumping permits under Section 102 of the Act; Part 222. Action on ocean dumping permit applications under Section 102 of the Act; Part 223. Contents modification, revocation and suspension of ocean dumping permits under Section 102 of the Act; Part 224. Records and reports required of ocean dumping permittees under Section 102 of the Act; Part 225. Corps of Engineers dredged material permits; Part 226. Enforcement of the Act; Part 227. Criteria for evaluation of permit application for ocean dumping of materials; Part 228. Criteria for the management of disposal sites for ocean dumping; Part 229. General permits.

impact of the sludge upon marine ecosystems as measured by bioassay tests. The tests would take into account either toxicity or bioaccumulation. Municipal dumpers, however, were to remain eligible for interim permits even if their sludge violated the environmental criteria in cases in which they had exercised their best efforts to have their sludge meet the criteria.¹⁴²

Although the minimal role of sewage sludge in both the beach pollution and fish kill events had largely been substantiated,¹⁴³ the pressure upon the EPA to set a firm deadline for the termination of ocean dumping became overwhelming.¹⁴⁴ On July 23, the EPA changed the position it had taken in the proposed regulations and announced that all municipalities in the New York Metropolitan area had to end their ocean dumping of sewage sludge by 1981.¹⁴⁵ When the EPA published its final regulations on January 11, 1977, a provision had been added setting December 31, 1981, as the date after which all dumping of environmentally unacceptable sewage sludge had to cease.¹⁴⁶

142. *Id.*

143. One report cited a combination of factors which produced the New Jersey fish kill. Noticeably absent was any reference to sewage sludge as a possible factor. See NACOA REPORT, *supra* note 54, at 61. As to the lack of evidence to support the belief that sludge dumping in the New York Bight is connected with beach damage in Long Island and New Jersey. See 42 Fed. Reg. 23163 (1977) (to be codified at 40 CFR § 228).

144. The pressure upon the EPA was generated by the public concern about the beach closings, *see* notes 135-37 *supra* and accompanying text, and the fish kill, *see* notes 139-40 *supra* and accompanying text.

145. The EPA chose to make its formal announcement of the deadline at a congressional hearing in Hempstead, Long Island; the hearing was called to elicit testimony about the beach pollution events. The EPA regional administrator denied that the beach pollution incident was related to the new policy and cited "new technological advances" and the imposition of a deadline on Philadelphia dumping as the reasons for the firm deadline. N.Y. Times, July 24, 1976, at 46, col. 5. This policy statement was undercut somewhat by the fact that the Philadelphia decision had been made in September, 1975, *see* note 126 *supra*, and in March, 1976, the regional administrator was still saying that continued dumping after 1981 was likely. N.Y. Times, Jul. 25, 1976, at 32, col. 1.

The announcement of the deadline was greeted with understandable "skepticism" by the two members of the House Merchant Marine and Fisheries Committee at the hearing, one of whom remarked that the technological advancement cited as a reason for the changed policy was "a remarkable achievement in only four months." *Id.*

146. 42 Fed. Reg. 2462 (1977). In the interim, the EPA had received a critical public comment from four members of the House Merchant Marine and Fisheries Committee, including one of the two who had attended the July 24th congressional hearing on Long Island. These Congressmen decried the EPA's practice of allowing "a substantial volume of dangerous, toxic materials to be dumped under 'interim permit arrangements.'" They argued that such interim permits should be summarily phased out without continued exceptions. *Id.* at 2464. Despite the admitted absence

The EPA's establishment of a firm deadline for the cessation of all sewage sludge dumping, however, did not satisfy Congress. On November 4, 1977, Congress reauthorized the MPRSA and adopted an amendment that prohibited dumping after 1981 of all sewage sludge which "may unreasonably degrade the marine environment."¹⁴⁷ The EPA had unsuccessfully opposed the statutory dumping deadline,

of the "lack of alternative methods of disposal and technology necessary to meet environmental criteria," the EPA expressed confidence that the development of acceptable alternatives to ocean dumping was "largely a matter of time." *Id.* at 2462-2463.

147. On March 31, 1977, two subcommittees of the House Merchant Marine and Fisheries Committee adopted an amendment offered by Representative William Hughes to bar the ocean dumping of all sewage sludge into ocean waters after December 31, 1981. Representative Hughes' constituency included the entire coastal area of New Jersey south of Atlantic City. The Hughes amendment also would have permitted the EPA Administrator to prohibit dumping before December 31, 1981, if he found it "would unreasonably degrade or endanger human health, welfare, or amenities; or the marine environment, ecological systems, or economic potentialities." H. REP. NO. 325, Part I, 95th Cong., 1st Sess. 2, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 3262, 3263.

In full committee, an amendment was offered to strike the Hughes language. Hughes then offered a substitute which did not prohibit the dumping of all sewage sludge after 1981, but only that which "may unreasonably degrade the marine environment." *Id.* The committee report acknowledged the role of the Long Island beach pollution and the New Jersey fish kill in bringing "a great deal of attention to the practice of ocean dumping." It also noted that the committee "was losing confidence in the EPA's ability to compel municipalities, which now dump their sewage sludge into ocean waters, to adopt environmentally acceptable land-based alternatives." *Id.* at 4, 1977 U.S. CODE CONG. & AD. NEWS 3265. The bill passed the House on October 14, on a vote of 359 to 1, without amendment, amid comments such as "[w]e cannot continue to expect the oceans to act as a food resource, recreation center, and cesspool." 123 CONG. REC. 33,787 (1977) (statement of Rep. Leggett). The Senate cleared the bill without change on October 20. 123 CONG. REC. 34,588 (1977). It became law on November 4. Pub. L. No. 95-153, 91 Stat. 1255 (1977). This law established a deadline of December 31, 1981, for the cessation of all ocean dumping of sewage sludge which "may unreasonably degrade or endanger human health, welfare, amenities, or the marine environment, ecological systems, or economic potentialities." 33 U.S.C. § 1412a(d) (Supp. I 1977). To evaluate whether particular sewage sludge dumping runs afoul of this statutory test, the EPA, which must administer this test, avails itself of the environmental impact criteria the agency adopted in 1977. 42 Fed. Reg. 2462, 2476. Although both the city and the EPA "have assumed that the environmental criteria are not satisfied" in the case of the City's sewage sludge dumping, *see* Affidavit of Francis X. McArdle (accompanying Statement of Material Fact Pursuant to General Rule 9(g)), n. at 10, filed in *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981) [hereinafter cited as *McArdle Affidavit*]. However, the EPA has issued interim permits annually to the city to continue its sludge dumping practice. However, these permits, including the most recent one issued on January 6, 1981, (Permit No. 11-NY-009), require that the city adhere to an "implementation schedule adequate to allow phasing out of ocean dumping . . . by December 31, 1981, at the latest." 40 C.F.R. § 220.3(d) (1981).

arguing that it would create a rigidity in the compliance date which would be unnecessary and inadvisable.¹⁴⁸

The City of New York had been moving diligently since 1973 to develop an acceptable alternative to sludge ocean dumping as required under its annual interim permits.¹⁴⁹ At that time, the city had serious concerns as to the costs of any change in its sludge disposal practices.¹⁵⁰ However, with the promulgation of the December 31, 1981, deadline, first by the EPA and then by the Congress, the pace of the city's exploration and development of alternatives vastly accelerated.¹⁵¹ The expansion of the city's efforts to comply with the deadline was accompanied by an intensification of its political efforts to have the deadline extended or altered by administrative, legislative or judicial action.¹⁵² In late 1979, the city asked the EPA for a new interim

148. H. REP. NO. 325, Part I, 95th Cong., 1st Sess. 13, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 3262, 3273.

149. McArdle Affidavit, *supra* note 147, at 3. In stark contrast to the city's current procedure for disposing of sewage sludge, *see* note 50 *supra* and accompanying text, is the plan which the city developed to comply with the MPRSA. The plan was an interim alternative proposed by the consulting firm of Camp, Dresser & McKee in 1977, *see* FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50. The proposal involved dewatering the sludge to 18% solids using industrial centrifuges located adjacent to the city's sewage treatment plants. The relatively dry sludge would then be mixed together with wood chips to form compost. The compost would be used as additional topsoil in New York City parks. *Petition*, *supra* note 49, at 4-8.

150. N.Y. Times, June 24, 1976, at 57, col. 7. New York City officials exerted strong pressure on the EPA in 1974 to force the agency to back down on a plan to have the sludge dumped at a site 65 miles from shore. The officials cited prohibitive costs due to the extra distance the barges would have to travel. *Id.*

151. In December, 1977, a consulting firm began work on a comprehensive management study, and in 1978 produced a draft technical report and a draft environmental assessment for an interim sludge management solution. *See* CAMP, DRESSER & MCKEE, DRAFT TECHNICAL REPORT, NEW YORK CITY SLUDGE MANAGEMENT PLAN STAGE 1 (1978) [hereinafter cited as DRAFT TECHNICAL REPORT]; FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50. Design work began in July, 1979 and steps to implement the designs progressed steadily throughout the balance of 1979 and 1980. Koch Testimony, *supra* note 101, at 3, *Hearings Before the Subcomm. on Oceanography of Comm. on Merchant Marine and Fisheries*, 96th Cong., 2d Sess. 1-4 (1980) (testimony of Francis X. McArdle) (attached as appendix in the Declaration of Caroline Gable, Congressional Liaison Officer for the United States EPA, filed in the City of New York v. United States EPA, 543 F. Supp. 1084 (S.D.N.Y. 1981) [hereinafter cited as McArdle Testimony]).

152. On June 27, 1979, New York City Mayor, Edward I. Koch, testified before the Subcommittee on Oceanography of the House Committee on Merchant Marine and Fisheries. He noted that the tight deadline was forcing municipal dumpers to develop hasty and expensive alternatives without adequate data as to their technical feasibility or environmental impact. He urged, principally, a six-year extension of the deadline to 1987 so that municipalities "will not be forced to construct expensive interim disposal facilities." Koch Testimony, *supra* note 101, at 1, 2 & 6. The subcommittee took no action on this recommendation.

permit extending the compliance date for developing a land-based alternative to the late 1980's.¹⁵³ The EPA Regional Administrator effectively rejected this request on March 13, 1980.¹⁵⁴ Thereupon the city promptly renewed its request¹⁵⁵ and instituted a lawsuit against the EPA on March 28, 1980, seeking to have the compliance date extended and the ocean dumping regulations amended.¹⁵⁶

On June 27, 1980, the city formally submitted a petition to the EPA Administrator under the Administrative Procedure Act¹⁵⁷ requesting that the EPA immediately commence rule-making proceedings to amend its ocean dumping regulations so as to permit continued dumping after the deadline.¹⁵⁸ In an affidavit filed with the court on September 4, 1980,¹⁵⁹ the city expressed its continuing desire in an order directing the EPA to "commence such rule-making as soon as possible" and "take other steps to fairly consider the city's requests for a permit effective beyond December 31, 1981."¹⁶⁰ While the suit was pending, the city continued to seek legislative relief.¹⁶¹

153. Affidavit of J.K. Healy, General Counsel of the NYC Department of Environmental Protection, filed in *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981) at 1-2 [hereinafter cited as Healy Affidavit].

154. *Id.* at 2. The Regional Administrator issued a permit which required strict compliance with the 1981 deadline effectively rejecting New York City's request for a permit extending the compliance deadline. *Id.*

155. *Id.* at 3.

156. Complaint at 5, *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981).

157. 5 U.S.C. §§ 500-576 (1976).

158. *Petition*, *supra* note 49. In its petition, the City of New York requested that the EPA (1) eliminate the requirements of 40 C.F.R. § 220.3(d) that each interim permit for ocean dumping of materials contain an implementation schedule "to allow phasing out of ocean dumping by December 31, 1981," *id.* at 1, (2) allow the use of the New York Bight as a sludge dumpsite past December 31, 1981 and (3) revise 40 C.F.R. 227 so that the environmental impact criteria may be balanced with the need for ocean dumping. *Id.* at 2. The city admitted it had the ability to implement an interim solution, *id.* at 4, but such a solution would be prohibitively expensive, *id.* at 2, and might at the same time create potential environmental hazards. *Id.* at 15-21. In addition, the city contended that cessation of sludge dumping would not lead to an appreciable improvement in the condition of the New York Bight, *id.* at 10.

159. Healy Affidavit, *supra* note 153, at 4.

160. *Id.*

161. On February 20, 1980, the city's Environmental Protection Commissioner testified before the same subcommittee which Mayor Koch had appeared before the previous year. Instead of repeating the city's request for a simple extension of the deadline, which must have appeared hopeless, the Commissioner urged that the EPA be directed by the Congress to weigh the alternative environmental consequences of ocean dumping against any "reasonably available" land-based solution and to allow continued ocean disposal "for a carefully limited period of time if, upon such inquiry, [the EPA] finds that the incremental impact of continued sewage sludge dumping at current sites is, on balance, less adverse to the environment than implementation of the land [based] disposal alternative under consideration." McArdle Testimony,

Shortly after the commencement of New York City's suit, the ocean dumping deadline was challenged again, but on substantially narrower grounds. On May 15, 1980, the Bergen County Utilities Authority (BCUA) instituted an action in federal district court in New Jersey seeking a writ of mandamus ordering the EPA to issue an ocean dumping permit valid beyond the December 31, 1981 deadline.¹⁶² In *Bergen County Utilities Authority v. United States EPA*, the BCUA argued that the EPA's denial of its application for an ocean dumping permit was arbitrary and capricious.¹⁶³ The EPA countered that the BCUA's sludge had failed to meet the environmental impact criteria promulgated by the EPA for reviewing permit applications, and moved for summary judgment.¹⁶⁴ On February 6, 1981, the court found no arbitrary or capricious action in the denial of the permit and granted the EPA's motion for summary judgment. The court held that the BCUA did not establish a schedule "enabling them either to meet the environmental impact criteria or to phase out ocean dumping by December 31, 1981."¹⁶⁵ The court held that the EPA's denial "was the only decision consistent with the regulation that a permit could issue only to applicants who have [such] an implementation schedule."¹⁶⁶ The court cited the MPRSA amendments prohibiting dumping beyond December 31, 1981,¹⁶⁷ and emphasized the importance of ending ocean dumping, noting that "[t]he present deadline provides the impetus; and extension will dissipate it."¹⁶⁸

supra note 151, at 5. On March 13, 1980, during the course of the mark-up of an extension of the MPRSA, the chairman of the House Merchant Marine and Fisheries Committee, Representative John Murphy of New York City, offered an amendment embodying an environmental balancing approach. However, the amendment was opposed by several members of the Committee whose districts abutted the Atlantic near the Bight. These Congressmen argued that the city had had ample time in which to develop alternatives to ocean dumping and ascribed the city's resistance simply to a desire to avoid any additional strain in its admittedly over extended finances. Little discussion of the environmental risks of any alternative to ocean dumping alternatives took place and the amendment failed on a vote of 25 to 11.

162. *Bergen County Util. Auth. v. United States EPA*, 507 F. Supp. 780 (1981), *aff'd*, No. 81-1716 (3rd Cir. Dec. 1, 1981). The plaintiff (BCUA) sought an injunction against the enforcement of the MPRSA until the completion of state litigation between it and the Hackensack Meadowlands Development Commission. That case, however, had been disposed of at the time of the court's decision, rendering the BCUA's second cause of action moot. *Id.* at 782 n.2.

163. *Id.* at 782.

164. *Id.* at 782, 784. See 40 C.F.R. § 227 (1980), and the court's discussion of the environmental impact criteria at 507 F. Supp. at 783.

165. *Bergen County*, 507 F. Supp. at 784-85.

166. *Id.*

167. *Id.* at 783, citing 33 U.S.C. § 1412a(a) (Supp. II 1978). See notes 143-48 *supra* and accompanying text.

168. *Bergen County*, 507 F. Supp. at 781.

The court in *Bergen County* was restricted to a narrow scope of review:¹⁶⁹ whether the EPA's action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law."¹⁷⁰ No direct challenge to the EPA's regulations or rule-making was made. In New York City's action, however, the challenge was more comprehensive and would receive different treatment by a federal court.¹⁷¹

VII. Shifting Views on Ocean Dumping

As 1981 approached, the deadline for the cessation of all ocean dumping of sludge was ostensibly intact. However, a number of changes in the regulatory and scientific view of the oceans and the environment and the public and political mood, were at work to set the stage for an alteration of the federal mandate.¹⁷² On the regulatory front, concern had begun to be expressed that the explosion in federal regulatory activity in many areas of the environment was creating a maze of confusing and even contradictory environmental dictates.¹⁷³

At the time of the adoption of the MPRSA in 1972, the EPA was already facing other potentially competing waste disposal responsibilities under the Federal Water Pollution Control Act and the Clean Air Act.¹⁷⁴ Before the end of the decade, these waste management burdens were multiplied by the enactment of (1) the Resource Conservation and Recovery Act (RCRA),¹⁷⁵ which covers the disposal of hazardous

169. The court stated that it "must not substitute its judgment for that of an agency authorized to exercise rulemaking functions in an area where the agency possesses a unique expertise. Instead the court must affirm the agency's decision, if there was a rational basis for it." *Id.* at 784.

170. 5 U.S.C. § 706. Under 5 U.S.C. § 702, "a person suffering a legal wrong because of agency action, or adversely affected or aggrieved by agency action, within the meaning of the relevant statute, is entitled to judicial review thereof." The reviewing court, under 5 U.S.C. § 706, "shall hold unlawful and set aside agency action . . . found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" Therefore, in *Bergen County*, the court's scope of review over the Environmental Protection Agency's actions was limited to the criteria set forth in § 706.

171. See text accompanying notes 213-24 & 236-43 *infra*.

172. See text accompanying notes 185-202 *infra*.

173. See note 36 *supra*.

174. See note 36 *supra*.

175. Pub. L. No. 94-580, 90 Stat. 2795 (1976). Some of the relevant provisions of the Resource Conservation and Recovery Act include: (1) assistance to state and local governments to improve solid waste management techniques, (2) regulation treatment, storage and transportation of solid wastes, (3) guidelines for solid waste management techniques, (4) the establishment of the Office of Solid Waste and (5)

wastes, (2) the Toxic Substances Control Act,¹⁷⁶ which restricts the handling of certain chemical substances, and (3) the Safe Drinking Water Act,¹⁷⁷ which gives the EPA responsibility for the protection of human health from contaminants in drinking water.

The proliferation of these laws which tended to treat each medium¹⁷⁸ separately gave rise to a number of anomalies. For example, the rules governing the disposal of sludge by outfall pipe, practiced by Boston and Los Angeles,¹⁷⁹ were set under the Water Pollution Control Act¹⁸⁰ and were less stringent than those governing ocean dumping of the same sludge.¹⁸¹ Moreover, the dumping of dredged materials in internal waters was governed by the Federal Water Pollution Control Act, while the dumping of the same material beyond the baseline of the territorial sea was controlled by the MPRSA. The statutory criteria to be applied in evaluating the harm from each were substantially the same. Yet, to obtain an MPRSA permit to dispose of the material, an applicant had to undertake complex bioassay tests to establish that the material was benign; for the dumping in internal waters, a permit could be granted without any such test.¹⁸² Finally, it was possible that the strict application of the environmental standards in the RCRA could have had the effect of foreclosing any reasonable option for the disposal of sludge and other potentially hazardous wastes.¹⁸³

the promulgation of standards for management of hazardous wastes. *Id.* at 2795-2813.

176. Pub. L. No. 94-469, 90 Stat. 2003 (1976). The objective of the Toxic Substance Control Act is to regulate chemical substances which present an unreasonable risk of injury to health or environment in such a manner as not to create unnecessary economic barriers to technological innovation. *Id.* at 2004.

177. Pub. L. No. 93-523, 88 Stat. 1660 (1974). Under the Safe Drinking Water Act, the EPA Administrator is charged with establishing national drinking water standards and underground water standards. The states are given primary enforcement responsibility with regard to the drinking water and underground water standards. Upon failure by the state to assure enforcement of the relevant standards, the EPA Administrator is empowered to take measures to insure enforcement. *Id.* at 1662-67, 1674.

178. The ocean, air and earth are examples of a medium.

179. See NACOA REPORT, *supra* note 54, at 24, for a discussion of sewage sludge disposal practices for Boston and Los Angeles.

180. *Id.* at 25.

181. *Id.* at 26.

182. *Id.* at 28.

183. *Id.* at 29. The confusion resulting from the absence of a comprehensive waste management strategy was stated well by the members of the National Advisory Committee on Oceans and Atmosphere, an independent body created by the National Advisory Committee on Oceans and Atmosphere Act of 1977, Pub. L. No. 95-63, 91 Stat. 265. In a letter of November 20, 1979, to the Chairman of the House Subcommittee on Oceanography of the House Merchant Marine and Fisheries Com-

The problems posed by conflicting regulatory criteria, as well as the need for a total approach to the environment,¹⁸⁴ became more apparent as research on the oceans progressed. From the initial findings of the MESA study in 1975, scientific data accumulated suggesting that ocean dumping posed only modest environmental risks as compared with other threats to the ocean environment.¹⁸⁵ Moreover, there were

mittee, two officials of the National Advisory Committee cautioned against any outright ban on ocean dumping of either municipal sewage sludge or industrial waste as unreasonably foreclosing one waste disposal option. As they remarked, "[t]o look at the problem of waste disposal only from the perspective of protecting the receiving media, and to treat each medium independently, is a mistake." Letter from J. Krauss and E. Murphy to Rep. Gerry Studds, at 1 (November 20, 1979).

184. A total approach to the environment takes into consideration the effect alternative methods of sludge dumping would have on the environment.

185. STUDY BY THE MARINE ECOSYSTEMS ANALYSIS PROGRAM OF THE NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION, *cited in* REPORT OF THE SUB-COMM. ON THE ENVIRONMENT AND THE ATMOSPHERE OF THE HOUSE COMM. ON SCIENCE AND TECHNOLOGY, *THE ENVIRONMENTAL EFFECTS OF DUMPING IN THE OCEANS AND GREAT LAKES*, 94th Cong., 2d Sess. 13 (1976). The multitude of problems initially associated with ocean dumping did not withstand any close scientific analysis. It had become evident, at the very least, that the contribution of sewage sludge to any degradation of the environment at the Bight was not significant. The barging of sewage sludge represented only 6 to 8% of the total concentration of contaminants in the Bight, with the balance coming from discharges into rivers and streams, atmospheric fallout, industrial wastes, and runoff from land. *Id.* Hence, even according to the EPA's own Environmental Impact Statement, "the quality of the existing [dump] site and its surrounding area could not be expected to improve significantly even if sludge dumping were terminated." UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL IMPACT STATEMENT ON THE OCEAN DUMPING OF SEWAGE SLUDGE IN THE NEW YORK BIGHT 4 (1978). This same theme, the scientific questionability of the ocean dumping ban, was advanced by a group of ocean researchers who adopted a brief statement of principles avowedly "based solely on scientific consideration of the problems of sludge disposal." Assembled by a professor of biological sciences, this group of five Columbia University academics first distributed their manifesto in March, 1979 and then reaffirmed it one year later in a letter to Representative Murphy on the eve of the vote on his ill-fated ocean dumping amendment. In urging a postponement of the 1981 deadline, the statement of the scientists concluded:

- 1) We are not convinced that the current procedure of dumping New York City sludge in the New York Bight presents a substantial hazard to human health.
- 2) We are concerned that the proposed alternative of composting and landfill use may present, in the long term, a more serious human health hazard.

Statement dated March 29, 1979, attached to letter from R.F. Bopp, Adjunct Assistant Professor of Geological Sciences, Columbia University, to the House Merchant Marine and Fisheries Committee (March 13, 1980).

While widely shared by ocean researchers, this scientific criticism of the deadline was not universal. A proponent of the deadline, and the scientist on whom the EPA relied in contesting New York City's environmental claims in its lawsuit, was Dr. R. Lawrence Swanson (the original director of the MESA New York Bight Project). As

serious questions about the absolute, as opposed to the incremental, harm caused by sewage sludge dumping.¹⁸⁶ It also seemed that any adverse environmental impacts of dumping might be reversed easily. The experience with the Philadelphia dump site was instructive.¹⁸⁷ Two years after its closing by action of the EPA under the authority of the MPRSA, levels of bacteria and viruses at the dumpsite had declined sufficiently so that the U.S. Food and Drug Administration, which had banned shellfishing at the site, lifted the restrictions.¹⁸⁸

the Director of the Office of Marine Pollution Assessment of the National Oceanic and Atmospheric Administration (NOAA), he testified on the deadline at the EPA public hearings in October, 1979, on the issuance of sludge dumping permits to New York City. *EPA Region 11 Public Hearings on the Issuing of Permits for the Continued Ocean Dumping of Municipal Sewage Sludge*, October 2 & 4, 1979 (testimony of Dr. R.L. Swanson at 2, 24) [hereinafter cited as Swanson Testimony]. After a lengthy discussion of all of the research to that date on what he noted to be a "subject of considerable debate," *id.* at 7, he indicated that NOAA recommended that "the 1981 deadline be adhered to." *Id.* at 24. This recommendation was grounded in the finding that "ocean dumping, as it is presently carried out in the New York Bight, is adversely affecting the ecosystem." *Id.* It also reflected what Dr. Swanson called the "practical viewpoint" that control of ocean dumping was "accomplishable" and, in effect, that the control of pollution must begin somewhere. *Id.*

Dr. Swanson's testimony did not address, however, the environmental risks of the alternatives to ocean dumping, nor did it discuss any of the fiscal objections which had been raised to the implementation of any ocean dumping alternative. Moreover, on the central issue of the incremental effect of ocean dumping on pollution in the Bight, Dr. Swanson concluded that the cessation of sludge dumping "will probably not result in any observable changes to the New York Bight ecosystem" as long as other waste inputs to the Hudson and Raritan Rivers discharging into the Bight remained unabated. *Id.*

186. The City's Environmental Protection Commissioner may have been guilty of some hyperbole when he stated in the course of the city's lawsuit that the available information provided "an overwhelming body of evidence that the dumping of sewage sludge has *not*, in fact, resulted in any significant degradation of the ocean environment." McArdle Affidavit, *supra* note 147, at 7. On the other hand, the exhaustive review of the evidence conducted by Dr. Swanson of NOAA and presented at the 1979 EPA hearing on the city's permits was replete with qualifications and circumscriptions. There was no question that the city's sewage sludge contained a number of potentially harmful contaminants, including organic matter, petroleum hydrocarbons, halogenated hydrocarbons (PCB's), toxic metals and pathogens. But, apart from some changes in the character of the benthic communities in the Bight the isolation of one potentially pathogenic amoeba from Bight sediment and some incidences of fin rot disease among Bight fishes, there were few adverse environmental effects observed in the Bight. Furthermore, even as to these examples of environmental degradation, the role of sewage sludge, as opposed to other input and natural events, could not readily or conclusively be determined. *See* Swanson Testimony, *supra* note 185, at 7-17.

187. *See* text accompanying footnotes 129-32 *supra*.

188. INTERNAL EPA REPORT, *supra* note 132, at 6. This confirmed findings which had been made in Europe as to dumpsites which had been closed there. NACOA REPORT, *supra* note 54, at 57.

Perhaps the most dramatic result of the scientific investigatory work did not concern the impact of sludge dumping on the ocean environment. Rather, it pertained to the environmental and health risks associated with any reasonable alternative. Research revealed that any land-based alternative to ocean dumping might pose equally grave or graver risks to the environment and to human health.¹⁸⁹

Additional problems arose with respect to the technological feasibility of any ocean dumping alternative. In its final regulations issued in January 1977, the EPA acknowledged the need to grant interim permits for dumping which violated environmental criteria. The agency stated that the need for permits was "due to the lack of alternative methods of disposal and technology necessary to meet environmental criteria."¹⁹⁰ The EPA persisted, however, in setting the deadline for the cessation of ocean dumping "based on current projections of technological feasibility."¹⁹¹ As 1981 approached, it became clear that EPA's projections of technological developments had been wholly unrealistic.¹⁹²

189. See note 192 *infra*.

190. 42 Fed. Reg. 2462 (1977).

191. *Id.*

192. In a report to the EPA shortly after the deadline was established, the National Academy of Sciences had questioned the wisdom of any dumping alternative: "[T]he decision to exclude sludge from the ocean implies that it may be placed in the other media with less environmental impact . . . [T]here is no basis for such an assumption in the available scientific data on comparative impacts." COMMITTEE ON A MULTIMEDIUM APPROACH TO MUNICIPAL SLUDGE MANAGEMENT, COMMISSION ON NATURAL RESOURCES, NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY OF SCIENCES, IX Report to EPA 91 (1977), *quoted in* Background Information and Explanation of Mr. Murphy's Amendment to H.R. 6616-The Disposal of Sewage Sludge, at 5. The principal contaminants noted by Dr. Swanson as being present in sewage sludge posed arguably greater environmental hazards when that sludge was applied to the land or incinerated. See note 155 *supra*.

The solution proposed by New York City as the only one which would realistically permit the meeting of the 1981 deadline was to dewater and compost the sludge and spread it on dedicated park lands. McArdle Affidavit, *supra* note 147, at 3-4. This would have had the effect, at the minimum, of precluding the agricultural use of these areas since the concentration of heavy metals in the city's sludge far exceeded the standards set by the U.S. Department of Agriculture for the application of sludge to agricultural land. FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50, at 4. Moreover, there was evidence that these metals could pose a risk even to people using these lands for recreation. Memorandum to David Hawkins, Assistant Administrator for Air and Hazardous Materials, Housing and Urban Development, April 3, 1979, *cited in* McArdle Affidavit, *supra* note 147, at 14. Finally, there was a distinct possibility that these metals, principally cadmium and mercury, could leach into ground or surface waters in potentially harmful amounts. ECOLOGICAL ANALYSTS, A PRELIMINARY ASSESSMENT OF ENVIRONMENTAL CONSIDERATIONS FOR THE DISPOSAL OF SEWAGE SLUDGE IN THE NEW YORK BIGHT § 4, at 5 (May 1980).

Similar problems seemed to be posed by incineration, combustion or pyrolysis. In a study funded by the EPA, a group of scientists at Cornell University concluded that

In addition to scientific and technological developments, other factors were having a profound effect on the public, political and media attitudes towards the environment, in general, and ocean dumping in particular.¹⁹³ Shortly after enactment of the MPRSA, the nation found itself facing an oil embargo and resulting energy crisis.¹⁹⁴ The zeal which attended the movement to clean up the environment became tempered by the growing burden of inflation, increased energy consumption, and public discontent with government spending and regulation.¹⁹⁵ It appeared that the public was more concerned with preserving employment and maintaining its standard of living than with the less immediate threats to health or amenities posed by unclean water or air. Local governments which had welcomed federal environmental intervention as a means to overcome state and industry

the amounts of cadmium which might be released into the air after sludge pyrolysis, despite filtration, could bear a direct relationship to the amount of cadmium-related morbidity and illness in the affected air quality zone. P. JUTRO & A. NERODE, *RISK ASSESSMENT METHODOLOGY FOR SLUDGE MANAGEMENT DECISIONS* (December 1980), cited in McArdle Affidavit, *supra* note 147, at 17.

The "most intriguing possibility" according to a New York Times account was to add sludge to garbage and burn the mixture to generate energy. This was proposed for Port Washington, Long Island. It encountered strong community opposition since a less ambitious undertaking in Hempstead, Long Island, costing \$130 million, ended up having to be closed in April, 1980, when small amounts of dioxin, a deadly insecticide, were found in emissions during tests. N.Y. Times, Apr. 5, 1981, § 4, at 7, col. 1. The consultants who reviewed exhaustively the various alternatives available to the city for sludge disposal also expressed concern over the "significant" emissions of heavy metals possible from any combustion disposal process. They noted that locations within the New York City metropolitan area already had lead concentrations at or in excess of the federal National Ambient Air Quality Standard and that sludge combustion could cause further lead emissions. They also indicated that there were risks due to cadmium and mercury emissions from any sludge combustion operation. DRAFT TECHNICAL REPORT, *supra* note 151, at 3-287 to 3-290. While they felt that some of these emissions problems might have been correctable, the consultants rejected combustion or reduction as an alternative due to the inability to design, construct and begin operation of any adequate facilities by the 1981 deadline. FINAL ENVIRONMENTAL ASSESSMENT STATEMENT, *supra* note 50, at 4-5.

193. A New York Times editorial noted the absence of any accurate information as to the damage which land disposal of New York City's sludge might cause. In urging a delay in the deadline for the cessation of the ocean dumping of sewage sludge, the editorial concluded: "[i]t might be administratively neat to hold to the present schedule for the end of ocean dumping. But it would be more sensible for the Environmental Protection Agency to find out first whether a permanent answer to the sludge problem will indeed be permanent." N.Y. Times, Mar. 11, 1980, at A18, col. 1.

194. The MPRSA was enacted in 1972. See note 93 *supra*. The Arab oil producing countries imposed an oil embargo on the United States in October, 1973. N.Y. Times, Oct. 21, 1972, § 1, at 28, col. 1; *id.*, Oct. 22, 1973, at 1, col. 6.

195. N.Y. Times, Feb. 5, 1979, at 13, col. 1; *id.*, June 15, 1979, at 22, col. 1.

inertia¹⁹⁶ became troubled over the impact the proliferation of federal environmental mandates was having on their strained budgets.¹⁹⁷ The public, business community and elected officials began to decry the lack of autonomy and the costs of conforming to the myriad rules and regulations established and administered by officials in distant Washington, D.C.¹⁹⁸

These factors weighed particularly heavily upon compliance with the MPRSA ocean dumping regulations.¹⁹⁹ The federal share of the capital costs of compliance ranged from 75% to 87%, with the balance having to be borne by state and/or local governments. Not only did this leave a substantial capital burden to be carried by governments facing increasingly high borrowing costs, but the federal government bore no share of any added operating expenses.²⁰⁰ In New York City alone these added operating expenses were estimated to be \$35 million per year for the interim sludge management plan.²⁰¹ By 1981, the increased expenses and the ocean dumping requirement itself had generated a considerable political outcry, this time criticizing the regulations as strict and costly.²⁰²

196. See note 7 *supra* and accompanying text.

197. For an example of the federal environmental mandates' impact on municipal budgets, see text accompanying notes 199-201 *infra*.

198. See text accompanying note 195 *supra*.

199. While no analysis of the total costs of compliance had apparently been compiled, one estimate of the projected federal contributions for the fiscal year 1982 alone was \$245 million for New York City, \$300 million for townships in New Jersey, \$40 million for Nassau County, New York, and \$25 million for Westchester County, New York. Conversation with J. Sommer, Deputy Commissioner, New York City Department of Environmental Protection, April 6, 1981. From the passage of the MPRSA to January 1977, 118 municipalities which had dumped sewage sludge in the oceans had been forced to find alternatives. As of March 3, 1980, 26 municipalities still continued the practice of ocean dumping, but all of them had been put on notice that their dumping had to cease by December 31, 1981. Letter from Representatives Hughes, Evans, Bauman and Tribble to colleagues on the Oceanography and the Fish and Wildlife Subcommittees of the House Merchant Marine and Fisheries Committee (March 3, 1980).

200. Mandate Millstone, *supra* note 15, at 11, 13. The City of New York bore 75% of the operating expenses and New York State bore the remaining 25%. *Id.*

201. *Id.* at 11.

202. In June 1979, the U.S. Conference of Mayors, an organization of some 600 mayors of cities with populations of 30,000 or more, adopted a resolution sponsored by Mayor Koch of New York City which noted the absence of a scientific consensus as to the most acceptable alternative to ocean dumping. It urged the Congress and the Carter Administration "to recognize the tremendous difficulties involved in complying with the December 31, 1981 ocean dumping deadline and to seek practical and cost-effective alternatives to reasonably permit local governments to meet the deadline in an environmentally sound manner. . . ." United States Conference of Mayors, *City Problems of 1979: Annual Proceedings, June 9-13, 1979*, at 17 (1979).

VIII. The Easing of the Mandate

As 1981 began, the stage was set for some alteration in the ocean dumping mandate. The National Advisory Committee on Oceans and Atmosphere (NACOA) had been requested by the Chairman of the Oceanography Subcommittee of the House Merchant Marine and Fisheries Committee to undertake a study, began in May, 1979, of waste disposal in the oceans.²⁰³ Possibly prompted in part by the filing of the New York City petition to commence rule-making to revise the ocean dumping regulations,²⁰⁴ the EPA had been undertaking for several months a comprehensive review and evaluation of the ocean discharge and dumping programs. The conclusions of the review were expected to be available early in the year. In New York City's litigation to overturn the EPA ocean dumping regulations, oral argument was held in October, 1980, on a motion by the city for summary judgment.²⁰⁵ The judge in the case was characterized by one city attorney as being "quite favorably disposed" to the city's position. The judge was quoted as saying, at a September 5, 1980 conference with the parties, that it was "nonsensical to end ocean dumping where there is no real evidence of environmental harm."²⁰⁶ Finally, Ronald Reagan had been elected President of the United States on November 4, 1980, on a platform which stressed cutting back on environmental and other federal regulations and granting greater autonomy to state and local governments.²⁰⁷

In his mandate millstone speech at the 1980 mid-winter meeting of the Conference, Mayor Koch laid special emphasis on the ocean dumping deadline as "[p]erhaps the most graphic example of a mandate gone haywire." Mandate Millstone, *supra* note 15, at 11. These remarks received favorable comment from at least one national columnist, Peirce, Philadelphia Inquirer, February 18, 1980, at 15-A, col. 1, and from editorial writers in The New York Times, *The Ex-Congressman and the Mayor*, N.Y. Times, February 9, 1980, at 20, col. 1, and The Dallas Morning News, Wright, *Ed Koch and Mandate Mandarins*, Dallas Morning News, March 13, 1980, at 40A, col. 3. Mayor Koch's subsequent comment that he might have to offer his own apartment as a depository for New York City sewage sludge prompted the County Executive of Westchester County to respond, "Might you know of a smaller apartment in your building that Westchester could use?" Letter from Alfred DelBello to Edward Koch (November 26, 1980).

203. NACOA REPORT, *supra* note 54, Appendix E-1.

204. See notes 157-61 *supra* and accompanying text.

205. Notice of Motion for Judgment on the Pleadings and/or for Summary Judgment, City of New York v. United States EPA, 543 F. Supp. 1084 (S.D.N.Y. 1981).

206. Letter from Thomas W. Bergdall, New York City Law Department, to Deborah Jordan, Assistant to the Mayor (September 10, 1980).

207. N.Y. Times, July 16, 1980, at 14, col. 1 (discussing the content of the Republican platform).

The NACOA report²⁰⁸ adopted the theme that national policy had wrongly emphasized the management of waste disposal receptacles rather than the wastes themselves. In addition, the report was highly critical of the ocean dumping deadline. Recommending that Congress and the Executive Branch adopt an "integrated approach" to waste management, the report found that the "scientific information available to date" did not support an absolute ban on ocean dumping.²⁰⁹

In March, 1981, a draft of the EPA's ocean disposal review was made available. It was even more forthright than the NACOA report in its criticism of the EPA's handling of the sludge disposal program. In a complete reversal of almost eight years of consistent EPA opposition to ocean dumping, the draft concluded that the "EPA may be over-protecting one sector of the environment, the oceans, at the expense of other sectors, e.g., land and air."²¹⁰ The draft recommended an extensive research program to characterize the types of wastes which the oceans might absorb and the appropriate sites for disposal. The draft also proposed integration of ocean programs administration with the other EPA waste management programs under one consolidated set of procedures.²¹¹

While both the NACOA and EPA reports supported a change in the December 31, 1981 deadline, neither offered any practical relief to New York City or any of the other dumpers seeking a change in the

208. See NACOA REPORT, *supra* note 54. Entitled "The Role of the Ocean in a Waste Management Strategy," it offered a thorough and thoughtful history and analysis of the whole array of federal initiatives designed to control disposal of wastes in the ocean. *Id.*

209. *Id.* at 3-4. The report concluded that "ocean disposal should not be prohibited unless it can be demonstrated that it causes harmful effects that exceed those of reasonable alternative disposal practices." Since NACOA did not feel that greater environmental harm from ocean dumping had been established, it concluded that a "ban on sewage sludge disposal in the ocean after December 31, 1981, is unreasonable." *Id.* at 99-100.

210. INTERNAL EPA REPORT, *supra* note 132, at 5. The report noted that the EPA had chosen to regulate ocean dumping "conservatively" and had wrongly required the elimination of ocean dumping wherever any "feasible and available" alternative existed regardless of the costs or relative environmental risks of the alternative. *Id.* at 3-4. The report ascribed this misdirected policy to a lack of knowledge of the possible effects of ocean dumping, a desire to restore or maintain "essentially natural conditions" throughout the oceans and a wish to reverse the "recycle and reuse philosophy" in existence when the regulations were written. *Id.* at 1.

211. *Id.* at 18-20. While the authors of the report felt that these changes might be effected without statutory amendment, they noted that the 1977 amendment to the MPRSA had been predicated on the EPA regulations then in force. Accordingly, changes "based purely on policy may be more difficult to defend without a statutory amendment or clarification." *Id.* at 20.

ocean dumping regulations. Such relief was available only through formal EPA action, court order or statutory revision.²¹²

On April 7, 1981, the first prospect for a breakthrough in *City of New York v. United States EPA* occurred. The Acting Administrator of the EPA sent to the two senior EPA officials charged with administering the ocean dumping program in the New York metropolitan area a memorandum in which he concluded that "the interests of all concerned would be served by securing a period of time in which to assess whether the ocean dumping of some or all of their waste is a permissible alternative to land-based disposal."²¹³ The Acting Administrator indicated also that the EPA felt it could not authorize the ocean dumping of sewage sludge after December 31, 1981, but was willing to seek a solution which would permit continued dumping.²¹⁴ Accordingly, the Acting Administrator intimated that the agency might wish to agree to a consent judgment in those lawsuits pursuant to which the ocean dumping site would be moved from the Bight to an area 106 miles offshore for a limited period of time subject to a schedule for the development of additional data.²¹⁵

212. The City of New York, as an interested party, was entitled under the Administrative Procedure Act, 5 U.S.C. § 553 (1976), to petition the EPA for the issuance, amendment or repeal of a rule promulgated by the agency. *Id.* § 553(e). The city made such a request in 1980. See *Petition*, *supra* note 49. An example of relief by court order would be the order handed down by the district court in *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981). See text accompanying footnotes 237-43 *infra*.

213. Memorandum from W. Barber, Acting Administrator, United States EPA, to R. Dewling, Acting Regional Administrator, Region II, and S. Schatzow, Deputy Assistant Administrator for Water Regulations and Standards, at 1 (April 7, 1981).

214. *Id.* at 1-2.

215. *Id.* As to the dumpsite in the Bight, the Acting Administrator concluded that "available data indicates that environmental and navigational conditions . . . make it unacceptable for use for the ocean disposal" of sewage sludge. *Id.* Pursuant to the EPA Acting Administrator's directive, discussions commenced between the EPA and New York City officials concerning a consent judgment. Such a judgment would have had the effect of permitting the city to continue temporarily its sludge ocean dumping but at the 106 mile dumping site. These discussions proceeded in desultory fashion for three main reasons. First, the city felt that because sludge dumping caused little environmental harm to the Bight, no alteration in disposal patterns was warranted. Second, the city calculated that the cost of transporting its sludge the greater distance would increase its operating costs annually from the \$2 million current expense to either \$13 million or \$17.5 million annually, depending upon whether the quantity of sludge could be decreased through centrifuging. See Memorandum from J. Miller, Assistant Commissioner, N.Y.C. Dep't of Environmental Protection to F. X. McArdle, Commissioner, Dep't of Environmental Protection (March 20, 1981). Third, the city expected an imminent decision on its motion for summary judgment and felt the outcome might be more favorable than the terms being offered by the EPA. Conversation with Thomas W. Bergdall, New York City Law Department.

The city, however, resisted negotiating a consent judgment. On April 14, the resistance was rewarded by a disposition of *City of New York v. United States EPA*, granting summary judgment to the city.²¹⁶ Pursuant to this decision, the EPA was permitted to enforce the 1981 deadline for the cessation of all dumping which unreasonably degraded the environment. The agency, however, was ordered to revise its criteria used to assess unreasonable environmental degradation to reflect all of the relevant statutory factors.²¹⁷ In particular, the EPA no longer could rely exclusively upon universal ocean impact criteria without considering the characteristics of the particular dumpsite for which a dumping permit was sought. Moreover, the EPA could not assume that technologically practicable alternatives to the ocean dumping of sludge existed. The EPA was prohibited from forcing New York City to implement any land-based alternative "without evaluating and finding acceptable the actual and potential environmental effects of land disposal."²¹⁸

In reaching its decision, the court relied heavily upon the legislative history of the MPRSA²¹⁹ and the unreasonableness of the EPA's regulations as applied to New York City. As to the legislative history, District Judge Sofaer found a "universal understanding" that all of the criteria for permit evaluation set forth in the statute had to be considered and balanced in order to establish unreasonable harm and that these criteria had to be applied on a case-by-case basis.²²⁰ He also found evidence of the arbitrary manner in which the EPA's regulations were applied to New York City. Judge Sofaer considered that (1) such cessation "would result in no discernible improvement in the area of the ocean around the dumpsite,"²²¹ (2) no "workable plan" for a long-term alternative had been found,²²² (3) the cost of the city's proposed interim solution would far exceed the cost of ocean dumping,²²³ and (4) implementation of the city's land-based interim solu-

216. As a result of the court's recognition of the complexities of the lawsuit and some deficiencies in the record, a revised and final opinion, differing in relatively minor respects from the original, was issued on August 26, 1981. Citations are to the final opinion. See note 159 *supra*.

217. *City of New York v. United States EPA*, 543 F. Supp. 1084, 1115 (S.D.N.Y. 1981).

218. *Id.* at 1099.

219. See note 93 *supra* and accompanying text.

220. *City of New York v. United States EPA*, 543 F. Supp. at 1092.

221. *Id.* at 1101.

222. *Id.* at 1104.

223. *Id.* at 1104-05.

tion could pose serious environmental dangers which the EPA had taken only a "casual approach in evaluating."²²⁴

As long as the opinion considered only the 1972 Act and its application to New York City, there was little to fault in the court's findings and conclusions. However, the failure of the court to give adequate weight to the 1977 amendments is troublesome. The 1977 amendments set the December 31, 1981 deadline for cessation of sludge dumping. The court, however, construed the amendments as providing "that EPA may not, after 1981, permit dumping that fails the test established by the 1972 Act."²²⁵ The court rejected the argument that the Congress intended to accomplish something new in adopting the amendment. Instead the court stated that Congress "needed to repeat its 1972 directive" since the EPA had been ignoring the statutory criteria in allowing municipalities to continue to dump solely on the showing of a good faith effort to comply with the law.²²⁶ According to the court, the Congress only wanted to be certain that all sludge dumping which violated the original statutory criteria was terminated by December 31, 1981.²²⁷

This interpretation of the 1977 amendments poses at least three problems. First, as a general rule of statutory interpretation, Congress is not presumed to enact redundant or unnecessary legislation²²⁸ or to have performed a useless act.²²⁹ This would include enacting legislation which would have no other impact but to repeat earlier statutory pronouncements. Second, to the extent the court decision gave any meaning to the 1977 amendments, Judge Sofaer viewed the amendments as actually weakening the 1972 law. The court seemed to be saying that, whereas the 1972 law had barred all unreasonable dumping, the 1977 amendments were enacted to allow such dumping to continue until December 31, 1981. This interpretation did violence to the legislative intent of the 1977 amendments which was replete with criticism of the continued ocean dumping of sewage sludge.²³⁰ More-

224. *Id.* at 1107.

225. *Id.* at 1109.

226. *Id.*

227. *Id.*

228. *Uptagrafft v. United States*, 315 F.2d 200, 204 (4th Cir.), *cert. denied*, 375 U.S. 818 (1963); *United States v. Burroughs*, 379 F. Supp. 736, 741 (D.S.C. 1974), *appeal dismissed*, 510 F.2d 967 (4th Cir. 1975), *appeal reinstated*, 537 F.2d 1156 (4th Cir. 1976), *aff'd*, 564 F.2d 1111 (4th Cir. 1977).

229. *F.L. Smidth Co. v. United States*, 273 F. Supp. 384, 394 (U.S. Cust. Ct. 2d Div. 1967).

230. Members of Congress clearly envisioned the amendments as hastening, not delaying, the cessation of ocean dumping. The report, *see* note 147 *supra*, which

over, the court's decision disregarded the legislative history of the amendments which suggested Congress' interest in ratifying the very EPA regulations which the court found to be arbitrary and violative of the amendments.²³¹

In defense of the court, it must be said that the language of the 1977 amendments is exceedingly elliptical. The legislative history strongly suggests that Congress' purpose in enacting the amendments was to strengthen the EPA's commitment to end dumping of most sewage sludge by 1982.²³² The very narrow exception to this purpose was any dumping which might cause only insignificant harm to the ocean environment.²³³ It is almost certain that the Congress, the EPA and New York City did not contemplate that the city's sewage sludge might qualify for this exception. The difficulty for the court arose in that the Congress, in defining the exception in the 1977 amendments, chose the same expansive language as to reasonableness that it had used in defining the exceptions under the original statute.²³⁴

The court was justified in concluding that the EPA had interpreted the original statutory exception far too restrictively. Because it appeared that environmental as well as fiscal public policy goals might be better served if the city continued to dump its sludge in the ocean, the court might have been forgiven if as a matter of policy it had chosen to (1) attach only minimal significance to the 1977 amendments and (2) evaluate the EPA's conduct and regulations almost exclusively by reference to the original law. The court also should have considered that the authors of the 1977 amendments were well aware of the impact upon the ocean environment of sewage sludge

accompanied the House Committee bill explicitly noted that "the Merchant Marine and Fisheries Committee has not been satisfied with the EPA's progress in curbing harmful ocean dumping." H. REP. NO. 325, Part I, 95th Cong., 1st Sess. 3, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 3264.

231. *See* H. REP. NO. 325, Part I, 95th Cong. 1st Sess. 3, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 3264. Although the Senate Committee report did not discuss the amendments, *see* S. REP. NO. 189, 95th Cong. 2d Sess. (1977), the House Committee report is quite explicit in its directive that the EPA Administrator "shall apply the criteria which were established by such agency in the Federal Register on January 11, 1977 . . . [i]n determining whether sewage sludge may 'unreasonably degrade or endanger' the environment as to be barred from disposal in the ocean. *Id.* H. REP. NO. 325, Part I, 95th Cong., 1st Sess. 3-4, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS 3264.

232. H. REP. NO. 325, Part I, 95th Cong., 1st Sess. 2-3, *reprinted in* 1977 U.S. CODE CONG. & AD. NEWS at 3263-64.

233. *Id.*

234. *Compare* 33 U.S.C. § 1412(a) (1976) (adopted as part of the original 1972 MPRSA) *with* 33 U.S.C. § 1412a(b) (Supp. I 1977) (adopted as part of the 1977 amendments).

dumping from the considerable research which had been conducted. By contrast, few people in 1977 appreciated the far greater risks which sludge incineration or land dumping might pose to human health and the environment. Research as to those risks first began in earnest with the imposition of the firm 1982 deadline. Accordingly, the court must have been loath to set aside the balancing test established in the original statute when the practical merits of such balancing only became evident after the adoption of the 1977 amendments.²³⁵

235. At the same time as the court was preparing its opinion and the Administration was altering its approach to the sludge dumping mandate, the Congress was also showing evidence of a change in sentiment. In connection with President Reagan's proposals for a drastic cutback in federal expenditures, the House Merchant Marine and Fisheries Committee, together with other committees of the House and Senate, was ordered to recommend substantial budget savings in the programs under its jurisdiction. REPORT OF THE HOUSE BUDGET COMM. ON THE OMNIBUS RECONCILIATION ACT OF 1981, VOL. I, H. R. REP. NO. 158, 97th Cong., 1st Sess. 1 (1981) [hereinafter cited as RECONCILIATION ACT]. The Administration and the Congress had contemplated that the Merchant Marine and Fisheries Committee would meet its budgetary goal by imposing fees on boat and yacht owners who used Coast Guard services. REPORT OF THE HOUSE BUDGET COMM. ON THE FIRST CONCURRENT RESOLUTION ON THE BUDGET—FISCAL YEAR 1982, H. R. REP. NO. 23, 97th Cong., 1st Sess. 133-34 (1981). Instead, the Committee adopted by a 17 to 14 vote the establishment of a "system for the imposition of ocean dumping fees . . . for materials which are ocean dumped including but not limited to sewage sludge, industrial wastes, and dredged materials." The fee was not to exceed \$5 per wet ton and the EPA Administrator was given authority to adjust the fee downward depending upon the extent to which the materials would degrade the marine environment and the assimilative capacity of the dump site. The Administrator could even waive the fee for any dumper who could demonstrate that it would result in an "undue economic burden." RECONCILIATION ACT, *supra*, Vol. II at 607-08.

Had this provision become law and the largest possible fee been assessed against New York City's sewage sludge dumping, the amount payable by the city would have approximated \$18 million annually. This figure is based on the 3.740 million wet tons of sludge projected by the New York City Department of Environmental Protection as likely to be dumped in federal fiscal year 1983, the year the fee would have gone into effect. Conversation of J. Sommer, Deputy Commissioner, New York City Department of Environmental Protection, with Chris Goddard, New York City Washington Office (June 1980). This would have increased the city's ocean dumping costs six-fold, *see* note 64 *supra*, and vitiated much of the favorable fiscal impact of the Court decision. This time, however, the action of the House Merchant Marine and Fisheries Committee in seeking to discourage ocean dumping did not receive the supine Congressional acceptance which it had in 1972 and 1977. The House Public Works and Transportation Committee, chaired by a Congressman whose district included at least two of the localities still dumping sewage sludge in the ocean, adopted a provision for inclusion in the same budget-cutting bill which would have prohibited any officer of the federal government from imposing any ocean dumping fee. H.R. 3982, § 11141, 97th Cong., 1st Sess., *cited in* RECONCILIATION ACT, *supra*, Vol. III at 113-14.

The ocean dumping fee also became the target of criticism from Representative Charles Rangel, a senior member of the House Ways and Means Committee, who

IX. Recent Developments

The final judgment entered in *City of New York v. United States EPA* established the administrative and legal processes through which a final regulatory resolution of the ocean dumping controversy will be achieved. As entered on November 2, 1981, the judgment delineates a sequence of events through which the proper application of the MPRSA to the city's sludge dumping may be determined.²³⁶ To resolve the competing claims and requirements of the city and the EPA,²³⁷ the judgment contemplates having the EPA simultaneously publish for public comment, first, the issues set forth in the city's petition and, second, the proposed EPA action to establish the 106 mile dump site for sludge.²³⁸ Following the EPA's issuance of a final determination on

argued that the fee more closely resembled a tax in that it was designed not to reimburse the federal government for services rendered but rather to collect revenues and further a particular public policy. In testimony before the House Rules Committee, Representative Rangel urged that either the ocean dumping fee provision or the entire bill be returned to the House Budget Committee for referral to the House Ways and Means Committee, the principal tax-writing committee of the House. He argued, alternatively, that the rule for consideration of the fee on the House floor allow the raising of a point of order against the fee directed to this jurisdictional issue as well as to the conflict between the fee and the no-fee provision reported out of the House Public Works and Transportation Committee. *Hearings before House Rules Comm. on H.R. 3982*, 97th Cong., 1st Sess. (1980) (unprinted Testimony of Representative C. Rangel).

While the House Rules Committee refused to accede to any of these requests which might have jeopardized, by example or precedent, other controversial budget saving measures in the bill, these criticisms and others directed to the merits of the fee found a favorable reception in many Congressional quarters, as well as from the Administration. As a consequence, the ocean dumping fee was easily dropped in the House/Senate conference on the bill. See H.R. REP. No. 208, 97th Cong., 1st Sess. 929-30, reprinted in 1981 U.S. CODE CONG. & AD. NEWS 1291-92.

236. Final judgment in *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981).

237. The competing claims are contained in: (1) the city's petition to the EPA seeking the designation of the 12 mile site as available, after December 31, 1981, for the ocean disposal of any sludge not unreasonably degrading the environment, *Petition, supra* note 49; (2) the city's application for a new ocean dumping permit to replace the one which was due to expire on December 31, 1981, Letter from Francis X. McArdle, Commissioner, New York City Department of Environmental Protection to Dr. Peter W. Anderson, Chief U.S. Environmental Protection Agency, Region II, Surveillance and Analysis Division (1980); (3) the EPA's proposal to designate a site 106 miles from the New York harbor for the disposal of sludge and other materials, see note 215 *supra*, and (4) the opinion requiring the EPA to revise its ocean dumping regulations (a) to eliminate the conclusive presumption of unreasonable environmental degradation based solely on the environmental impact criteria and (b) to require permit applications to be evaluated in light of all the relevant criteria set forth in the MPRSA. See text accompanying footnotes 238-43 *infra*.

238. Final judgment at 2, *City of New York v. United States EPA*, 543 F. Supp. 1084 (S.D.N.Y. 1981).

the city's petition, the EPA will issue a final decision on the city's application for an ocean dumping permit.²³⁹ The EPA also will proceed to revise generally its regulations to conform to the court opinion.²⁴⁰ Until the last process is completed, the EPA shall review permit applications in accordance with its current regulations "except insofar as they establish a conclusive presumption of unreasonable degradation to the environment based solely on a finding that a permit applicant's sludge violates the environmental impact criteria" in the existing regulations.²⁴¹ Moreover, until the EPA has completed its action on the city's petition, the agency may not take any enforcement action against the city so long as the city's dumping conforms to all the terms of its current dumping permit, other than the terms requiring the city to construct onshore sludge disposal facilities.²⁴² In addition, any final rule by the EPA declining to designate the 12 mile site for further ocean disposal may be contested by the city.²⁴³

While the outcome of these review processes cannot be predicted, the EPA can be expected to show considerable sensitivity to the need for, and the value of, continued and even expanded ocean dumping. The EPA working paper which became available in March, 1981, indicated the agency's desire to have the oceans integrated into an overall waste management strategy so that one sector of the environment, the ocean, is not protected at the expense of the nation's land and air.²⁴⁴ The working paper cited a joint EPA/NOAA workshop on waste assimilation which concluded that the capacity of United States coastal waters was underutilized and that numerous materials in addition to sludge and dredged spoils might be suitable for ocean dumping.²⁴⁵

A draft of the EPA's revised regulations presents a "shift in EPA ocean dumping policy toward making ocean dumping a viable option for waste disposal." The regulations would purportedly allow the dumping of secondarily treated sludge but prohibit the dumping of sludge which had undergone only primary treatment. However, the

239. *Id.*

240. *Id.* at 3.

241. *Id.*

242. *Id.* at 4.

243. *Id.*

244. INTERNAL EPA REPORT, *supra* note 132, at 5.

245. The EPA working paper describes a suggestion presented in a 1979 NOAA workshop on the vast assimilative capacity of U.S. coastal waters. At the workshop it was mentioned that electroplating, phosphate, non-ferrous metals and leather tanning wastes might be "suitable" for ocean disposal based on "waste stream characterization and proximity to ocean waters." *Id.* at 7.

EPA had not decided as of September 30, 1982, whether to issue proposed regulations for comment or simply to explain the general tenor of its thoughts and solicit public responses.²⁴⁶

Several Representatives have met with the EPA Administrator and suggested that she appeal Judge Sofaer's decision. The Administrator ultimately decided against an appeal on the grounds that the decision "[did] not require EPA to defy the will of Congress."²⁴⁷ The EPA was unlikely to prevail and the decision gave the agency wide flexibility to incorporate scientific and administrative developments into its regulations.²⁴⁸

The legislative picture also remains somewhat unsettled. In 1982, there have been a number of attempts to change the MPRSA.²⁴⁹ For instance, the staff of the Subcommittee on Oceanography of the House Merchant Marine and Fisheries Committee²⁵⁰ prepared a draft amendment which would have barred all ocean disposal of sewage sludge in the New York Bight by December 31, 1982. The draft amendment would have prevented any other sludge dumping which degraded the environment and to which there existed a "prudent and feasible" disposal alternative.²⁵¹ This draft bill and other proposals were the subjects of hearings before the Subcommittee of Oceanography and the Subcommittee on Fisheries and Wildlife Conservation and the Environment before the House Committee of Merchant Marine and Fisheries on March 18, 23 and 26.²⁵² The purpose of the

246. Washington Post, Mar. 30, 1982, at A 17, col. 1.

247. Letter from Anne M. Gorsuch, Administrator, EPA to Representative Norman E. D'Amours (Aug. 28, 1981).

248. *Id.*

249. The scheduled expiration of the funding authorization for Title I of the MPRSA on September 30, 1982, provided the impetus for these attempts. Under the MPRSA, Congress appropriates funds for administering the regulation of ocean dumping by the EPA. 33 U.S.C. § 1420 (Supp. IV 1980). As of September 14, 1982, the Congress had not appropriated the necessary funds. However, an appropriations bill was passed in the House of Representatives, 128 CONG. REC. H6991, 7055 (daily ed. Sept. 15, 1982) and in the Senate, 128 CONG. REC. S12146, 12180 (daily ed. Sept. 24, 1982). This bill provided the EPA, among other independent agencies, with funds to continue administration of the agency's programs (e.g. MPRSA) on a short-term basis. 128 CONG. REC. H7972 (daily ed. Sept. 29, 1982). The bill was sent to conference in order to reconcile the House and Senate versions. Both the House of Representatives and the Senate consented to the changes suggested in the conference report. 128 CONG. REC. H7972, 7982, S12613, 12617 (daily ed. Sept. 29, 1982). The President signed the bill into law on September 30, 1982. 18 WEEKLY COMP. PRES. DOC. 1246 (Sept. 30, 1982).

250. H.R. REP. No. 558, 97th Cong., 2d Sess. 2 (1982).

251. A Bill to Improve the Ocean Dumping Program, Discussion Draft No. 1, at 9, February 25, 1982, as revised.

252. H.R. REP. No. 558, 97th Cong., 2d Sess. 2 (1982).

hearings was to receive comments on the staff draft bill.²⁵³ On May 5, the House Committee on Merchant Marine Fisheries defeated²⁵⁴ a similar effort designed to reinstate a specific deadline for the cessation of the dumping in the New York Bight which failed to meet the strict environmental standards of the Act. The earlier unsuccessful attempts to amend the MPRSA led to the emergence of a consensus bill which was passed by the House of Representatives on September 20, 1982²⁵⁵. The bill was referred to the Senate where it was placed on the calendar.²⁵⁶

The final resolution of the sludge ocean dumping question will have to await the results of legislative, administrative and judicial deliberations. Yet the terms of the debate have shifted dramatically since readers of the *New York Times* first encountered the alleged threat of a dead sea rising at the New York harbor mouth and spreading toward the New York and New Jersey shores. The single-minded preoccupation with any purported threat to the ocean environment has given way to a more careful and reasoned balancing of the full range of environmental, social and fiscal implications of any ocean disposal policy.

X. Conclusion

While the rather narrow focus of this article does not permit any broad generalizations as to the development of public policy towards the environment, several specific conclusions do emerge as to the role of various public institutions and actors in the dispute over one important environmental issue.

First, the public policy which developed at each stage of the controversy was only as good as the breadth of the knowledge with which it was informed. The initial impulse towards regulating the ocean dumping of sewage sludge was based, at best, on a scant awareness of

253. *Id.*

254. 128 CONG. REC. D538 (daily ed. May 5, 1982).

255. 128 CONG. REC. H7258, 7259 (daily ed. Sept. 20, 1982). The bill was introduced after hearings before the House Committee on Public Works and Transportation. H.R. REP. NO. 562, Part II, 97th Cong., 2d Sess. 10 (1982). The consensus bill would change the site designation and permit application process. H.R. RES. 6113, with an amendment as printed in H.R. REP. NO. 562, Part II, 97th Cong., 2d Sess. 15, 16 (1982). The EPA Administrator would have the discretion to address circumstances of serious and unequivocal environmental degradation. *Id.* However, the balancing requirement contained in Judge Sofaer's decision would be left substantially intact. *Id.* See text accompanying notes 216-18 & 237-43 *supra* for discussion of Judge Sofaer's decision.

256. 128 CONG. REC. S12103 (daily ed. Sept. 23, 1982).

the full environmental and health impacts of the dumping. The consequence was the formulation of legislation and regulations which over-emphasized the purported environmental harm of ocean dumping and ignored the fiscal, technological or environmental implications of any disposal alternatives.

Second, an aroused public, sympathetic press and responsive legislature could combine to force the implementation of strict environmental constraints even after the justification for such constraints had been called into serious question. The enactment in 1977 of the ocean dumping deadline was prompted by several dramatic ocean events, widely publicized in the press and in congressional hearings. Scientific research, however, established quickly that these events bore little relation to the practice of sludge dumping. The inexorable momentum of the legislative process carried forward by an engaged press, public and Congress, failed however, to take account of these findings.

Third, the judicial branch could play a conservative role in checking the unreasoned or heated actions of the other more publicly sensitive branches of government. The court in the *City of New York v. United States EPA* found a legislative requirement for balancing many of the competing factors that affect the ocean dumping of sewage sludge, despite the explicitly narrow environmental concern of the authors of the ocean dumping deadline. The court was able to read into the deadline a simple reaffirmation of the reasonableness standard which appeared in the 1972 Act.

One regional planning official recently cited sewage and sludge disposal as one of "the two key problems of local government in the 1980's."²⁵⁷ The twelve years of debate over ocean disposal has prepared our society to cope with all of the ramifications of this problem. Whatever solutions are adopted ultimately will reflect the measuring and weighing of competing legitimate concerns. Any impacts upon the ocean environment will figure prominently but not exclusively in the balance.

257. N.Y. Times, Apr. 5, 1981, § 4 (Week in Review), at 1 col. 1.

