



6-1-1972

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Recommended Citation

James T. Ramey & Martin G. Malsch, *Environmental Quality and the Need for Electric Power--Legislative Reforms to Improve the Balancing Process*, 47 Notre Dame L. Rev. 815 (1972).

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ENVIRONMENTAL QUALITY AND THE NEED FOR ELECTRIC POWER—LEGISLATIVE REFORMS TO IMPROVE THE BALANCING PROCESS

James T. Ramey and Martin G. Malsch***

I. Introduction

The problem of striking a proper balance between the need for electrical energy and the need to protect and enhance our environment is one of the most serious and urgent ones presently facing the Congress, regulatory agencies, electric utilities, and the general public.

The environmental crisis which faces us today is well known to anyone who reads the papers, watches TV or listens to the radio. We hear of a dying Lake Erie, a threatened Everglades Swamp, Los Angeles smog, polluted rivers, dying forests and growing mountains of man's garbage. We as a nation are becoming concerned—properly concerned—with these things. After decades of apathy we are beginning to take more positive actions on environmental problems. The growing national concern and action on these problems began to manifest themselves in the early sixties, focusing on such pollutants as chemical wastes and sewage in streams, and smog and smoke in the air. More recently the general environmental effects of proposed electric power plants have become the subject of increasing interest.

However, another crisis is also upon us—that of meeting this nation's accelerating need for energy. The warning signals are also readily discernible: the electric power blackouts and brownouts in recent years, the shortages of fuel during the past several winters, the large increases in prices of coal, oil, and gas, the recent threat of an embargo of oil shipments by Arab nations, and even curtailment of electric power usage through what is known as "load shedding."

The dimensions of the problem of balancing the need for electrical energy and the need to protect and enhance the environment can readily be seen from an examination of estimates of electrical generating capacity needed in the next two decades. As of 1970, the in-service electrical generating capacity of the United States was about 340 million kilowatts including conventional hydroelectric, pumped storage hydroelectric, fossil steam,¹ internal combustion and gas turbine, and nuclear generating facility capacity.² The projected 1980

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1 Fossil steam plants are plants using combustion of coal, oil, or gas to produce steam to drive turbines.

2 This information and other information concerning projected electrical generating capacity and power plant and transmission line requirements in this and the next paragraph are based upon Federal Power Commission staff estimates set forth in testimony by Federal Power Commission Chairman John N. Nassikas before the Subcommittee on Communications and Power of the House Committee on Interstate and Foreign Commerce on May 6, 1971.

electrical generating capacity is 665 million kilowatts, or almost double the 1970 capacity, and the projected 1990 electrical generating capacity is one billion, 260 million kilowatts, or over 3½ times the 1970 capacity.

It is estimated that 150 new sites will be needed in the period 1970-1980 for thermal electric power plants of 500 thousand kilowatts or more, and that another 150 new sites for such plants will be needed in the succeeding decade. At the same time, it is estimated that construction of new transmission lines in the next 20 years will utilize about 7 million acres of land for rights-of-way, almost twice the 4 million acres now used for electric transmission.

These projections of electrical generating capacity needed in the next two decades are accompanied by projections of increased delays in placing generating plants in service. Of a total 114 steam-electric generating plants of 300 thousand kilowatts or more installed from 1966 through 1970, 72 percent (83 plants) were delayed in being placed in service. Several factors contributed toward these delays, including technical problems associated with bringing the new larger fossil and nuclear power plants on-line. However, the various regulatory processes are reported as having caused the delays in only about 10 percent of the cases (8 plants). On the other hand, as of June 30, 1970, of a total of 230 steam-electric generating plants of 300 thousand kilowatts or more scheduled for service during 1971 through 1977, 23 percent (53 plants) were already reported as being delayed, with the various regulatory processes now reported as the cause for the delays in about 50 percent of the cases (27 plants).³

The data cited above suggest that the regulatory processes themselves are becoming a significant factor in the overall problem of electric power plant delays and, therefore, a significant factor in the problem of balancing the nation's increasing demand for electric power and the need to protect and enhance environmental values. The purpose of this article will be to describe the current nature of those regulatory processes involved in the siting, construction, and operation of electric power plants, particularly the regulatory processes at the federal level, and discuss some proposed institutional reforms intended to facilitate the balancing process.⁴

II. The Nature of the Regulatory Processes

An examination of the regulatory processes themselves reveals a largely un-

Hearings on H.R. 5277, H.R. 6970, H.R. 6971, H.R. 6972, H.R. 3838, H.R. 7045, H.R. 1079, and H.R. 1486 Before the Subcomm. on Communications and Power of the House Comm. on Interstate and Foreign Commerce, 92nd Cong., 1st Sess., ser. 92-32, pt. 2, at 439 (1971) [hereinafter cited as House Hearings]. Estimates were made by the Federal Power Commission staff with the assistance of regional advisory committees representing the power industry in connection with the preparation of the Federal Power Commission's 1970 National Power Survey. Some comparable but earlier estimates are set forth in a December 1968 report sponsored by the Energy Policy Staff, Office of Science and Technology, Executive Office of the President, entitled *Considerations Affecting Steam Power Plant Site Selection*.

³ The data in this paragraph concerning delays is based upon data contained in *House Hearings*, *supra* note 2, at 438.

⁴ The discussion of proposed federal legislation in this article is current to the end of the first session of the 92d Congress. By the time of publication of this article subsequent relevant legislative developments may have taken place during the second session.

coordinated and often overlapping patchwork of regulatory programs at the federal, state, and local levels.

Until fairly recently, problems regarding the siting, construction and operation of electric power plants have been primarily regarded as problems of land use to be dealt with at the state and local levels. The construction and operation of electric power plants are still generally subject to numerous standards and approvals at the state and local levels. State permits are commonly required for use of state waters for sewage or waste disposal,⁵ for construction in or alteration of streams,⁶ and for discharge of air pollutants.⁷ In addition, power plants are generally subject to local zoning ordinances and building permit requirements. However, beginning with the enactment of Part I of the Federal Power Act in 1920, and, particularly, in the last several years, the federal role in this area has increased with the result that, at present, a complicated system of federal regulatory processes is superimposed upon the regulatory processes at the state and local levels.

At the federal level the regulatory processes associated with electric power plant siting, construction, and operation are centered around five basic statutes, the Federal Power Act, the Atomic Energy Act of 1954, the Rivers and Harbors Act of 1899, the Clean Air Act, and the Federal Water Pollution Control Act.

Under Part I of the Federal Power Act,⁸ the Federal Power Commission has licensing authority over the construction and operation of all non-federal hydroelectric projects located on navigable waters, public lands and reservations or at federal government dams, and hydroelectric projects which are involved in interstate operations. Federal Power Commission hydroelectric licensing is governed by the legislative standard in section 10(a) of the Federal Power Act that the project "will be best adapted to a comprehensive plan for improving or developing a waterway or waterways . . . for . . . beneficial public uses . . ."⁹ Implementation of this legislative standard requires full evaluation by the Federal Power Commission of all environmental considerations and possible alternatives.¹⁰ Licensing of projects on navigable waters and public lands and reservations is within the exclusive jurisdiction of the Federal Power Commission and the states are generally without authority to require additional permissions or impose their own conditions on such matters.¹¹

5 *E.g.*, CONN. GEN. STAT. ANN. § 25-54i (Supp. 1969); MD. ANN. CODE art. 96A, § 11 (Supp. 1970); MASS. ANN. LAWS ch. 21, § 43 (Supp. 1970); MICH. STAT. ANN. § 3.528 (Supp. 1971).

6 *E.g.*, MD. ANN. CODE art. 96A, § 12 (Supp. 1970); MICH. STAT. ANN. § 3.525(2) (Rev. 1969).

7 *E.g.*, CONN. GEN. STAT. ANN. § 19-508 (Supp. 1969).

8 16 U.S.C. §§ 791a-823 (1970). Under Parts II and III of the Federal Power Act, 16 U.S.C. §§ 824-825r (1970), the Federal Power Commission has authority over the interstate transmission of electric energy and the rates for its sale at wholesale in interstate commerce by investor-owned utilities, including authority over accounts and reports of such utilities.

9 16 U.S.C. § 803(a) (1970). For a discussion of the FPC's planning responsibilities under section 10(a), see *Greene County Planning Board v. FPC*, — F.2d — (2d Cir. January 17, 1972).

10 *Udall v. FPC*, 387 U.S. 428 (1967); *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d 608 (2d Cir. 1965), *cert. denied*, 384 U.S. 941 (1966).

11 *FPC v. Oregon*, 349 U.S. 435 (1955); *First Iowa Coop. v. FPC*, 328 U.S. 152 (1946).

The Atomic Energy Act of 1954¹² vests the Atomic Energy Commission with licensing authority over the construction and operation of nuclear power plants. Until fairly recently this authority was confined essentially to matters affecting radiological health and safety and the common defense and security.¹³ However, the National Environmental Policy Act of 1969¹⁴ has been construed as enlarging the Atomic Energy Commission's substantive regulatory authority so as to require full consideration of all environmental matters as well as possible alternatives.¹⁵ The states are generally without authority to license or regulate nuclear power plants from the standpoint of radiological health and safety or common defense and security,¹⁶ but similar restrictions are not placed on the exercise of state authority over other aspects of nuclear power plant construction and operation.

The third basic federal statute is the Rivers and Harbors Act of 1899.¹⁷ Section 10 of that Act¹⁸ vests the Department of the Army (Corps of Engineers) with licensing authority over construction and other work in navigable waters, and section 13¹⁹ vests the Department of the Army (Corps of Engineers) with licensing authority over all discharges into navigable waters. Environmental factors as well as effects on navigation are considered in evaluating permit applications under sections 10 and 13.²⁰

The fourth basic federal statute is the Clean Air Act²¹ which vests the Environmental Protection Agency with authority, among other things, to promulgate emission standards for air pollutants from new stationary sources²² and emission standards for hazardous air pollutants from new as well as existing

12 42 U.S.C. §§ 2011-2282 (1970). Under Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15623 (October 6, 1970), 42 U.S.C. § 4321 note (1970), the function of promulgating general standards for the protection of the environment from radioactive materials under the Atomic Energy Act was transferred from the Atomic Energy Commission to the Environmental Protection Agency.

13 *New Hampshire v. AEC*, 406 F.2d 170 (1st Cir. 1969), *cert. denied*, 395 U.S. 962 (1969).

14 42 U.S.C. §§ 4321 *et seq.* (1970).

15 *Calvert Cliffs' Coordinating Committee v. AEC*, 449 F.2d 1109 (D.C. Cir. 1971). See also *Ely v. Velde*, 451 F.2d 1130 (4th Cir. 1971). In addition, Pub. L. No. 91-560, 91st Cong., 2d Sess., 84 Stat. 1472 (1970) amended the Atomic Energy Act by expanding the class of facilities over which the Atomic Energy Commission would exercise jurisdiction concerning antitrust matters.

16 *Northern States Power v. Minnesota*, 447 F.2d 1143 (8th Cir. 1971), *appeal docketed*, 40 U.S.L.W. 3250 (U.S. Nov. 12, 1971) (No. 71-650).

17 33 U.S.C. §§ 401 *et seq.* (1970).

18 33 U.S.C. § 403 (1970).

19 33 U.S.C. § 407 (1970). 33 U.S.C. § 421 (1970) contains an absolute prohibition over discharges into certain areas of Lake Michigan near Chicago. In addition, in *Kalur v. Resor*, — F. Supp. — (D.D.C. 1971), the United States District Court for the District of Columbia held that section 13 contains a general and absolute prohibition against all discharges into tributaries of navigable waters, and that the licensing authority of the Department of the Army (Corps of Engineers) extends only to discharges into navigable waters. *Kalur v. Resor* is currently on appeal to the U.S. Court of Appeals for the District of Columbia Circuit.

20 *Zabel v. Tabb*, 430 F.2d 199 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971). *Zabel* dealt with permits under section 10 of the Rivers and Harbors Act of 1899. However, the President's Executive Order directing the implementation of a permit program under section 13, Exec. Order No. 11574, 35 Fed. Reg. 19627 (Dec. 25, 1970), 3 C.F.R. 556 (1971), as well as the Department of the Army's regulations establishing the program itself, 36 Fed. Reg. 6564 (April 7, 1971), recognize that a full range of environmental factors must be considered under section 13 as well. See also *Kalur v. Resor*, — F. Supp. — (D.D.C. 1971).

21 42 U.S.C. § 1857 (1970).

22 Clean Air Act § 111, 42 U.S.C. § 1857c-6 (1970).

stationary sources of air pollution.²³ However, the Environmental Protection Agency has exercised no direct licensing authority, as such, under the Clean Air Act.

The fifth basic federal statute is the Federal Water Pollution Control Act. Section 21(b) of the Federal Water Pollution Control Act²⁴ generally prohibits federal agencies from issuing any license for an activity which may result in any discharge into the navigable waters of the United States unless the applicant furnishes to it a certification from the state or interstate agency having jurisdiction, or from the Environmental Protection Agency where it has promulgated water quality standards under section 10(c) of the Federal Water Pollution Control Act, that there is reasonable assurance that applicable water quality standards will not be violated.

In addition to these five basic federal statutes, there are several other federal statutes which affect the manner in which federal agencies exercise their licensing authority. The most significant of these, the National Environmental Policy Act of 1969, has already been mentioned. That Act has been construed as requiring all federal licensing agencies to balance the benefits of proposed activities against any environmental costs as well as consider alternatives which would affect this balancing. Environmental costs must be considered and balanced regardless of whether other applicable federal or state environmental standards or requirements have been satisfied.²⁵ In addition a "detailed statement" of environmental considerations must be prepared by the federal licensing agency for all "major federal actions significantly affecting the quality of the human environment."²⁶ The "detailed statement" is subject to judicial review as to its adequacy and the Act has been construed as requiring that the "detailed statement" contain a discussion of all responsible opposing scientific views on the proposed action.²⁷

Other federal statutes also deal with the environmental effects of federally licensed activities. The Wild and Scenic Rivers Act²⁸ appears to require federal licensing agencies to deny a license for the construction of any project utilizing river water if the project would adversely affect any rivers in the National Wild

23 *Id.* § 112, 42 U.S.C. § 1857c-7.

24 33 U.S.C. § 1171(b) (1970). Regulations concerning water quality certification promulgated by the Environmental Protection Agency are set forth in 36 Fed. Reg. 22487 (Nov. 25, 1971). The Federal Water Pollution Control Act, 33 U.S.C. §§ 1151-1175 (1970), does not vest the Environmental Protection Agency (Reorganization Plan No. 3 of 1970 transferred the functions of the Department of the Interior under that Act to the Environmental Protection Agency) with any direct licensing authority over discharges of water pollutants as such. However, the Environmental Protection Agency would have veto authority under section 21(b) of the Federal Water Pollution Control Act over the issuance of any federal license that may result in discharges into the navigable waters of the United States where the applicable water quality standards have been promulgated by the agency under section 10(c) of the Act. 33 U.S.C. § 1160(c) (1970).

25 *Calvert Cliffs' Coordinating Committee v. AEC*, 449 F.2d 1109 (D.C. Cir. 1971). For a discussion of the duty to consider alternatives under the National Environmental Policy Act, see *Natural Resources Defense Council, Inc. v. Morton*, — F.2d — (D.C. Cir. January 13, 1972).

26 National Environmental Policy Act of 1969 § 102(2)(C), 42 U.S.C. § 4332(2)(C) (1970).

27 *Committee for Nuclear Responsibility v. Seaborg*, — F.2d —, (D.C. Cir. October 5, 1971).

28 16 U.S.C. §§ 1271-1287 (1970).

and Scenic Rivers System or any rivers designated in the Act for potential inclusion in the System,²⁹ and the National Historic Preservation Act of 1966³⁰ requires federal licensing agencies to take into account the effect of activities proposed to be licensed on any object included in the National Register of Historic Sites.³¹

The operation of these federal statutes can best be understood by choosing two examples—a nuclear power plant located on a navigable waterway and a fossil steam plant also located on a navigable waterway. In the case of the nuclear power plant, four federal licenses will be required before operation—a construction permit from the Atomic Energy Commission under the Atomic Energy Act in order to construct the plant, a construction permit from the Department of the Army (Corps of Engineers) under section 10 of the Rivers and Harbors Act in order to construct the effluent outfall structure in the navigable waterway, an operating license from the AEC under the Atomic Energy Act in order to operate the facility, and a permit for discharge of effluent from the Department of the Army (Corps of Engineers) under section 13 of the Rivers and Harbors Act. In addition, the applicant will have to furnish an appropriate water quality certification under section 21(b) of the Federal Water Pollution Control Act to both the Atomic Energy Commission and the Department of the Army (Corps of Engineers). A mandatory formal “on the record” public hearing³² is required before issuance of any AEC construction permit and an opportunity for such a hearing must be afforded to any person whose interest may be affected before issuance of any AEC operating license. Proceedings before the Department of the Army (Corps of Engineers) under sections 10 and 13 of the Rivers and Harbors Act³³ as well as proceedings on issuance of the water quality certification required by section 21(b) of the Federal Water Pollution

29 Under the Act the determination as to adverse effect is to be made not by the federal licensing agency but by the Secretary charged with the administration of the affected river (the Secretary of the Interior or the Secretary of Agriculture). Wild and Scenic Rivers Act §§ 7(a) and 7(b), 16 U.S.C. §§ 1278(a), (b) (1970).

30 16 U.S.C. § 470 (1970).

31 Several other federal statutes are indirectly involved in the siting, construction and operation of electric generating plants. For example, plant construction may involve construction of a bridge over navigable waters, and the approval of the United States Coast Guard is required for the construction, maintenance, and operation of such bridges. General Bridge Act of 1946, 33 U.S.C. § 525 (1970) (the functions of the Department of the Army under the General Bridge Act of 1946 were transferred to the Department of Transportation when that Department was established. 49 U.S.C. § 1655(g)(6)(c) (1970)). 49 U.S.C. § 1501 (1970) authorizes the Department of Transportation to develop rules for aviation safety, and the Federal Aviation Administration regulations in 14 C.F.R. Part 77 (1971) provide for notice to the Administrator of any construction (such as construction of smokestacks) that might interfere with aviation safety. Based on the notice, the Administrator advises on the effect of construction on aviation.

In addition, operation of the plant may include the generation of solid waste, and under the Resource Recovery Act of 1970, 42 U.S.C. §§ 3251 *et seq.* (1970), federal agencies which issue licenses or permits for disposal of solid waste must consult with the Environmental Protection Agency to insure compliance with solid waste disposal guidelines promulgated by it under that Act.

32 The hearing is a formal “on the record” one in the sense that the requirements of sections 5, 7 and 8 of the Administrative Procedure Act, 5 U.S.C. §§ 554, 556, 557 (1970), must be complied with.

33 The Department of the Army (Corps of Engineers) regulations in implementing section 13 of the Rivers and Harbors Act, 36 Fed. Reg. 6564 (April 7, 1971), provide in section

Control Act³⁴ may also involve a public hearing. The environmental effects of the discharge of liquid effluent from the facility and the construction of the effluent outfall structure will be reviewed by the Department of the Army (Corps of Engineers) before issuing any permit, and the environmental effects of the liquid effluent discharge will be reviewed independently by the appropriate certifying agency before issuing the water quality certification. Emissions of air pollutants are subject to regulations promulgated by the Environmental Protection Agency under the Clean Air Act. Finally, under the National Environmental Policy Act of 1969 the Atomic Energy Commission is required to independently evaluate all environmental effects, including environmental effects of the discharge of liquid effluent, the discharge of air pollutants, and the construction of the liquid outfall structure, and balance the resulting environmental costs against the benefits as well as consider alternatives in connection with issuing either a construction permit or operating license.

In the case of our hypothetical fossil steam plant, with an environmental impact that may rival or exceed that of the nuclear plant, permits will be required under sections 10 and 13 of the Rivers and Harbors Act and a water quality certification will be required under section 21(b) of the Federal Water Pollution Control Act. In addition the plant will be subject to air pollutant emission standards promulgated under the Clean Air Act. However, under the present federal regulatory scheme, the plant as a whole is not subject to any federal licensing requirement, and the environmental impact of the plant as a whole, including aesthetics, noise, and land use, will go unreviewed at the federal level.³⁵

In addition, under the present regulatory scheme, liquid and gaseous effluent discharges from our hypothetical fossil steam plant will be exempt from the requirements of the National Environmental Policy Act. Under the regulations implementing section 13 of the Rivers and Harbors Act, determinations by the Environmental Protection Agency with respect to water quality matters involving discharges into navigable waterways will be accepted by the Department of the Army (Corps of Engineers)³⁶ and the Environmental Protection Agency administers the Clean Air Act and issues any federal water quality certifications under section 21(b) of the Federal Water Pollution Control Act. The Council on Environmental Quality's "guidelines" on the preparation of "detailed statements" under the National Environmental Policy Act provide that environmental protection regulatory actions taken by the Environmental Protection Agency

209.131(k) that a public hearing will be held if "in the opinion of the District Engineer, such a hearing is advisable." The Department of the Army (Corps of Engineers) regulations implementing section 10 of the Rivers and Harbors Act in 33 C.F.R. § 201.120(g) (1971) provide that public hearings will be held "wherever there appears to be sufficient public interest to justify such action." There is no statutory requirement for hearings in connection with issuance of permits under sections 10 or 13 of the Rivers and Harbors Act.

³⁴ Section 21(b) of the Federal Water Pollution Control Act, 33 U.S.C. § 1171(b) (1970), provides that the state or interstate certifying agency shall establish "to the extent it deems appropriate, procedures for public hearings in connection with specific applications."

³⁵ It is unclear whether the National Environmental Policy Act of 1969 could serve to expand the Department of the Army (Corps of Engineers) jurisdiction under sections 10 and 13 of the Rivers and Harbors Act so as to include review of the plant as a whole.

³⁶ 36 Fed. Reg. 6564 § 209.131(d) (10), (April 7, 1971) implementing Exec. Order No. 11574, 35 Fed. Reg. 19627 (December 25, 1970), 3 C.F.R. 556 (1971).

are not subject to that Act's "detailed statement" requirement.³⁷ There is substantial support in the legislative history of the National Environmental Policy Act, but not in the language of the Act itself, for the proposition that regulatory actions of "environmental improvement agencies" such as the Environmental Protection Agency are generally exempt from the National Environmental Policy Act's requirements.³⁸ In addition, since the National Environmental Policy Act's requirements apply only to federal actions, actions by state certifying agencies under section 21(b) of the Federal Water Pollution Control Act will also be beyond the scope of that Act.³⁹

It seems clear that the federal, state and local regulatory processes associated with siting, construction, and operation of electric power plants are characterized by a considerable amount of overkill and duplication in some areas, with certain environmental matters reviewed and rereviewed at various governmental levels. On the other hand, under the present system, certain matters such as the aesthetic effects of fossil steam plants go unreviewed at the federal level and are left to state and local regulatory agencies.

At the same time, these same regulatory processes are subject to increasing strain as concerned citizens and citizens' groups seek public forums for the resolution of the complicated environmental, technical and social questions involved in siting, construction and operation of electric power plants. Consolidated Edison Company of New York's Cornwall pumped storage hydroelectric project (the subject of *Scenic Hudson Preservation Conference v. FPC*⁴⁰) has involved an elapsed time in proceedings before the Federal Power Commission of 84 months. The application for the project was filed with the Federal Power Commission on January 29, 1963, and a Commission decision granting the license after a second series of hearings on remand from the United States Court of Appeals for the Second Circuit has just recently been affirmed by the Second Circuit.⁴¹

The "detailed statement" requirements of the National Environmental Policy Act of 1969 were already causing a significant increase in the time re-

37 36 Fed. Reg. 7724 § 5(d) (April 23, 1971). This provision is reflected in section 209.131(e)(2) of the Department of the Army (Corps of Engineers) regulations implementing section 13 of the Rivers and Harbors Act.

38 115 CONG. REC. S17453 (daily ed. Dec. 20, 1969) (exhibit inserted into record by Senator Jackson during Senate consideration of Conference Report); 115 CONG. REC. S17458, S17460 (daily ed. Dec. 20, 1969) (floor remarks by Senator Muskie during Senate consideration of Conference Report); 115 CONG. REC. H13093 (daily ed. Dec. 23, 1969) (communication inserted into record by Congressman Dingell during House consideration of Conference Report); 115 CONG. REC. H13095 (daily ed. December 23, 1969) (floor remarks by Congressman Harsha during House consideration of Conference Report). However, the United States District Court for the District of Columbia in *Kalur v. Resor*, — F. Supp. — (D.D.C. 1971), was not impressed with this legislative history and held that the Department of the Army (Corps of Engineers) in issuing permits under section 13 of the Rivers and Harbors Act must file detailed environmental statements concerning water quality matters even if it could be regarded as an "environmental improvement agency." The court enjoined issuance of any permits under section 13 of the Rivers and Harbors Act until the regulations purporting to exempt the Corps from filing detailed environmental statements were amended. This holding suggests that the Environmental Protection Agency is also required to file detailed environmental statements and is not exempt from any of the requirements of the National Environmental Policy Act of 1969.

39 *Ely v. Velde*, 451 F.2d 1130 (4th Cir. 1971).

40 354 F.2d 608 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

41 *Scenic Hudson Preservation Conference v. FPC*, — F.2d — (2d Cir. October 22, 1971). The hearings before the Federal Power Commission on remand involved 100 hearing days, the testimony of some 60 expert witnesses, and the introduction of 675 exhibits.

quired for Atomic Energy Commission review of nuclear power plant license applications,⁴² when the decision was rendered in *Calvert Cliffs' Coordinating Committee v. AEC*,⁴³ largely invalidating AEC's then effective regulations for implementation of that Act. That decision directly affected at least 63 licensing applications involving 91 nuclear power reactors as well as 5 nuclear power reactors for which operating licenses had been issued.⁴⁴ The AEC's revised regulations implementing the Court's decision generally required a new and comprehensive environmental review of all nuclear power plants for which AEC construction permits or operating licenses had been issued since January 1, 1970, as well as all nuclear power plants for which AEC construction permits had been issued prior to January 1, 1970, but for which operating licenses had not been issued.⁴⁵

Compounding the foregoing is the cost of delays — both to utilities and to consumers. At the operating license stage, for example, each day's delay in putting a completed nuclear power reactor into commercial service can cost a utility \$50,000 to \$100,000. And ultimately, of course, such costs are borne by the public. Hearing delays, moreover, take a special toll on the time of scarce technical personnel associated with the government, the industry and environmental and citizens' groups, since large numbers of them are needed for hearing preparation and expert opinion testimony. Furthermore, each licensing delay seems to bring with it a mountain of accompanying paper, which generates further delay, and still additional costs.

The dimensions of the electrical energy problem and the apparent defects in the existing regulatory programs associated with electric power plant siting, construction, and operation thus make a searching inquiry into possible regulatory reforms particularly appropriate at this time.

III. The Interagency Power Plant Siting Group

In October 1967 one of the authors called for the establishment of an interagency electric power plant siting group to develop a coordinated approach in the planning of ways to handle the electric power plant siting problem.⁴⁶ This

⁴² See Testimony of Commissioner Ramey of the Atomic Energy Commission, in *Hearings Before the Subcomm. on Legislation of the Joint Comm. on Atomic Energy*, 92nd Cong., 1st Sess., pt. 1, at 41 (1971).

⁴³ 449 F.2d 1109 (D.C. Cir. 1971).

⁴⁴ AEC Press Release O-156 (September 3, 1971).

⁴⁵ 10 C.F.R. Part 50, Appendix D, 36 Fed. Reg. 18071 (September 9, 1971), as amended, 36 Fed. Reg. 19158 (September 30, 1971), 36 Fed. Reg. 21579 (November 11, 1971), 37 Fed. Reg. 864 (January 20, 1972).

⁴⁶ Pending the statutory establishment of coordinating mechanisms and, much as I dislike to suggest any more committees, a possible interim solution to this growing question is to set up a Federal Interdepartmental Committee on Electric Power Plant Siting with the purpose of developing a coordinated approach in the planning of ways to handle the many problems affecting siting. I have in mind a group which would be comprised of experts in all the various disciplines and factors involved in siting. Just for a start, this would seem to call for people from AEC, the Department of the Interior, the Environmental Science Services Administration, the Federal Power Commission, HEW, and perhaps state and local governments. I would think FPC should chair such an assemblage. It also would make sense to include the Edison Electric Institute and the American Public Power Association.

Address by Commissioner Ramey of the Atomic Energy Commission, Federal Bar Association, Washington, D.C., October 16, 1967, AEC Press Release IN-827 (October 23, 1967).

suggestion resulted in the establishment of a group known as the Interagency Power Plant Siting Study Group composed of representatives of the Atomic Energy Commission, the Department of Health, Education and Welfare, the Department of the Interior, the Federal Power Commission, the Rural Electrification Administration, and the Tennessee Valley Authority. This group produced the December 1968 report entitled *Considerations Affecting Steam Power Plant Site Selection* under the sponsorship of the Energy Policy Staff of the Office of Science and Technology. This *Report* described the present technology and provided the present siting criteria as bases for intelligent public discussion on the general steam power plant siting problem. The *Report* made some predictions as to future needs for electric power and plant sites for all forms of steam electric generating facilities, and pointed to the need for a balanced approach to power plant siting.

This same group produced the August 1970 Office of Science and Technology Report, *Electric Power and the Environment*. This report proposed a four-part program for dealing with conflicts between power needs and environmental protection:

- (1) Long-range planning of utility expansions on a regional basis at least ten years ahead of construction.
- (2) Participation in the planning by the environmental protection agencies and notice to the public of plant sites at least five years in advance of construction.
- (3) Preconstruction review and approval of all new large power facilities by a public agency at the state or regional level, or by the federal government if the states fail to act.
- (4) An expanded program for research and development aimed at better pollution controls, underground high voltage power lines, improved generation techniques, and advanced siting approaches so as to minimize the environmental problems inherent in existing technology.

The August 1970 *Report* with its four-part recommended program served as the basis for the Administration's Power Plant Siting Act of 1971.

IV. Proposed Federal Legislation

A. The Administration's Proposal

The President, in an environmental message to the Congress dated February 8, 1971,⁴⁷ noted the continuing disputes across the country over the siting of electric power plants and proposed a new federal power plant siting law. The proposed legislation, the "Power Plant Siting Act of 1971" was transmitted to the Congress on February 10, 1971⁴⁸ and introduced in the Senate as S. 1684⁴⁹

⁴⁷ 117 CONG. REC. H505 (daily ed. Feb. 8, 1971).

⁴⁸ The transmittal letter to the Congress is printed in *House Hearings*, *supra* note 2, pt. 1, at 31-34.

and in the House of Representatives as H.R. 5277.⁵⁰ The Administration's proposed legislation could be summarized in the following manner. (1) It would require all electric utilities to prepare annually long-range plans for their bulk power supply facilities pursuant to Federal Power Commission guidelines. The plans would be filed with affected federal, state, regional and local governmental authorities and made available to citizens' groups, and would include general descriptions of all bulk power supply facilities for which construction is projected to commence during the ensuing 10 years and an identification of sites for all future power plants for which construction is scheduled to commence in the succeeding five years.⁵¹ (2) It would provide for approval or disapproval by a federal, state, or regional certifying authority after public hearing of each power plant site identified five years in advance of construction in accordance with (1) above.⁵² The basis for the decision would be whether or not construction of any plant at the proposed site would "unduly impair important environmental values."⁵³ (3) It would prohibit commencement of construction of any bulk power supply facility unless a certificate has been obtained from the appropriate federal, state or regional certifying authority after public hearing.⁵⁴ Applications for certificates would be filed with the certifying authority two years before the planned date of commencement of construction. The utility must have complied with the planning requirements of (1) above and, except for good cause shown, a power plant site must have been approved by the certifying authority after public hearing in accordance with (2) above.⁵⁵ The basis for the decision would be whether or not, after considering available alternatives, the use of the site or route would "unduly impair important environmental values and will be reasonably necessary to meet electric power needs."⁵⁶ This would involve a balancing of environmental values and power needs. The decision of the certifying authority would be conclusive on all questions of siting, land use, state air and water quality standards, public convenience and necessity, aesthetics, and any other state or local requirements, but the certificates could be granted only after ascertaining that all applicable federal standards, permits, or licenses had been satisfied or obtained.⁵⁷ (4) It would provide an opportunity for state or regional governmental entities to establish decision making authorities to conduct the reviews described in (2) and (3) above for bulk power supply facilities of non-federal utilities.⁵⁸ In the event no state or regional certifying authority is established, and in the case of bulk power supply facilities proposed to be constructed and operated by federal utilities, the reviews would be con-

49 S. 1684 was introduced by Senator Magnuson on April 29, 1971 and referred to the Senate Committee on Commerce.

50 H.R. 5277 was introduced by Congressman Staggers on March 1, 1971. Identical bills were introduced by Congressmen Gerald R. Ford (H.R. 5389) and Gude (H.R. 6529). All the bills were referred to the House Committee on Interstate and Foreign Commerce.

51 S. 1684, H.R. 5277, 92nd Cong., 1st Sess. § 4 (1971).

52 *Id.* § 8(c).

53 *Id.*

54 *Id.* §§ 6(a), 8(d), 17(a).

55 *Id.* § 6(b).

56 *Id.* § 7(a).

57 *Id.*

58 *Id.* § 5.

ducted by the federal certifying authority.⁵⁹ (5) It would provide for promulgation by the President of guidelines for federal, state and regional certifying authorities on evaluating environmental effects, alternatives and power needs, on procedures for public participation in the certification processes, and on procedures for the formation of state and regional certifying authorities.⁶⁰ (6) It would provide for certification by the federal certifying authority applying federal standards only where the Federal Power Commission finds upon petition of a utility that adequate and reliable regional bulk power supply will be materially impaired by reason of the fact that a state or regional certifying authority has failed to act on a timely and conclusive basis.⁶¹ (7) It would authorize the federal certifying authority to develop a coordinated program of studies of new and evolving siting concepts.⁶² (8) Finally, it would provide that "detailed statements" pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969 would not be required for any federal actions with respect to bulk power supply facilities where the certifying authority has followed a substantially comparable procedure. Otherwise, the requirements of the National Environmental Policy Act of 1969 would remain unaffected.⁶³

These requirements would be applicable to all bulk power supply facilities, defined as including electric power plants as well as electric transmission lines, regardless of ownership, except that small plants and lower voltage transmission lines would be exempt from the legislation generally, and facilities licensed under Part I of the Federal Power Act (hydroelectric facilities) would not require the approvals five years and two years in advance of construction outlined in (2) and (3) above.⁶⁴ After obtaining a certification and any necessary federal licenses, the utilities would be authorized to begin construction using federal powers of eminent domain if necessary to obtain the land.⁶⁵ The identity of the federal certifying authority was left to the President.⁶⁶ However, in the letter transmitting the legislation to the Congress, it was indicated that the President intended to designate the proposed Department of Natural Resources as the federal certifying authority when the Department is established.⁶⁷ In the interim the Department of the Interior was to perform this function. On the other hand one of the authors of this article and Chairman Nassikas and Commissioner Brooke of the Federal Power Commission supported language that would designate the Federal Power Commission as the federal certifying authority, with Federal Power

59 *Id.* §§ 5(c), 6(a).

60 *Id.* § 9.

61 *Id.* § 6(d).

62 *Id.* § 13.

63 *Id.* § 16(a). The apparent attempt here was to avoid duplicative reviews by federal agencies under the National Environmental Policy Act of 1969 of environmental matters reviewed by the certifying authority. The language of the bill itself appears based on the premise that the operative section of the National Environmental Policy Act of 1969 requiring review of environmental matters is section 102(2)(C) requiring "detailed statements" for certain federal actions. The validity of this premise may be questionable. *See Calvert Cliffs' Coordinating Committee v. AEC*, 449 F.2d 1109 (D.C. Cir. 1971).

64 S. 1684, H.R. 5277, 92nd Cong., 1st Sess. § 3(c) (1971).

65 *Id.* § 10.

66 *Id.* § 3(d).

67 The creation of a new Department of Natural Resources was proposed by the President in a message to the Congress dated March 25, 1971. 117 CONG. REC. H2022 (daily ed. March 25, 1971).

Commission authority to designate the Atomic Energy Commission as the certifying authority for nuclear power plants.⁶⁸

In addition to the legislation itself, Draft Proposed Federal Guidelines dealing with certifying authorities' evaluation of environmental effects, alternatives, and power needs, procedures for public participation, and the formation of state and regional certifying authorities were submitted to the Congress by the Administration,⁶⁹ in order to give the Congress more detailed information on how the power plant siting program contemplated by the proposed legislation might be implemented. Under the Draft Guidelines, the appropriate certifying authority would hold hearings from September 1 to December 15 of each year on the power plant sites newly identified in the utilities' long-range plans (see (1) and (2) above) and render a decision on the site by February 15 of the next year. The certifying authority could grant preliminary approval (approval subject only to review at the time of application for certification with respect to changed conditions), preliminary conditional approval (approval subject to review at the time of application for certification with respect to both changed conditions and conditions which may be placed on the nature of facilities permitted), suspension pending further study where important environmental values "might" be unduly impaired (suspension could last a maximum of 3 years within which time the certifying authority must approve or disapprove), or disapproval as a site where important environmental values "would" be unduly impaired.

A decision on the application for the certificate itself would be rendered by the certifying authority within one year after filing and publication of the application. Failure to render a decision within one year (or to indicate that a decision is imminent) would be grounds for the utility to petition for federal certification.

Finally, the Draft Guidelines would require all federal agencies with statutory licensing authority over bulk power supply facility construction and operation to coordinate their activities with the state or regional certifying authority to the fullest extent possible. Where the federal certifying authority exercises jurisdiction, it would provide a one-stop procedure with all federal approvals decided as an integral part of the federal certifying authority's decision after joint hearings, if necessary. Only approvals required from the Atomic Energy Commission under the Atomic Energy Act were exempted from this latter requirement.⁷⁰

B. Other Legislative Proposals

Several other legislative proposals dealing with power plant siting were introduced during the first session of the 92nd Congress. These included separate legislative proposals by Commissioners Carver and O'Connor of the Federal Power Commission (introduced in the House of Representatives as H.R.

68 *House Hearings, supra* note 2, at 421, part 3, at 951-52.

69 *House Hearings, supra* note 2, pt. 1, at 240-46.

70 Approvals required from the Atomic Energy Commission under the Atomic Energy Act would not be a part of the federal certifying authority's decision primarily because of the formal "on the record" hearing requirements under the Atomic Energy Act. See note 32 *supra*.

6971 and H.R. 6972, respectively), a legislative proposal by Congressman Macdonald (introduced in the House of Representatives as H.R. 6970), and variations on the Administration's bill proposed by the National Association of Regulatory Utility Commissioners (introduced in the House of Representatives as H.R. 7045) and Chairman Nassikas and Commissioner Brooke of the Federal Power Commission.⁷¹ H.R. 6970, the bill proposed by Congressman Macdonald, Chairman of the Subcommittee on Communications and Power of the House Committee on Interstate and Foreign Commerce, received the most attention of these other legislative proposals.

H.R. 6970 would provide for long-range planning by utilities, including publication of plans covering periods of 10 years or longer, but would not make specific provision for identification of power plant sites five years in advance of construction.⁷² Perhaps the most interesting feature of the bill was its provision for the establishment of special arbitration panels, each composed of one member appointed by the Chairman of the Federal Power Commission, one member by the Chairman of the Council on Environmental Quality, and a third by the first two.⁷³ A panel would have jurisdiction to authorize construction of a bulk power facility (a large electric power plant or transmission line) only upon a prior finding by the Federal Power Commission, upon petition by a utility, that failure to construct the facility resulting from a dispute over the significance of environmental factors is likely to jeopardize the provision of an adequate and reliable bulk power supply.⁷⁴ In addition, in order for a panel to proceed with an application it would be required to find that construction and operation of the facility would be consistent with long-range plans, that the utility has complied with the bills' requirements regarding publication and filing of detailed proposals before commencement of construction, and that the utility has made a bona fide effort to obtain all approvals required by governmental agencies.⁷⁵ A panel would review the utility's proposal and applicable alternative proposals and select the one which best assures that a reliable and sufficient bulk power supply will be available and that federal, regional, state and local objectives with respect to environmental factors are achieved.⁷⁶

V. Early Congressional Action

The Subcommittee on Communications and Power of the House Committee on Interstate and Foreign Commerce began hearings on H.R. 5277, H.R. 6970, H.R. 6971, H.R. 6972, H.R. 7045 and other bills dealing with power plant siting on May 4, 1971 and completed hearings on May 27, 1971. At the hearings attention was focused on H.R. 6970, the bill introduced by Congressman

71 H.R. 6970, H.R. 6971, H.R. 6972, and H.R. 7045 were all referred to the House Committee on Interstate and Foreign Commerce. Chairman Nassikas' and Commissioner Brooke's amendments are described at *House Hearings*, *supra* note 2, at 421.

72 Proposed section 402 of the Federal Power Act.

73 Proposed section 404(b)(1) of the Federal Power Act.

74 Proposed section 404(a) of the Federal Power Act.

75 Proposed section 404(c) of the Federal Power Act.

76 *Id.*

Macdonald, Chairman of the Subcommittee, and on H.R. 5277, the Administration's bill.

H.R. 5277 was generally criticized by utility spokesmen for its lack of provisions clearly calling for a "one-stop" review at the federal level.⁷⁷ At the same time H.R. 6970 was not without criticism. Although witnesses at the hearings generally conceded that the arbitration proposal had some merit,⁷⁸ it was pointed out that the bill did not clearly provide that the arbitration panel's decision would supersede all other federal, state and local requirements,⁷⁹ and that only utilities would have access to the panels with no access offered groups concerned with the environmental impact of a particular proposal.⁸⁰

In addition two amendments to H.R. 5277 were suggested by the Administration.⁸¹ H.R. 5277 as introduced would provide that no certificate could be issued by the certifying authority until all applicable federal standards, permits or licenses had been satisfied or obtained.⁸² At the same time a legislative proposal by the Atomic Energy Commission⁸³ would have imposed a statutory

77 *E.g.*, *House Hearings*, *supra* note 2, at 639-640, 647 (D. Bruce Mansfield, Chairman of Edison Electric Institute), 698 (William R. Gould, Chairman, Western System Coordinating Council), 790-791 (Frederick W. Mielke, Vice President and Assistant to the President, Pacific Gas & Electric Co.).

78 *E.g.*, *House Hearings*, *supra* note 2, at 591 (Commissioner O'Connor of the Federal Power Commission), 641 (D. Bruce Mansfield, Chairman, Edison Electric Institute), 788, 793-794 (Frederick W. Mielke, Vice President and Assistant to the President, Pacific Gas and Electric Co.), 894 (George L. Bloom, President, National Association of Regulatory Utility Commissioners).

79 *E.g.*, *House Hearings*, *supra* note 2, at 641, 648 (D. Mansfield, Chairman, Edison Electric Institute), 788, 794 (Frederick W. Mielke, Vice President and Assistant to the President, Pacific Gas and Electric Co.).

80 *E.g.*, *House Hearings*, *supra* note 2, at 823 (Chairman Macdonald).

81 *House Hearings*, *supra* note 2, pt. 3, at 1097-1098.

82 S. 1684, H.R. 5277, 92nd Cong., 1st Sess. § 7(a) (1971).

83 The Atomic Energy Commission's legislative proposal was introduced in the Senate as S. 2152 and in the House of Representatives as H.R. 9286, and referred to the Joint Committee on Atomic Energy. The principal features of the legislation were as follows:

(1) The commencement of construction of a nuclear power plant at the site where such a facility is to be located would be prohibited except under and in accordance with a site authorization issued by the Atomic Energy Commission. "Commencement of construction" would be defined the same as in the Administration's "Powerplant Siting Act of 1971," H.R. 5277 and S. 1684.

(2) Applicants for licenses to construct or modify a nuclear power plant would, if the Commission determined that the site on which the facility is to be located is suitable for a facility of the type and size proposed, and the application is otherwise acceptable, be initially granted a site authorization which authorized commencement of construction of the facility at the site.

(3) The Commission would be required to hold a hearing on each application for a site authorization for a nuclear power plant. The Commission would be required to admit as a party any person whose interest might be affected by the proceeding. The specified purpose of the mandatory hearing would be to determine the suitability of the site for a facility of the type and size proposed. With respect to protection against radiation hazards, the basis for determination would be whether the applicant's criteria upon which the preliminary design of the facility is to be based provide reasonable assurance of protection from calculated releases of radioactivity from the facility during routine operation and under postulated, credible accident conditions.

(4) In any case where a site authorization had been issued following the holding of such a hearing, the Commission would be required to hold a hearing on the construction permit application only at the request of a person who demonstrates that (1) his interest may be substantially and adversely affected, and (2) there exists a substantial, unresolved question significantly affecting the health and safety of the public. Otherwise, a construction permit could be issued by the Commission without a hearing, but upon thirty days' notice and publication in the Federal Register of the Commission's intent to do so.

(5) In cases where a hearing had been held prior to the issuance of either a site author-

requirement that a site authorization be obtained from the Commission before commencement of construction of a nuclear power reactor (with commencement of construction defined as in H.R. 5277 so as to include site clearing and excavation).⁸⁴ Since under the Atomic Energy Commission's proposal a construction permit would still generally be required from the Commission before work on the nuclear reactor itself, an amendment was suggested to H.R. 5277 providing in effect that only the first license or permit required from the Atomic Energy Commission for a nuclear power reactor would be required as a prerequisite to issuance of a certificate by the certifying authority.

The second amendment would provide in effect that a certificate could not be issued by the certifying authority unless the duly authorized federal, state, or interstate air and water pollution control agencies had determined that air and water quality standards and implementation plans developed and approved pursuant to the Federal Water Pollution Control Act and the Clean Air Act would be complied with. At the same time the water quality certification required by section 21(b) of the Federal Water Pollution Control Act could be issued to the federal licensing agency prior to issuance of a certificate of site and facility by the certifying authority acting under H.R. 5277.⁸⁵ As can be seen, this latter amendment clarified the relationship between the Administration's proposal and the Federal Water Pollution Control Act and the Clean Air Act, but did so by sacrificing part of the one-stop review process at the state and local levels.

In any event, it became clear during the course of the hearings that the Subcommittee's attention was focused primarily on H.R. 6970 and that this bill, or a variation on it, would be the one reported by the Subcommittee.⁸⁶ On October 4, 1971, Congressman Macdonald introduced H.R. 11066, an amended version of H.R. 6970, and on October 8, 1971, H.R. 11066 was reported by the Subcommittee.⁸⁷

Under the Subcommittee bill, siting proposals for bulk power facilities (large electric power plants and transmission lines) would be submitted by the

ization or construction permit, an operating license could be issued without a hearing.

The Joint Committee on Atomic Energy held hearings on the measure on June 22 and 23, and July 13 and 14, 1971. On October 19, 1971, the Joint Committee announced that the Commission's "early site authorization" legislation would not be reported during the first session of the 91st Congress. Joint Committee on Atomic Energy Press Release No. 665 (October 19, 1971).

⁸⁴ On March 21, 1972, the Commission, under its existing statutory authority, published in the *Federal Register* proposed amendments to its regulations which would generally prohibit site clearing and excavation prior to receipt of a construction permit. 37 Fed. Reg. 5745 (March 21, 1972).

⁸⁵ One could have interpreted section 7(a) of the H.R. 5277 as prohibiting issuance of a certificate of site and facility for a nuclear power plant until a construction permit had been obtained from the Atomic Energy Commission. At the same time, the Atomic Energy Commission would generally be prohibited from issuing a construction permit until a water quality certification had first been obtained under section 21(b) of the Federal Water Pollution Control Act. If the water quality certification was to become a part of the overall certification process under H.R. 5277, there existed the possibility of a stalemate, with neither the certifying authority nor the Atomic Energy Commission able to act without the other having acted previously. This amendment clarified this point.

⁸⁶ *House Hearings, supra* note 2, at 652, pt. 3 at 823, 1013.

⁸⁷ House Committee on Interstate and Foreign Commerce Print No. 9. 92nd Cong., 1st Sess. (1971).

proponent (electric utility) to both the Federal Power Commission and a state siting agency or governor two years prior to construction.⁸⁸ The state siting agency, if it exists, is charged as a matter of Congressional policy with resolving state or local issues and selecting between alternative proposals.⁸⁹ The Secretary of the Department of the Interior is charged with coordinating the activities of cognizant federal agencies, including the Federal Power Commission.⁹⁰

If the actions or inactions of a federal, state, or local licensing agency (with certain designated exceptions) result in a failure to construct or commence operation of a bulk power facility that is likely to jeopardize meeting reasonable power needs, the proponent could ask the Secretary of the Interior to appoint an ad hoc federal panel composed of one member appointed by the Chairman of the Federal Power Commission, one by the Chairman of the Council on Environmental Quality, and a third selected by the first two.⁹¹ In addition, any person could request appointment of an ad hoc federal panel on environmental grounds. This request would be coordinated by or through the Environmental Protection Agency, the Federal Power Commission and the Department of the Interior and certain conditions would have to be met. In particular, no panel could be appointed where an appropriate state siting agency has been established, and the person requesting appointment must make a substantial showing that there is a more acceptable alternative to the proponent's proposal on balancing reasonable power needs and reasonable environmental factors.⁹²

The ad hoc federal panels would be authorized to approve construction or operation of a proposal notwithstanding any other provision of federal or state law with the exception of matters of radiological health and safety under the Atomic Energy Act.⁹³

The ad hoc federal panels would be authorized to use formal or informal procedures, such as arbitration or mediation, in resolving disputes,⁹⁴ and would be directed to achieve an acceptable balance between reasonable power needs and reasonable environmental factors in decision-making.⁹⁵ A panel decision would be subject to judicial reversal only upon a finding that the decision was arbitrary, capricious, or an abuse of discretion.⁹⁶

As can be seen, H.R. 11066 avoids the two primary difficulties with H.R. 6970 expressed during the Subcommittee hearings by offering access to the ad hoc panels to environmental groups and by clearly providing that the panel's decision, with certain designated exceptions, would supersede all other federal, state, and local requirements.

88 Proposed section 404(a) of the Federal Power Act.

89 Proposed section 405 of the Federal Power Act.

90 Proposed section 407 of the Federal Power Act.

91 Proposed sections 409, 411 of the Federal Power Act.

92 Proposed section 410 of the Federal Power Act.

93 Proposed section 412 of the Federal Power Act.

94 *Id.*

95 *Id.*

96 Proposed section 413 of the Federal Power Act.

VI. Other Federal Legislative Action

At the same time consideration is being given to legislative measures to improve and simplify the regulatory decision-making processes involved in the siting, construction, and operation of electric power plants, consideration is also being given to federal legislation that could complicate the regulatory processes by adding additional layers of required regulatory approvals. The most important of these latter legislative proposals are proposed amendments to the Federal Water Pollution Control Act embodied in S. 2770.

On October 28, 1971, the Senate Committee on Public Works favorably reported an original bill, S. 2770, to amend the Federal Water Pollution Control Act,⁹⁷ and on November 2, 1971 the bill was passed by the Senate with amendments.⁹⁸ The bill as passed by the Senate contains many provisions similar to those in the Clean Air Act. In particular, the bill would vest the Environmental Protection Agency with authority to promulgate effluent standards for water pollutants from new stationary sources of water pollution⁹⁹ and effluent standards for toxic pollutants from all sources of water pollution.¹⁰⁰

However, S. 2770 would go beyond the Clean Air Act by requiring a permit from the Environmental Protection Agency for any discharge of pollutants into navigable waters or tributaries, including the Great Lakes and the territorial seas.¹⁰¹ This would be in addition to the permit required under section 13 of the Rivers and Harbors Act, although some duplication of effort would be avoided by the requirement that in issuing permits the Department of the Army would accept the permit from the Environmental Protection Agency as "conclusive as to the effect on water quality of any discharge resulting from any activity subject to section 10 of the Rivers and Harbors Act of 1899."¹⁰² The Environmental Protection Agency would be required to delegate administration of this permit program to the state if the state program met certain conditions.¹⁰³ However, under the bill, the effluent standards governing discharges under the permits would generally be promulgated by the Environmental Protection Agency and the Agency would generally have veto authority over the issuance of partic-

97 S. 2770 was introduced by Senator Muskie on October 28, 1971, and favorably reported by the Senate Committee on Public Works the same day in lieu of S. 523, S. 1012, S. 1014, S. 1017, and S. 1238 which were considered by the Committee. S. REP. NO. 92-414, 92nd Cong., 1st Sess. (1971).

98 117 CONG. REC. S17464 (daily ed. Nov. 2, 1971).

99 Proposed section 306 of the Federal Water Pollution Control Act.

100 Proposed section 307 of the Federal Water Pollution Control Act.

101 Proposed Section 402 of the Federal Water Pollution Control Act.

102 Proposed section 511(a) of the Federal Water Pollution Control Act. Thus, the provisions of Exec. Order No. 11574 and the Department of the Army (Corps of Engineers) regulations in 36 Fed. Reg. 6564 (April 7, 1971) providing in essence that determinations by the Environmental Protection Agency with respect to water quality matters would be accepted by the Department of the Army in issuing permits under section 13 would receive statutory sanction. The regulations implementing section 13 recently withstood challenge on the ground, *inter alia*, that the regulations constitute an invalid subdelegation of decisional authority over water quality matters to the Environmental Protection Agency. *Businessmen for the Public Interest v. Resor*, — F. Supp. — (N.D. Ill. October 14, 1971). In so ruling, however, the court indicated that the regulations went "to the brink of unlawful delegation of authority."

103 Proposed section 402 of the Federal Water Pollution Control Act.

ular permits.¹⁰⁴ Hence, the state role is a minimal one. In addition, other provisions of the bill would require the states to develop pollution control programs which would include provisions for preconstruction review of any facilities that may result in any discharge of water pollutants.¹⁰⁵ Thus, if S. 2770 were enacted into law in the form as passed by the Senate, still other federal and state permits would generally be required before operation of an electric power plant.

However, S. 2770 as passed by the Senate makes significant progress toward eliminating duplicative review of water quality considerations at the federal level. Proposed section 511(d) of the Federal Water Pollution Control Act, which was added to S. 2770 when the Senate adopted an amendment to the bill offered by Senator Baker during Senate consideration of the measure,¹⁰⁶ would provide in substance that the requirements of the National Environmental Policy Act of 1969 "as to water quality considerations" would be satisfied by water quality certification under proposed section 401 with respect to federal construction permits or licenses,¹⁰⁷ and by water quality certification under proposed section 401 and issuance of a permit under section 13 of the Rivers and Harbors Act or proposed section 402 of the Federal Water Pollution Control Act¹⁰⁸ with respect to federal operating permits or licenses. While the National Environmental Policy Act of 1969 does not set forth any separate "requirements . . . as to water quality considerations," proposed section 511(d) would appear on its face to relieve federal licensing agencies from the requirements of that Act insofar as they may pertain to "water quality considerations" in particular cases.¹⁰⁹ As a result, the enactment of proposed section 511(d) would avoid some of the duplication of regulatory effort which has been created at the federal level by the National Environmental Policy Act's requirement that federal licensing agencies evaluate and balance environmental factors notwithstanding prior regulatory approvals covering the same factors.¹¹⁰

104 Proposed sections 402(b)(1)(A), 402(d)(2) of the Federal Water Pollution Control Act.

105 Proposed section 209(b)(2)(C)(ii) of the Federal Water Pollution Control Act. In addition, pre-construction review of new stationary sources of water pollution would be encouraged by proposed section 106(h)(3).

106 117 CONG. REC. S17456 (daily ed. November 2, 1971).

107 Proposed section 401 of the Federal Water Pollution Control Act set forth in S. 2770 is a revision of present section 21(b) of that Act.

108 Proposed section 402 of the Federal Water Pollution Control Act would require permits for discharges into navigable waters or tributaries and is discussed in the text *supra*, note 101.

109 Floor remarks by Senator Baker during Senate consideration of the amendment adding proposed section 511(d) raise a question whether under the amendment all of the requirements of the National Environmental Policy Act as to water quality considerations are intended to be satisfied by water quality certifications and Environmental Protection Agency approvals or permits, or whether under the amendment Federal licensing agencies would simply accept effluent standards dictated by the water quality certifying agencies and the Environmental Protection Agency but still be required under the National Environmental Policy Act to include risks associated with meeting the effluent limitations in the balancing of risks and benefits. 117 CONG. REC. S17456 (daily ed. November 2, 1971).

110 The Senate-passed S. 2770 was referred to the House Committee on Public Works which, on December 15, 1971, ordered favorably reported its version of the bill in the form of H.R. 11896, as amended. 117 CONG. REC. D1327 (daily ed. Dec. 15, 1971). The House had previously passed a measure, H.R. 9727, generally requiring a permit from the Environmental Protection Agency for dumping of any material into coastal waters and the Great Lakes but excluding from the permit requirements "a disposition of any effluent from any outfall structure where such disposition is regulated under the provisions of the Federal Water Pollution Control Act, as amended . . . or under the provision of section 13 of the Rivers and Harbors Act of

In addition to proposed amendments to the Federal Water Pollution Control Act, measures dealing with coastal zone management¹¹¹ and land use management in general¹¹² are also under active consideration by the Congress. These measures could, if enacted, also affect the various regulatory processes involved in the siting, construction, and operation of electric power plants.

VII. Problem Areas Relating to Power Plant Siting Legislation

An examination of the existing regulatory processes associated with siting, construction, and operation of electric power plants and the proposed legislative reforms in this area suggest several problem areas that must be addressed in any new federal electric power plant siting legislation.

As indicated above, under the present statutory scheme, the overall environmental impact of fossil-fired plants is not reviewed at the federal level, and existing regulations purport to exempt the effluents from such plants from the requirements of the National Environmental Policy Act.¹¹³

Any regulatory asymmetry between nuclear and fossil-fired plants, or indeed between any types of plants, should be eliminated. Opportunities for citizen participation in the selection of electric power plant sites and the scope of issues that must be considered in connection with regulatory site approval or disapproval should be relatively equivalent for all types of plants. Otherwise an artificial element—the desire to take the path of least resistance through the regulatory processes—enters into a utility's selection of the types of power plant to build. Neither H.R. 5277, the Administration's bill, nor H.R. 11066, the bill reported by the Subcommittee on Communications and Power, differentiates between fossil-fired plants and nuclear plants in terms of overall coverage. Under H.R. 5277 the requirements for approvals five years and two years in advance of construction would apply to both types of plants, and under H.R. 11066 an ad hoc panel could be appointed for both types of plants.

Secondly, any new federal power plant siting legislation must carefully address the problem of its impact on plants already in operation, plants under construction, and plants whose construction is scheduled to commence in the near future. Plants under construction and plants already in operation, in particular, may represent substantial financial commitments by the affected utilities.

1899, as amended. . . ." 117 CONG. REC. H8255 (daily ed. September 9, 1971). The House-passed bill was jointly referred to the Senate Committees on Commerce and Public Works which, on November 12, 1971, reported out their version of the measure. S. REP. NO. 92-451, 92nd Cong., 1st Sess. (1971). On November 24, 1971, the measure was passed by the Senate, with amendments. 117 CONG. REC. S19655 (daily ed. November 24, 1971). The Senate-passed version of H.R. 9727 would apply only to disposals of materials beyond the territorial jurisdiction of the United States, with disposals into coastal waters and the Great Lakes to be covered by S. 2770.

111 *E.g.*, H.R. 2492, H.R. 2493, and H.R. 9229, currently pending before the House Committee on Merchant Marine and Fisheries. The Committee's Subcommittee on Oceanography concluded hearings on the bills on November 9, 1971.

112 *E.g.*, H.R. 4332 and H.R. 2173, currently pending before the House Committee on Interior and Insular Affairs, and S. 992 and S. 2612, currently pending before the Senate Committee on Interior and Insular Affairs. The House Interior Committee's Subcommittee on the Environment concluded hearings on H.R. 4332 and H.R. 2173 on November 9, 1971.

113 *See Kalur v. Resor*, — F. Supp. — (D.D.C. 1971).

Apart from possible inequities involved in imposing additional regulatory review requirements on plants at these stages in an across-the-board fashion regardless of whether any environmental problems are actually associated with any of the individual plants, a period of time will be necessary to organize and acquire the necessary staff to effectively implement the new legislation. Section 21(b) of the Federal Water Pollution Control Act successfully dealt with this problem by postponing the water quality certification requirement for plants for which applications were pending on the date of its enactment and for plants for which construction had lawfully commenced on the date of its enactment.¹¹⁴ There is considerable discussion of this problem in the legislative history associated with the enactment of section 21(b).¹¹⁵

The National Environmental Policy Act, on the other hand, has been construed as immediately effective and applicable to all federal licensing actions regardless of whether the licensing actions involved proposed construction of plants or proposed operation of already constructed plants.¹¹⁶ Consequently, considerable difficulty was encountered in implementing the Act in the period shortly after its enactment. There is no discussion in the legislative history of the Act on the problems that might be associated in this area.

Implementation of the permit program under section 13 of the Rivers and Harbors Act has also involved difficulties in this area. About 400 applications had been received within the first three months after promulgation of implementing regulations, and over 100,000 discharges may be covered by the program.¹¹⁷ Although the Department of the Army (Corps of Engineers) cannot be expected to act upon such a large number of applications in a short period of time, the regulations specifically provide that mere filing of an application will not preclude legal action in appropriate cases for discharging without a permit.¹¹⁸

The Administration's siting bill postpones for two years the requirement that certifying authority approval be obtained prior to construction or operation of a bulk power supply facility, and provides for a different certification standard for plants under construction on the date of enactment.¹¹⁹ Thus, the bill would provide a basis for a more rational approach to siting problems for future plants but would recognize the problems associated with implementation of the Act in the period shortly after enactment and with its application to plants already

114 33 U.S.C. § 1171(b)(7) and (8) (1970). Plants in operation on the date of enactment of section 21(b) would be generally exempt from the water quality certification requirement unless further Federal licensing (such as renewals) is involved. Section 21(b) was added to the Federal Water Pollution Control Act by the Water Quality Improvement Act of 1970, Pub. L. No. 91-224, 84 Stat. 91, which was enacted on April 3, 1970.

115 E.g., *Hearings on S. 7 and S. 544 Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works*, 91st Cong., 1st Sess., pt. 4 at 1043 (1969) (communication from Congressman Hollifield, Chairman, Joint Committee on Atomic Energy), 1049-1050 (testimony by Commissioner Ramey of the Atomic Energy Commission); H.R. REP. NO. 91-127, 91st Cong., 1st Sess. (1969) at 8; 115 CONG. REC. H2612 (daily ed. April 15, 1969); 115 CONG. REC. H2691-2692 (daily ed. April 16, 1969); 115 CONG. REC. S12070 (daily ed. October 7, 1969); S. REP. NO. 91-351, 91st Cong., 2d Sess. (1969) at 26-27; 115 CONG. REC. S12044, 12054 (daily ed. October 7, 1969).

116 *Calvert Cliffs' Coordinating Committee v. AEC*, 449 F.2d 1109 (D.C. Cir. 1971).

117 *Hearings on S. 75 [and Related Bills] Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works*, 92nd Cong., 1st Sess., pt. 9, at 4319 (1971).

118 36 Fed. Reg. 6564 (April 7, 1969), section 209.131(d)(4).

119 Section 6(a) of the Proposed Power Plant Siting Act of 1971.

under construction. The Subcommittee bill does not directly deal with the problem.

Thirdly, there is the problem concerning federal coordination. As indicated above, the aspect of the Administration's proposed legislation which has been most often criticized is its lack of provisions clearly calling for a "one-stop" review at the federal level. However, while the proposed legislation does not make significant progress toward "one-stop" federal review in terms of generally eliminating any of the requirements that various federal licenses be obtained, it does make significant progress toward this goal by a different means. The principal defect in the present regulatory system is the requirement for duplicative and overlapping reviews of environmental matters imposed by the National Environmental Policy Act of 1969. The provision in the siting legislation that "detailed statements" would not be required for any federal actions with respect to covered facilities where the federal, state, or regional certifying authority has followed a substantially comparable procedure should make significant progress toward correcting this defect,¹²⁰ especially when considered in conjunction with proposed section 511(d) of the Federal Water Pollution Control Act set forth in the Senate-passed S. 2770.

Under the Administration's proposed siting legislation, the overall balancing of risks and benefits and accompanying public interest determinations would be conducted by the certifying authority pursuant to a general statutory standard—whether the use of the site or route would unduly impair important environmental values and be reasonably necessary to meet electric power needs. Once such a judgment has been rendered by the certifying authority, the public interest would hardly be served by further general environmental review at the federal level. The provisions in the Draft Proposed Federal Guidelines providing for coordination of federal licensing activities and joint hearings should, if implemented, also make progress in this area. Finally, designation of those federal agencies which presently have overall licensing authority over certain types of electric power plants (Federal Power Commission and Atomic Energy Commission) as the federal certifying agencies, as suggested by one of the authors of this article and Chairman Nassikas and Commissioner Brooke of the Federal Power Commission, would also contribute toward "one-stop" review at the federal level.

However, while the Administration's siting bill makes significant progress toward "one-stop" review at the federal level, the Subcommittee bill is stronger in this respect since the decisions of the ad hoc federal panels would, with limited exceptions, supersede other federal and state requirements.

Fourthly, any federal electric power plant siting legislation must deal with the problem of assigning a proper role to the states in the regulatory process and the related problem of federal pre-emption. The Administration's bill assigns an important role to the states by virtue of its provisions affording states the opportunity to establish certifying authorities to review siting proposals and detailed plans prior to construction. The Subcommittee bill does not set forth any

¹²⁰ As indicated in note 63, *supra*, the language of this provision may need to be clarified if the purpose is to be accomplished.

detailed provisions for establishment of state siting agencies but does afford the states an important role since the ad hoc federal panels could not entertain a petition raising environmental issues where a state siting agency had been established.

Neither H.R. 5277 nor H.R. 11066 would grant to the states any authority on matters, such as radiological health and safety, previously reserved to the federal government by other federal legislation. However, S. 2770, as passed by the Senate, is less clear in this respect.¹²¹

Finally, there is the problem of choosing the type of administrative procedures to be followed by the regulatory agency or agencies in decision-making. As has been indicated, some federal statutes dealing with electric power plant siting, construction, or operation, require that decisions be made on the basis of an evidentiary record compiled as a result of a formal "on the record" hearing, and others contain no hearing requirement. The complicated technical and public interest issues commonly associated with power plant siting, construction, and operation do not always lend themselves to expeditious resolution within the context of a formal hearing,¹²² and any federal legislation should grant to the decision-making authority some flexibility in deciding upon the best procedures to follow in decision-making.

It is not clear whether the Administration's siting bill would require formal "on the record" hearings before the certifying agencies in connection with both site approvals and approvals of detailed plans prior to construction, but some type of hearings of at least a legislative type is required. It would seem that the earlier site approval hearing, in particular, may involve issues not capable of expeditious resolution at a formal hearing. On the other hand the Subcommittee bill goes far in the other direction by authorizing the ad hoc federal panels to use either formal or informal procedures such as arbitration or mediation in its decision-making.

VIII. Conclusion

It seems clear that the regulatory processes involved in the siting, construction, and operation of electric power plants are in considerable need of reform. The opportunities for citizen participation in the selection of electric power plant sites and system designs varies depending upon the location and type of plant

121 Proposed sections 502(f) and 510 of the Federal Water Pollution Control Act. At this stage in the legislative process there is substantial legislative history to support the proposition that the bill was not intended to affect federal preemption under the Atomic Energy Act of 1954, as amended (see discussion in text at note 16 *supra*). 117 CONG. REC. S17401-17402 (daily ed. Nov. 2, 1971).

122 An Administrative Conference of the United States tentative staff report, *Licensing of Nuclear Power Plants by the Atomic Energy Commission*, suggested that a "show-cause" procedure, rather than the present procedure for mandatory formal hearings at the construction permit stage and opportunity for formal hearing at the operating license stage, would better serve the public interest in licensing of nuclear power plants. The Chairman of the Conference has indicated that in his view there is a serious question whether formal "on the record" hearings are a desirable way to resolve highly complex issues of scientific and technical facts and that a larger study of this question may be undertaken by the Administrative Conference. *Hearings Before the Subcomm. on Legislation of the Joint Comm. on Atomic Energy*, 92nd Cong., 1st Sess., pt. 1, at 348, 353, pt. 2, at 544-564 (1971).

involved. In many areas, the selection of plant sites and system designs is subject to numerous overlapping regulatory approvals with corresponding potential for the imposition of conflicting regulatory requirements and unnecessary delay.

The four-point program set forth in the August 1970 Office of Science and Technology Report *Electric Power and the Environment* and embodied in the Administration's legislative proposal, the Power Plant Siting Act of 1971, appears to offer an acceptable means of improving these regulatory processes. The essential elements of the program—long-range planning with public participation, early public notice and hearings on proposed power plant sites as well as overall pre-construction review and approval after public hearing of the more detailed plans, and an expanded research and development program—are set out in the proposed legislation. Although the proposed legislation does contain a considerable amount of flexibility, some additional flexibility particularly in the selection of decision-making procedures may be necessary to deal with the complex nature of the power plant siting problem.

The Subcommittee bill, H.R. 11066, grants a great deal of flexibility in the selection of decision-making procedures by the ad hoc panels and this aspect of the bill is perhaps its most desirable feature. However, since the bill does not set forth any overall requirement for governmental approval of siting of electric power plants, citizen participation in the site selection process will remain essentially the same until appointment of an ad hoc panel and there will be no systematic early identification of issues and conflicts involving particular proposals. Interested persons and environmental and public interest groups have an important role to play in the decision-making process, but this role must begin early in the planning stage, well before commencement of any public hearings.

While the efforts at institutional reform embodied in the Administration's proposed power plant siting legislation and H.R. 11066 will be complicated by separate efforts to impose additional federal controls within the framework of land use planning and water pollution control, it is hoped that some comprehensive power plant siting legislation will be enacted in the next few years. Perhaps the desirable features of both the Administration's bill and H.R. 11066 could be combined into a workable proposal. Hopefully, given a proper decision-making framework the need for electric power and the need to protect and enhance the environment can both be met.