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NUCLEAR WASTE MANAGEMENT

Uncertainty surrounding the permanent disposal of radioactive waste has generated much of the public debate over the future of nuclear energy. Many states and localities with potential sites for waste repositories have expressed concern that they will be chosen to host such a repository. Despite the comprehensive nature of the federal regulatory scheme, legislatures in several states have banned the disposal of nuclear waste within their boundaries, and a number of other states are considering similar legislation. Recent decisions indicate, however, that courts will view federal law as preempts state attempts to regulate the handling of nuclear waste.

1. The need to establish a method and sites for disposal is becoming increasingly apparent. High-level waste is presently being stored in tanks above ground; there have been accidents and leaks involving these wastes at Hanford, Washington and Savannah River, South Carolina. M. Willrich & R. Lester, Radioactive Waste: Management and Regulation 18 (1977). Spent fuel from commercial power plants is accumulating in storage areas at the power plant sites; if permanent disposal is not found before these storage areas reach full capacity, the plants may be forced to cease operations. Comment, Nuclear Waste Management: A Challenge to Federalism, 7 Ecology L.Q. 917, 927 n.55 (1979). For a description of the types of nuclear waste and the hazards associated with them, see Lash, Radioactive Waste, Amicus, Fall 1979, at 24, and Comment, supra, at 921-28.

2. Under the current regulatory scheme, responsibility for waste management is divided between the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC). NRC, the licensing and regulatory body, sets safety standards for waste management and licenses waste disposal facilities that conform to its standards. See Energy Reorganization Act of 1974, 42 U.S.C.A. §§ 5801-5891 (West 1977 & Supp. 1979). DOE has responsibility for nuclear waste management and, in particular, for “the establishment of temporary and permanent facilities for storage, management, and ultimate disposal of nuclear wastes.” Department of Energy Act of 1977 § 203(a)(8)(C), 42 U.S.C.A. § 7133(a)(8)(C) (West 1979). Thus, DOE must develop plans for radioactive waste disposal that meet the standards set by NRC. In addition, the Environmental Protection Agency sets general environmental standards for radioactive emissions from waste management activities, Comment, supra note 1, at 931, and the Department of Transportation regulates the interstate shipment of nuclear wastes, 49 U.S.C.A. §§ 1801-1812 (West 1976 & Supp. 1979). For a more complete discussion of the federal regulatory scheme governing radioactive waste, see M. Willrich & R. Lester, supra note 1, at 59-87.

3. At least seven states have passed bans on intrastate nuclear waste disposal. Comment, supra note 1, at 919 n.6. Similar concern about the hazards of disposal are evident in a recent California statute forbidding permits for construction of new nuclear power plants until the legislature is satisfied that the availability of reliable technology for safe, permanent disposal of nuclear waste has been demonstrated. Cal. Pub. Res. Code § 25524.2 (West 1977). This statute was recently overturned in a successful challenge on federal preemption grounds. See note 5 infra.

4. See Comment, supra note 1, at 919 n.6.

Despite their doubtful validity, attempts by states to regulate nuclear waste disposal demonstrate that the issue presents two discrete problems: the technological problem of isolating hazardous radioactive materials from the biosphere for long periods of time, and the political problem of gaining public and, in particular, local acceptance of the disposal methods and sites that are chosen. Because the problem of safe nuclear waste disposal is related to the public's view of the feasibility of nuclear power as an energy source, it is likely that the resolution of the political issues associated with waste disposal will bear heavily on the nation's future use of nuclear energy. Nonetheless, whatever decisions are made regarding the future of nuclear power, some permanent solution must be found for storing the wastes that already have accumulated.

In response to the political problem, many federal legislators and administrators have recognized the strong policy reasons for acceding to some extent to the states' desires for control. Consequently, despite the Federal Government's apparent power to preempt state regulation of nuclear waste disposal, federal officials have begun to seek means to

(9th Cir. June 9, 1979) (holding preempted by federal law a California statute prohibiting the approval of new nuclear power plants until reliable nuclear waste disposal methods are found).

It is likely that state legislation banning waste repositories would be subject to similar attack. For a discussion of the constitutionality of state regulation of nuclear waste disposal in support of this conclusion, see Comment, supra note 1, at 936-44; see also Tribe, California Declines the Nuclear Gamble: Is Such a State Choice Preempted?, 7 Ecology L.Q. 679, 706-14 (1979) (arguing that the purposes of the California statute include protecting the peace of mind of its citizens and preventing indefinite economic burdens on ratepayers rather than merely controlling radiation hazards); Comment, supra note 1, at 945-49 (argument against preemption).

6. The technical solution should provide for isolation from the biosphere, maximum surveillance, and minimum risk of inadvertent release. The most promising method of meeting these criteria, though certainly not without problems, is that of burial in geologic formations. Comment, supra note 1, at 926.


8. According to the Carter Administration, the volume of high-level waste, including spent fuel, that has been generated as of April 1979 is 4,300 cubic meters of commercially produced waste while 283,000 cubic meters of waste is in the care of DOE (primarily from military sources). Office of the White House Press Secretary, Fact Sheet Accompanying the President's Program on Radioactive Waste Management 14 (Feb. 12, 1980) [hereinafter cited as Fact Sheet].

9. There are reasons for delegating some responsibility to the states in addition to the increased likelihood of public acceptance of decisions on waste disposal facility siting and design. The search for a safe site and the development of plans for an adequate facility both could be expedited by enlisting the active cooperation of state agencies. Furthermore, since building a waste repository will be a massive undertaking, and maintaining it will require an extremely long-term commitment, state and local cooperation will be essential to these ends as well. Federal officials might recognize a moral responsibility to accede to state desires for control. States and localities arguably have a legitimate interest in having a voice in decisions regarding the storage of waste materials that will remain hazardous for a long time.
provide an expanded role for the states.\textsuperscript{10}

This Development discusses several recent congressional and executive proposals for solutions to the political problem posed by nuclear wastes. The proposals can be divided into three categories on the basis of the degree of authority granted to state officials in siting decisions: those granting the states a veto power, those providing for consultation with state officials during planning, and those leaving plenary authority over waste disposal in the hands of the Federal Government.

Proposals to delegate to the states a veto over federal decisions on the siting or design of proposed facilities within their boundaries would confer the highest level of control to the states. While most of the bills in Congress proposing a "state veto" also require federal cooperation with state officials during the administrative process of siting and designing waste facilities, the veto solution itself would be a course of action open to state officials after the Department of Energy (DOE) has selected a disposal site or promulgated a plan.

Executive proposals and congressional bills requiring only consultation with representatives of state and local governments during the administrative planning process prior to site selection would give less deference to state authority. These plans require varying degrees of cooperation between federal and state officials, ensuring, at the least, that local concerns will be considered at some stage.

Finally, Congress could decide that it can best serve national health and safety interests by retaining plenary authority over nuclear waste disposal and rejecting any explicit recognition of the states' power to influence site selection and planning. The remainder of this Development discusses the legislation in each of these three categories under consideration by Congress.

\textbf{I}

\textbf{STATE VETO}

Two bills now pending, H.R. 1071\textsuperscript{11} and H.R. 1791,\textsuperscript{12} provide for a

\textsuperscript{10} Though the issue is gaining more attention, some efforts to afford state participation have been made in the past. In particular, federal energy agencies have developed a program of working closely with states and localities in the selection of sites for nuclear facilities. Cooperative efforts in this area have not often occurred in practice, however, and the program has incurred some vigorous state protests. See Comment, supra note 1, at 933-36. The general federal policy of deference to state interests was accorded direct statutory support in 1977 when Congress enacted an amendment to the Department of Energy Organization Act allowing governors to establish Regional Energy Advisory Boards to make recommendations on energy policy to the Secretary of Energy. Department of Energy Act § 655(a), (c), 42 U.S.C.A. § 7265(a), (c) (West Supp. 1979). The legislation also requires the President to seek active participation of regional, state, and local agencies, id. § 801(a)(2), 42 U.S.C.A. § 7321(a)(2), and assigns an Assistant Secretary of Energy to the task of promoting federal-state cooperation and communication. Id. § 203(a)(6), 42 U.S.C.A. § 7133(a)(6).


\textsuperscript{12}
state veto of federal waste repository plans without express provision for state participation in planning. The proposed Radioactive Waste Management Act of 1978 would require the Secretary of Energy to notify each chamber of the legislature of the affected state before investigating any site for waste storage.\textsuperscript{13} Construction of the facility could then be disapproved within 120 days by the state legislature or by statewide referendum.\textsuperscript{14} State disapproval would bar construction.\textsuperscript{15}

The second bill would require DOE to give written notice to the governor and the legislature of the affected state after a decision has been made to establish a permanent disposal site within the state, rather than at the time DOE decides to investigate the proposed location.\textsuperscript{16} The Federal Government would be precluded from establishing a repository on the site under this bill if the governor or legislature gave written notice of disapproval within 120 days, and no construction could begin or be contracted for until the 120 days passed without such disapproval.\textsuperscript{17}

Two other proposals provide for greater state participation in the planning process, while still affording the state a veto if it does not concur with the final result. Senate bill 1443 would create a Radioactive Waste Management Commission, composed of representatives from the relevant federal agencies, state and local governments, Indian tribes, and public interest groups.\textsuperscript{18} The purpose of the Commission would be to achieve "substantial concurrence" on socioeconomic, technical, health, environmental, and safety issues raised by a proposed waste disposal facility.\textsuperscript{19} A state or Indian tribe would be free to decide whether or not it concurs, so that although "substantial concurrence" is not defined in the bill, it could require the absence of any objection by these entities. Nonconcurrence could be expressed by written objection from the representatives of the state or Indian tribe, a resolution of the state legislature, or a statewide referendum.\textsuperscript{20} The bill would prohibit the Federal Government from acting upon any storage or disposal

\begin{itemize}
\item \textsuperscript{12} H.R. 1791, 96th Cong., 1st Sess. (1979).
\item \textsuperscript{13} H.R. 1071, 96th Cong., 1st Sess. \S 2 (1979).
\item \textsuperscript{14} Id.
\item \textsuperscript{15} Id.
\item \textsuperscript{16} H.R. 1791, 96th Cong., 1st Sess. \S 107(g)(1) (1979).
\item \textsuperscript{17} Id. \S 107(g).
\item \textsuperscript{18} S. 1443, 96th Cong., 1st Sess., 125 CONG. REC. S8711-12 (1979) (adding §§ 107A-107C to the Energy Reorganization Act of 1974). The Radioactive Waste Management Commission would be formed after the Secretary of Energy had notified the state of DOE's intent to investigate a potential disposal site. Apparently a separate commission would be established for each potential site.
\item \textsuperscript{19} Id. \S 107B(D), 125 CONG. REC. at S8712.
\item \textsuperscript{20} Id. \S 107C(A)-(C), 125 CONG. REC. at S8712. The bill also would require the Secretary of Energy to reimburse campaign expenses incurred by sponsors of a successful referendum measure that establishes nonconcurrence.
plans unless the states or Indian tribes were satisfied that their objections had been resolved.  

Another bill that would provide for a combination of state participation in planning and apparent veto power is H.R. 2762. This bill calls for the formation of a Federal and State Radioactive Materials Management Commission to achieve "substantial concurrence" between the affected state or Indian tribe and DOE. If concurrence is not achieved, the governor may file his objections and identify alternatives. The state legislature also may issue a resolution of nonconcurrence. Federal agencies may not proceed with any project until the state has determined that its objections have been resolved. This bill neither provides a mechanism for resolving state objections nor indicates the consequences of failure to achieve concurrence.

Of the three options under consideration, the state veto proposals give the states the greatest control, and therefore go the farthest toward relieving political pressure from the states. This solution, however, may produce the least satisfactory answer to the technical problems of waste disposal. If all states are free to veto creation of nuclear waste sites, the Federal Government could find itself precluded from developing a waste repository at any suitable site.

II

STATE PARTICIPATION

Less drastic than state vetoes would be permitting state participation in the planning and decisionmaking process. While the specific mechanisms proposed for incorporating a state voice vary, the proposals typically preserve federal authority to make the final choice based on national interests, but give the states a significant role in shaping the outcome of that decision. Schemes that emphasize state-federal cooperation, including those proposed in conjunction with a state veto, have the advantage of permitting the states to help shape policy and influence siting decisions directly.

The federal agencies increasingly favor this approach, and President Carter adopted it in a recent Executive order. Following the

21. Id. § 107C(E), 125 Cong. Rec. at S8712.
23. Id. (§ 242(b)). This bill also would seem to entail a separate commission for each state and site. Compare S. 1443, 96th Cong., 1st Sess., 125 Cong. Rec. S8711-12 (1979) (discussed in note 18 supra and accompanying text) with H.R. 2762.
24. Id. § 242(e).
25. Id. § 242 (f).
26. Id. § 242(g).
27. Exec. Order No. 12,192, 45 Fed. Reg. 9727 (1980) (establishing the State Planning Council) [hereinafter cited as Exec. Order]. See also President's Message to Congress Estab-
suggestion of an Interagency Review Group (IRG) formed to study the nuclear waste disposal problem, the President established a State Planning Council, composed of various state representatives and federal agency heads and chaired by a State Governor, that will act as an advisory committee on radioactive waste management. The Council will recommend mechanisms for effective state and local involvement in all aspects of the nuclear waste management program and provide advice on waste management plans, federal regulations and criteria, and siting and licensing decisions. Under the President’s scheme, the Council will serve only an advisory function; DOE will retain primary administrative responsibility for the waste disposal program.

In addition to the establishment of the State Planning Council, the President’s message emphasized that the Administration “is committed to providing an effective role for State and local governments in the development and implementation of our nuclear waste program.” The Federal Government’s relationship with the states is to be based on the principle of “consultation and concurrence.” The Secretary of Energy is to provide financial and technical assistance to states to facilit-
tate their full participation in the waste management program. Without a formal mechanism for state participation, the success of this policy will depend on DOE's cooperation in its administration of the waste disposal program.

This recent presidential action does not render moot legislative proposals. The State Planning Council will terminate within eighteen months of the Executive order, and although the Administration intends to introduce legislation permanently establishing such a body, Congress may well decide to enact a program of its own design that differs from the presidential scheme. Several congressional attempts to create a mechanism for state-federal cooperation currently are under consideration. The role provided for state officials in these measures varies considerably, from nominal to significant opportunities to influence federal administrative action.

Senate bill 742, the proposed Nuclear Waste Management Reorganization Act of 1979, would establish a Nuclear Waste Coordinating Committee, which, with the exception of one representative from a state or local government, would be composed entirely of federal agency and department heads. The Committee would be responsible for formulating an annual Nuclear Waste Management Plan, dealing generally with all aspects of the national nuclear waste problem, as well as Repository Development Reports, analyzing individual proposed repository sites on which the Committee thinks attention should be focused. While the Coordinating Committee would not be subject to stringent requirements for cooperating with state agencies or officials in preparing the annual Waste Management Plan, once the Committee had focused on a particular site and begun preparation of a Repository Development Report, the affected state would be afforded considerably more opportunity for participation.

35. Id.
36. A formal mechanism would certainly offer more assurance to the states that some participation would occur. Given the complexity of the subject matter and the planning process, however, such a mechanism might actually be less effective in ensuring meaningful participation than a nonstatutory policy that is vigorously pursued.
38. Fact Sheet, supra note 8, at 5.
39. Mechanisms for state participation similar to those discussed here are included in two of the state veto proposals discussed above: S. 1443, discussed in the text accompanying notes 18-21 supra, and H.R. 2762, discussed in the text accompanying notes 22-26 supra.
41. The Committee would include one representative from the Nuclear Waste Planning Council (discussed infra in text accompanying notes 46-47). Id. § 302(a), 125 CONG. REC. at S3201.
43. Id. § 303(g), (e)(1), 125 CONG. REC. at S3201-02.
44. See note 48 infra and accompanying text.
45. See notes 47-51 infra and accompanying text.
The bill also would establish a Nuclear Waste Management Planning Council in the executive branch, composed of fifteen representatives from state and local governments, Indian tribes, and the public. The function of the Council would be strictly advisory; it would be authorized to "provide views" on the Nuclear Waste Management Plans, "advise the Federal agencies" on issues pertaining to disposal sites and facilities, and "comment" on proposed federal regulations, standards, and criteria.

Before beginning the site-specific Repository Development Report, the Committee's only formal requirements for consulting with state or local agencies are to notify the Governor and seek the views of appropriate state agencies. The bill does not require the Committee to give any weight to these views in its decisionmaking. After the Committee notifies the governor that it intends to prepare a Development Report on a particular proposed site, the Governor would be empowered to establish a Nuclear Waste Repository Review Panel, whose members would include local and tribal government officials, the Governor, and representatives from any other affected state. The Review Panel would aid in the preparation of the Repository Development Report, and its comments would be incorporated into the report. If the Panel filed a formal objection to the final report, the proposed facility could not be licensed or constructed unless Congress passed a concurrent resolution stating that the report "equitably balances State, local, and national interests." In effect, the bill would allow a state veto power in individual siting decisions, subject to congressional override; this power could be significant in light of Congress' probable reluctance to force on a state a waste disposal program that was opposed by the state's representatives.

The express purpose of another bill, the Nuclear Waste Management Research, Development, and Demonstration Act of 1979, which would be enacted by H.R. 4019, is to encourage the use of nuclear energy by reducing public concern about waste disposal problems. In addition to the development of a demonstration repository, this bill would authorize the formation of a Nuclear Waste Management Advisory Committee composed of representatives from special interest

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47. Id. § 203, 125 Cong. Rec. at S3201.
48. Id. § 303(d), 125 Cong. Rec. at S3202.
49. Id. §§ 401(a), 402, 125 Cong. Rec. at S3204.
50. Id. § 303(e)(4), 125 Cong. Rec. at S3202.
51. Id. § 303(e)(5), 125 Cong. Rec. at S3203.
groups, state and local governments, and the general public. The Committee would advise the Secretary of Energy on, among other things, the means to ensure effective participation by state and local authorities in the siting and planning of such a repository. The bill would require the Secretary to "seek information from and participation" by State Governors even before the preliminary determination on suitable demonstration sites. The Secretary would be required to review the Governor's recommendations and would be prohibited from carrying out projects until either the objections had been resolved or the Secretary found that the project would further the public interest and be "consistent with the public health and welfare." The text of the bill, however, does not define "resolve," nor does it provide a standard for determining whether the Governor's recommendations are outweighed by the public interest.

A more recent proposal is H.R. 6390, which would permit any state to establish a Nuclear Waste Repository Impact Review Board. The bill leaves the membership of a Review Board to be determined by the state, subject to the minimum requirement that it include representatives from the general public, affected local governments, and affected Indian tribes. The basic functions of the Review Board are to study the economic, environmental, social, health, and safety effects of a proposed repository, to propose federal actions to lessen those effects, and to monitor and submit suggestions regarding the actions of the federal agencies with respect to repository siting.

The bill provides various mechanisms by which a Review Board may fulfill these functions, including requesting technical assistance and legislative changes from the Federal Government in order to lessen the impacts of a repository and participating in licensing proceedings regarding nuclear waste disposal. The bill also would require federal

54. Id. § 10(b).
55. Id. § 10(a)(5). See also id. § 2(a)(10) (stating Congress finding that "the State in which the Federal demonstration repository is located should be permitted to participate fully in the process for the planning and design, siting, and licensing of such repository." Section 10, which establishes the Nuclear Waste Management Advisory Committee, specifies neither the means for such participation, nor to what degree the Committee's advice would be binding on the Secretary of Energy.
56. Id. § 11(a).
57. Id. The bill also expressly provides for state participation in NRC licensing proceedings. Id. § 11(b).
60. Id. § 203(a)(2)(B).
61. Id. § 203(c).
62. Id. § 203(e). Cf. H.R. 4019, 96th Cong., 1st Sess. § 11(b) (1979) (the state in which
agencies to inform the Review Board of any plans concerning a repository within the state, and to furnish any other information upon request.  

Two provisions in particular ensure that the Review Board's concerns would be given serious consideration by federal decisionmakers. The Review Board could submit requests to the Secretary of Energy for changes in plans or procedures affecting a waste repository. The Secretary would be required to implement these changes unless the Secretary filed a petition with an administrative law judge showing why DOE should not comply with the request, and the judge ruled in the Secretary's favor.

The bill's strongest state control provision would permit the Review Board to petition Congress to overturn the NRC's approval of a waste repository site. This action by the state would bar construction and operation of the waste facility unless Congress, within ninety days, passed a concurrent resolution explicitly denying the Review Board's petition.

III

DENIAL OF STATE PARTICIPATION

The third option before Congress is to deny the states any formal role in the planning process or any statutory basis for objecting to plans developed by DOE. House bill 4818, the proposed Nuclear Waste Terminal Storage and Technology Demonstration Act of 1979, would encourage the use of nuclear energy by demonstrating the feasibility of disposal. This bill would require the Federal Government to select a site from among three designated locations and construct a repository on that site. No provision is made in the bill for any state role in determining the facility's location or design.

This approach, which authorizes the Federal Government to assert exclusive authority over the regulation of nuclear waste, fails to address the political aspect of the nuclear waste disposal problem. The perception that the Federal Government is acting with complete disregard for state and local concerns could contribute significantly to public opposition.

the federal demonstration repository is to be constructed may offer evidence and advice "without requiring the State legislature . . . to take a position for or against . . . the application."
64. Id. § 203(f)(3).
65. Id. § 203(b). This type of provision may provide the best balance between state and national interests. See text accompanying note 52 supra.
67. Id. § 4(a)(1)(A). The Secretary of Energy is required to select a site near Hanford, Washington (storage in basalt formation), on federal land in New Mexico (storage in salt beds), or on federal land at the Nevada test site (storage in granite or tuff). Id.
CONCLUSION

The state veto proposals provide the most definite and assured protection of state interests in the siting and operation of nuclear waste disposal facilities. This approach, however, could enable the states to frustrate the national interest in choosing the safest repository site by forbidding DOE to consider potential sites. The Federal Government should retain ultimate authority over siting to ensure that the safest sites eventually will be chosen.

Denying the states any voice in planning or decisionmaking is undesirable for both political and practical reasons. Whatever position Congress takes on the future of nuclear power, the recent history of state attempts to regulate nuclear waste disposal indicates that ignoring local concerns is politically infeasible. Given the desirability of state and local cooperation in carrying out such a costly and technically complex enterprise, it would seem to be unworkable in a practical sense as well. Denying state participation would ignore the legitimate interest that states and localities have in being heard on decisions that will affect the interests of their citizens for millenia.

The most balanced approach is one that provides a formal role for state officials in shaping the site selection and planning process without granting the states absolute veto power. This solution will provide a political outlet for local concern about the problem of radioactive waste and should improve administrative decisionmaking by ensuring that a wider range of views is taken into consideration and that a fair and complete inquiry into the adequacy of DOE plans and NRC licensing procedures is undertaken. It will also avoid the problem, inherent in the state veto, of sacrificing the national interest in selecting the safest possible disposal site and techniques to local desires to push the disposal problem elsewhere.

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68. The authors of some of the bills discussed supra recognize that the future of nuclear power depends upon a resolution of the uncertainties and controversy concerning nuclear waste disposal. The express purpose of H.R. 4818 "is to increase the use of nuclear energy through the demonstration of technology for safe, permanent storage of high-level nuclear waste." H.R. 4818, 96th Cong., 1st Sess. § 2(b) (1979). Similarly, H.R. 4019 states as one of its purposes "to encourage the continued use of nuclear energy through the establishment of a Federal demonstration facility for the management and ultimate disposal of nuclear wastes." H.R. 4019, 96th Cong., 1st Sess. § 2(b)(1) (1979).

69. See text accompanying notes 1-8 supra.