

STATE DECISION MAKING ON HIGH-LEVEL WASTES:  
CRITICAL UNCERTAINTIES IN THE REPOSITORY SITING PROCESS

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ABSTRACT

The Nuclear Waste Policy Act of 1982 has resolved a long-standing problem involving federal/state relationships in repository siting. The Act has provided states with a substantive role in the siting process without yielding federal control over the final decision. By providing potential host states with disapproval authority, the Act modifies the hierarchical relationship between DOE and the states by recognizing them as legal adversaries. It assigns them similar authority in the final siting decision, which will be made by Congress. By granting disapproval authority to both the governor and legislature of a potential host state, however, the Act has caused significant uncertainty at the level of intrastate decision making. Who represents the state in the repository siting mechanism? One possible consequence is the development of two distinct decision-making processes within the state. DOE could be forced to negotiate separately with the executive and legislative branches of state government. Congress could face a notice of disapproval from one and approval from the other. It is too late to resolve the problem through explicit Congressional action. Resolution can come only through a combination of political and legal actions by DOE and the states.

INTRODUCTION

When Congress passed the Nuclear Waste Policy Act of 1982, it finally resolved a long-standing problem involving federal/state relationships in high-level waste disposal. It created a formal mechanism for siting nuclear waste repositories that includes both the federal government and the governments of potential host states in the decision-making process. But while resolving an old problem concerning relationships between the federal and state levels of government, the Act has also created a new problem concerning relationships within the state level.

The genius of the Act is that it provides states with a substantive role in the repository siting mechanism without yielding federal control over the final decision. The Act achieves this end by creating a hybrid decision-making process that modifies the traditional vertical separation of state and federal levels. This new mechanism formally recognizes an adversarial relationship that has long existed between the federal Department of Energy and potential host states. It assigns them similar authority in the final siting decision, which will be made by Congress.

By focusing so hard on defining the relationship between the state and federal levels, however, the Act forgets that a state government is itself not a unitary body. Like the federal government, the government of a state is complexly organized around the separation of powers among executive, legislative, and

judicial branches. Yet the Act is both unclear and inconsistent in specifying who should represent the government of a potential host state in the federal/state siting mechanism. In deference to the urgings of state officials, the Act explicitly avoids organizing the internal decision-making process of a potential host state. It also attempts to treat the state's executive and legislative branches on an equal basis with regard to participation in the consultation process and the final siting decision. But the net result is substantial uncertainty over how a state will participate in the overall decision-making process. Such uncertainty could prove to be a critical flaw threatening the success of the national siting program, unless the executive and legislative branch officials within each state cooperate and establish a cohesive process, including a clear line of decision making.

FROM FEDERAL TO NATIONAL DECISION MAKING

Prior to the passage of the Nuclear Waste Policy Act, states had no statutory authority to protect their citizens from the radiological hazards of spent fuel and high-level wastes. The 10th Amendment to the U.S. Constitution reserves for the states all authority not explicitly granted to the federal government. But the Atomic Energy Act of 1946 and subsequent Acts of Congress granted the Atomic Energy Commission (AEC) and its successors authority to protect the public from the hazards of radiation. States could use their police powers to protect the public from nonradiological hazards. But any state action that unilaterally attempts

to prevent or restrict the storage, transportation, or disposal of nuclear wastes within the state would probably be found unconstitutional.<sup>1</sup>

Yet while legal control over the management of nuclear wastes remained stable in federal hands, the political relationship between federal and state governments changed dramatically over time. Initially, the relationship was a positive one. During the period 1956-70, AEC officials frequently consulted with and sought the advice of state and local health, water pollution control, and other environmental agencies. The AEC also worked with a formal advisory committee of state officials. However, no state requested actual participation in AEC decision making nor did the latter offer to share its authority.<sup>2</sup>

During the next decade, however, tensions grew between federal agencies and state governments as relationships became strained in a number of cases. States began to agitate for greater participation in decision making. The problems began when a combination of technical and political complications in Lyons, Kansas led the AEC in 1972 to abandon plans to site the nation's first geologic repository in an abandoned salt mine. Following the demise of the Lyons Project, the AEC turned to the salt beds of southeastern New Mexico and the new concept of mining the repository. The agency began by obtaining the endorsements of state and local officials for a preliminary study of the site. However, the New Mexico project was abandoned soon thereafter when the AEC turned to the retrievable surface storage concept for storing all military and commercial wastes generated through the year 2000. But in 1975, the newly-created Energy Research and Development Administration (ERDA) scrapped the surface storage concept. ERDA turned back to New Mexico for the disposal of military transuranic wastes and in 1976 announced a 36-state search for six repository sites for commercial high-level wastes. The latter effort met with significant resistance from potential host states. In fact, by 1978, states had taken over 100 actions asserting new authority over the management of radioactive wastes.

The New Mexico project, now known as the Waste Isolation Pilot Plant (WIPP), developed as an exclusively military facility for transuranic wastes during the period 1975-78. The State of New Mexico requested no formal authority in the decision-making process; it merely monitored the project's development. But under intense pressure to locate a disposal site for commercial wastes, a newly-created Department of Energy (DOE) proposed in 1978 to expand the project's scope to include commercial wastes.

The DOE action triggered a four-year debate in Congress over how to expand the role of a host state in the exclusively federal decision-making process. Although need for legislative action on the WIPP project provided the occasion, the mechanisms proposed were generic. The formal authority considered for New Mexico moved from an initial promise of a state veto to concurrence authority, followed in turn by consultation and concurrence, consultation and review, and finally, consultation and cooperation. Consultation and cooperation became the state's official role when Congress returned WIPP's scope to its original form. The term means that DOE must consult with the state routinely and seek to resolve its concerns by following the terms of a written agreement, but also that the state has no legal control over DOE's final siting decision.

Although Congress solved the specific problem of military transuranic wastes in New Mexico, the generic problem of federal/state relationships in commercial

high-level waste disposal remained unsolved. DOE policy defined the state's authority as that of consultation and concurrence. But that term was an empty slogan. There was no accepted mechanism for giving substance to the role. In particular, there was no agreement on what to do if the state did not concur with a DOE siting recommendation.

Enter the Nuclear Waste Policy Act of 1982. The Act overcame the decision-making problem by translating the concept of consultation and concurrence into a two-step siting procedure. The first step is simply that of consultation and cooperation, and involves a state role in DOE's screening and characterization studies that is similar to New Mexico's role in the WIPP project. The key change lies in the second step. The Act authorizes the potential host state to halt the development of a recommended site by formally notifying Congress of its disapproval. However, a federal constraint on the state action remains. The state notice of disapproval is subject to the legislative override of both houses of Congress.

By providing states with the authority to disapprove, the Act successfully maps middle ground between the unacceptable poles of allowing host states to veto siting recommendations and of limiting them to mere consultation with DOE. It shifts some decision-making authority from the lead federal agency to the potential host state without yielding the federal government's control over the final decision. The Act thus transforms an exclusively federal process into a national process for selecting repository sites.

#### DOE AND THE STATE AS LEGAL ADVERSARIES

The major innovation in this national decision-making mechanism is that it recognizes DOE and the potential host states as formal adversaries. What has increasingly become a political reality since the early 1970s is now a legal reality. The innovation has been widely accepted because it achieves a better representation of competing public interests.

DOE stands as the lead federal agency in a national system for managing nuclear wastes. That role situates it in the midst of two sets of competing public interests. On the one side are the interests of that sector of the public that would receive most of the benefits from successful waste disposal. Developing a working system of commercial nuclear waste disposal is essential to the long-term health of nuclear power as a technology for generating electricity. By constructing such a system, DOE represents the interests of a population dispersed across many states that benefits from nuclear electricity. That population includes individuals in the commercial nuclear industry. On the other side are the interests of that sector of the public that stands to bear most of the costs of nuclear waste disposal. That population is smaller, concentrated in the area of the repository site, and usually confined within the boundaries of one state.

Prior to 1983, DOE was fully responsible for representing both sets of interests, because the host state had no decision-making authority. The burden on DOE was to balance somehow the interests of the dispersed population that would benefit from nuclear waste disposal against the interests of the localized population that would bear the costs. By granting states disapproval authority in the site selection process, the 1982 Act designates the state government as the primary legal representative of the local interests. The state now formally represents the intrastate concerns. The new federal/state decision-making process thus frees DOE to act more decisively in selecting repository sites. As long as DOE completes the formal

requirements of the consultation and cooperation process in good faith, it can be secure in the knowledge that it has not interfered with the representation of local interests.

The Act thus equalizes the decision-making statuses of DOE and the potential host states by casting them in the roles of negotiating adversaries subordinate to the final decision maker. They are required to work together, but each makes a separate siting recommendation to Congress.

By altering the federal decision-making process to incorporate state participation, the Act has also modified the traditional separation of federal and state levels of government. Figure 1a provides a model of the authority structure for repository site selection prior to the Act's passage. The model follows the traditional concept of vertically separating the federal and state levels. Under this model, all formal authority resides in the federal government. The key relationship is between Congress and DOE, through which Congress authorizes and oversees DOE's site-selection activities. The dotted lines connecting Congress and DOE to the governments of potential host states indicate the problematic nature of the states' role in this model. The state has no formal authority, except over nonradiological matters.

Figure 1b models the relationships as prescribed by the Nuclear Policy Waste Act of 1982. In this new model, DOE and the states both stand in a subordinate relationship to the final federal decision-maker, the U.S. Congress. DOE, acting through the President, is responsible for making a formal site recommendation to Congress. The host state has the authority to halt the project by issuing a notice of disapproval, but is subject to Congressional review. DOE is required to enter into a consultation and cooperation agreement with each potential host state, a document designed to force negotiation among adversaries. The arrow connecting DOE to the state governments indicates that DOE remains in control of the production of knowledge about each site, which the host state needs in order to make a realistic evaluation. While possessing equal decision-making authority, the state is still dependent upon DOE for information. The state government remains subordinate to Congress, but has benefitted significantly by gaining access to the final decision-making process independent of DOE's influence.

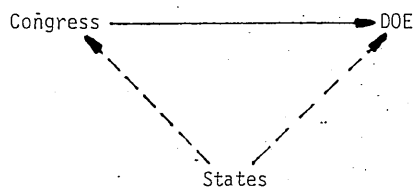
This federal/state site selection mechanism appears to maximize the chances of achieving national siting decisions. By reconstituting the separation of governmental levels, the Act puts the directly competing interests of those who receive the benefits and those who bear the costs of repository siting in the hands of directly competing actors--DOE and the state governments. The new decision-making mechanism is far superior to the old one, which required a single actor, namely DOE, to internally balance those competing interests in making siting decisions.

#### WHO IS THE STATE IN THE SITING MECHANISM?

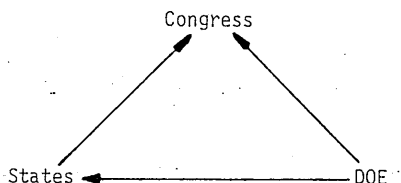
But who is the state in the repository siting mechanism? Although the Act clearly specifies a role for the states, it does not clearly specify who has the authority to act for each state in the actual siting processes. The key flaw lies in the key innovation, the disapproval procedure. Under the Act, both the governor and the state legislature are granted the authority to approve or disapprove of a HLW facility. "Unless otherwise provided by State law," reads the relevant provision, "the Governor or legislature of each State shall have the authority to submit a notice of disapproval to Congress . . ." [Sec. 116(b)(1)]. Since this provision allows either branch of state government to act for the state, it has the potential of creating an adversarial relationship between the two branches.

Depending upon the character of intrastate relationships, one potential consequence is the development of two distinct decision-making processes within the state, each with its own data, analyses, and political constituency. In such a case, proponents and opponents would rally behind those officials most likely to support their respective causes. To ordinary citizens, an already complex process would appear at least doubly so. DOE would probably have to negotiate separately with the legislative and executive branches of the state government. And Congress could face a notice of disapproval from one and approval from the other. What then would be the next step?

While attempting to satisfy state officials by not specifying an intrastate decision-making process, Congress has, in fact, created a difficult intrastate decision making problem. That Congress was not sensitive to the Act's implications for intrastate agree-



a. Pre-NWPA Model



b. NWPA Model

Fig. 1 Impact of the Nuclear Waste Policy Act on Federal/State Relationships

ment and disagreement is demonstrated by an earlier sentence in the Act that directly contradicts the above provision. In the section establishing procedures for Congressional review of recommended sites, the Act points out that a site automatically becomes ineligible for NRC licensing "unless the Governor and legislature of the State in which the site is located . . . [have] submitted to the Congress a notice of disapproval . . ." [Sec. 115(b); emphasis added]. This sentence notwithstanding, the Act's later explicit assertion that either the governor or the legislature may issue a notice of disapproval clearly represents Congress' intent. But it is also clear that by providing disapproval authority jointly to the governor and legislature, the Act now requires considerable more communication, negotiation, and shared decision making between these two branches of state government than is normally the case.

The tension created between the governor and the legislature by the disapproval provision is exacerbated in the consultation and cooperation processes that take place prior to final site selection. The Act is not consistent in specifying who should represent the state, generally to the detriment of the legislature.

The site screening procedure begins with the Secretary of Energy issuing guidelines for recommending sites after "consultation with interested Governors . . ." [Sec. 112(a)]. The legislatures are excluded. The Secretary then nominates at least five sites for characterization, following consultation with the governors and notification of both the governors and the legislatures [Secs. 112(b)(1)(A), 112(b)(1)(H)]. In addition, the Secretary is to provide both the governor and the legislature of any state considered for nomination with complete information regarding DOE plans, whether requested or unrequested [Sec. 117(a)(1-2)]. Thus the legislature is not consulted before a site is nominated, but is provided with information and is notified of the actual nomination. After the President has selected three sites for characterization, the formal information-sharing process called "consultation and cooperation" is put into action. Both the governor and the legislature are authorized to express their concerns through this process, and both are permitted to review DOE's site characterization plan every six months [Secs. 117(b), 113(b)(3)].

However, once again these provisions are contradicted by an earlier one, this time in the introduction to the site characterization section. The Act specifies that the Secretary shall conduct all characterization activities in consultation with the governor alone. Inexplicably, the legislature has been omitted.

To insure the success of the consultation and cooperation process, the Secretary must enter into a legally binding written agreement with a state representative. In this case the Act escapes the problem of designating the state representative by choosing no one. It says only that the Secretary "shall seek to enter into a binding written agreement, and shall begin negotiations, with such State . . ." [Sec. 117(c)]. And in listing the types of procedures that the written agreement will establish, the Act does not specify whether the governor or the legislature will supervise the state's part in consulting and cooperating [Sec. 117(b)(1-11)]. One exception is that if no formal agreement is reached, only the governor is included in the process of explaining the state's position to Congress. Once again, the legislature is left out [Sec. 117(c)].

Despite the fact that Congress grants consultation and cooperation authority to state legislatures, it apparently assumes that the governor of the host state will conduct the negotiations with DOE and alone sign the formal agreement. Such was true in the New Mexico agreement on WIPP. However, if both the governor and the legislature are to have disapproval authority as well as consultation and cooperation authority, then both should be able to participate in all decisions concerning the written agreement.

Taken as a whole, the Nuclear Waste Policy Act offers inconsistent direction for state participation in federal decision making. It provides the legislature with formal authority equal to that of the governor, but appears to expect that legislatures will not care to exercise it. It has the potential of creating an adverse atmosphere in relations between the governor's office and the legislature.

One modification in the Act that would have made it internally consistent while providing a well-defined line of authority would have been to grant disapproval authority solely to the governor. If the state legislature desired to participate in that decision, it could pass legislation forbidding the governor to sign a notice of disapproval without the legislature's consent. Otherwise, no explicit action by the legislature would be required. Such a change is impractical now, however, for opening the Act to amendment would certainly also open it to further manipulation.

#### GUIDING PRINCIPLES FOR SOLVING THE PROBLEM

Since Congress is not likely to provide a statutory solution to this problem, the only way to solve it is through a combination of legal actions by potential host states and of political actions both by those states and by DOE. The categories of actions required can be characterized in the form of three guiding principles.

1) DOE must consult and cooperate fully with both the executive and legislative branches of state governments. This principle has potentially dramatic implications for DOE's actions in the consultation and cooperation process. In the overview of that process provided by the agency's draft mission plan, DOE states its intent to "follow both the letter and the spirit of the Act."<sup>3</sup> At the same time, however, the document makes an assumption that may threaten the agency's ability to follow even the letter of the law. It characterizes the government of a potential host state as if the latter were a unitary whole.

The significance of this assumption emerges in DOE's day-to-day relationships with the individual states. DOE normally identifies a single contact within each state to act as the state's principal spokesman. Not surprisingly, that spokesman usually resides in the executive branch of government. It does not seem unreasonable for officials in a federal executive branch agency to seek relationships with state officials from executive branch units. After all, state officials in the executive branch are more likely to possess the capability for technical review. And officials in executive agencies are full-year employees while legislators often work part-time. Furthermore, several states have themselves identified executive agencies as their principal spokesmen. The net result, however, is that DOE is much less likely to develop substantial contacts with the legislative branches of potential host states.

In order to comply successfully with the letter of the Act, DOE should attempt to interact equally with representatives of both branches. Since the state

legislature has independent disapproval authority, DOE must provide it with the information necessary to exercise that authority. And if the executive and legislative branches of a given state decide not to work together, it may prove necessary for DOE to fund a review mechanism in the legislature that is independent of executive branch activities. The Washington State legislature is already preparing an application to DOE for such assistance.<sup>4</sup> DOE could even find itself under pressure to sign separate consultation and cooperation agreements with the governor and the legislature. At the very least, DOE should identify in each state a second representative on the legislative side with whom to consult and cooperate on a continuing basis.

In sum, DOE is required to consult and cooperate with both branches of state government, and may even be forced to participate in two distinct decision-making processes. The probability of this second outcome, however, is contingent on actions taken within the state, which brings me to the second principle.

2) Each state must establish a clear line of decision making for exercising disapproval authority. The 1982 Act provides each state with two possible courses of action: (i) to establish a mechanism for exercising state disapproval authority with a single voice or (ii) to risk having the executive and legislative branches reach separate approval/disapproval decisions. If disagreement within the state government leads one branch to issue a notice of disapproval while the other does not, then the state leaves itself with a decidedly weak state position. In such a case, the government of the state would appear indecisive both to the members of Congress and to the state's citizens.

Furthermore, failure to establish a unified intrastate decision-making process could even threaten an eventual agreement between the two branches. For since the actual decision-making process could involve compromises hidden from the public eye, any agreement could appear politically contrived. Without a clear line of intrastate decision making, one branch may find distinguishing itself from the other branch to be a political necessity, and issuing a notice of disapproval to be its only politically-acceptable action.

Creating a mechanism for reaching a unified state position can be difficult, however. In the first place, potential host states are confronted with a long list of functions that they may wish to perform in order to justify action on a final site recommendation. These include conducting and monitoring technical reviews of the project's progress; identifying and evaluating a wide range of potential impacts, as well as requesting and distributing impact assistance; developing state policies on institutional issues, such as emergency planning, state liability, and transportation; offering formal comments at various points in the siting process; negotiating and implementing the written agreement with DOE; supplying their citizens with information about the project; organizing intrastate participation and resolving conflict among competing parties; and deciding whether or not to intervene in the NRC's licensing process. Simultaneously managing all of these functions poses a complex organizational problem for potential host states.

In addition, each state has a somewhat distinct governmental structure. Designing a single generic mechanism for state decision making is not likely to prove fruitful, for different states could find contrasting mechanisms suitable for their needs. There are many possible combinations of specific actions for

achieving joint decision making. For example, a legislature could, on the one hand, defer entirely to the governor's judgment, or, on the other hand, prohibit the governor from issuing a notice of disapproval without the legislature's consent. The legislature could assign responsibility for consultation and cooperation to a single lead administrative agency constrained by later shared decision making, or construct entirely separate review mechanisms connected only at the point of final decision making. It could even create a separate review entity that both has responsibility for consultation and cooperation and makes recommendations for approval or disapproval to the governor and legislature.

The six states that have been nominated to host the first repository--Louisiana, Mississippi, Nevada, Texas, Utah, and Washington--have all initiated mechanisms for developing intrastate policy and exercising consultation and cooperation authority. The organizational structures they have created contain different combinations of a set of six decision-making units: the Governor's office, an executive agency, an executive task force, a state review board, an advisory committee representing both branches, and legislative committees. Most of the 17 states now considered for the second repository site are watching the first repository states as models to emulate. However, few of the states considered for either the first or the second repository have created mechanisms for reaching a single state decision on the subject of formal disapproval. In Louisiana, the legislature has authorized the governor to exercise veto authority secured in a 1978 agreement with DOE. In Wisconsin, the final state decision will take the form of a legislative act subject to the governor's veto, with the possibility of legislative override.<sup>4</sup>

What is needed to provide potential host states with adequate guidance in considering possible intrastate decision-making mechanisms is systematic analysis providing comparative data on a range of possible models. Each state will then be better equipped to select one that it finds appropriate.

3) State executive and legislative branch officials must consult and cooperate with one another. Regardless of the final decision-making structure that a state elects to implement, it is essential that the officials in both branches of state government cooperate fully and openly. Their common goal should be to achieve a unified state voice, and they should create a state review mechanism that maximizes the chances of reaching that goal. A formal separation between the branches at the earlier review stage could lead to direct conflict at the later site selection stage. And dissension at either stage could cause confusion both in DOE and the Congress as to who is speaking for the state. The net result could be a greatly weakened state role in federal decision making.

#### CONCLUSION

The Nuclear Waste Policy Act of 1982 has taken a bold first step in resolving the problem of federal/state relationships in repository siting. By requiring the Department of Energy to consult and cooperate with potential host states and by granting the states independent access to Congress through disapproval authority, the Act has provided states with a substantive role in the siting process without yielding federal control over the final decision. The Act modifies the hierarchical relationship between DOE and the states by recognizing them as legal adversaries.

However, by granting disapproval authority to both

the governor and legislature of a potential host state, the Act has caused significant uncertainty at the level of intrastate decision making. This problem was unforeseen, but has the potential of undermining the entire siting program. It is now too late to resolve the problem through explicit Congressional action. Resolution can come only through actions by DOE and the states. DOE must recognize the requirement to consult and cooperate with the legislatures of potential host states, as well as with their executive branch officials. The governments of potential host states must establish mechanisms for reaching a single state position on the final site recommendation. And the executive and legislative branches must consult and cooperate with each other. By following these principles, DOE and the states can overcome the structural problem created by the Act and maximize the probability of orderly intrastate decision making in the site selection process.

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#### REFERENCES

1. H. P. GREEN and L. M. ZELL, "Federal-State Conflict in Nuclear Waste Management: The Legal Bases," in The Politics of Nuclear Waste, E. W. COLGLAZIER, JR., ed., Pergamon Press, New York, New York (1982).
2. D. METLAY, "Radioactive Waste Policy Making," United States Congress, The Office of Technology Assessment (1981).
3. Draft Civilian Radioactive Waste Program Mission Plan: Overview and Current Program Plans, Vol. 1, U.S. Department of Energy, Office of Civilian Radioactive Waste Management (December 20, 1983).
4. J. H. GERVERS, "State Organization Programs for Review and Evaluation of Nuclear Waste Repositories," Legislative Working Group, Washington, D.C. (December 16, 1983).