

HOSTING A NATIONAL LOW-LEVEL RADIOACTIVE WASTE SUMMIT TO EXPLORE SITING OPTIONS FOR NEW DISPOSAL FACILITIES

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Abstract

The National Conference of State Legislatures' (NCSL) Low-Level Radioactive Waste Working Group hosted a summit meeting on April 9, 1999, in Jacksonville, Florida, to address low-level radioactive waste policy. Low-level radioactive waste (LLRW) site development programs have been halted, suspended, postponed or otherwise rendered dormant in California, Connecticut, Illinois, Massachusetts, Michigan, Nebraska, New Jersey, North Carolina, Ohio, Pennsylvania and Texas. The failure of these development efforts has led to frequent suggestions for alternatives to the dilemma of siting new LLRW disposal facilities. The summit was convened by the working group as an opportunity to discuss suggestions openly and frankly and to propose innovations. The working group focused on various LLRW disposal alternatives; a wide range of views from stakeholders, experts and other interested parties also were presented.

NCSL sponsored the meeting due to a growing concern that the current national policy for providing LLRW disposal capacity was not yielding the desired results. One primary purpose of the meeting was to elicit testimony from legislators, LLRW management experts and stakeholders that would assist the working group as it examined four specific policy options for future LLRW disposal policy. The options were:

- Dissolve the low-level radioactive waste disposal compacts to restore market incentives;
- Advocate federal disposal of commercial low-level radioactive waste;
- Allow the compact system to succeed, and;
- Restore federal incentives for site development.

These options were not intended to be either discrete or mutually exclusive. Multiple variations that combine specific features from several options are possible and may have greater appeal to policymakers, generators and the public than any of the four options as defined.

A summit summary--along with arguments for and against each option--was presented to the working group on July 26, 1999, during the NCSL Annual Meeting. The working group hosted a second meeting on December 1, 1999, in Washington, D.C., to further refine the options and possible variations. As a result of efforts by the South Carolina Nuclear Waste Task Force, the group decided to postpone activity to draft recommendations to Congress and other key policymakers regarding future actions to develop LLRW capacity until the group's March 31, 2000, meeting in Denver, Colo. The group will attempt to incorporate recent developments from South Carolina and Utah (South Carolina may join the Atlantic Compact and restrict disposal to compact member states and Envirocare of Utah is seeking to expand the disposal capabilities at its Clive facility to classes B and C wastes), into any recommendations it makes to the NCSL policy committees, which then will meet in May 2000 to develop a revised policy. Discussions during Waste Management '00 will be relayed to working group members during the group's March 31 meeting in Denver.

Introduction

Why is the NCSL Low-Level Radioactive Waste Working Group examining options?

LLRW site development programs have been halted, suspended, postponed or otherwise rendered dormant in California, Connecticut, Illinois, Massachusetts, Michigan, Nebraska, New Jersey, North Carolina, Ohio, Pennsylvania and Texas. The failure of these efforts has given rise to frequent suggestions for alternatives to the dilemma of siting new LLRW disposal facilities. In the past, these discussions were not held because they were seen as being potentially disruptive to state efforts to site new disposal facilities. NCSL's purpose for sponsoring

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the summit was to provide an opportunity for frank, open discussion of the advantages and disadvantages of the four frequently suggested LLRW disposal alternatives. The summit resulted in a wide range of views from stakeholders, experts and other interested parties about current LLRW policy and the four potential policy options.

NCSL's decision to host the summit was based upon growing concern by the members of the Low-Level Radioactive Waste Working Group that the current national policy for providing LLRW disposal capacity was not yielding the desired results. NCSL working group members understand that each state and compact is addressing circumstances that are uniquely related to the status of its own project and existing commitments to LLRW generators and the public. As a result, it was assumed that local circumstances could lead states and compacts to different conclusions regarding the best option for their constituents.

State policymakers are concerned that generators soon may lose access to disposal capacity. Although LLRW generators can weather short-term disruptions in disposal access, small or medium-sized organizations that are cut off from access to disposal for longer periods of time either will have to divert resources to interim waste storage or discontinue their LLRW-producing manufacturing, research, diagnostic or medical treatment activities. Policymakers do not want to see a disruption in technology transfer, medical research and other important industrial applications that maintain global competitiveness simply because affected companies do not have access to disposal capacity.

Through its panel discussions, the working group identified some of the problems that have arisen from various state and compact efforts to develop new LLRW disposal capacity. The group understands that these panel discussions were not meant to produce an exhaustive list of all perceived problems with current national policy. The primary purpose of the meeting was to elicit comments from legislators, LLRW management experts and stakeholders that would assist the working group as it examined four specific policy options for future LLRW disposal policy. The four options, although suggested in many forums, had never been thoroughly evaluated and discussed by any organization. The options were not intended to be discrete or mutually exclusive--multiple variations of each option are possible, or specific features of multiple options could be combined to develop new options. Because variations of options may be used to mitigate undesirable features of any one option, such variations may have greater appeal than any of the four options as defined and presented to the working group.

The Four Policy Options

The four options discussed during the April meeting were:

- Dissolve the compacts to restore market incentives
- Advocate federal disposal of commercial low-level radioactive waste;
- Allow the compact system to succeed, and
- Restore federal incentives for site development.

Policy Option #1: Dissolve the Compacts to Restore Market Incentives

Declining waste volumes and small regional compacts have reduced incentives for private companies to develop (on their own) new disposal facilities in response to market demand. Dissolution of the compacts could result in a single large market region in which private developers could meet generators' demand for disposal. Each compact includes provisions under which states can withdraw. Compacts can be dissolved in one of two ways—through withdrawal legislation enacted by individual states or through federal legislation that repeals congressional consent for an entire compact.

Arguments in support of this option included the position that private developers have had greater success than state agencies in winning local support for new waste management and disposal facilities. State agencies must adhere to administrative procedures in siting radioactive waste disposal facilities; private sector developers have no similar responsibility. In addition, private developers could use investment capital rather than state or waste generator funds to build the disposal facility, avoiding the complex funding issues that have arisen for compacts. Another argument in support of the free market system is that the developers would be able to better determine an economically viable number of disposal facilities through the use of competition and without the artificial constraints of the unaffiliated state/compact system. Finally, if private companies assumed responsibility for facility siting and development,

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states then could focus their efforts on their regulatory roles and avoid any perceived conflict of interest that could arise from attempting to fulfill both the developer/operator and regulator roles.

Arguments against this option included the concern that eliminating the compact authority to exclude waste from outside a defined region would result in host states erecting additional administrative barriers to prevent the siting of new facilities. In addition, states that currently host disposal facilities (e.g., South Carolina and Washington) could act to curtail operations. Another concern was that a partial dissolution of compacts would result in a market region that would not be large enough to provide adequate economic incentives for private developers. Other concerns were that the private sector would not view LLRW disposal as a potentially profitable venture and still would require governmental financial assistance to increase the financial viability of the project. There were additional concerns that the “equity” issue among states would be aggravated since an equitable geographic dispersion of disposal sites could not be guaranteed in a free market system. There also were concerns that the operating life of an LLRW disposal facility would require a century of institutional control, development and operation and that states and public agencies were more likely than current private companies to survive into the late 21st century.

Some compacts already have begun to dissolve. On May 12, 1999, Nebraska enacted legislation to withdraw from the Central States Compact. Both South Carolina and Wyoming in the past have withdrawn from their regional compacts. With the recent decisions by Waste Control Specialists and Envirocare to expand their operations in Texas and Utah, it would seem that the free market option may be a viable alternative for providing disposal capacity to LLRW generators.

Another suggestion made regarding the “equity” issue was that equity among states should be based on the aggregate (solid, hazardous, low-level, spent fuel, etc.) waste management burden, rather than conducting a separate assessment of equity for each subtype of waste management facility.

Policy Option #2: Advocate Federal Disposal of Commercial Low-Level Radioactive Waste

Although the Low-Level Radioactive Waste Policy Amendments Act of 1985 states that only the federal government is responsible for the disposal of low-level radioactive waste generated through weapons-related activities, the statute does not specifically preclude the federal government from providing disposal capacity for commercially generated LLRW. However, current U.S. Department of Energy (DOE) policy does not allow the disposal of commercially generated waste. Therefore, federal legislation most likely would be needed to implement this policy option.

Arguments in support of this option included the fact that DOE already operates several LLRW disposal facilities that could be expanded to accommodate the disposal of commercial LLRW. In addition, the volume of commercially generated LLRW is small in comparison with the volume of defense-generated LLRW, which DOE is required to dispose of at its facilities. Requiring DOE to take responsibility for all LLRW disposal would avoid the need for different host states to implement controversial siting programs. In addition—given sufficient time, resolve and money—DOE has been able to overcome opposition to controversial programs such as the Waste Isolation Pilot Plant and the acceptance of foreign research reactor spent fuel for storage at DOE facilities. Although state and Nuclear Regulatory Commission regulation of DOE sites would be required, the DOE disposal sites could be privatized and made available for commercial waste disposal; private companies are familiar both with the handling of commercial waste and with external regulation.

Arguments against this option include the fact that DOE facilities are located within host states and that these states most likely will protest (and possibly prevent) the importation of additional waste for disposal. In addition, state and individual opposition could intensify if it were perceived that DOE’s waste disposal activities were less subject to independent oversight than a state or private facility’s would be. The “equity” issue also was raised in that the host states for DOE disposal facilities may be the same states (Nevada, South Carolina and Washington) whose seeking of federal relief in 1980 resulted in the original Low-Level Radioactive Waste Policy Act. A representative from South Carolina discussed that state’s efforts to coordinate with DOE regarding the mission of the Savannah River Site; he doubted that the state would welcome establishing a new LLRW disposal site. Another argument against this option is that DOE would be in competition with current privately operated disposal facilities, unless those facilities were transferred to DOE or unless the DOE facilities were privatized and externally regulated either by a state or federal regulatory agency. Finally, unless liability issues were resolved through federal legislation, waste generators might be reluctant to use DOE facilities where DOE and commercial wastes would be co-located.

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Advocates for this option believe sufficient disposal capacity will be available at DOE installations through 2070. The Department of Energy has selected two sites--the Hanford (Wash.) Reservation and the Nevada Test Site--as its two preferred regional low-level and mixed (hazardous and radioactive) waste disposal facilities. The December 10, 1999, notice of preferred alternatives also called for on-site waste disposal to continue at Los Alamos (N.M.) National Laboratory, Oak Ridge (Tenn.) National Laboratory, the Idaho National Engineering and Environmental Laboratory and the Savannah River (S.C.) Site. The Idaho and Savannah River facilities will continue to accept and dispose of low-level radioactive waste from the Naval Nuclear Propulsion Program.

Policy Option #3: Allow the Compact System to Succeed

Although the many shortcomings of the current system of waste compacts have been noted, the states and compacts do possess the authority and flexibility to address and correct problems. For example, the Rocky Mountain Compact entered into a contract with the Northwest Compact to provide LLRW generators with access to a disposal facility. Existing compacts also can negotiate with currently operating disposal facilities to ensure long-term access to these facilities. If no changes are made to the current system, waste generators, site developers and state and compact officials can operate within the framework to achieve stable access to disposal.

Arguments in support of this position included the position that--as long as the Barnwell (S.C.) and Envirocare (Utah) facilities remain available to accept waste--there is no crisis that would require a legislative solution. In addition, compacts provide official entities through which LLRW generators can negotiate access to existing disposal facilities. Should access to current disposal facilities be disrupted, the compacts may be able to provide generators with possible mechanisms to address the resulting problems. Finally, small compacts do have the flexibility to enter into agreements with other compacts if they cannot justify developing their own disposal facilities.

Arguments against this option included the contention that the compact system already has demonstrated its inability to bring new disposal facilities online. In addition, regional compacts are not needed to negotiate access agreements with currently operating disposal facilities. Finally, the existence of so many small regional compacts has been a deterrent to the development of new disposal capacity, since separate disposal facilities would lack sufficient waste receipts to establish an economical disposal operation.

Since the South Carolina Low-Level Waste Task Force's recommendation to the governor and the state legislature that the state form the Atlantic Compact (with Connecticut and New Jersey), the regional compacts and LLRW generators must begin to consider their future without the availability of disposal capacity in South Carolina. Envirocare is seeking state approval to expand its Utah disposal operations to include classes B and C wastes, thus providing generators with a new national disposal option. In addition, Waste Control Specialists (WCS) has met with county officials in New Mexico and Texas regarding the potential development of new commercial disposal facilities; if successful, either the compacts or the individual generators could negotiate contracts with WCS for use of the facility.

Policy Option #4: Restore Federal Incentives for Site Development

Due to the U.S. Supreme Court opinion striking the "take title" provision in the Low-Level Radioactive Waste Policy Act Amendments of 1985, adequate incentives no longer exist for states to establish new disposal facilities. The final policy option presented to the working group would be for the federal government to establish new incentives for compacts to develop facilities or make other arrangements for disposal. These incentives could be monetary awards for achieving milestones toward site development or penalties in the form of withdrawal of congressional consent for regional compacts that fail to provide disposal by a certain future date. By establishing a final deadline for unaffiliated states and compacts to provide disposal, the federal legislation could discourage arbitrary state and local impediments to the siting and licensing of new facilities.

Arguments in favor of the option were that previous federal milestones provided incentives for states and compacts to develop new disposal sites and that the compact system would be given the additional opportunity to succeed based upon the support generated by new incentives. In addition, new milestones and the accompanying schedule would provide a new focus on the objective of developing disposal capacity and would eliminate the need to waste energy debating policy options.

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Arguments against this option included the point that if previous federal incentives failed to satisfy the objective, why should new incentives be expected to have greater success? Others pointed out that although many states and compacts met the majority of the earlier milestones, they still were unable to establish new disposal sites. Additional remarks were that states and compacts may be unwilling to meet a new set of milestones until the need for new disposal capacity becomes crucial and that another round of unsuccessful attempts at siting would be a waste of resources. Finally, incentives that would be strong enough to spur action—whether beneficial or punitive—are not likely to be enacted into federal law.

A Combination of Policy Options

Throughout the discussion, meeting participants observed that the four policy options were not mutually exclusive. Some participants did not view a private sector approach as incompatible with the compact system. Other options that were discussed included the short-term use of federal disposal sites until states were able to provide long-term disposal facilities and the development of assured isolation storage as an alternative to disposal.

The Next Steps

As expected, the April summit meeting did not result in a consensus about what changes—if any—should be made to the current national strategy for developing new LLRW disposal capacity. At the direction of the Low-Level Radioactive Waste Working Group, state legislators and NCSL staff drafted proposed policy changes for consideration by the NCSL policy committees at the December 1999 Assembly on Federal Issues meeting. The working group, however, decided to postpone offering recommendation changes until the South Carolina state legislature could act upon its task force's recommendation regarding joining the Atlantic Compact. The working group will revise its recommendations to the NCSL policy committees during the March 31 meeting and submit those recommendations to the committees for consideration during their May 2000 meeting in Washington, D.C. It is hoped that other public interest groups will join the National Conference of State Legislatures in proposing to both Congress and other key policymakers options for action to resolve this long-standing issue.