COMMITTEE: Agriculture and Energy

POLICY: Radioactive Waste Management *(Joint with the Environment Committee)*

TYPE OF POLICY: Existing

Low-Level Waste

Congress mandated that the states assume total responsibility for providing commercial low-level waste disposal capacity with the passage and enactment of the Low-Level Radioactive Waste Policy Act 1980 and the Low-Level Radioactive Waste Policy Amendments Act of 1985. These laws encouraged states to develop regional solutions to siting low-level radioactive waste disposal facilities. NCSL believes that states are best prepared to license and regulate low-level waste disposal facilities that operate within their borders in order to protect the health, safety and welfare of their citizens.

Since passage of the Low-Level Radioactive Waste Policy Act of 1980 and the Amendments Act of 1985, many changes have occurred in the low-level waste public policy arena-changes in the industries and institutions that create low-level waste, and changes in state efforts to pursue development of low-level radioactive waste disposal facilities.

State legislators have examined closely the market forces and new trends that have altered many state and compact perceptions of what is needed to efficiently manage low-level radioactive waste (LLRW) disposal. Legislators have identified the following reasons that many states and compacts have abandoned efforts to build disposal capacity:

- decreasing volumes of LLRW nationwide;
- continued access to operational disposal facilities; and
- the numerous barriers that hinder development of disposal facilities, including higher development costs than projected.

South Carolina hosts a disposal facility in Barnwell that accepted low-level waste from generators in every state. Since June 30, 2008, acceptance was limited to organizations located in the Atlantic Compact Region, which includes South Carolina, Connecticut, and New Jersey. Washington State hosts a disposal facility that accepts waste from generators in the Northwest Interstate Compact and the Rocky Mountain Compact. Utah has licensed a private sector facility that also is open to generators across the country for Class A and lower low-level radioactive waste. Most states and compacts have slowed or stopped their work.

NCSL believes that the Low-Level Radioactive Waste Policy Act of 1980 and the Amendments Act of 1985, the federal laws which governs low-level radioactive waste management, no longer address adequately the conditions of the marketplace and state efforts to provide disposal for low-level waste.

NCSL urges Congress to review the Low-Level Radioactive Waste Policy Act and the Low-Level Waste Policy Amendments Act of 1985-especially Title II, the Omnibus Low-Level Radioactive Waste Interstate Compact Consent Act-to determine whether other options for disposal by regional compact or unaffiliated state are available. In doing so, Congress should:

- Rely upon the U.S. General Accountability Office reports, Low-Level Radioactive Wastes: States Are Not Developing Disposal Facilities (GAO/RCED-99-238, September 1999) and Low Level Radioactive Waste: Disposal Availability Adequate in Short Term, but Oversight Needed to Identify Any Future Shortfalls (GAO-04-604, June 2004), in order to:

- Analyze developments in the industries and institutions that generate low-level waste, such as waste minimization and volume reduction; and

- Examine state and compact efforts to develop disposal sites and the difficulties encountered by the host states.

- Continue to provide states both with support and flexibility in their efforts to provide generators with consistent access to low-level radioactive waste disposal to encourage and support alternative long term storage and disposal technologies, such as assured isolation.

- Maintain state and compact authority to limit/allow the import and export of waste to and from their state or region.

- Recognize that some states and compacts are concerned that future access to disposal facilities is uncertain and that these states and compacts may need alternative facilities in order to provide disposal and assured isolation to their generators.

- Acknowledge the role that licensed private disposal and assured isolation facilities can play in meeting generators' needs for safe, cost-effective disposal of low-level radioactive waste, while also recognizing and supporting state authority to regulate these facilities.

- Consider an evaluation of the feasibility of co-location of commercial disposal (or assured isolation) facilities at U.S. Department of Energy sites that would be licensed and regulated by the host states.

- Clarify in statute the responsibility of the federal government for federal waste, identify any federal waste that might be disposed at compact facilities, and ensure that any federal waste disposed of at compact or unaffiliated state facilities is subject to negotiation and the same laws, regulations, fees and requirements as nonfederal waste. (See DOE National Low Level Waste/Mixed Low Level Waste Disposition Strategy, 2006)

- Closely monitor the progress of the involved federal agencies with regard to the issue of mixed wastes, ensuring that a clear policy is defined and interagency differences

are resolved. (See DOE National Low Level Waste/Mixed Low Level Waste Disposition Strategy, 2006)

- Address the issue of the disposal of NORM and NARM (naturally occurring and accelerator produced radioactive material) waste and mixed waste, in particular with regard to reconciling the different regulatory actions of the Nuclear Regulatory Commission (NRC) and the U.S. Environmental Protection Agency (EPA).

NCSL will continue to provide assistance to the states during the development and implementation of low-level waste management activities. NCSL encourages the federal government to work with NCSL toward that end.

High-Level Waste and Used Fuel Management

Congress passed the Nuclear Waste Policy Act of 1982, requiring the U.S. Department of Energy (DOE) to manage the program according to the process and schedule established by Congress. The success of this project requires public understanding and confidence, which is fostered by open communication and collaboration among all affected parties. To that end, Congress assigned DOE the responsibility to consult and cooperate with other federal agencies, state executive and legislative branches and affected Indian tribes.

The Department of Energy missed the January 30, 1998 contractual deadline with utilities to begin accepting used nuclear fuel In order to protect the integrity of the Nuclear Waste Fund against potential off-sets of the federal deficit, to expedite the timing of funding for DOE to refocus their efforts and eventually complete the licensing and construction of a repository, NCSL urges Congress and the Administration/DOE to:

- Expeditiously research, develop and license a high-level waste/used nuclear fuel disposal facility at a technically and scientifically suitable site.

- In the event it is deemed necessary either to select another potential high-level waste/used nuclear fuel repository site, a second repository, interim storage sites, or

recycling facilities, keep states informed, consult with them to ensure they play an integral role in the determination of site selection criteria and obtain state consent before locating facility.

- Enact legislation to classify annual funding from the Nuclear Waste Fund as mandatory spending and ensure that levels are adequate to meet the changing needs of the program as DOE refocuses waste management efforts; funds should be isolated for developing an interim storage site(s) and permanent repository.. It is critical that the Nuclear Waste Fund be given spending firewalls that ensure that user fees deposited in the fund will be used for nuclear waste management and will not be subject to non-related federal discretionary spending.

- Direct DOE to expedite research, development and licensing for the recycling of nuclear waste as a fuel for nuclear power plants and as a means to reduce the volume of high-level waste/used nuclear fuel requiring final disposal in a permanent repository.

- Provide adequate and necessary funds to DOE for their used nuclear fuel management program.

NCSL urges Congress and the Administration/ DOE to expeditiously identify a “Blue Ribbon Panel” and define a path forward for used nuclear fuel, including interim storage and a long term repository. The “Blue Ribbon Panel” should consult with local and state government officials throughout this process. Once the BRP reaches conclusions, they shall expeditiously define and implement a path forward for used nuclear fuel.

In an effort to clarify and enhance the role of host states in the high-level waste/used nuclear fuel repository site selection, characterization and licensing process, NCSL supports the following:

- Host states, through their executive and legislative branches, should be fully informed and consulted at each step in the process of site selection, evaluation, planning and

development and licensing, and a facility should not be located without the fully informed consent of that state.

- Volunteer host states with appropriate geologic features should be considered during the site selection process for a long term repository.

- Congress and DOE should provide fair and equitable compensation for the life of the project to state and local governments of host states. This should include funding of independent oversight activities by the executive and legislative branches so that the host state may participate in and conduct its own assessments of a proposed waste repository site and disposal technology, as allowed in the federal act.

- The federal government should comply with state laws and regulations during the process of site selection and characterization, and the construction, operation and decommissioning of a waste repository, including those laws which implement regulatory authority delegated by the federal government to the states under environmental statutes.

Our mutual interest requires a timely and thorough scientific investigation of any proposed candidate site to determine its suitability as a high-level waste/used nuclear fuel repository. Therefore, NCSL urges Congress to clarify the manner in which the national high-level waste program will be carried out consistent with all states' (including the host state's) interest.

DOE should continue to work with NCSL and similar organizations in an effort to ensure that state legislators are included in each step of the process.

Interim Storage

NCSL supports Congressional action to direct the Department of Energy to develop a plan to take custody used nuclear fuel currently stored at reactor sites to both reduce costs that are ultimately borne by the taxpayer and demonstrate that DOE can move forward in the near-term with at least some element of nuclear waste management.

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NCSL urges Congress and the administration/DOE to:

- Work closely with state legislatures, local governments and governors to bring about interim storage for used nuclear fuel for the United States for a specific, limited period of time.

- Create a process that includes working closely with the nuclear industry and interested volunteer communities, localities and states.

- Pursue the development of one or two private Nuclear Regulatory Commission licensed, interim storage facilities to which used nuclear fuel can be safely shipped and stored until such time as a permanent repository is open and commercial nuclear fuel recycling facilities are available.

- Develop financing mechanisms, using the Nuclear Waste Fund, to support interim storage facilities.

- Determine the Department of Energy's role and responsibilities under the Nuclear Waste Policy Act in moving used nuclear fuel, including fuel from decommissioned plant sites, to interim storage facilities.

If off-site interim storage of used nuclear fuel is enacted by Congress, the timeframe for storing such waste at interim storage sites should be no longer than 25 years.

Recycling

Recycling high-level waste/used nuclear fuel should be a radioactive waste management priority. NCSL encourages Congress and the Administration to:

- Develop a high-level waste/ used nuclear fuel recycling policy that indicates that recycling is a priority waste management strategy.

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- Allow funding for appropriate recycling actions from the Nuclear Waste Fund, including those that accomplish initiation of high-level waste/used nuclear fuel recycling to reduce the volume of waste requiring final disposal in a permanent repository.

Transportation of Radioactive Waste and Used Nuclear Fuel

DOE is responsible for transporting high-level waste/used nuclear fuel to the proposed repository (or any interim storage site or recycling facility) as well as for shipments of transuranic waste to the Waste Isolation Pilot Plant (WIPP). To assure a technically superior transportation system and to help attain public confidence in the safe transportation of nuclear waste, NCSL urges Congress and DOE to:

- Comply with states' ability to assess reasonable fees which fund activities connected to the safe routine transportation of and emergency response to high-level waste/used nuclear fuel shipments. DOE should seek to enter into a memorandum of understanding with each corridor state to spell out responsibilities, liability, compensation, response time, cleanup, shipping, planning and other duties connected with emergency situations.

- Provide opportunities and funding for training of state and local emergency responders to radiological accidents that are coordinated with ongoing programs for emergency preparedness. DOE is encouraged to continue discussions with states and affected parties on how to meet the Section 180(c) requirements of the NWPA that require technical assistance and funding for training of state and local public safety officials along routes for DOE shipments of high-level waste/used nuclear fuel with respect to safe routine transportation of these materials and emergency response situations. States anticipate DOE's publication of 180(c) policies in the federal register.

- Assure transportation accident prevention through the use of superior drivers; carrier compliance with shipping contracts and all applicable federal, state and local regulations; independent safety inspections of drivers, vehicles and shipping

containers; designation of safe parking areas during abnormal conditions; advance notice to the appropriate state and local agencies regarding shipments; and state access to information on shipments' status (i.e. real-time shipment tracking information where appropriate).

- Apply special criteria to the shipment of high-level waste/used nuclear fuel, including the development of guidelines for routing when shipping by rail, the use of dedicated trains moving at safe speeds for rail shipments, safety inspections at origin and enroute, and full-scale testing of casks used for used fuel transport.

- Consult with NCSL and the states on how to best communicate with and involve the general public and government officials as to shipment methods, accident prevention approaches, and emergency response plans.

- Involve state, local and tribal governments in a meaningful manner in the development of cask designs, support facilities, transportation equipment and other elements of the transportation system.

- Consult with all affected parties regarding cask compliance with radiation emissions standards. Because cask integrity and safety is of paramount concern in a transportation system, all affected parties must be involved in a consultation process including, but not limited to, states, local governments, Indian tribes, carriers, labor, the Nuclear Regulatory Commission, the Department of Transportation, the Occupational Safety and Health Administration, the Federal Emergency Management Agency and the Environmental Protection Agency.

- Encourage the use of dual-purpose (transportation and storage) and universal casks (transportation, storage and disposal) - or TADs (transportation, aging, and disposal) - to reduce the handling of used fuel, and thus reduce the risk of mishaps and lessen worker exposure,

- Encourage development and the funding of state emergency management communications centers in corridor states and host states to enhance emergency preparedness and response along designated routes.

Waste Isolation Pilot Plant

In accordance with Public Law 96-164, the Department of Energy designed the Waste Isolation Pilot Plant (WIPP) as the first permanent repository for defense generated transuranic (TRU) waste.

The Waste Isolation Pilot Plant Land Withdrawal Act (PL 102-579), passed by Congress in 1992, allows for further testing and experiments to determine the viability of radioactive waste disposal in deep geologic salt formations as recommended by the National Academy of Sciences in 1955.

WIPP received its first shipment of contact handled TRU waste on March 26, 1999. All shipments to date have been made without radiological release.

NCSL urges Congress and DOE to:

- Appropriate adequate funds and direct the Department of Energy and the Environmental Protection Agency to expedite their respective responsibilities under Public Laws 96-164 and 102-579.

- Implement through DOE, a compensation program that recognizes equity considerations for state and local governments hosting a TRU waste repository and the federal government's obligation to provide such compensation.

- Provide assistance to the host community to subsidize and maintain an independent environmental monitoring and analytical laboratory to ensure public confidence and safety.

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- Provide assistance to corridor states and other affected states for highway maintenance and improvements, emergency response training and equipment, and public education.

- Streamline, replace or eliminate waste characterization procedures that are neither required by law, nor bring scientific evidence as to the character of the waste, or expose workers unnecessarily when alternative methodologies could be used.

- Provide a central confirmation facility at the waste site to assure the character of the waste and give the states more direct oversight of the nature of the waste.

- Change the Land Withdrawal Act to accommodate a larger volume and activity of waste and include transuranic waste between 10 and 100 nanocuries, commercial transuranic waste and other orphan categories of waste appropriate for disposal at WIPP.