

STATE ISSUES IN RADIOACTIVE WASTE TRANSPORTATION
AND APPLICABLE CONFLICT MEDIATION TECHNIQUES

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ABSTRACT

Shipments of spent fuel will increase significantly with the completion of the high-level waste repository. Potential transit states are anxious to learn of the Department of Energy's plans for routing shipments, designing casks for safe transport and providing assistance for infrastructure improvements and emergency response training. Conflicts are expected to arise between the Department and the transit states and mediation techniques could be a valuable tool in resolving these disputes.

TRANSPORTATION ISSUES

The implementation of the Nuclear Waste Policy Act (NWPA) of 1982 will significantly increase the number of shipments of spent fuel. The Act asserts there is no intent to preempt state law. State governments are legally charged with the duty to protect the health and safety of their citizens and enact legislation as a means to that end. In doing so, the states may come into conflict with each other and with the federal government, specifically the U.S. Department of Energy (DOE), which is responsible for administering the NWPA. DOE, on its part, must consider the national concerns as opposed to individual state interests while recognizing the legitimate rights of individual states.

States have varying degrees of interest in the multitude of transportation issues that have been identified to this point. A brief discussion from the states' point of view follows, taking the issues as they appear in the Transportation Institutional Plan. Many of the topics are variations of similar matters found in the general field of hazardous materials transportation and are delineated in the Office of Technology Assessment (OTA) report on that subject.

Although only one state will be the host for the first repository, all 48 mainland states are potentially affected by the transport of commercial spent fuel and high-level waste. This paper will first look at the concerns and review why states are interested in specific items. Secondly, the paper will look at possible resolutions of these concerns.

The focus here is on state government, particularly the legislative branch. The Indian tribes and the states share similar views, and the tribes may have additional interests which they will discuss in their own papers.

- **Defense Waste** - States are wary of such shipments because they think that they will not be informed and, therefore, will not know what is on their highways. They are concerned that the habit of security will prevail when it is no longer necessary or appropriate.

- **Prenotification** - There have been misunderstandings already about prenotification procedures regarding Three Mile Island shipments. The difficulties can be expected to multiply along with the number of shipments, unless an understanding is reached with all concerned parties.

- **Physical Protection Procedures** - Given the suicidal bent of present day terrorists, states want to be assured of the failure of those with the most fervent death wish.

- **Highway Routing** - In Colorado consideration is being given to routing transuranic waste shipments off the interstate to the eastern plains. The reasoning is that the decrease in traffic makes up for the advantages of the interstate, which runs through major population centers. Only route specific data can give the answer as to the validity of the reasoning. The same thinking is applicable to spent fuel shipments.

- **Rail Routing** - More information is needed on possible routes that go through the middle of cities, the possible consequences of a rail accident with its larger volume cargo, and the difference of emergency response to a rail accident as opposed to a truck accident.

- **Inspection and Enforcement** - Politically, some states may find it desirable to inspect casks at an entry and/or exit point on their borders. This obviously will slow shipments and result in possible increased exposure to state personnel. The Office of Civilian Radioactive Waste Management (OCRWM) has contracted with the Commercial Vehicle Safety Alliance (CVSA) to try to find procedures to resolve this problem.

- **Emergency Response** - States want funding assistance for training for appropriate emergency response. This training must fit into existing hazardous materials emergency response training. How this will be integrated into what the Federal Emergency Management Agency (FEMA) and other agencies currently offer has not yet been decided.

- **Liability Coverage for Nuclear Waste Policy Act (NWPA) Shipments** - States generally would like to see Price-Anderson Act coverage increased, a change in the act to specifically apply the statute to NWPA shipments, and a provision that would ensure that all valid claims would be covered in their entirety.

- **Cask Design and Testing** - States of course are interested in the outcome more than the means to the end. But they want NRC-certified casks and a full scale test of a prototype cask.

- **Overweight Truck Shipments** - Although larger shipments mean fewer shipments, road damage is a con-

cern and a condition obvious to most citizens. Another concern is the possibility of more dire consequences in the event of an accident.

- Rail-Service Analysis - States have a great deal of experience with "mix-ups." Although regulations would prohibit a train mix with explosives, spent fuel and gasoline immediately adjacent, that is exactly what some would expect to happen. Dedicated trains carrying only spent fuel are preferred.

- Mixture of Transport Modes - The states' primary interest is safety.

- Infrastructure Improvements - States have existing needs for tunnel, bridge, railbed and road improvements. NWSA shipments will be expected to pay their own way and to go on only the safest roads or rails that technology can provide at a reasonable cost.

- OCRWM Training Standards - States want to know that only experienced drivers with knowledge of their cargo will be driving state of the art equipment that is properly maintained.

- Transportation-Operational Procedures - OCRWM and the states need to work out the use of safe havens and emergency stops for mechanical and weather problems.

- State, Tribal and Local Regulation of Radioactive Waste Transportation - OCRWM has to deal with the fact that these governments often are reactive. It is hard to predict what hazardous materials accidents will generate legislation that may encompass radioactive materials shipments. Having a truck with torpedoes on its side on a busy highway in Denver carrying a Navy emergency response number that did not answer, having bombs blow up in a highway accident in Oklahoma--these incidents in particular have not inspired confidence in the federal government and lead to the feeling the state governments and other governments must protect themselves.

Other issues to be addressed are:

- Barging - Although barging is one of the transport modes being considered, the use of a barge on the Columbia River would generate unique emergency response and contamination concerns in the adjacent states. The use of barges near reactor sites would create equal concerns. And if barges should be used down the Mississippi River and around the Gulf Coast, there would be another worried population.

- Weather Routing - Should shipments be sent on southern routes in the winter?

- Technology Development - OCRWM has access to sophisticated technology that states can find useful. For example, satellite tracking may solve prenotification and physical protection concerns. The use of a "smart cask," a cask with an internal monitoring device (proposed by Sandia National Laboratories in Albuquerque), can give salient information to emergency responders in two key areas of concern: (1) Is there a need to evacuate, and (2) Can the road be reopened? States often do not know what technology OCRWM is considering, much less have input into decisions regarding its use.

- Who Will Respond to an Accident? - Fire personnel almost always respond to hazardous materials accidents. They generally have the most protective equipment. But there has been one incident where the reasoning ran: We are firemen; this is not a fire; this is a hazardous materials incident; we are not trained for this; we are not going. And they didn't. While

this is essentially a state and local problem, DOE can mitigate such difficulties by contributing to proper response training.

- Communication and Risk Perception - Engineers and non-engineers frequently use the same words to speak different languages. Politicians like to get re-elected and are inclined not to be risk takers. To tell a politician that the chance of a catastrophic accident and a release of radioactive contents is only 10^{-6} and not worth worrying about is not communicating. In the same vein, there appear to be some groups with a hidden agenda who distort the real risks because they know the average person cannot sort through all the shifts in reasoning. Both sides have responsibility: The engineers to communicate better and the politicians to work harder at understanding and to avoid the line of least resistance, which is just to say "no" to everything.

- Corridor States - These states, which will be between the reactor and the repository or the monitored retrievable storage facility and the repository, want more information about potential NWSA shipment impacts and OCRWM's proposed mitigation plans.

- Central Clearinghouse - Finding out who is doing what or who has done what takes a lot of time on the phone and a certain amount of luck. Groups representing different constituencies are all working for DOE as well as their own constituencies, and to be able to build on each other's work is more efficient than replication.

- OCRWM Activities - Finding out about the activities of the various coordinating groups has not been easy. States would like to know who is meeting where and to have the option of participating or at least observing. While the issue of the coordinating groups has been brought into the open, there tends to be the suspicion that there may be other unknown activities.

- Recognition of Separation of Powers in State Government - The NWSA calls for OCRWM to interact with affected state legislatures and OCRWM has been trying to do so. But it is easier to deal with executive branch people (they are fewer and more technically oriented) who may work for a governor who is not of the same party as the legislature, and to be misled into thinking that state government is represented solely by the executive branch. Legislatures, like Congress, pass bills and appropriate money. The risk of negative consequences when they are overlooked is not 10^{-6} .

CONFLICT RESOLUTION

The Department of Energy, in its original Mission Plan and Transportation Institutional Plan, has expressed support for resolving conflicts in the transportation of radioactive waste by utilizing mediation techniques. These techniques have proved useful in other environmental disputes since they first were relied upon in 1973 by then-Governor Daniel Evans to resolve a flood control dispute in Washington. The present Governor of Washington, Booth Gardner, has urged DOE to develop and apply a conflict resolution strategy to the repository siting issue. The success of Governor Gardner's proposal will indicate to the transit states the viability of a similar program on transportation issues.

Currently, the Department is utilizing the Western Interstate Energy Board and the Southern States Energy Board as intermediaries to potential transit states. These regional organizations provide a roundtable at which state executive agencies can identify issues of

concern in the development of a transportation policy to DOE. The Department also carries on a dialogue with state legislators and staff at NCSL's Legislative Working Group on High-Level Waste meetings to gain their insight on transportation issues requiring further consideration by the Department. The Department is utilizing the resources of the National Congress of American Indians to reach the tribes for their input on policy. The industry has formed the Electric Utility Companies' Nuclear Transportation Group to interact with DOE on transportation policy. Should there be any additional interested parties not represented by these organizations, DOE also is conducting workshops and public hearings and accepting comments on all of its documents. DOE hopes that by holding these meetings it will be alerted to the issues most likely to cause concern to states, tribes, utilities and interest groups before the issue can become a source of conflict.

Eventually, the Department will need to identify its initial routes to the three repository candidate states and contact the specific states along those routes to determine which transportation issues are most important to them. Due to the complexity of the nuclear waste program, conflicts are expected to arise among the many parties involved. When these conflicts do arise, DOE has stated its preference to mediate the issues instead of being a party to a lawsuit.

In a hypothetical situation applying mediation techniques, the conflicting parties attempt to resolve the disputed issues among themselves rather than calling upon the judiciary to decide the dispute for them. All of the involved parties are seeking a successful mediation and realize they must trust each other and enter into the discussions in good faith, leaving personal feelings outside the meeting. The mediator, who acts as a catalyst for the process, assists the parties in isolating the issues and guiding them toward less contentious alternatives. The parties will spend most of their time in negotiations and reporting back to their superiors for further instructions. When the parties are successful in resolving specific issues, the mediator drafts a plan containing the agreements for review and ratification by the participants' superiors. The plan can then be implemented and revised as needed.

This scenario may not depict the reality of the situation when transportation routes are announced by the Department. Each of the transit states will have its own agenda and special issues requiring resolution. Some states may prefer litigation to mediation in resolving disputes. In political terms, a state may view filing a lawsuit and losing the case as a stronger position with the public than submitting to negotiations with the Department. The issue of funding transit states to participate in meetings and negotiations, regardless of the lack of specific language in the NWPA allowing such an expenditure, will have to be resolved before mediation can be initiated. The Department would be well advised to develop a "pre-mediation" plan and meet with the transit states at a national meeting before meeting with the states on an individual basis.

In light of the early Consultation and Cooperation agreements between the Department and the state of Washington, a mediator would be wise to "fractionalize" or break up issues into subgroups and develop a living document that the parties could consider in segments instead of striving for one final plan. The Department also should take a policy position that if one transit state negotiates an agreement considered to be more favorable than previous agreements, the other agreements can be amended to include the new provisions.

Dispute resolution may not be completely successful in resolving all the issues between the states and the Department, but it should prove helpful in crystallizing the issues for any necessary litigation. Should the mediation resolve any issues without litigation, it should be deemed a success by both the parties and observers.

BIBLIOGRAPHY

1. G. BINGHAM, Resolving Environmental Disputes, The Conservation Foundation, Washington, DC (1986).
2. J. FOLBERG and A. TAYLOR, Mediation, A Comprehensive Guide to Resolving Conflicts Without Litigation, Jossey-Bass Publishers, San Francisco (1984).
3. R. KEENEY and D. VON WINTERFELDT, "Improving Risk Communication," Risk Analysis Journal, 412-424 (December 1986).
4. G. MEEKS, Managing Environmental and Public Policy Conflicts: A Legislator's Guide, National Conference of State Legislatures, Denver (1985).
5. S. MERNITZ, Mediation of Environmental Disputes: A Sourcebook, Praeger Publishers, New York (1980).
6. A.R. TALBOT, Settling Things. Six Case Studies in Environmental Mediation, The Conservation Foundation, Washington, DC (1983).
7. U.S. Congress, Office of Technology Assessment, Transportation of Hazardous Materials: State and Local Activities, OTA-SET-301, U.S. Government Printing Office, Washington, DC (March 1986).
8. _____, Transportation of Hazardous Materials, OTA-SET-304, U.S. Government Printing Office, Washington, DC (July 1986).
9. U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Mission Plan for the Civilian Radioactive Waste Management Program, DOE/RW-0005, Department of Energy, Washington, D.C. (June 1985).
10. _____, Environmental Assessment Deaf Smith County Site, Texas, DOE/RW-0069, Department of Energy, Washington, D.C. (May 1986).
11. _____, Environmental Assessment Reference Repository Location, Hanford Site, Washington, DOE/RW-0070, Department of Energy, Washington, D.C. (May 1986).
12. _____, Environmental Assessment Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Department of Energy, Washington, D.C. (May 1986).
13. _____, Transportation Institution Plan, DOE/RW-0094, Department of Energy, Washington, D.C. (August 1986).
14. _____, Office of Scientific and Technical Information, Public Involvement: The Critical Path in Siting Controversial Facilities, CONF-8604121, Department of Energy, Oak Ridge, Tenn. (April 1986).