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May 18, 1995

Dr. Daniel Dreyfus, Director
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
c/o Lois Smith
TRW Environmental Systems
1650 Park Tower Drive, Suite 800
Vienna, VA 22180

Subject: Comments on Notice of Inquire, Safe Transportation and
Emergency Response Training; Technical Assistance and Funding (60 F.R. 99)

Dear Dr. Dreyfus:

The following comments are provided by the State of Vermont on the U.S. Department of Energy's (DOE) Notice of Inquiry (NOI) on "Safe Transportation and Emergency Response Training; Technical Assistance and Funding," published in the *Federal Register* on January 3, 1995. The comment period was extended to May 18, 1995, by *Federal Register* Notice 60 F.R. 13715. The Vermont Department of Public Service has coordinated comments on this matter among the appropriate Vermont agencies.

Vermont believes strongly that DOE has the legal obligation to begin accepting spent fuel according to the waste acceptance schedule on January 31, 1998. The Vermont Attorney General and the Vermont Public Service Board are participating in litigation to enforce DOE contracts executed following the NWPA of 1982. In this context, DOE must begin implementation of Section 180(c) technical assistance and funding on a priority, rather than a contingency, basis.¹

¹ Were it not that DOE is required by law to accept spent fuel in 1998, Section 180(c) funding would be of no immediate concern. It is doubtful that spending funds now for transportation in 2010 or beyond would be effective.

The following are comments regarding the provisions of Section 180(c) of the NWPA. While the NOI is specifically limited in its scope to Fund Distribution Options, Vermont offers comments which are more broad and asks that its comments be considered in the implementation of Section 180(c).

The Risk of Spent Fuel Transportation

Vermont fully affirms the seriousness of spent fuel transportation and the imperative to conduct such transportation safely. However, we understand that the risk of this transportation is less than the risk for other hazardous materials routinely transported on our highways and rails.

Radioactive materials have been transported safely in over a million shipments during the past forty years in which not one accident has caused radiation injury or lingering contamination. Among these are 2600 shipments of irradiated fuel from commercial power and research reactors during 1964-1989 (ORNL/Sub/88-997962/1), notably 1100 highway and 100 rail shipments of commercial power reactor spent fuel.

Section 180(c) training should be in direct proportion to the risk involved.

Definition of Terms

Vermont understands the intent of Section 180(c) to provide funding for all state costs made necessary by the federal transportation of spent fuel within the states. Such state costs are minimized by taking advantage of emergency and radiological training and organizations already in place through other federal and state laws and programs.

The important terms for definition from Section 180(c) are as follows:

"Procedures for safe routine transportation" - means activities needed to contribute to incident free movement of radioactive materials under the NWPA including but not limited to: determination and coordination of routing, shipment notification and tracking, operating protocols such as seasonal or time-of-day restrictions, transportation infrastructure improvements and escorts.

"Procedures for dealing with emergency response situations" - means activities including but not limited to: spent fuel recognition training and retraining first responders, spent fuel-specific training for radiological responders, maintenance of on-call system for radiological responders, and conducting periodic exercises for personnel responding to accidents.

Scope of Distribution of Funds

Provision of technical assistance and funds in accordance with Section 180(c) must take into account, to the maximum extent possible, emergency and radiological training and organizations already in place through existing federal and state laws and programs.

Determination and Coordination of Routing - It is expected that, once a destination is determined, routing will be established up-front since origination points are known. Determination of routing should be accomplished under DOE funding but it is expected this will be done outside of Section 180(c) funding. For example, the state of Nevada has done much work in this area using DOE funds. However, over time demography changes and new roads are built. Therefore, Section 180(c) funding should provide for periodic review and update of spent fuel routing.

Identification of Local Responders - State Emergency Response Commissions (SERCs) are established in each state under Title III of the Superfund Amendments and Reauthorization Act (SARA). In each state, the SERC is responsible under SARA to identify Local Emergency Planning Committees (LEPCs). These committees should be the points of contact along routes and can identify training needs along the routes. Therefore, Section 180(c) funding should not be required to identify local responders.

First Responders - First response to spent fuel accidents is not different than first response to hazardous materials accidents. Hazardous material first responders have already been identified and trained. Many first responders have received some radiological training. Guidance for first response to radiological incidents is provided by Conference of Radiation Control Program Directors (CRCPD), "Notes on Assistance with Radioactive Material Incidents." This guidance implies that police, fire and rescue personnel are not to be equipped and trained to evaluate radiation hazards in transportation accidents. Adequate equipment and proficiency to recognize spent fuel can be conveyed in a short course. Therefore, first responders are required to be trained only for recognition of spent fuel shipping casks. Their actions should be limited to recognition, first aid to the driver and clearing the area until radiological responders are present.

Radiological Responders - Each state presently has radiological responders trained with courses such as Radiological Emergency Response Operations (RERO). In addition, each state presently must meet OSHA Regulation 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response," or the EPA equivalent. Radiological response to spent fuel transportation emergencies should be organized as a centralized function, mobilized on-call from first responders. Existing radiological training courses are adequate, with some augmentation to consider aspects specific to spent fuel transportation. Section 180(c) funding is necessary for short-course training and for maintaining the on-call system for responders.

Hospital Radiological Training - Hospitals are certified by the Joint Commission on Accreditation of Health Care Organizations (JCAHCU). Under present JCAHCU certification requirements, hospitals must have the capability to deal with radioactive exposures and contamination. Exposures and contamination from spent fuel incidents differ only in the possible level of severity from situations for which hospitals are presently prepared. Therefore, Section 180(c) funding is not necessary for hospitals.

Tracking - It is expected that satellite tracking will be used for spent fuel transportation. Section 180(c) funding should include provision for a system to allow state governors' designees to have the ability to track spent fuel shipments within the states.

Transportation Infrastructure - It is expected that DOE will provide for the feeder transportation infrastructure to the spent fuel destination apart from Section 180(c) funding. However, DOE funds should also accomplish infrastructure upgrades necessary from spent fuel origination sources to the Interstate Highway System. To the extent this funding is not provided elsewhere, it should be provided under Section 180(c).

Packaging, Inspection and Health Physics Escorts - Packaging requirements are established by the Nuclear Regulatory Commission (NRC) and the Department of Transportation (DOT). Therefore, Section 180(c) funds are not necessary to establish packaging requirements. NRC has in place requirements for source inspection of radioactive material shipping containers and has a long history of safely shipping radioactive materials off reactor sites.

Regulation of commercial vehicles transporting spent fuel or any other radioactive material is under the authority of the DOT and those state agencies that have entered into agreements with the DOT to assume the duties of inspection and enforcement. The regulations on packaging and transport of radioactive materials, the inspection procedures and the training of inspectors have been refined through decades of experience. Both DOT and NRC have long standing programs for training inspectors. Officials of the states participate in the Commercial Vehicle Safety Alliance (CVSA) that, among other accomplishments, has established a uniform vehicle inspection procedure, including radiological inspection. Each such inspection is reciprocally recognized by all states.

Health Physics escorts for spent fuel shipments have been proposed. History has shown that maintaining training for local responders is difficult at best due to turnover and volunteer workers. A trained escort would have the benefit of being able to provide good health physics advice for locals if the need arose.

DOE should pursue the issue of inspection and health physics escorts with the states. Consideration should be given to 1) point of entry inspections of every shipment, 2) point of entry inspections of a sampling of shipments, 3) state health physics escorts, and 4) federal health physics escorts. DOE should evaluate costs of various inspection/escort methods as well as the desires of the states. Section 180(c) funding should be provided for state costs for inspections and/or health physics escorts.

Allocation of Funds

Section 180(c) funds should be allocated as follows:

Funds for training and maintaining an on-call radiological response organization, conducting exercises, periodically reviewing routing, and maintaining a system for notification and tracking should be the same fixed-cost for each state and tribal organization.

Funds for training first responders should be the same fixed-cost for each first responder organization determined to be along shipment routes by the LEPCs.

Funds for inspections and/or health physics escorts would be a function on the number of shipments.

Funds for infrastructure improvement should be provided on a case-by-case basis, depending on the needs for local infrastructure improvement.

Section 180(c) funding should be provided to a single point of contact for each state and tribe.

Administration of the Distribution of Funds

The NOI described five options available to the DOE for implementing the funding and technical assistance requirements of the NWPA. It has been described above that many of the functions necessary for the safe transportation of spent fuel already exist. Since these preexisting functions are already funded, consideration under the NWPA is not required.

Separate provisions must be made for the functions to be funded under Section 180(c). Because of changes contemplated by the 104th Congress, long term administrative distinction among OCRWM, DOE or other agencies cannot be made. It is clear that, since shipping will begin in 1998, Section 180(c) funding must be implemented as soon as possible by OCRWM or its successor. Vermont has seen the usefulness in other programs of specific negotiated state agreements, and believes this method should be considered for Section 180(c) funds.

Necessary Implementation Milestones


According to the February 1995 OCRWM document, "Transportation Contingency Plan for Limited Capacity Shipment:"

"[For beginning shipments on January 31, 1998, t]ime will be tight for the execution of the Section 180(c) fund distribution and completion of training and other technical assistance as defined by the Nuclear Waste Policy Act. Considering the small number of shipments, based on cask availability, it is feasible to focus efforts on those routes to be used for the first year. At least a year will be required to contract for the requisite personnel and equipment and conduct the necessary organization and training."

Vermont considers that DOE is required by law to begin shipments on January 31, 1998. Consequently, rather than considering shipment in 1998 as a contingency, DOE should begin implementation of Section 180(c) funding as soon as possible, including accomplishing prerequisites such as contracting for casks and determining routing. DOE should initiate contracts as soon as possible for personnel and equipment since these contracts are independent of routing. DOE should develop contingent scenarios for interim storage at the Nevada Test Site, and interim storage at the federal facilities of DOE's choice (similar to storage of foreign fuel). Rather than plan only for the first year, DOE should extend its planning to the first three years shipping routes.

Vermont appreciates the opportunity to comment on the policies, procedures and activities of the Office of Civilian Radioactive Management. If you have questions regarding these comments, please call at 802 828-3349.

Sincerely,


William K. Sherman
State Nuclear Engineer

cc: R. Sedano, Commissioner
G. Lowe, Emergency Management
R. McCandless, Occupational and
Radiological Health