



# Rail shipments of radioactive waste create challenges for region

by Lisa R. Sattler

Most of the Midwest's experience with the U.S. Department of Energy's (DOE) shipments of radioactive waste has involved trucks as the mode of transportation. But as the federal government makes plans to move spent fuel and high-level radioactive waste to a national repository at Yucca Mountain in Nevada, the DOE has proposed rail as its mode of choice.

This change would create new challenges for states. In December, The Council of State Governments' Midwestern Radioactive Materials Transportation Committee capped off a productive year with a workshop on rail shipments of radioactive waste. Held jointly with CSG's Northeast High-Level Radioactive Waste Transportation Task Force, the workshop brought more than 70 people to Chicago to learn about rail operating practices and to identify regional issues related to the DOE's shipments of spent fuel and other radioactive waste.

Officials from the DOE's various shipping programs were on hand, as were representatives of the Federal Railroad Administration (FRA), U.S. Department of Homeland Security, Federal Emergency Management Agency and U.S. Nuclear Regulatory Commission. In addition, representatives of the railroad industry shared information on their operating practices for shipments involving spent nuclear fuel.

The DOE is increasingly looking at rail shipments because they allow more material to be transported at one time. By one estimate, if the DOE were to use mostly rail for moving spent fuel to a national repository, the department could reduce the total number of shipments from 53,000 to 11,000.

In 2003, states gained some experience with rail shipments when they worked with the DOE to plan a single transport of spent fuel from West Valley, N.Y. The shipment passed through six Midwestern states on its way to Idaho and helped highlight the significant differences between truck and train shipments.

One key variation is the method of selecting routes — a difference that arises from the fact that rails are privately owned. Tim Runyon, outgoing chair of the Midwestern Radioactive Materials Transportation Committee, facilitated a workshop session on this topic.

Commenting on the absence of federal routing regulations for rail, Runyon said: "The states

have a vested interest in seeing shippers use safe rail and highway routes. Federal regulations give [the states] an opportunity to have an influence over highway routes, but not rail routes."

Inspecting shipments is another area where the contrast between truck and rail shipments is stark. Two states — Illinois and Ohio — make it a policy to inspect every shipment of spent nuclear fuel traveling by train or truck. For truck shipments, border inspections are easily accomplished at welcome centers or weigh stations. As one rail industry representative observed, however, "states don't have welcome centers for trains." Rail inspections, therefore, require a greater level of coordination and

cooperation between the shipper, the states and the carrier in order to identify a suitable location near, if not at, a state's border.

For the shipment from New York, the Illinois inspection team had to travel 100 miles into Indiana in order to examine the shipment. Rick Hand of

the Illinois Commerce Commission participated in that inspection.

"The states and the FRA need to work better together on border inspections," he said at the December workshop. To achieve this goal, he believes the rail administration will first have to listen to the states with regard to their needs related to shipments.

## States' role in rail safety

Both Ohio and Illinois participate in the FRA's State Safety Participation Program. Established in 1970, the initiative allows states to partner with the FRA in enforcing uniform rail safety regulations. State inspectors are trained and certified by the FRA to supplement federal inspection efforts in five areas: track, hazardous materials, operating practices, signal and train control, and motive power and equipment. To retain their FRA certification, the state inspectors must spend at least 40 days per year conducting inspections.

Hand and Robert Marvin of the Public Utilities Commission of Ohio served as panelists in a session at the recent Chicago meeting that looked at state rail safety programs. With 14 FRA-certified state inspectors, Ohio has one of the largest state rail programs in the country. It is the only state in the Midwest to have inspectors trained in all five disciplines. Illinois and Ohio are the only Midwestern states that have inspectors trained in the hazardous materials area, which is particularly important if states wish to inspect shipments of radioactive waste.

Hand and Marvin spoke highly of the FRA program. Hand singled out the quality of the training, which the FRA provides at no cost to the state. Both said their agencies have benefited a great deal from the resources available from the FRA, including computers, complete sets of manuals and regulatory guides.

## 'Anchors' of collaborative efforts

In November, the DOE met with representatives of CSG Midwest and other regional groups in Washington, D.C. Together, they discussed the federal agency's strategic plan for involving corridor states in the development of a transportation system that will be used for shipments to the national repository in Nevada. The plan identifies the regional groups as the "anchors" for the federal government's collaborative planning process with the states.

DOE representatives at the Chicago workshop echoed these sentiments and encouraged the two committees to identify projects and work products that would benefit the affected states as they prepare for shipments through their regions. In early 2004, CSG Midwest will work with corridor states to rewrite the scope of work for its cooperative agreement with the DOE.

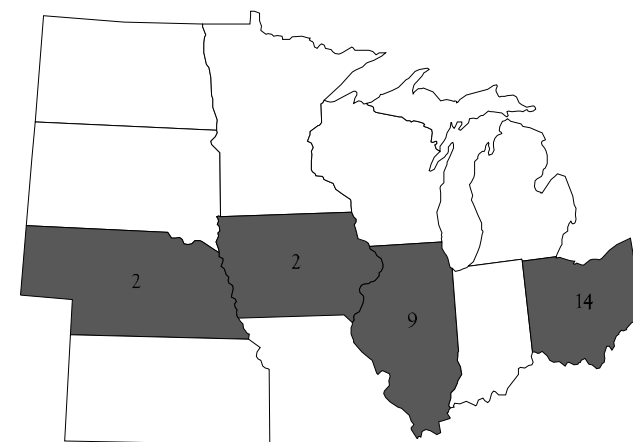
One project likely to result from the December workshop is a uniform set of rail shipping protocols for a large number of the DOE's shipments. While in Chicago, representatives of all four

regions met with DOE staff to discuss the potential use of rail for shipments of transuranic waste under the department's Environmental Management Program. The regions agreed to try to work together to develop uniform protocols for the shipments. Once the protocols are completed, CSG Midwest will incorporate them into its "Planning Guide for Shipments of Radioactive Materials Through the Midwestern States," which is slated for reprinting in 2004.



State inspectors from Illinois look over a shipment of spent nuclear fuel from West Valley, N.Y. (photo: Indiana State Emergency Management Agency)

### Involvement in Federal Railroad Administration's State Safety Participation Program\*



\* Figures in individual states indicate the number of inspectors involved in the program

■ State participates in FRA rail safety program

Source: Federal Railroad Administration