Section 12: Highway Routing of WIPP Shipments

Lead States: California, Nevada

The Issue: There are various route options for moving transuranic waste from and between generator and storage sites, and to the WIPP facility in New Mexico.

The Objective: Identify and select the safest and most acceptable routes for transporting transuranic waste between sites and to the WIPP facility.

The Approach: The DOT regulations for the routing of Highway Route Controlled Quantities (HRCQ) of radioactive materials require the use of Interstate System highways unless states have designated alternative preferred routes (49 CFR 397.101). Although most of the WIPP shipments will not be HRCQ shipments, the DOE-CBFO has committed to follow the HRCQ guidelines. The DOE-CBFO will consult with affected states for the use of an alternative route that is not formally designated under the DOT regulations. The identification of specific routes limits the numbers of affected jurisdictions and allows states to focus preparation and training resources.

Preferred routes designated by the states may provide safer routes than the existing Interstate system. Routes for pickup at and delivery to facilities not on the Interstate system may also need to be analyzed to identify the best route. The identification, analysis, and selection of appropriate highway routes for the transportation of the WIPP shipments can reduce the radiological and non–radiological risks associated with the WIPP shipping campaign.

The DOT's designation process entails the performance of a comparative route analysis following the DOT's *Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantity Shipments of Radioactive* Materials (DOT/RSPA/HMS/92-02, August 1992) or an equivalent state routing analysis which adequately considers overall risk to the public (49 CFR 397.103). In assessing the primary route comparison factors under this approach, basic data are compiled on accident rates, traffic counts, highway segment lengths, vehicle speeds, population distribution, land use, timeliness and availability of emergency response capabilities, and other relevant factors for each alternative route. Upon completion of the data compilation and verification process, the information is processed and used to compare alternative routes.

In cases where states have chosen not to formally designate alternative HRCQ routes, alternative WIPP shipment routes may be determined through a negotiation process involving the DOE-CBFO and the affected state(s). Such negotiated routes will take into account specific conditions or needs of the affected states with regard to WIPP shipments. These routes would be subject to renegotiation should the DOE-CBFO or the affected state(s) determine that renegotiation is of mutual interest.

Upon completion of the preferred route designation or negotiation process, the states must either file their routing designations with the DOT's Federal Motor Carrier Safety Administration (FMCSA) or advise the DOE-CBFO of their concurrence with negotiated routes. Coordination with local government authorities along prospective routes of travel and with adjacent states is required to obtain relevant information and to ensure continuity of designated or negotiated routes, should an alternative route be selected. Preferred routes become effective when a state receives formal acknowledgment from the FMCSA or upon notifying the DOE-CBFO that a negotiated route has been agreed to by the parties. To date, California, Colorado, Nevada and New Mexico have either designated alternative routes or agreed to negotiated alternative routes.

Designated or negotiated routes must be used for all shipments of transuranic waste, whether the shipments are to the WIPP facility or to other DOE facilities. These routes will be used for all the WIPP shipments unless a route deviation is necessary for a specific shipment due to factors such as bad weather or road conditions, etc.

Evaluation: Evaluation of routing issues will include an assessment of the benefit of the DOE-CBFO's preselection of routes (*e.g.*, states being able to concentrate their activities and resources along those identified routes), the safety of routes selected, environmental justice issues, and carriers' adherence to the selected routes.

Every two years after a route is opened, beginning with the year 1999, each state may evaluate the safety of the routes within its borders. Items in this evaluation will include the number of incidents along the route involving radioactive materials shipments, the number of incidents along the route involving other large (>26,000 lbs GVWR) commercial trucks, locations with high accident rates or weather problems, and other trouble spots. This information will be used to consider use of other routes or to call attention to potential trouble spots.

Some states have already designated or negotiated specific routes. Other states may also conduct route designation studies in the future. An evaluation of the route designation processes, by states with designated or negotiated routes, could provide valuable information to states considering a route designation. As requested, states may assist in evaluating the route designation experiences of those states that have already designated or negotiated routes. This evaluation could include a description of the methodology used, information and data requirements, a description of the process followed, and lessons learned.

Executive Order 12898, signed by President Clinton on February 11, 1994, requires each federal agency to give priority to environmental justice. Its purpose is to emphasize compliance with provisions of existing environmental, health and civil rights laws and ensure a safe and healthful environment for all communities and persons. When conducting the evaluations described above, environmental justice issues should be considered.

States want to ensure that the DOE-CBFO and its transportation carriers follow the preferred routes, as that term is defined in the applicable DOT regulations. As part of its biennial evaluation, each state will review the designated WIPP routes within its borders. Once this information is compiled and verified, it will be compared to the official listing of alternative preferred routes published annually by the DOT and with other formally agreed upon WIPP routes for accuracy and consistency. The resulting compilation of preferred routes for the WIPP shipments will then be reviewed with the DOE-CBFO and its carriers to ensure it corresponds directly with the information on the WIPP preferred routes contained in the carrier's Management Plan.

Table 12: Highway Routing of WIPP Shipments

Lead States: California, Nevada

Documents	Responsible for Updates	Status
Reference material		
Preferred Routes Designated by States under 49 CFR 397, USDOT/FHWA, Washington, D.C.	DOT/FHWA	Final
Final Statement of Reasons: Designation of Routes for the Through Transportation of Highway Route Controlled Quantity Shipments of Radioactive Materials, HMS–94–1, CA Highway Patrol, August 1994, effective October 19, 1994. (Reviewed/Current - December 2005)	CA	Final
Nuclear Materials Transportation Route Designation within the State of Colorado, Colorado Department of Public Safety, Division of State Patrol, Denver, Colorado; routing regulations codified in Nuclear Materials Routing Rules 1 through 4, Volume 8, Code of Colorado Regulations, Section 1507–6 (8 CCR 1507–6), effective March 10, 1989.	CO	Final
Report to the New Mexico Secretary of Highway and Transportation to the New Mexico State Highway Commission Recommending Action on Proposed State Highway and Transportation Department (SHTD) Rule 91–3 Designating Highway Routes for the Transport of Radioactive Materials, New Mexico SHTD, Santa Fe, New Mexico, May 1991.	NM	Final