

DOE/EW/12729-1

**Summary Report
U.S. Department of Energy
Assistant Secretary for Environmental Management
Office of Environmental Management
From the
National Safety Council (NSC)**

Project:

Transportation of Radioactive Waste
Cooperative Agreement DE-FC02-96EW12729

Products:

- Series of Backgrounders, Web Services for WIPP
- A Guide to Foreign Research Reactor Spent Fuel
- A Guide to the US DOE's Low-Level Radioactive Waste

Narrative:

In December 1995, the National Safety Council (NSC) entered into Cooperative Agreement #DE-FC02-96EW12729 with the US Department of Energy (DOE) to work together over the next few years on safety and health initiatives surrounding the management of radioactive materials. As a result, three publications, including print and non-print deliverables, were developed and distributed:

- Series of Backgrounders, Web Services for WIPP
- A Guide to Foreign Research Reactor Spent Fuel
- A Guide to the US Department of Energy's Low-Level Radioactive Waste

DOE and its predecessor agencies have maintained a record of safe transportation of radioactive materials for more than 50 years. Thousands of shipments involving three million packages of radioactive materials are shipped each year in the United States. Historically, DOE shipments constitute less than one percent of the total radioactive material shipments; however, they comprise a significant portion (approaching 75 percent) of the curies, or amounts of radioactivity shipped annually. DOE operations and field offices are responsible for detailed planning and for ensuring full regulatory compliance for their shipments. Packaging is designed to protect workers and limit the risk to the public during transportation.

DOE headquarters and program offices provide policy direction and oversight for packaging and transportation activities for their respective offices. The publications NSC produced under the agreement also included primary points of contact for external audiences, including the press, the public, and stakeholders who would not have access to DOE regulations, manuals, and practices.

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Throughout the project period, NSC produced a series of *Backgrounders on the Waste Isolation Pilot Plant (WIPP)*. The backgrounders provided informational brochures on varying subjects surrounding WIPP. One example provided a history of the first shipment of transuranic radioactive waste delivered to WIPP on March 26, 1999. The brochure also contained articles about shipping container types, how tough is a TRUPACT-II, testing and certification, and types of transuranic waste.

In January 2001 and concurrent to DOE Cooperative Agreement DE-FC02-96EW12729, NSC also produced and disseminated *A Reporter's Guide to Yucca Mountain*, under a US Environmental Protection Agency grant, #827378-01. This publication supplemented the DOE publications, referencing transportation corridors, transport vehicles, transport containers, and community safety under the following headings: (1) Yucca Mountain – A potential geologic repository, (2) radiation, (3) public participation and federal agency decisions related to Yucca Mountain, (4) post-closure oversight of Yucca Mountain, and (5) story ideas for articles on the proposed repository at Yucca Mountain.

In January 2002 under the DOE agreement, NSC produced and disseminated *A Guide to the US Department of Energy's Low-Level Radioactive Waste*. The guide addressed issues including: (1) introduction, (2) radiation, (3) radioactive waste, (4) oversight and laws, (5) transportation issues, (6) emergency response to low-level waste transportation incidents, (7) waste storage and treatment, (8) waste disposal, (9) health risks of radiation, and (10) opportunities for public involvement.

In July 2002 under the DOE agreement, NSC produced and disseminated *A Guide to Foreign Research Reactor Spent Fuel*. The guide addressed issues including: (1) what foreign research reactor spent fuel is, (2) foreign research reactor spent fuel policy, (3) transportation of foreign research reactor spent fuel to the United States, (4) ports of entry and storage sites, (5) shipping containers, (6) radiation and foreign research reactor spent fuel, (7) inspection, labeling, and security of shipments, (8) transportation planning, routing, and tracking, (9) emergency response, and (10) storage and disposal.

In December 2002, DOE and NSC representatives reviewed the status of the cooperative agreement and determined that a fourth deliverable may be of benefit in reference to DOE's new *Radioactive Materials Transportation Practices Manual*. DOE Regulation O 460.1A, *Packaging and Transportation Safety*; DOE Regulation O 460.2, *Departmental Materials Transportation and Packaging Management*; and DOE Regulation O 470.1, *Safeguards and Security Program*, as well as the *Radioactive Material Transportation Practices Manual* were intended for DOE internal audiences.

Because transportation practices require the use of contractual services in some instances and coordination with other agencies such as Department of Transportation and local governments, NSC recommended a new guide, again for external audiences, to address the needs of non-departmental elements who are involved in the transportation process, as well as those audiences who are impacted by the transportation process. This fourth deliverable, however, was not approved by DOE and the remaining balance on the project was designated to be returned to the US Treasury.