Media Contacts
Dennis Hurtt
U.S. DOE Carlsbad Area Office
(505) 234-7327

Donavan Mager
Westinghouse
Waste Isolation Division
(505) 234-7518

1-800-493-9768
http://www.wipp.carlsbad.nm.us

For Immediate Release

Carlsbad Area Office Unveils Full-Scale Model Of New WIPP Waste Transportation Cask

CARLSBAD, N.M., February 23, 2000 – The U.S. Department of Energy's (DOE) Carlsbad Area Office today unveiled a full-scale model of its newest waste transportation cask, the RH-72B, during a ceremony at the local DOE offices.

"This is another milestone for the Department of Energy," said Dr. Inés Triay, Manager of the Carlsbad Area Office, describing the importance of the new container for those attending the ceremony. "After we receive approval from the U.S. Nuclear Regulatory Commission (NRC), we plan to add the RH-72B to our fleet, which will help the Department meet its continuing mission to remove transuranic waste from the accessible environment and permanently dispose of it at WIPP."

DOE will use the non-NRC-certified RH-72B model, or training cask, for a variety of activities including procedure development, waste-handling instruction and public outreach activities. Westinghouse Engineered Products Department in Carlsbad built the training cask and delivered it to DOE late last year.

"Remote-handled" transuranic radioactive waste will be shipped to the Waste Isolation Pilot Plant (WIPP) in the NRC-certified RH-72B cask. Shipments are expected to begin in 2002, primarily from DOE transuranic waste storage sites and laboratories in Washington, Idaho, New Mexico and Tennessee.

About 97 percent of transuranic waste to be disposed of at WIPP is "contact handled." This waste emits primarily alpha and beta radiation, which can be safely transported under controlled conditions using the Transuranic Package Transporter model 2 (TRUPACT-II).

"Remote-handled wastes," which make up about three percent of WIPP shipments, emit penetrating gamma radiation that must be shipped in a container that provides more shielding than the TRUPACT-II. The RH-72B is designed to safely transport these wastes.

In preparation for the 2002 shipments, DOE has requested proposals from companies to build 12 NRC-certified RH-72B shipping casks. Transportation casks are needed prior to the first remote-handled shipments to support training, operational readiness reviews and emergency response exercises. The first two production casks are scheduled to be completed by July 2001.

The RH-72B is a large, horizontal, stainless steel cylinder approximately 12 feet long and 42 inches in diameter. A large impact limiter, similar to a shock absorber, covers each end of the container to protect the unit in the event of an accident. A one-and-5/8-inch-thick lead liner provides additional shielding from gamma radiation. An outer thermal shield also protects the container and its contents from potential fire damage.

The RH-72B container weighs about 37,000 pounds empty. The cask is designed to safely transport one remote-handled canister containing three 55-gallon drums of waste.

NRC regulates the packaging of radioactive material for transport. To obtain NRC approval, DOE must submit a safety analysis report for each transportation container, demonstrating compliance with applicable regulations.

The RH-72B and TRUPACT-II are Type B transportation containers. NRC certification requires each Type B transportation container to survive a series of hypothetical accidents to demonstrate its ability to withstand extreme conditions without breaking open or releasing radiation.

NRC allows scale-model, or full-scale model testing, and specialized analyses to demonstrate a transportation container's suitability for certification. A combination of these methods is commonly used.

To gauge the cumulative effects on transportation container designs that are candidates for Type B certification, several tests, or analyses, are performed in the following sequence:

- Free-Drop Test. The transportation container is dropped from 30 feet onto a flat, unyielding surface (such as a steel-reinforced concrete pad), striking the surface at the container's weakest point.

- Puncture Test. Next, the transportation container is subjected to a 40-inch free drop onto a six-inch diameter steel bar at least eight inches long.

- Burn Test. The transportation container is doused with jet fuel and ignited, subjecting it to a temperature of 1,475 degrees Fahrenheit for 30 minutes.

- Immersion Test. Using specialized analyses, a separate transportation container of the same design is subjected to external pressure equivalent to being immersed under 50 feet of water.

A cornerstone of the DOE's cleanup effort, WIPP is designed to permanently dispose of transuranic radioactive waste left from the research and production of nuclear weapons.

Located in southeastern New Mexico, 26 miles east of Carlsbad, project facilities include disposal rooms excavated in an ancient, stable salt formation 2,150 feet underground.

Transuranic waste consists of clothing, tools, rags, debris, residues, and other disposable items contaminated with radioactive elements, mostly plutonium.

For more information about the RH-72B cask, please see the fact sheet titled "*Transuranic Waste Transportation Containers*," available by calling 1-800-336-9477, or visit the WIPP Web site at http://www.wipp.carlsbad.nm.us.

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