



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Waste Disposition Update/Packaging & Transportation Overview

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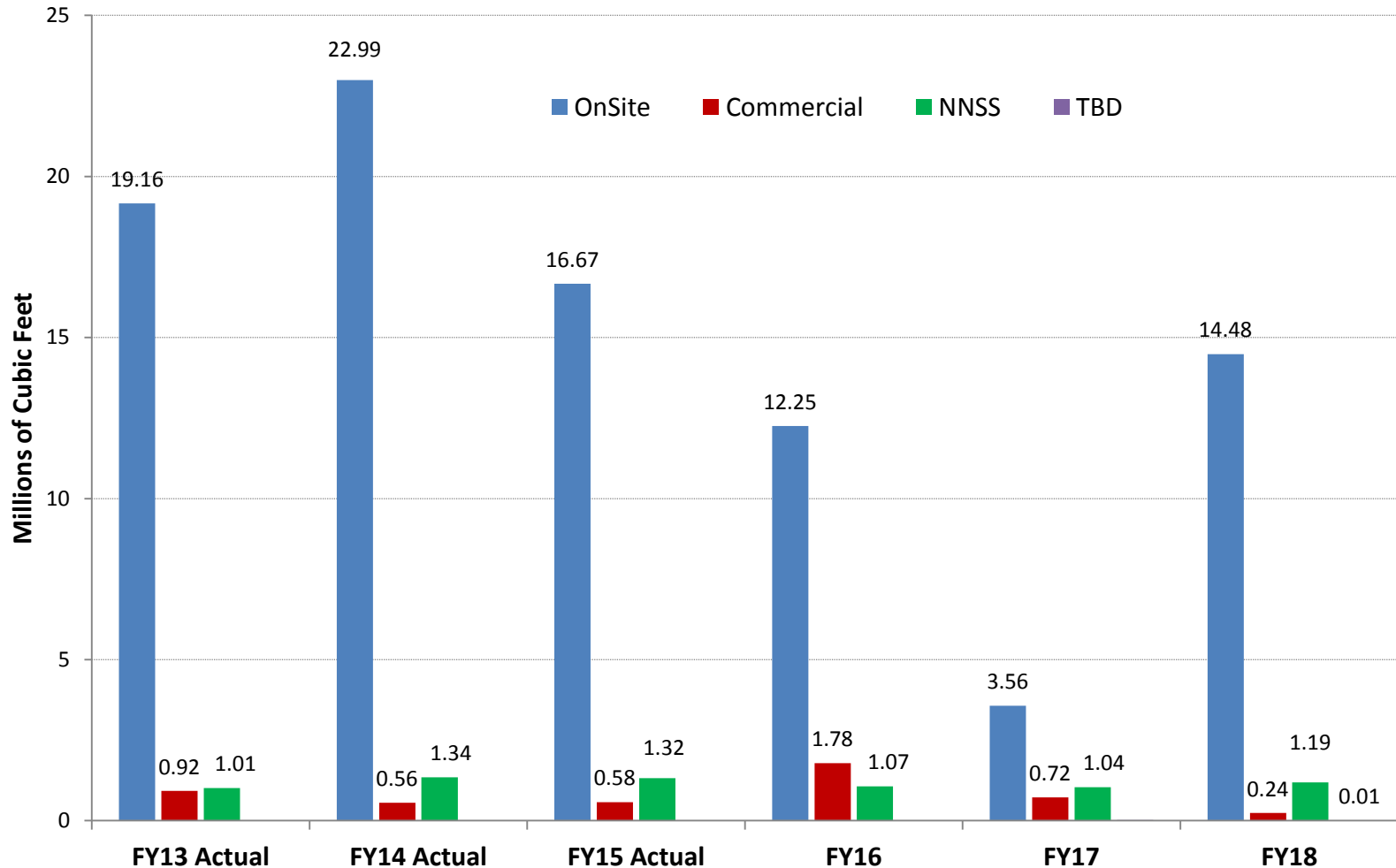
August 31, 2016

- Low-Level Radioactive Waste (LLW) Policy & Highlights
- Status on Greater-Than-Class C (GTCC) LLW and GTCC-like Waste Disposal
- Depleted Uranium Update
- Packaging & Transportation Overview

- The EM reorganization has created a new Regulatory & Policy Affairs Office (EM-4) that oversees three offices. One of those three offices, the Office of Waste & Materials Management includes:
 - National TRU Program —provides support to the EM mission on policy regarding LLW and MLLW, including expertise on disposition planning.
 - Waste Disposal – integrates, plans, and analyzes all EM waste streams to ensure effective EM complex-wide disposal operations.
 - Nuclear Materials – provides expert advice, leadership, and guidance for ensuring safe and effective management of EM nuclear material.
 - Packaging & Transportation – manages, develops, and coordinates policies and procedures for transportation and packaging activities for DOE materials.
- DOE Order 435.1 defines policy and allow DOE sites to use on-site and off-site disposal paths, as well as commercial treatment and disposal facilities.
- DOE closely monitors potential changes in the commercial market – treatment and disposal waste volumes are considerably lower since legacy wastes are largely gone.

- Nevada National Security Site (NNSS)
 - Continues to serve an important role in DOE's waste management system.
 - DOE and the State are collaboratively through an MOU.
 - NNSS is planning for additional mixed LLW capacity (nearing 30% design).
- Oak Ridge, Portsmouth & Paducah
 - New onsite disposal facilities at three former gaseous diffusion sites to address large D&D and remediation volumes are under development.
 - Site activities (tree clearing) have begun at Portsmouth.
- West Valley Demonstration Project
 - Shipment of three large vessels from the is planned now in December, following expected completion of relocation of the HLW from the Main Plant to onsite storage.
- Moab
 - Reached 50% completion mark in relocation of uranium mill tailings from Moab, CO, to Crescent Junction, UT, disposal cell.

Complex-Wide LLW/MLLW Disposal Rates by Location



- February 2016, DOE published the *Final Environmental Impact Statement for the Disposal of Greater-Than-Class C (GTCC) Low-Level Radioactive Waste and GTCC-Like Waste*
 - Has radionuclide concentrations that exceed the limits for Class C LLW.
 - Currently does not have a defined disposal path.
 - GTCC-like waste is DOE owned or generated LLW or TRU waste with characteristics similar to GTCC LLW, and with no identified disposal path.
 - Preferred alternative: land disposal at generic commercial facilities and/or WIPP Geologic Repository.
 - Has the potential to enable disposal of the entire GTCC LLW and GTCC-like waste inventory of approximately 12,000 cubic meters (m³).
 - Presently there is no preference among the three land disposal technologies (intermediate-depth borehole, enhanced near-surface trench, and above-grade vault) at generic commercial facilities.

- In accordance with the Energy Policy Act of 2005, before the Secretary of Energy makes a final decision on the disposal alternative(s) to be implemented, a Report to Congress must be submitted.

Submit Report to Congress



Await Congressional Action



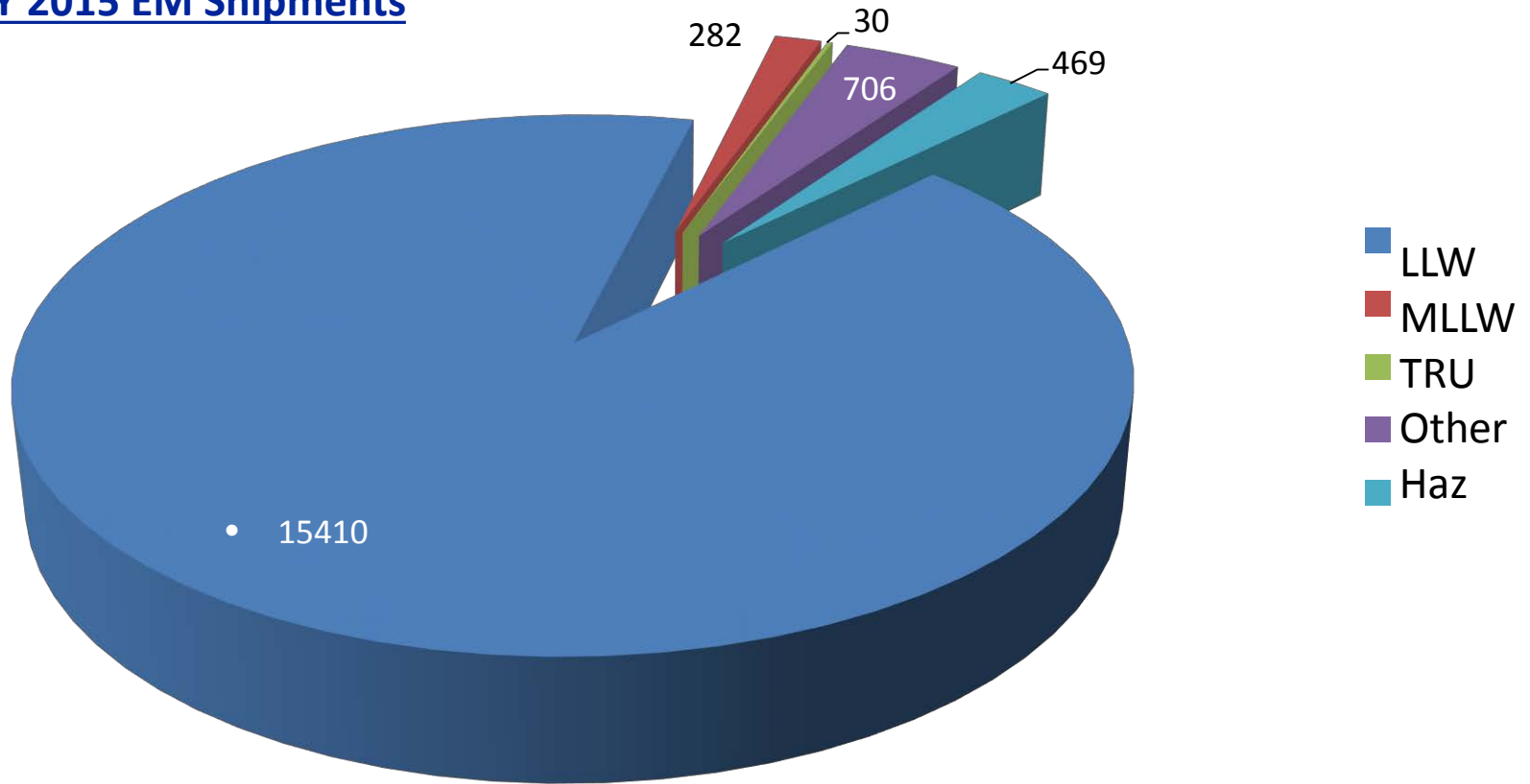
Issue Record of Decision

In accordance with the Energy Policy Act of 2005 the Report to Congress will:

- Propose actions to ensure safe disposal of identified radioactive wastes
- Describe alternatives under consideration
- Identify the Federal and non-Federal options for disposal
- Describe projected costs
- Identify options for ensuring that the beneficiaries of the activities resulting from the generation of GTCC waste bear all reasonable costs of disposing of such wastes
- Identify statutory authority required for disposal of GTCC waste

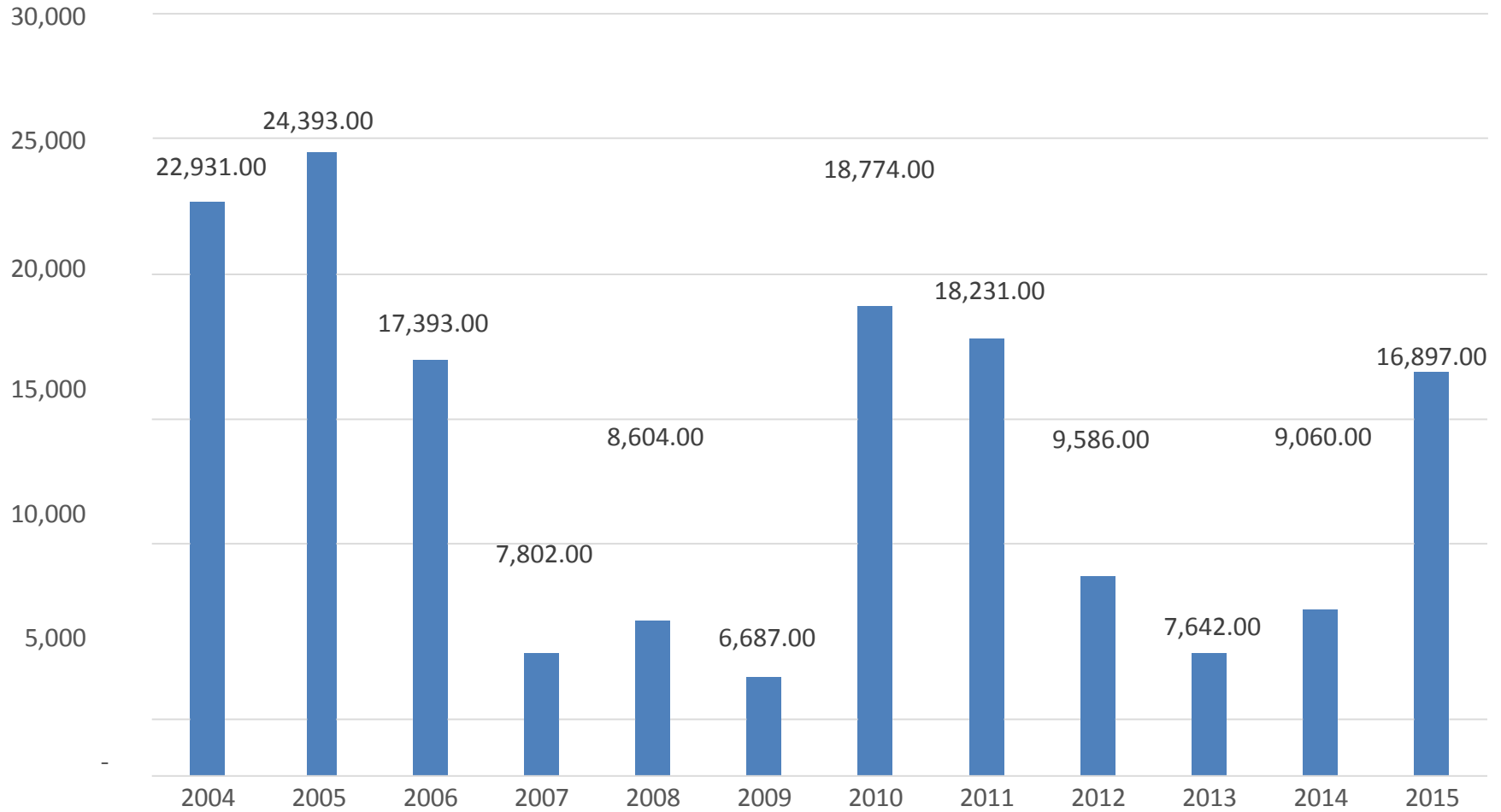
- August 29th the Department issued in the Federal Register a Notice of Intent to prepare a Supplemental Environmental Impact Statement for the disposition of depleted uranium oxide (DUO_x) conversion product from the Department's depleted uranium hexafluoride (DUF_6) inventory.
- The proposed Statement will analyze potential environmental impacts from the proposed action to identify a final disposition location or locations for the DUO_x conversion product from DOE's two DUF_6 conversion facilities.
- Three proposed disposition location alternatives will be evaluated:
 - NNSS LLW disposal facility in Nye County, Nevada;
 - EnergySolutions, LLC, (formerly known as Envirocare of Utah, Inc.) LLW disposal facility in Clive, Utah; and
 - Waste Control Specialists LLC (WCS) LLW disposal facility in Andrews County, Texas.

FY 2015 EM Shipments

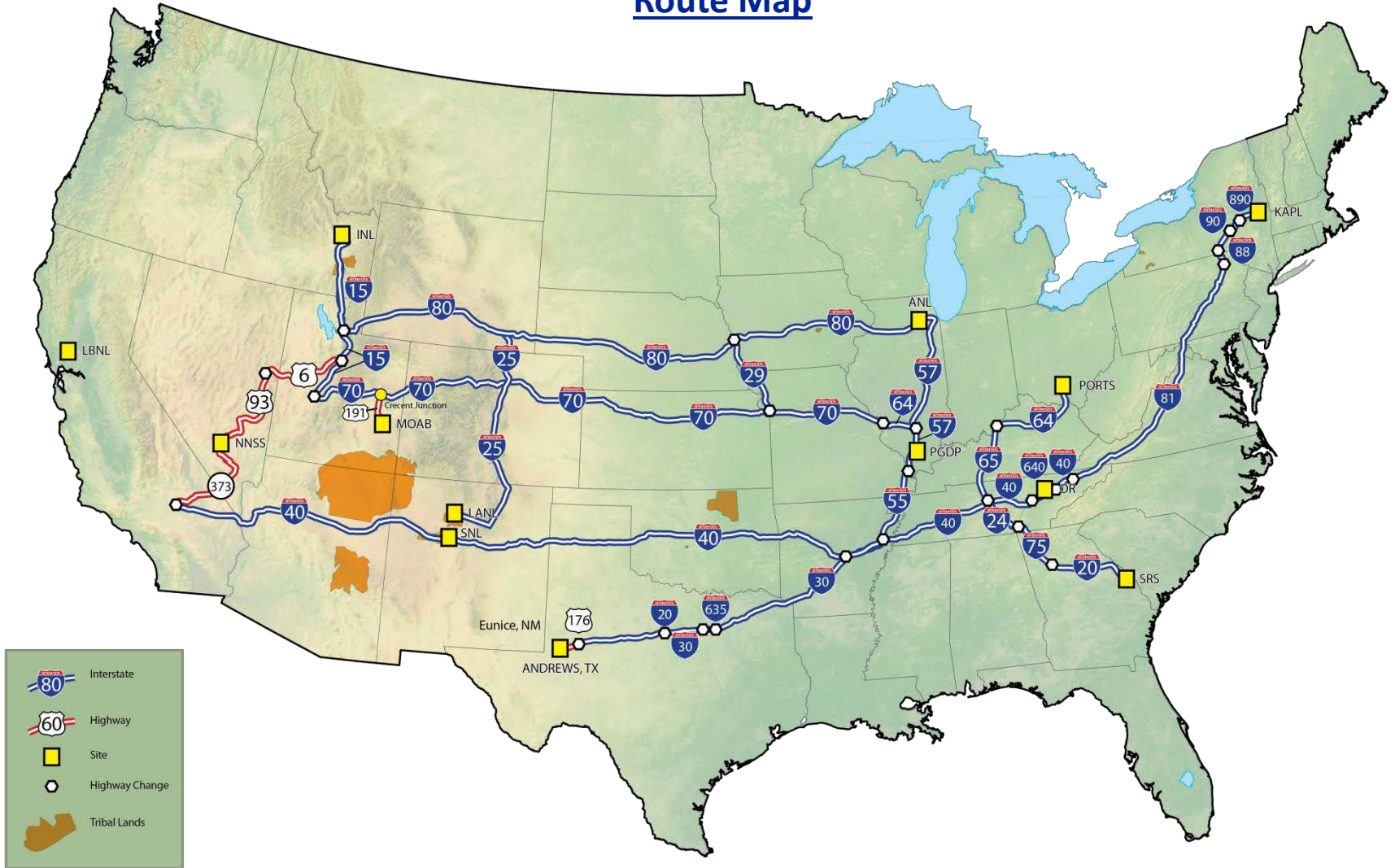


Total number of Shipments = 16,897

Historical EM Shipments



Route Map



- Disposition of radioactive material and sources ultimately requires safe, secure, and compliant packaging and transport operations.
- There were no Department of Transportation recordable packaging and transportation accidents in FY 2015.
- DOE completed more than 18,000 offsite hazardous material shipments over public roads totaling 4.3 million miles in FY 2015, of which the EM completed 16,897 radioactive, hazardous material and waste shipments totaling over 3.4 million miles.
- The Transportation Emergency Preparedness Program partnered with state and tribal emergency responders and instructors from the DOE Radiological Assistance Program and WIPP, to provide 138 training courses in 17 different states, which resulted in training of 1,809 responders.

