Update on DOE Packaging and Transportation Activities

by
Stephen O’Connor, Director
Office of Packaging and Transportation

Presented to:
Southern States Energy Board
Radioactive Materials Transportation Committee
DOE’s Waste Management Priorities

- Continue to manage waste inventories in a safe and compliant manner.
- Address high risk waste in a cost-effective manner.
- Maintain and optimize current disposal capability for future generations.
- Develop future disposal capacity in a complex environment.
- Promote the development of treatment and disposal alternatives in the commercial sector.
- Review current policies and directives and provide needed oversight.
EM is treating radioactive tank waste . . .

Hanford – 176M curies
Idaho – 37M curies
Savannah River Site – 379M curies

Environmental Management

www.em.doe.gov
...storing spent nuclear fuel...
... disposing of transuranic wastes...
... and dispositioning mixed and low-level wastes.
LLW/MLLW Forecast Trends

(millions of cubic feet)

Source: 2011 WIMS data; excludes “TBD” streams

- Offsite
- Onsite
### Shipments by the numbers...

<table>
<thead>
<tr>
<th></th>
<th>FY 2009</th>
<th>FY 2010</th>
<th>FY 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRU Waste</td>
<td>970</td>
<td>1,180</td>
<td>1,070</td>
</tr>
<tr>
<td>LLW</td>
<td>4,800</td>
<td>16,500</td>
<td>16,400</td>
</tr>
<tr>
<td>MLLW</td>
<td>530</td>
<td>480</td>
<td>400</td>
</tr>
<tr>
<td>Other</td>
<td>400</td>
<td>640</td>
<td>1,030</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,700</strong></td>
<td><strong>18,800</strong></td>
<td><strong>18,900</strong></td>
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</tbody>
</table>

ARRA funding pushed shipment numbers up in FY 2010 and FY 2011.
Completed the DUO Shipments

- ~ 9,400 containers of DUO were sent from SRS to NNSS for disposal
- Shipments began in January 2011, and were completed ahead of schedule (ARRA funding)
- Final shipment was made on July 27, 2011
- Total of 391 shipments without incident
The NTSF completed its 2\textsuperscript{nd} meeting in May 2011
2012 Planning Committee established
- Representatives from the tribes, 4 regional groups, and NCSL, DOE, and NRC
- SSEB will serve as the host for the 2012 meeting
- Working Groups established:

<table>
<thead>
<tr>
<th>Financial Guidance</th>
<th>PSR Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification</td>
<td>Communications</td>
</tr>
<tr>
<td>Safeguards Information Training</td>
<td>WIPP Security Communications Protocol</td>
</tr>
</tbody>
</table>

Just completed our 4\textsuperscript{th} webinar
All information can be found at www.ntsf.wikidot.com
What does the EM realignment mean to Packaging and Transportation?

- NNSA has an Office of Packaging and Transportation
  - So does EM
- Efforts underway to review activities of both organizations with a focused goal of:
  - Eliminating redundancies and overlap of responsibilities
  - Establishing clear lines of responsibilities
  - Reviewing current systems and programs to determine the continued need
- End result could impact the location of the DOE’s packaging and transportation functions.
Revision Plan for DOE M 460.2-1A

- Manuals are being eliminated from Directives System
- Requirements from Manual will be incorporated into revision of DOE Order 460.2, Departmental Materials Transportation and Packaging Management
  - Remaining information from Manual will be placed in the DOE Guide 460.2
- Awaiting outcome of realignment decisions to develop draft document

EM Environmental Management

November 17, 2011

www.em.doe.gov
DOE Order on Physical Protection

- Convened a development team
- Schedule parallels the NRC
  - Projected to complete work in 3Q or 4Q of FY2011 to ensure equivalency
- **Purpose**: Establish physical protection requirements for the transportation of irradiated reactor fuel.
- **Cancellation**: Cancels DOE O 1540.4 dated 03-08-89 and Section 6.2.1 of DOE M 460.2-1A dated 06-04-08.
- **Applicability**: Applies to all DOE elements for physical protection of unclassified irradiated reactor fuel in transit.
- **Requirements**: Details the security/physical protection requirements that will be followed during transport.
- **Responsibilities**: Designates the responsibilities for the program offices, field offices and contractors of unclassified irradiated reactor fuel in transit.
Update on Transportation Emergency Preparedness Program

Ken Keaton
Region 1 & 3 TEPP Coordinator
TRG, Inc.
FY 2011 TEPP Training

- 71 classes delivered with the assistance of TEPP Central Operations
- 36 classes were delivered by WIPP
- 17 classes were delivered by State responders

<table>
<thead>
<tr>
<th>Regions</th>
<th># Classes</th>
<th># Students</th>
<th># Compressed</th>
<th># TTT</th>
<th># Full</th>
<th># Partial</th>
<th># TMERRTT</th>
<th># CECBEMS</th>
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</thead>
<tbody>
<tr>
<td>1, 3 &amp; 4</td>
<td>71</td>
<td>1096</td>
<td>261</td>
<td>117</td>
<td>540</td>
<td>90</td>
<td>88</td>
<td>254</td>
</tr>
<tr>
<td>2 &amp; 5</td>
<td>34</td>
<td>525</td>
<td>279</td>
<td>55</td>
<td>174</td>
<td>17</td>
<td>0</td>
<td>224</td>
</tr>
<tr>
<td>6, 7 &amp; 8</td>
<td>18</td>
<td>235</td>
<td>168</td>
<td>38</td>
<td>28</td>
<td>1</td>
<td>0</td>
<td>116</td>
</tr>
<tr>
<td>Totals</td>
<td>123</td>
<td>1856</td>
<td>688</td>
<td>210</td>
<td>737</td>
<td>108</td>
<td>88</td>
<td>595</td>
</tr>
</tbody>
</table>
Regional Training Statistics

• As of close of business on October 4:
  • Region 1 = 677 people
  • Region 2 = 297 people
  • Region 3 = 295 people
  • Region 4 = 124 people
  • Region 5 = 228 people
  • Region 6 = 103 people
  • Region 7 = 132 people
  • Region 8 = 0 people
• Total Students in Database for FY 11= 1,856

November 17, 2011
Historical Database Statistics

- FY 04 = 1011 people
- FY 05 = 1313 people
- FY 06 = 1639 people
- FY 07 = 2073 people
- FY 08 = 2698 people
- FY 09 = 2828 people
- FY 10 = 3241 people
- FY 11 = 1856 people
TEPP External Partnerships

- Partnered with FEMA Radiological Series TTT in Anniston, AL
- Finalized FEMA Q&A Booklet
- Worked on revision of 2008 ASTM E2601, Standard Practice for Radiological Emergency Response
The Brotherhood of Locomotive Engineers and Trainmen (BLET) is still active in using their version of MERRTT; “Rail Union MERRTT”

- TEPP supported 3 BLET sessions this year at the National Labor College
Finalized revision of the exercise scenarios to make them HSEEP compliant

TEPP exercise program is just one part of an all-inclusive preparedness program:
- Upfront planning tools
- Comprehensive training program

Full scale joint response exercise conducted between the Laguna and Acoma Pueblos with Cibola County participating in a support role.
October 27, 2011, at the Louisville Fire Training Academy in Louisville, KY.

The scenario simulated a transportation accident involving a van carrying radioactive sources and a train.

- Live radioactive sources were used during the exercise. Dose rate readings during the exercise were not simulated, and contamination readings in the decon corridor were simulated using thorium lantern mantles.

- State of Kentucky has decided to adopt MERRTT as the commonwealth’s radiological training program for responders
Hospital Training

- TEPP worked with FEMA to update their G-346 Hospital Course
- Hospital training used in preparation for TEPP exercises (with hospital play)
  - Hospital training can be provided at the request of states
Radiation Specialist Training

- Developed to meet the advanced needs of responders and address the new competencies found in the NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents
- Teamed with Region 6 RAP to deliver a RAD Specialist training course

November 17, 2011