Update on DOE Packaging and Transportation Activities

by
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Office of Packaging and Transportation, EM-45

Presented to:
CSG Midwestern Radioactive Materials Transportation Committee
Budget climate for FY 2012 and beyond will be challenging

- Potential for significant across the board spending reductions for all agencies and programs

FY 2012 EM Strategy

- Identify efficiencies to maximize progress.
- Align workforce to meet mission need.
- Build on successes from ARRA completions.
- Utilize technologies and approaches to achieve maximum efficiency.
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
... storing spent nuclear fuel...

Hanford ~ 2130 MTHM
Idaho ~ 280 MTHM
Savannah River Site ~ 30 MTHM
Fort St. Vrain, CO ~ 15 MTHM
... disposing of transuranic wastes...
... and disporositioning mixed and low-level wastes.

Legend:
- CERCLA Disposal Facility
- LLW Operations Disposal Facility
- MLLW Operations Disposal Facility
- Regional LLW/MLLW Facility
- Commercial LLW/MLLW Operations Disposal Facility Used by DOE
- Closed CERCLA Site
- Byproduct Material Disposal

Maps showing various facilities and sites, including:
- Hanford Site
- Idaho National Laboratory
- Los Alamos National Laboratory
- Savannah River Site
- Fernald
- Energy Solutions
- Crescent Junction
- Nevada Nuclear Security Site
- Waste Control Specialists
- Oak Ridge National Laboratory
- www.em.doe.gov
## Progress Toward Completion

<table>
<thead>
<tr>
<th>Year</th>
<th>EM established</th>
<th>BEMR LCC estimate</th>
<th>Post-ARRA</th>
<th>Near-term Strategic Goals</th>
<th>Future Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
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<tr>
<td>2011</td>
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<tr>
<td>2015</td>
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<tr>
<td>2020</td>
<td></td>
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</tbody>
</table>

### Active Sites
- 1989: 110
- 1996: 96
- 2011: 17
- 2015: 12
- 2020: 1 major, 8 small

### States
- 1989: 35
- 1996: 29
- 2011: 11
- 2015: 11
- 2020: 5

### Area (mi²)
- 1989: Not Estimated
- 1996: Not Estimated
- 2011: 559 mi²
- 2015: 93 mi²
- 2020: 76 mi²

### Remaining Cost
- 1989: Not Estimated
- 1996: Not Estimated
- 2011: $354 B
- 2015: $185 – 218 B
- 2020: TBD

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**Environmental Management**

[www.em.doe.gov](http://www.em.doe.gov)
**LLW/MLLW Forecast Trends**

![Bar Chart](chart.png)

**Source:** 2011 WIMS data; excludes “TBD” streams
## 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>6,700</td>
<td>18,800</td>
<td>18,900</td>
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</tbody>
</table>

ARRA funding pushed shipment numbers up in FY 2010 and FY 2011.
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>
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</thead>
<tbody>
<tr>
<td>Notification</td>
<td>Communications</td>
</tr>
<tr>
<td>Safeguards Information</td>
<td>WIPP Security</td>
</tr>
<tr>
<td>Training</td>
<td>Communications Protocol</td>
</tr>
</tbody>
</table>

- Just completed our 4\textsuperscript{th} webinar
- All information can be found at [www.ntsf.wikidot.com](http://www.ntsf.wikidot.com)
Update on Transportation Emergency Preparedness Program

Tom Clawson
TEPP Central Operations
Technical Resources Group, 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>
</tr>
</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>

November 17, 2011
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
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
• 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.
Operation Louisville Full Scale Exercise Conducted

- 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