Savannah River Site
Transuranic Waste Program Update

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Overview

• Savannah River Site (SRS) Transuranic (TRU) Waste Inventory and Status

• Projected TRU Shipments for FY12-FY13

• TRUPACT-III – Newest TRU Shipping Option

• SRS TRU Shipping Process
TRU Waste Inventory

• ~2,260 m³ of legacy TRU waste remains at SRS
  – Legacy: TRU waste staged in E Area before 4/1/2009
  – Initial inventory with ~5,150 m³
  – DOE priority to complete disposal of legacy TRU from SRS
  – Recovery Act funding allocated to accelerate completion

• TRU waste is still generated from operational activities
  – ~40 m³/yr of job control TRU waste
  – ~400 m³/yr from disposal of Pu oxide not acceptable as feed for the Mixed Oxide (MOX) Fuel Facility.
Legacy TRU Inventory as of 4/30/2012

- **In Characterization:** 1,112 m³
- **In Remediation:** 731 m³
- **LLW/MLLW:** 202 m³
- **Certified for WIPP:** 222 m³
- **Disposed as LLW/MLLW:** 643 m³
- **Disposed as TRU:** 2,243 m³
Projected TRU Waste Shipments Through FY13

<table>
<thead>
<tr>
<th></th>
<th>FY12</th>
<th>FY13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUPACT-II</td>
<td>51</td>
<td>108</td>
<td>159</td>
</tr>
<tr>
<td>TRUPACT-III</td>
<td>78</td>
<td>149</td>
<td>227</td>
</tr>
<tr>
<td>72-B (RH)</td>
<td>20</td>
<td>15</td>
<td>35</td>
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<tr>
<td>TOTALS</td>
<td>149</td>
<td>272</td>
<td>421</td>
</tr>
</tbody>
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Number of shipments:

- 3QFY12
- 4QFY12
- 1QFY13
- 2QFY13
- 3QFY13
- 4QFY13
TRU Loading and Shipping Facilities in E Area

- TRUPACT-II Loading
- TRUPACT-III Loading
- Inspection Area
TRUPACT-III – The New WIPP Shipping Container

- Transuranic Package Transporter Model 3 or TRUPACT-III is the latest addition to the WIPP fleet.
- Currently only one production unit.
- Five more in various stages of construction and certification.
- Expect full fleet of 6 by end of July 2012.
- Now making one shipment/week.
- Plans are to make four shipments/week.
TRUPACT-III – Loading

• Holds one Standard Large Box (SLB2) containing 6.6 m³ of waste.
• Larger waste items can be disposed without size reduction and associated worker risk.
• Unlike the TRUPACT-II it is rectangular and loads from the end versus the top.
• Must be removed from the trailer to load.
• SRS can complete a loading evolution in one 12 hour shift.
TRUPACT-III Loading (cont)
TRUPACT-III Loading (cont)
TRUPACT-III Loading (cont)
TRU Waste Shipping Process

- All TRU shipments receive CVSA Level 6 inspections by South Carolina (SC) Transport Police
- SC Department of Health & Environmental Control (DHEC) performs Origin of Release radiological survey
- Carlsbad Central Monitoring Room (CMR) issues final release to driver
- All shipments tracked by CMR using TRANSCOM
- All TRU shipments are escorted to state line by SC Transport Police. SC DHEC Emergency Response personnel occasionally follow shipments to state line
- Notification of TRU shipments are made to South Carolina and Mississippi usually 48 hours prior
TRU Waste Shipping – Inspection Area
TRU Waste Shipping - Inspections
TRU Waste Shipping - Inspections
Conclusion

- SRS will continue to ship TRU Waste to WIPP at an accelerated rate through September 2013 (~420 shipments)
- SRS will be the next DOE Large Quantity Site to complete disposal of legacy TRU waste