EM Transportation Update

Demitrous Blount
Office of Packaging and Transportation
Office of Environmental Management

Winter Meeting
Southern States Energy Board Radioactive Materials Transportation Committee
Discussion Topics

• Environmental Management Cleanup
  • Budget
  • 120 Day Initiatives
  • High Level Waste Interpretation

• Site Updates

• Organization of the Office of Environmental Management
  • Current Structure

• Update on the Office of Packaging and Transportation
  • Mission
  • Activities
Environmental Management Cleanup
**EM Mission Areas**

- **Special Nuclear Materials & Spent Nuclear Fuel**: $573M / 8%
- **TRU & Solid Waste**: $987M / 14%
- **Soil & Groundwater**: $461M / 6%
- **Radioactive Tank Waste**: $2,621M / 37%
- **TRU & Solid & Waste**: $987M / 14%
- **Facility D&D**: $1,476M / 21%
- **Soil & Groundwater**: $461M / 6%
- **Site Services**: $1,057M / 14%

**EM’s FY 2019 Omnibus Budget - $7.175 Billion Total**

<table>
<thead>
<tr>
<th>EM Sites</th>
<th>Savannah River</th>
<th>River Protection</th>
<th>Richland</th>
<th>Idaho</th>
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EM’s FY 2019 Omnibus Budget - $7.175 Billion Total

- Savannah River: $1,551M
- River Protection: $1,573M
- Richland: $954M
- Idaho: $443M
- Oak Ridge: $646M
- Portsmouth: $476M
- Paducah: $274M
- Carlsbad: $404M
- Los Alamos: $220M
- West Valley: $78M
- All Others: $556M
EM 120-Day Initiatives

- Implement End State Contracting to enable and drive the accelerated completion of work
- Examine the use of risk-based definitions for our waste to potentially allow us to strategically maximize the use of existing licensed disposal facilities and accelerate moving waste into permanent disposal facilities
- Align our regulatory agreements and commitments to ensure attainable outcomes that are tied to a risk-based analysis
- Advocate for changes to targeted orders and regulations to streamline and enable success
- Ensure ongoing excellence in our workforce through succession planning and retention of institutional knowledge and critical skill sets
On October 10, DOE issued for public comment in the Federal Register its interpretation of the definition of HLW.

The initial 60-day comment period has been extended to January 9, 2019.

DOE wants to get the policy right and is requesting public comment.

DOE has not made any decisions on the waste classification or disposal options in any state or locality.

We welcome and greatly encourage comments from the public, Regulators, state and local officials, and all other stakeholders.
Site Updates
Possible Shipping Routes
Oak Ridge Reservation (ORR) Cleanup

Y-12 Biology Complex

Y-12 – Artist rendering of Mercury Treatment Facility

ORNL TRU Waste Processing

ETTP Demolition of K-633 at Poplar Creek
Oak Ridge Reservation (ORR) Cleanup

**ETTP**
- Completed demolition of old water treatment plant
- Demolition of Poplar Creek K-633 complete
- Demolition of TSCAI facilities complete
- Deactivation of Building K-1037 nearing completion
- Implementing soil excavation projects
- Demolition of all Gaseous Diffusion Process buildings complete
- Planning to complete ETTP cleanup in 2020 timeframe

**Y-12**
- Technology development activities focused on addressing mercury contamination
- Mercury Treatment Facility early site preparation began this fiscal year, completion scheduled for 4Q2019
- Planning for onsite disposal facility continues, CD-1 approved
- Alpha 4 COLEX equipment removal complete, 2.75 tons of mercury recovered
- Deactivation of Biology Complex began this fiscal year

**ORNL**
- Resumed shipments to WIPP, 53 shipments completed
- Completed pump down reactive gas removal system - MSRE
- Completed replacement Granular Activated Carbon system at Bldg. 3608
- Completed Direct Disposition of U-233 material and initiated planning for processing
Major Project Status (last 6-8 months)
• Approximately 90% complete with deactivation of the C-400 Cleaning Building
• Approximately 80% complete with deactivation of the C-360 Toll and Transfer Building
• Completed the deactivation of C-535 and C-537 Switchyards

Plans (next 2-3 years)
• C-400 Cleaning Building demolition planned for FY2019
• Remedial investigation of the C-400 Complex is planned for FY2020
• C-400 Complex remedy Record of Decision expected to be issued by FY2023
• C-331 Process Building nondestructive assay and uranium deposit removal to be complete by FY2020
• C-360 Toll and Transfer Building declared criticality incredible and in long-term surveillance and maintenance by FY2019
• New electrical substation completed by FY2020
• Remaining 2 switchyards to be deactivated in FY2020
• Removal and disposition of 22 cold traps in FY2019

Challenges
• Currently working with regulatory agencies to resolve C-400 Building demolition CERCLA document disputes
• Dispute resolution could potentially delay the remedial investigation and subsequent remedy for the C-400 Complex
Recent Successes:

- Completed deactivation of the X-326 Process Building (29 acres)
- Initiated deactivation of the X-333 Process Building (33 acres)
- Completed transfer of Parcel 1 (80 acres) to the community for reindustrialization
- Operated 2 conversion lines safely converting DUF$_6$ into an oxide with commercial sales of the co-product HF acid.

Near Term Scheduled Activities:

- Complete deactivation of X-333 Process Building by Q2 FY21
- OSWDF Cell 1 liner complete Q1 FY20
- Prepared DUF6 SEIS needed for oxide disposal planned for FY22

Challenges to Success:

- Adequate, stable funding
- Flat future budgets likely will curtail number of lines operating at the DUF$_6$ facility
Site remediation continues with more than 79% of the total 515 number of waste units completed.

Over 25% of 1,127 total excess facilities safely dispositioned to date.

2 production reactors (R and P) decommissioned in place.

85% reduction in total SRS industrial footprint made possible by American Recovery and Reinvestment Act.

More than 15,000 environmental and groundwater samples collected annually and analyzed for radionuclides, metals or other chemicals that could be present.
Savannah River Site

- Achieved 85 percent SRS industrial footprint reduction through accelerated remediation/cleanup and D&D (American Recovery and Reinvestment Act)
- Accelerated transuranic waste remediation, including remediating and repackaging more than 5,200 cubic meters of legacy TRU waste, most of which has been shipped to WIPP
- Strengthened nuclear materials management at SRS, including:
  - Renewal of H Canyon
  - Vault expansion in K Area for safe, secure storage for nation’s excess plutonium
  - Modifications in L Area Basin for ongoing receipts of domestic and foreign research reactor fuels
- Met all tritium requirements for loading and shipments of limited-life components in support of national defense with efforts underway to prepare for increased production
EM Organization
Update on the Office of Packaging and Transportation
Our Mission

The Office of Packaging and Transportation protects people and the environment by ensuring safe, compliant, and efficient packaging and transportation of materials critical to successful Department operations. We achieve this mission by conducting packaging and transportation assessments and oversight; assisting field sites; and developing, managing, and advocating policies, orders, guidance and tools in accordance with DOE requirements and government regulations.
Update on Order Revision

DOE Order 460.2A Revision Update:


• Subgroups have begun to work with field packaging and transportation subject matter experts to develop specific requirements in each topical area.

• Review and comment process will be used IAW DOE Order 251.1D.
  – Public review period will commence after subgroup review.
Transportation Emergency Preparedness Program

• Website re-design
• New TEPP Working Group with NTSF
• Tribal training
• National Radiological Training Coordination Group

Outreach & Emergency Preparedness
## TEPP: FY2018 Training Activities

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Contact for Additional Information

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