

Spent Fuel and Waste Disposition

Overview of Inventory and Waste Form Characterization Work Packages

David Sassani, Work Package Manager
Online Waste Library and Waste Form Performance
Sandia National Laboratories

GDSA/DR Integration/Planning Workshop and NWTRB Meeting Preparation

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■ Complete and Populate Online Waste Library (OWL) – SNL

- Develop/update a listing and inventory of DOE-managed HLW and SNF radioactive wastes (SRNL work package feed)
 - *assessed in the disposal options evaluation work and*
 - *identify any additional wastes and/or waste forms to be added/updated*
- Populate OWL with data for inventory and waste forms
 - *with links to supporting documents*
- 9/22/2017 - Inventory and Waste Characterization Status Report (M2SF-17SN010501014) – M4 feed in August (with M4 input from SRNL)
 - *M4 in March to feed inventory/WF updates to GDSA*

■ Characterize Alternative Wasteforms Long-Term Performance – SNL

- Organize and coordinate information on both
 - *the performance of waste forms to be disposed, and*
 - *conditions for various repository concepts for disposal, to inform safety assessments*
- Characterize long-term performance of alternative waste forms (PNNL WP feed)
- 8/18/2017 - Update to Waste Form Performance Constraints (M3SF-17SN010501022) – feeds M2 OWL milestone

■ OWL

- Focus on populating OWL with current datasets
 - *Currently: Cs/Sr capsules and N-reactor SNF*
 - *Next up*
 - Hanford tank waste/glass WF
 - SRS tank waste/glass WF
 - INL calcine waste (3 WF; HIP; alt HIP, direct)
 - INL sodium-bonded waste (EMT - metallic WF; ceramic direct WF; direct salt waste)
 - naval fuel WF

■ WF Performance

- Focus on assessment of GDSA DWR results for WF performance insights
 - *Granite*
 - *Salt*
- Assess potential areas for updating WF Performance model
 - *Use prior literature representations*
 - *As needed, plan for targeted testing in FY18*
- Coordinate integration of glass degradation model (from MRWFD Campaign)