

Disposition of LANL Mixed Waste



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Specific LANL Problematic Items

- Tritium waste up to 80,000 Ci
- Portsmouth treatability study waste with high Tc⁹⁹ and U²³⁵
- Additional problematic items that require further characterization are being found in ER waste and reclassified TRU waste, such as pressurized cylinders of unknown origin
- With competition for dwindling resources, funding the disposal is challenging



LANL Gloveboxes and FRPs

- MLLW gloveboxes come from decommissioning and from removal and reclassification of mixed TRU fiberglass reinforced plywood (FRP) crates stored mostly below ground
- Unearthed FRPs are found to contain gloveboxes as well as large waste containers with a variety of waste items inside
- Treatment and disposal options for this large-volume waste stream currently exist—cheaper options are being explored



LANL Cost-Cutting and New Problems

- Historically, LANL employed waste minimization and consolidation procedures, DOE joint shipments and milkruns, deconning and recycling to reduce waste costs
- **With the successful reduction of most LANL MLLW streams, these opportunities are dwindling**
- **As volumes diminish, fixed unit costs are rising**



LANL Cost-Cutting Options

- RCRA permit modification to allow macroencapsulation of large debris items
- Development of generator treatment possibilities
- Sampling and re-characterization to minimum essential RCRA codes
- Competitive bidding and creative contracting to lower transportation, treatment and disposal costs
- Provide sufficient evidence that lead in shielded stainless steel gloveboxes is effectively isolated
- Other appeals for regulatory relief to allow time for more efficient waste management



Recent LANL Successes

- LANL managed the removal of large and varied waste streams from the ARRA funded cleanup site at TA-21
- In addition to routine MLLW, LANL managed the disposal of 200 m³ of Reclassified TRU, and 1,000 m³ of additional items from the repackaging of TRU waste in FY11.
- LANL Waste Projects and Services maintains a perfect turnkey record by removing all waste received within the same FY



Summary

- Largest volume of reclassified TRU campaign is 10-100 nCi/g oversized containers
- 2nd largest volume is drums of 10-100 nCi/g sludges and debris
- Small inventory of high activity mixed waste – high cost, disposition path identified

