

**DNFSB Recommendations
94-1/00-1 Implementation at
LANL and LLNL**

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Recommendations 94-1/00-1

- May 26, 1994 – Board expressed safety concern with “thousands of containers of unremediated plutonium-bearing liquids and solids” at various DOE sites (including Los Alamos National Laboratory and Lawrence Livermore National Laboratory) that were in the nuclear-weapons-manufacturing pipeline when manufacturing ended.
- January 14, 2000 – Board re-iterated concerns raised in recommendation 94-1 and expressed concerns with lack of urgency and delays in remediation schedules at DOE sites.

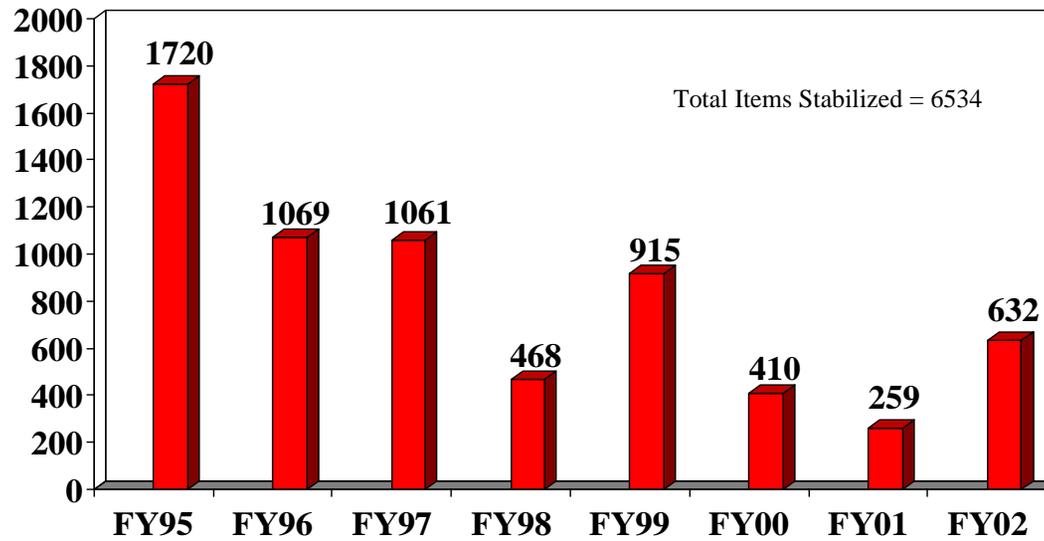
Summary

- NNSA/DOE submitted a revised plan and schedule for stabilization, and repackaging in July 2002.
- Revised plan for LLNL calls for completion of stabilization activities by 2003.
- Rebaselined plan for LANL calls for acceleration of some items while delaying others. The completion schedule for some items extends to 2010.
- LANL/NNSA briefed the DNFSB on September 10, 2002. Board is concerned with delays extending to 2010 for some activities.

LANL - FY02 Accomplishments

- Processing accomplishments
 - 373 Excess items stabilized (Goal=359)
 - 11 3013 packages produced (Goal=25)
 - Issues with furnaces slowed the packaging process; furnaces are now replaced and additional blender installed; expect to meet FY03 goals.
 - 259 Programmatic items repackaged (FY=100)

Items Stabilized Since Inception of this Project (1994 - 2002)



IP Commitments - LANL

- Stabilization activities underway; completion by December 2010
 - 6334 (out of 8611) excess items stabilized to date
- Status: 8 commitments
 - 2 commitments on schedule for completion by December 2002
 - 6 commitments on schedule for completion between 2003 and 2010
- Issues/Challenges
 - Problems with roasting/blending furnaces
 - Processing of high exposure (>100 mrem/hr) metal/oxides/salts
 - Moisture measurement for impure plutonium oxides
 - Lack of criteria for residues previously destined for immobilization
 - Discard of lean residues to WIPP
 - Funding availability under continuing resolution
- Corrective actions
 - R/B furnaces replaced and additional blender/furnace installed; expect to meet FY03 goals and eliminate backlog
 - Implementing thermogravimetric analysis with mass spectroscopy as a moisture measurement technique instead of Loss-on-Ignition technique

LANL Commitments

- ***Solutions***

- Stabilize all solutions by Dec. 2002 - Stabilized 2 solutions, remaining 2 on schedule to complete

- ***Residues***

- Stabilize all rags, and nitride items by Dec. 2002 - Stabilized all rag items, remaining 1 nitride item on schedule to complete.

- ***Oxides < 100 mrem/hr***

- Roast and blend all dioxide items by Dec. 2003 – roasted and packaged 80 kg. of oxides.

- ***Unsheltered Containers***

- Resume processing containers in FY04
- Empty contents of each container by Dec. 2006

LANL Commitments

- ***Unique Items (mixed Pu/U/Np items)***
 - Discard and/or stabilize all unique items Dec. 2007
- ***Metal and Oxide-like Items <100 mrem/hr***
 - Complete stabilization and packaging of all metal and oxide-like items Dec. 2008
- ***Residues***
 - Complete stabilization of all residues Dec. 2010
- ***Metal and Oxide-like Items >100 mrem/hr***
 - Complete stabilization and packaging of metal and oxide-like items Dec. 2010
- ***Programmatic Items (not in the scope of 94-1)***
 - Complete repackaging of programmatic items Dec. 2010

IP Commitments - LLNL

- Stabilization activities underway; completion by December 2003
 - 4 “3013-cans” packaged to date
- Status: 2 commitments
 - Both on schedule to complete

LLNL Commitments

- ***Metal and Oxide > 30% Plutonium + Uranium***
 - Complete plutonium metal and oxide repackaging Dec. 2003
- ***Residue <30% Plutonium + Uranium***
 - Stabilize and package all remaining residues Dec. 2003