



# RECOMMENDATION 2000-1 IMPLEMENTATION PLAN

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# Summary

- 2000-1 IP Revision 2 approved in July 2002
- Rebaselined Pu stabilization plan at SRS (including updated schedules for other EM sites) accepted by DNFSB in August 2002
- DOE making significant progress in stabilizing and packaging nuclear materials for long-term storage
  - 3 sites (RF, RL, LLNL) began Pu stabilization and packaging campaign into 3013 containers
- Challenges remain on completing IP commitments

## Summary of Remaining Commitments

### *Rocky Flats*

- All metal and oxide >30% plutonium will be packaged to conform to DOE-STD-3013-2000 by January 2003
- All plutonium residues will be packaged for off-site shipment by May 2002 - **COMPLETE**

### *Hanford*

- All plutonium solutions will be stabilized by July 2002 - **COMPLETE**
- All plutonium oxide will be packaged to conform to DOE-STD-3013 or dispositioned offsite by May 2004
- Metals and the remaining 31 alloys will be packaged to conform to DOE-STD-3013 by December 2002
- All residues <30% plutonium will be packaged in pipe overpack containers by April 2004
- All plutonium polycubes will be packaged to conform to DOE-STD-3013 by March 2003
- All spent nuclear fuel and sludge will be removed from the K-Basins by August 2004

## Summary of Remaining Commitments

### *Savannah River*

- All pre-existing plutonium solutions will be stabilized by December 2002 - **COMPLETE**
- All pre-existing metal and oxide >30% plutonium will be packaged to conform to DOE-STD-3013-2000 by December 2005
- All residues <30% plutonium will be stabilized by December 2005
- All americium/curium solutions will be transferred to the high-level waste system by March 2003
- All neptunium solutions will be stabilized by December 2006
- All Mark 16 and Mark 22 spent nuclear fuel will be dissolved by March 2004
- All uranium solutions will be dispositioned by September 2005

## Rocky Flats

- **Pu stabilization underway - complete by January 2003**
  - About 1400 (out of 1900) 3013s packaged to date
- **Overall status: 2 commitments**
  - Pu residues packaging - COMPLETE
  - Pu metal/oxides packaging - potential of up to 3 months delay due to laser welding quality problems encountered in PuSPS
- **Issues/Challenges:**
  - Approval to stabilize Pu oxides w/ high chlorides (750C vs 950C)
  - Approval to send dirty oxides to WIPP (200 - 400 less 3013s) - could help recover schedule for January 2003 commitment

## Hanford

- Pu stabilization underway - complete by May 2004
  - About 800 out of 3000 3013s packaged as of October 2002
- SNF removal at K-Basins underway - complete by August 2004
  - 125 out of 400 MCOs packaged as of October 2002
- Overall status: 10 commitments
  - 7 commitments on schedule; 1 completed on schedule
  - 2 commitments with 1-3 months delay
    - remove 957 MTHM from K-West Basin by December 2002
    - begin sludge removal from K-Basins by December 2002
- Issues/Challenges
  - Send dirty oxides to WIPP for disposal (950 less 3013s)
  - Stabilization of Pu oxides w/ high chloride impurities
  - Maintain K-Basins schedule to meet August 2004 commitment

## Savannah River Site

- Major changes in IP Revision 2:
  - Capability to package 3013s in FB-Line vs. 235-F
  - Transfer of Am/Cm Solution to HLW vs. vitrifying
- Pu stabilization and packaging activities into 3013s complete by December 2005
  - Pu solution stabilization started January 2002 - complete July 2002
  - FB-Line project outer can welder startup - April 2003
  - Furnace startup - November 2003
- All remaining stabilization activities complete by December 2006 (U, Np solutions)
- Overall status: 12 commitments
  - 2 commitments completed 4-5 months early
  - 10 commitments on schedule to complete
- Issues/Challenges:
  - 3013 outer weld quality issue
  - Difficulty encountered in transferring Am/Cm solution
  - Timely availability of TVA blend stock (U) and to receive LEU

## NEXT STEPS

- Closely monitor site activities and apply lessons learned
- Approval to send dirty oxides to WIPP for disposal
- Continue technical assistance and support (e.g. stabilization, moisture measurement) to sites through 94-1 R&D Program