

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 15, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending August 15, 2003

FB-Line: On Tuesday, WSRC resumed limited FB-Line operations under management oversight (e.g., senior supervisory watch). All discretionary activities in the facility had been suspended based on Integrated Safety Management issues identified during a material characterization activity two weeks ago (site rep weeklies 8/1/03 and 8/8/03). Pre-start corrective actions (i.e., A list items) were implemented prior to restart. Facility activities will continue to resume in a deliberate and sequenced mode. Operations this week include material sorting and assay and routine preventive maintenance. WSRC also continues startup preparations for oxide stabilization (e.g., furnace testing). The DOE-SR readiness assessment is scheduled to start on September 15, 2003.

Recommendation 94-1/2000-1: WSRC continues to make significant progress on nuclear material stabilization activities. Most activities are on schedule to be completed well ahead of the Recommendation 94-1/2000-1 milestones dates. The following is a summary of the stabilization activities:

- ! Mark 16/22 Spent Nuclear Fuel: WSRC has completed dissolution of approximately 80% of the assemblies at H-Canyon. Dissolving is currently on hold pending resolution of the Potential Inadequacy in the Safety Analysis identified two weeks ago (site rep weekly 8/8/03). Dissolving is expected to resume next week. However, controls that will be implemented in response to this issue may limit facility throughput.
- ! Highly Enriched Uranium Solutions: WSRC began shipping Low Enriched Uranium solution to the Tennessee Valley Authority (TVA) vendor in July 2003 (approximately 3 months behind the Recommendation 94-1/2000-1 milestone). Four trailers have been loaded and shipped. WSRC is pursuing options to recover schedule that was lost because of delays in beginning the shipments.
- ! Plutonium Residues: Plutonium residues are characterized in FB-Line to determine the appropriate stabilization path. Characterization activities are currently on hold as noted above. Materials are either transferred to HB-Line Phase I for dissolution, dispositioned as waste or stored to await thermal stabilization and 3013 packaging. WSRC expects to complete dissolution of all residues in HB-Line by October 2003. The resulting solutions will be transferred to HLW. The packaging and stabilization project is currently on schedule to achieve 3013 packaging of all plutonium metal and oxide by late 2004.
- ! Neptunium Solutions: The baseline plan is to convert the neptunium solutions in H-Canyon to an oxide by December 2006. However, with the acceleration of plutonium processing in HB-Line, WSRC expects to compete this activity well ahead of schedule. A significant portion of the solution (i.e., material that has not been processed through 2nd product cycle) will be dispositioned to HLW.