

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 15, 2002

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** R. T. Davis/ T. D. Burns  
**SUBJECT:** SRS Report for Week Ending February 15, 2002

**Evaporator Performance:** As of Friday, the 2H and 2F evaporators are operating. The 3H evaporator is in a planned maintenance outage. During the past month, the 2F, 2H, and 3H evaporators have achieved attainments of 60%, 81%, and 54%, respectively. More than 800,000 gallons of overheads were produced during this period.

**INPO Review of HLW Engineering:** At the invitation of WSRC HLW management, the Institute for Nuclear Power Operations (INPO) recently performed an assessment of the HLW Engineering organization. Several strengths were noted, including a high level of specialized expertise among the engineering personnel and a commitment to facility operations support.

Areas for improvement were also identified, and several recommendations were provided. A need to relieve engineering management of the burden of resolving day-to-day operational issues was noted, and practices similar to commercial industry were outlined for developing judgement and responsibility in lower-level personnel. The INPO team also shared strategies for improving both the quality of engineering products and work scheduling and management practices. Additionally, the INPO team echoed the philosophy underpinning Recommendation 2000-2 with their observation that WSRC should identify equipment critical to operations and focus management attention and resources on ensuring its reliability.

**Recommendation 94-1/2000-1:** Last Friday, DOE-SR directed WSRC to suspend HB-Line Phase II processing of plutonium solutions contained in tanks 12.1 and 18.3. The implementation plan for Recommendation 94-1/2000-1 commits to stabilizing these solutions by conversion to an oxide by December 2002. However, these plutonium solutions are not suitable as feed to the Mixed-Oxide Fuel Fabrication Facility (MFFF) because of the plutonium-238 content. WSRC will instead process plutonium solutions contained in tank 16.3 that are expected to meet the proposed MFFF feed specification. This solution was produced during HB-Line Phase I dissolution of residues from FB-Line and contains less than one third the plutonium versus tanks 12.1 and 18.3. HB-Line processing to an oxide should take approximately 4 months.

For the tank 12.1 and 18.3 solutions, DOE-SR and WSRC are pursuing an option to transfer the solutions to High Level Waste tank 51 for feed to DWPF as a part of sludge batch 3. Initial technical analysis of this option by WSRC appears positive and validation is expected in June 2002. With the recent changes in the plutonium disposition program, this solution does not currently have a defined disposition path. Transfer to the DWPF feed tank will provide near term stabilization and long term disposition. This option will also reduce the amount of oxide that must be high-fired and packaged in accordance with DOE-STD-3013.