

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 30, 2004

**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 April 30, 2004

**FB-Line:** Because of several procedure violation and conduct of operations issues over the last few months, WSRC management has initiated additional training for FB-Line operators. This week, operations were suspended to conduct procedure emphasis training. Training on procedure compliance, verification and validation, and conduct of operations will occur over the next few weeks. During this period, pre-job briefs will include a step-by-step review of procedure requirements. WSRC is also developing a more extensive training program for FB-Line operators. This training, which should begin in a couple of months, will emphasize procedure compliance, criticality safety and conduct of operations.

WSRC has completed approximately 125 oxide stabilization runs in the FB-Line furnaces. A total of approximately 540 items have been packaged in 3013 cans. Deinventory of the vaults is 40% complete.

**H-Canyon:** WSRC continues to dissolve and process unirradiated Mark 22 assemblies. Approximately 1,100 kgs have currently been processed. The resulting Highly Enriched Uranium (HEU) is used to feed the Blend Down program. WSRC has shipped 65 LR230 Shipping Trailers containing Low Enriched Uranium solution to the Tennessee Valley Authority vendor. Because the Mark 22 assemblies have not been irradiated, WSRC is considering an option to send the waste by-product directly to Tank 50 for subsequent feed to saltstone. Currently the waste stream is dropped to the High Level Waste tank farms. To implement this change, WSRC will need to suspend dissolving the Mark 22 fuel so that appropriate flushing can be performed. WSRC will likely begin purifying the HEU solution stored in the Enriched Uranium Storage tank to continue to feed the Blend Down program while the flushing occurs. DOE-SR and NNSA are evaluating the WSRC proposal.

**HB-Line:** In Phase I, WSRC has completed the dissolution of 25 of the 108 Idaho National Engineering and Environmental Laboratory denitrator product items. This activity is well ahead of schedule and should be complete this Fall. In Phase II, WSRC is performing demonstration runs for the neptunium processing campaign. Activities include demonstration runs on the precipitation and filtration cycles, calcination, and canning in the mechanical line. Demonstration runs and training are scheduled to continue for the next two months followed by the contractor and DOE Readiness Assessments. Phase II startup is for scheduled for August 2004.

**K-Area:** In K-Area, operators have been cropping and bundling the unirradiated Mark 22 fuel assemblies for shipment to H-Canyon. All but a few of the clean (i.e., not contaminated) fuel assemblies have been cropped. Planning and procedures for cropping the contaminated fuel assemblies continues.