

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 23, 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 May 23, 2003

Board members A. J. Eggenberger, J. E. Mansfield, and R. B. Matthews along with staff members J. K. Fortenberry, R.E. Tontodonato, and J. Contardi were on-site this week reviewing high-level waste, nuclear material processing and storage, and defense program tritium activities. On Monday, R. B. Matthews toured the Defense Waste Processing Facility, the Actinide Removal Project at Building 512-S, the H-Area Tank Farms, and the Tritium Extraction Facility construction site. On Wednesday, R. B. Matthews toured H-Canyon, H-Canyon Outside Facilities, and Building 235-F.

DWPF Activities: This week, one of the sludge processing acceleration measures advertised as part of the site's Cleanup Reform Initiative was implemented. Waste loading has been increased by approximately ~25% for current Slurry Mix Evaporator batches, and the first canister poured with the higher waste loading was completed on Wednesday.

H-Canyon: This week, WSRC completed the final week in a five week maintenance outage. As a part of this outage, the High Activity Waste (HAW) system was tied into the distributed control system. This activity should help improve HAW performance and overall facility throughput. The outage will likely be extended a couple of weeks because of delays in reconfiguring a diversion box in the High Level Waste system.

HEU Blend Down: Based on current processing schedules, WSRC estimates that HA-Line tanks will be full of Highly Enriched Uranium (HEU) solution and Low Enriched Uranium (LEU) solution in mid-July. The Tennessee Valley Authority (TVA) vendor that will receive the LEU solution is scheduled for a readiness review in early June and should be able to receive material in late June. However, further delays in the ability to ship LEU solution will impact H-Canyon processing activities because of storage limitations. On Friday, WSRC identified strategies to mitigate the impact on H-Canyon processing activities without compromising LEU product specifications. The following top three options were identified:

- ! Proceed with loading and staging 4 trailers at SRS - This strategy will provide storage space for an additional 3 weeks of H-Canyon processing.
- ! Proceed with an additional blend batch and hold in tank F1-5 - This strategy will gain space for 3 weeks of H-Canyon processing.
- ! Stage HEU in temporary tank near the B3 basin (outside facilities) - This strategy will take approximately 6 weeks to implement and will gain 2 weeks of processing space per tank.

Depending on the status of the TVA vendor, WSRC will pursue the second option in late June unless they receive approval to load and stage trailers at SRS (i.e., option 1).