

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 19, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending May 19, 2006

DNFSB Activity: The technical staff performed a review of the Actinide Removal Process (ARP) and Modular Caustic Side Solvent Extraction Unit. In addition, the staff walked down various facilities related to the salt processing program.

High-Level Waste: DOE has directed the contractor to recommend a new treatment technology for Tank 48 recovery, which then would serve as the baseline option. Aggregation would be kept available as a backup option. DOE also intends to revise the Rec. 2001-01 Implementation Plan to reflect this strategy change and acknowledge delays in commencing deliquification, dissolution, and adjustment and the related development of a program evaluation for integrating processing facilities. Finally, the Site Rep observed initial flushing of a submersible mixer pump in Tank 6, in preparation for commencing sludge removal.

Tank 804 Cleaning: The Site Reps reviewed plans for removing Pu-contaminated sludge using buckets and mops. While a mockup and management self assessment are being conducted, there are not any firm plans to demonstrate this activity while wearing the prescribed personnel protective equipment ahead of time.

Solid Waste Management Facility: A Technical Safety Requirement violation was declared after recent assays determined that two large steel boxes listed as containing zero fissile gram equivalent (FGE) actually contained greater than 480 FGE (2σ mass) and did not meet spacing requirements. Previous corrective actions for items with suspect fissile masses were limited to only drums. A subsequent review identified an additional eight suspect non-drum containers.

Savannah River National Laboratory: While retrieving a liquid sample for gamma analysis, a laboratory technician noticed the sample had leaked. Paperwork which was included with the sample was wet. Per procedure, the sample was contained within two sample vials and placed within an open plastic bag along with the associated paper work. The technician requested assistance from a radiological control technician (RCT) and prevented additional workers from entering the work area. Followup surveys from the RCT identified contamination levels of 400,000 dpm alpha and 20,000 beta/gamma. An inspection of the sample vials indicated that they may not have been properly sealed. A critique was held which included senior facility management and the appropriate corrective actions were identified.

Glass Waste Storage Building #2: The contractor Operational Readiness Review included findings related to design calculations, startup testing, and fire protection.

Saltstone: Air in-leakage test results indicate that nitrogen inerting is not a feasible approach to control flammable gases in the vaults.