DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 11, 2011

TO: T. J. Dwyer, Technical Director

FROM: M. T. Sautman and D. L. Burnfield, Site Representatives

SUBJECT: Savannah River Site Weekly Report for Week Ending March 11, 2011

F-Canyon: SRNS modified the Truckwell, Truckwell Extension, and Warm Canyon to support transuranic waste remediation. Workers will move waste boxes from a new Lag Storage Building through three airlocks into a Waste Handling Area (WHA). Inside the WHA, workers in plastic suits will remove the box lid and remove prohibited items with reach tools and a gantry crane. Workers will use a ventilated glove bag for large inner containers. The site rep observed several dry runs, drills, and interviews for the SRNS Readiness Assessment (RA) this week. The RA team is experienced and is performing a thorough review. While the operations staff understands their procedures, their understanding of fundamentals is much weaker. Shift manager understanding of the process is also weak.

Defense Waste Processing Facility (DWPF): An operator did not fully engage a grapple to a canister when he tried to move it from the Smear Test Station (STS) to the Weld Test Cell. The grapple slipped out and the canister fell approximately one foot onto the STS pedestal, shearing off some bolts. The canister appears to be undamaged, but SRR has not fully inspected it yet. Although the operator was qualified and had performed this task before, this was the first time he performed the task unsupervised. SRR plans to increase oversight with new operators and look for ways to improve the visibility of this remote operation.

Nuclear Safety: SRNS has completed reviewing their Consolidated Hazards Analyses in order to identify Defense-in-Depth/Important to Safety (DID/ITS) controls. SRNS will be submitting their tables listing these controls along with their defined safety functions. SRR has completed their review for Saltstone. SRR expects to complete the tables for Tank Farms and DWPF this summer. The upcoming revision to the Unreviewed Safety Question (USQ) procedure will include a definition of DID/ITS and what constitutes degradation of these controls. The revised USQ form will include a new question:

"Does the Proposed Activity permanently eliminate a DID/ITS or degrade its safety function as explicitly described in the Safety Basis?"

If yes, DOE approval is required.

The site rep met with DOE to discuss their draft position paper of directive action specific administrative controls (SACs), recovery actions, and violations. (See 12/17/10, 12/23/10, and 1/7/11 reports). The site rep believes a violation should be declared when a safety limit in a SAC is exceeded, but not necessarily when an action level in a SAC is met.

DOE has tried to address previous DOE-HQ and DNFSB comments on their guidance for implementing the chemical screening criteria in DOE-STD-1189 (see 5/2110 and 12/24/10 reports). DOE would like to screen out some of the chemicals present in vitrified glass for the upcoming Glass Waste Storage Building #3.

Waste Solidification Building: The DNFSB staff talked with NNSA and SRNS about the cause of the recent cold joint and their plans for repairing it. The staff will review this at SRS next week.