

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 1, 2010

**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 October 1, 2010

**H-Canyon:** SRNS conducted their Readiness Assessment (RA) for spent fuel dissolution/DOE-STD-3009 Documented Safety Analysis (DSA) implementation. The facility conducted multiple dry runs of the receipt of the railroad cask car, the transfer and dissolution of fuel rods, the sampling of these highly radioactive solutions, and drills for implementing new Technical Safety Requirements (TSR). The scope of dry runs and the degree of simulation were much better than previous readiness reviews (see 12/4/09 report). The RA team was experienced and conducted a thorough review using the revised lines of inquiry (see 8/20 and 8/27/10 reports). Many of the pre-start findings addressed procedure issues – procedure compliance by operators, quality of the procedures, and implementation of new TSR requirements. For example, operators did not use the required procedure table to estimate the total wood-equivalent mass of combustibles in the railroad tunnel airlock. Instead, they initially relied on their own judgment when they implemented this specific administrative control. In response, operations staff received additional classroom training on conduct of operations and TSRs along with field operational evaluations. H-Canyon staff closed all pre-start corrective actions this week. The site rep reviewed many of these closure packages and met with RA and operations managers to further discuss their corrective actions and the verification of their effectiveness.

SRNS authorized initiation of the implementation of the DSA and DOE is preparing to issue the revised Authorization Agreement. Shipments of spent fuel to H-Canyon from L-Area, however, may be delayed weeks until DOE issues a Record of Decision.

A crane operator snapped the hot crane monorail wire rope while preparing to lift a failed dissolver pot. When the hook would not properly engage the lifting lug, the operator tried to position the hook by moving the crane itself (i.e., a side pull). Although an alarm sounded when the stress exceeded the limit, the wire rope failed almost instantaneously.

**Operations:** The Modular Caustic Side Solvent Extraction Unit resumed operations after being shut down since mid-July (see 9/3/10 report). The Defense Waste Processing Facility began operations of the melter with the new bubblers in accordance with their Management Control Plan. SRNS expects to resume transuranic waste remediation at F-Canyon this Monday after shutting down in mid-June because of a puncture event (see 6/18/10 report).

**F-Tank Farms:** The site rep attended a prejob briefing (PJB) for the transfer of a submersible mixer pump (SMP) from Tank 5 to Tank 4. This complex, multi-day activity required two cranes to lift the highly contaminated SMP out of Tank 5, place it on a nearby trailer, move the trailer and cranes near Tank 4, and then reinsert the SMP into Tank 4. At the PJB, the person-in-charge did not verify that each worker understood the process and radiological protection requirements for this job. SRR management at the PJB recognized this weakness and addressed it before work started.