

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 4, 2009

**TO:** T. J. Dwyer, Technical Director  
**FROM:** D. L. Burnfield and M. T. Sautman, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending December 4, 2009

**Readiness Reviews:** Two reviews commenced this week: 1) a Facility Self Assessment (FSA) for Phase I Transuranic Large Steel Box Resize/Repackaging Project at H-Canyon and 2) Hanford Low Assay Plutonium graded Readiness Assessment (RA) for HB-Line. The planned dry runs and lines of inquiry for both were too narrow. The Site Rep questioned the adequacy of the FSA dry run because all radiological personnel protective equipment/dosimetry was simulated; the scope only examined unpacking of the boxes, but not the resizing of contaminated equipment; it did not demonstrate the response to abnormal (but expected) events; and no simulated data was provided for the procedure forms. After similar concerns were also expressed by the FSA team and DOE observers, the Facility Manager decided to perform additional mock-ups next week with less simulation to cover the full scope of the activity. Level of knowledge interviews also revealed some weaknesses with the Shift Technical Engineer and Operations Manager.

Later at the pre-job briefing for the RA dry run, the RA leader objected to the initially proposed scope of the dry run because it did not include any pre-requisite activities or the completion of any forms. The performance of the procedure at the dry run was a little rough, probably because it was the first time the operators had ever performed the procedure. Implementation of the traffic control Specific Administrative Control (SAC) could be more rigorous. (See October 9 – 30 reports).

**H-Canyon:** Configuration control of the Technical Safety Requirements (TSR) was lost. When analysts began developing revision 22, they did not use the final approved version of revision 21, but an earlier draft. As a result, nearly half of the changes from revision 21 were not included in revision 22 or in the subsequently implemented revision 23. DOE discovered that the current TSR incorrectly included a SAC for tank temperature instrumentation rather than the original Limiting Condition for Operations (LCO). During their review of the TSR revision, DOE had rejected the proposed change from a LCO to a SAC. A Potential Inadequacy in the Safety Analysis has been declared and DOE approved a new TSR revision.

**F-Area:** The Site Rep observed the reentry into the F-Area A-line to perform remediation of the nitric acid spill (see 8/21/09 and 8/28/09 reports). The nitric acid in the drum that had drained from the tap and drain was sampled and found to be 66% nitric acid. The acid in the spill pallet was neutralized and dispositioned, requiring several pounds of caustic material to neutralize the acid. The work package has been cleared to begin work on the scaffold next week.

Old depleted uranium oxide drums are being banded and palletized in 221-22F for off-site shipment (see 8/1/08 report). Many of these drums are made of galvanized material while other drums have the paint intact. However, a significant number of the drums are not in good shape. While removing drums from the stack for banding and palletizing, one rusty drum on the top level was found to be breached and material had leaked creating a high contamination area around the drum. The site rep observed the area and discussed ways of over-packing the drum with DOE and contractor personnel.

**Saltstone:** Processing of Tank 50 waste resumed this week.

**F-Tank Farms:** The Site Reps observed the contractor remove a failed submersible mixer pump from Tank 5. Although it was a tight squeeze pulling it through the riser, it was removed safely and dose rates to workers were low.