

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 21, 2014

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending February 21, 2014

HB-Line: The contractor commenced their independent assessment of the DOE-STD-3009 compliant Documented Safety Analysis and Alternate Feedstock 2 processing. This assessment is in preparation for DOE resuming their readiness assessment, which was suspended last August (See 8/30/13 report). The site reps observed several dry runs, staff interviews, a management scenario, and a night shift conduct of operations drill.

Saltstone: SRR with SRNL assistance completed their investigation into the three failed couplings in the grout line (see 1/10/14 report). The most probable cause of the failures was due to water freezing in the pipe at the exposed couplings during an extended period of extremely low temperatures. SRR has been inspecting other open air components for possible freeze damage and plans to conduct a hydrostatic test of the grout line this weekend. In the future, SRR is also planning to conduct a “pig” (pressurized rubber ball) launch through the grout line following the last water flush to remove water from the line. SRR has also been trying to identify solutions to prevent future variable frequency drive (VFD) trips for the grout pump (see 12/6/13 report). Short-term solutions they are pursuing include adjusting the overload setting on the VFD, optimizing the pulsation damper pressure setting, and reducing the throughput rate.

Defense Waste Processing Facility (DWPF): A DWPF employee alarmed a hand-held contamination monitor in the truck loading dock (300,000 dpm $\beta\gamma$ on the heel of his shoe.) The source of the contamination is unknown. The loading dock is a radiological buffer area (RBA) and not a contamination area. The employee stated that he had been in no other RBA since the previous week and had not recently been in a contamination area. Radiological protection personnel surveyed the loading dock, the surrounding corridors, and nearby rooms and found no other contamination.

Modular Caustic side Extraction Unit (MCU): SRR completed the last trial run using the next generation solvent. Once sample results from this run are confirmed, SRR will move into production mode. The sample results so far have been within the modified specifications for pH and sodium. The decontamination factor using the new solvent has been roughly an order of magnitude higher than was previously observed.

Tritium: The extremely cold weather that occurred in January resulted in the freezing of fire suppression systems in H-Area Old Manufacturing (HAOM). (See the 1/10/14 report.) Because the required actions could not be completed within the time restrictions of the Limiting Conditions for Operations (LCO), SRNS submitted and the Savannah River Field Office (SRFO) approved the response plan for operations in HAOM. The plan allows operations that are necessary to meet the mission of the Tritium Facilities and places additional Technical Safety Requirement (TSR) level restrictions on operations where increased fire hazard exists. The site rep observed one of the training classes for this response plan and provided comments to the facility representative.