

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 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 March 21, 2014

F/H Laboratory: As part of a Documented Safety Analysis revision to eliminate the use of a 0.2 leak path factor (see 10/29/10 weekly report), SRNS is proposing to use inventory cabinets (i.e., safe) as well as material-at-risk and container specific administrative controls. SRNS is also proposing to downgrade the fire suppression system for part of the laboratory to important-to-safety. The site representative also observed an emergency drill involving an outside waste box fire. While the area emergency coordinator frequently briefed the control room staff on the latest facts, the briefings did not discuss the response plan or the actions needed to implement this plan.

Defense Waste Processing Facility: SRR is replacing the 512-S cross-flow filter (part of the Actinide Removal Process), which is a first time evolution. The site rep noted at the Facility Radiological Assessment Team (FRAT) meeting that they were not reviewing the actual radiological control action steps in the procedure and radiological work permit (RWP) as required by the FRAT procedure. While the site rep observed them remove jumpers, a time out was called when workers identified inconsistencies amongst the radiological control action step criteria in the crane-operating manual and work order and the RWP suspension guides.

H-Canyon: The site rep noted that the draft SRNS Startup Notification Report did not propose a DOE Readiness Assessment(s) for the upcoming head end, first and second cycle solvent recovery, and low enrichment uranium blending operations, none of which have operated with nuclear material in the last 12 months. DOE later stated that they will be conducting RAs for these.

K-Area: A recent Technical Safety Requirement violation revealed weaknesses in the implementation of a memorandum of understanding between the security contractor and SRNS. The SRNS nuclear safety organization was to approve any changes to the existing flight operations because this could change the calculated helicopter crash frequency. The use of ambiguous language also caused confusion whether an assumed frequency was just a typical number or a hard limit. That being said, the calculated frequency of a helicopter crash is still beyond extremely unlikely even with the revised frequency of helicopter flights.

Conduct of Operations: During the last couple of weeks, SRNS experienced several lock out/tag out issues across the site. In at least three cases, the failure to provide the rigor necessary to adequately control the electrical and mechanical systems could have directly affected nuclear process equipment or systems related to nuclear safety. In each case, other internal controls precluded a significant event. A site wide bulletin was issued to remind workers of the need maintain vigilance when working on hazardous energy sources. The Site Rep observed tritium conduct safety pause training to discuss the issue that occurred there, as well as other recent events.

Liquid Waste Operations: The site rep attended a technical exchange between SRR and Parsons in which they discussed results of the recent upgrade to the next generation solvent and the associated increased decontamination factors (up to ~2 orders of magnitude higher than previously experienced.)

The highly contaminated pump that had previously been suspended in Tank 8 for over a year (see 3/7/2014 weekly report) was successfully removed and placed in a large box for storage until a use can be identified.