

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 27, 2013

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 September 27, 2013

235-F: In light of anticipated Fiscal Year 2014 funding under a continuing resolution, DOE is curtailing planned field work. This would affect several implementation plan milestones.

Lock Out/Tag Out (LO/TO): At the Defense Waste Processing Facility, a LO/TO order contained the wrong position for a process water valve which allowed water to flow to the process frit slurry feed tank (PFSFT). During the 15 minutes it took for operators to detect the mistake and close the valve, the PFSFT filled up and ~1800 gallons overflowed into two diked areas. In a separate event, the H-Canyon shift operations manager skipped a LO/TO order step to close two valves prior to directing workers to remove tags from other fire water system valves.

Tank Farms: The staff is reviewing tank flammability and corrosion control implementation.

- Based on recent sampling results, engineers believe that the addition of several catch tank transfers of uninhibited water on top of dense evaporator concentrate likely resulted in a floating layer in Tank 26 that did not comply with corrosion chemistry requirements. This noncompliance very likely lasted more than 3 months until diffusion restored the chemistry.
- On eighteen occasions during the last five years, SRR exceeded the time limits for restoring humidity (i.e., annulus ventilation) and temperature monitoring controls back into compliance with the corrosion control program.
- SRR recently added caustic to Tank 11 to bring its waste chemistry back into compliance.
- The Technical Safety Requirements only allow seven waste tanks that can reach 100% of the lower flammability limit in less than 24 hours after a seismic event assuming no ventilation and a post-seismic trapped gas release. Over the last decade, the actual number of these tanks has risen from a minimum of zero in 2005 to seven today.
- During the last ten years, the number of tanks classified as rapid generation tanks has mostly fluctuated between 17 and 19 tanks.

Maintenance: While troubleshooting a breaker, H-Canyon personnel discovered that the calibration sticker had a due date of last February although the tracking database indicated that this was not due until October 2014. The work planner did not realize that if you attempt to perform a preventive maintenance (PM) task ahead of time and then later cancel this plan, that the database would reset the cycle to the cancellation date. Furthermore, for this breaker, the database reflected the time the calibrated breaker was installed, not when it was actually calibrated. H-Canyon management has also started conducting weekly meetings focused on their 92 PM deferrals (64 related to safety class equipment) and delinquent surveillances. Most of the PM deferrals are related to breakers and diesel generators.

HB-Line: SRNS will perform a contractor readiness assessment (RA) concentrated on conduct of operations, training, and management systems before DOE resumes their RA.

Site Rep Field Observations: The site rep and staff member Miranda McCoy observed activities in the F/H laboratory and SRNL and discussed the current design and operation of glove boxes and lessons learned from past failures. The site rep and Ms. McCoy also performed a field observation of the salt waste processing facility construction site.