

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 11, 2016

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman, D. L. Burnfield, and Z. C. McCabe Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending March 11, 2016

Tank Farms: The Modular Caustic Side Solvent Extraction Unit (MCU) had been shut down for several weeks while SRR completed an outage to replace the strip effluent coalescer. At the close of the outage, SRR reinstalled the valve handle extensions and completed several system alignment checklists (SAC) to prepare for the resumption of MCU operations. SRR then drained the sumps and added Isopar ®. While starting MCU the next day, the operators noticed unexpected flow rates and increasing levels in the contactor drain tank (CDT). The shift operations manager directed a rapid shutdown of MCU. Upon further investigation, SRR determined that a valve was open when it should have been closed. This allowed the decontaminated salt solution (DSS) to not only go to the DSS decanter and hold tank, but also the CDT. SRR repositioned the valve, conducted an issue review, and then performed an extent of condition review of the position of the other valves. The valve of interest was to have been opened in preparation of the outage and closed as part of the SAC.

The water level in the 3H Evaporator pot stopped decreasing, but whether this reflects the leak location, a minimum head needed for the leak, or the leak site salting up is unknown. SRR pumped approximately 2000 gallons of liquid through the 3H Evaporator Cell sump. SRR intends to pump additional water through the sump to dissolve the remaining salt on the cell floor.

Readiness Reviews: The site rep discussed observations with SRNS and SRR about blurred responsibilities of line management and the readiness assessment team with regards to Plans of Action and Implementation Plan, overly vague prerequisites, and inadequate justifications for excluding core requirements. SRNS and SRR are revising their plans to address these observations.

235-F: The site reps observed workers air gap electrical cables connected to cells 6 through 9. The pre-job briefing conducted by construction forces was weak, but the risk reduction personnel at the pre-job brief were able to compensate for this weakness. When the electricians went to air gap the cables, they called a time out after identifying that some of the cable numbers specified in their work order and drawing were actually associated with an adjacent instrument and that the cables they needed to disconnect were unlabeled.

Training: The site rep communicated observations to SRNS personnel with regards to recently observed shift operations manager oral boards and the failure to address past issues (see 1/23/15 report). SRNS will be conducting a post-job review to identify lessons learned.

Solid Waste Management Facility (SWMF): The site reps observed a facility radiological action team (FRAT) review of the upcoming transfer of 65 remote handled transuranic (TRU) waste drums to a designated TRU waste staging facility. FRATs are used as a planning tool to facilitate management review of high-radiological consequence jobs. Two of drums to be handled have a dose rate greater than 1 rem/hr with the largest being 3.5 rem/hr at 30cm. The TRU waste drums were previously staged in a Low Level Waste storage facility to reduce the dose to SWMF personnel working at TRU waste staging facility. SWMF personnel plan to use long handled tools and equipment to control and transport the drums before placing them in a concrete culvert and to staging them at the TRU waste staging facility.