

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 13, 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 June 13, 2014

Department of Energy – Savannah River: Terry Spears was named Deputy Manager.

Deferred Maintenance: SRNS and SRR submitted their extent of condition reviews to DOE. The SRR report highlighted the challenges they are having with old-style waste tanks, buried waste transfer lines, major components like the 2F evaporator, and buried infrastructure systems (e.g., instrument air and cooling water systems). As has been discussed (see 12/2/11, 3/15/13 and 6/7/13 reports), the corrective maintenance (CM) backlogs are larger than desired, 20-22 crew weeks for SRR and 16 crew weeks for SRNS. The SRNS CM backlog for safety class (SC) and safety significant (SS) systems has increased by 42% over the last 2 years, during which period the average work order age increased from 328 days to 518 days. While most safety systems had availabilities in the upper 90% range, some were lower during the last two years: 78% for the F/H Lab fire suppression system, 84.5% for the F-Canyon exhaust backup electrical system, and 87% - 93% for the SRR fire protection systems. The Board staff will be reviewing the maintenance and reliability for specific SC, SS, and defense-in-depth systems in July.

Tank Farms: At the Modular Caustic Side Solvent Extraction Unit (MCU), SRR was able to open the Salt Solution Feed Tank. Upon opening the tank, they found that approximately 1000 kg of white powdery solids coated the floor of the tank. They sampled the solids with long handled tools and transported the sample to the Savannah River National Laboratory. Until SRR determines the composition of the powder, the path forward is uncertain although MCU will likely remain shut down for several more weeks.

Savannah River National Laboratory: SRNL workers, with the assistance of a subcontractor, have removed the old windows from Shielded Cells 3 and 4 and are currently preparing the cells for the new windows. During the removal process, the site rep watched several prejob briefs as well as activities inside the containment. While the prejob briefs could have been more effective, the workers performed removal activities inside the containment in a professional manner and with minimal difficulties. In addition, SRNL workers successfully transported the High Activity Waste Trailer to the Solid Waste Management Facility. This trailer had been sitting at SRNL without a mission for several years.

Saltstone: Engineers have been varying process parameters and have seen some improvement in the margin between the average/maximum grout pump amperage and the trip set point. If those changes are not sufficient to allow grout transfers to the new Saltstone disposal units, SRR also received a higher horsepower grout pump.

H-Canyon: Isolation of the old sand filter and several other ground level release modification are nearing completion.