

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 7, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending June 7, 2019

Staff Activity: Mark Wright and David Cleaves of the Board's technical staff were on site this week to discuss lines of inquiry regarding the fire protection program with site personnel. The discussions included representatives from SRR, SRNS, NNSA-SRFO and DOE-SR.

Recommendation 2012-1/235-F: SRNS evaluated 235-F components that contain Pu-238 material-at-risk (MAR) to qualitatively determine their condition after a design-basis earthquake, including potential impacts of surrounding structures and components. As a result of this evaluation, SRNS proposes covering cell windows fronting the shift operating base with steel sheets to mitigate breakage of the two remaining glass panes by swinging manipulator slave arms. Steel sheets are also proposed for covering windows on the top of the Plutonium Experimental Facility gloveboxes to protect them from falling debris. They also identified two lifts and a tank which could impact nearby MAR containing components.

SRNS stopped cell and glovebox remediation this week and began enhanced characterization of cells 1 and 2 to determine how much Pu-238 remains. SRNS is also characterizing the transuranic waste drums that contain the Pu-238 removed to date. At this time, the rest of the contractor's schedule is focused on their alternate strategy to rely on fire prevention and mitigation to lower accident consequences. Assuming favorable assay results and hazards analyses, DOE is planning to issue a letter of direction to SRNS to stop MAR removal. Since this new strategy would involve a change to the Implementation Plan, the resident inspector (RI) talked with DOE management to ensure the timing of the staff's technical review of the proposal, the discussion of the proposed change with the Board, and the letter of direction are integrated.

Savannah River National Lab (SRNL): The RIs met with the SRNL Laboratory Director to discuss the ongoing issues at SRNL and the RIs' perspective on the underlying cultural problem. The Laboratory Director explained that he believes that the existing corrective actions have not been in place long enough, and with additional run-time believes they will prove effective. The RIs will continue to monitor the progress at SRNL.

Tank Farms: SRR is ready to begin processing batch 2 through the Tank Closure Cesium Removal process, but have been unable to establish flow. Engineers are investigating the cause of this. Engineers also recently completed the inspection of the 3H Evaporator cell and estimate a total of 57 gallons of salt waste have accumulated, an increase of 22 gallons since the last inspection.

H-Canyon: Although never exposed to hazardous energy, H-Canyon maintenance personnel insulated exposed wires on a circuit with a tripped breaker without locking out the breaker or following the approved process. This occurred due to an inadequate understanding of the required controls for the hazards associated with repair work on some electrical conduit. SRNS personnel are still developing corrective actions.