DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 23, 2020

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 December 25, 2020

Salt Waste Processing Facility (SWPF): Parsons completed the timed portion of the Process Capacity Performance Test late last week and wrapped up the rest of the test this week.

The Board staff has been reviewing the Emergency Planning Hazards Assessment (EPHA). In response to staff questions, Parsons added a new criterion to the Engineering Evaluation of Salt Batch form to ensure the incoming feed is within the bounds of the inhalation dose potential assumed in the EPHA. Parsons also added two entries to the Engineering Open Item list to address other EPHA observations by the Board's staff.

Contamination Investigation: SRNS identified contamination (Sr-90, Cs-137, Am-241, and Cm-244) in samples taken earlier this year of the sludge from the Central Sanitary Wastewater Treatment Facility (CSWTF) and at its outfall. (See 11/25/2020 report). Since then, SRNS has sampled approximately two dozen locations to try to identify the source of the contamination. The investigation found pumps had internal contamination (10,000 – 225,000 dpm/100 cm^2 beta-gamma) in the three lift stations immediately upstream of CSWTF, including one in F-Area. SRNS did not detect any contamination in eight manholes upstream of this F-Area lift station. SRNS did find Sr-90, Cs-137, and Am-241 contamination in three manholes near F-Canyon, but none in locations upstream of F-Canyon. SRNS is investigating whether the contamination may be coming from F-Canyon. Rainwater intrusion is being investigated as a possible cause. All of the F-Canyon drains except one uncontaminated drain were plugged during deactivation. The investigation has also ruled out other Areas at SRS as being the source.

Savannah River National Laboratory (SRNL): DOE awarded the SRNL management and operating contract to Battelle Savannah River Alliance, LLC.

A-Area: SRNS is replacing the well water and process water systems piping. During a hydrostatic test, the hydrostatic rig isolation valve failed at its body to bonnet threaded connection. An isolation valve was mistakenly closed, which left the isolation valves on both sides of the failed valve in the closed position, causing the system to overpressurize when the test started. Workers noticed that a gage was reading more than 1000 psi prior to the failure. No workers were injured.

Covid-19: Between November 30 and December 23, the number of positive cases at SRS increased from 782 to 1076.