

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 29, 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 May 29, 2020

COVID-19: The site officially entered Phase 1 on Wednesday. The work authorized during this phase will include high-priority and/or low-risk tasks. Any high-priority work will be essential to Environmental Management's mission and will utilize administrative controls to mitigate COVID-19 risks when social distancing cannot be maintained. The site contractor organizations have begun their transition, with the majority of personnel returning to work over the next two weeks. Those that are able to perform their work from home will continue to telework.

SRS has twenty-two confirmed positive cases of COVID-19, eight of which have been confirmed within the last seven days. Currently there are 32 personnel in active quarantine.

Safety Basis Implementation: Savannah River National Laboratory (SRNL) began their safety basis implementation verification review (IVR) for the revised safety basis. This safety basis revision includes the upgrades to the A-Area fire water system, including the new fire water tank that will replace the existing significantly degraded tank. Upon successful implementation, SRNL will be able to exit the justification for continued operations that has been in place since 2011 due to known issues with the fire water system.

K-Area also began an IVR this week for the revised safety basis that includes the optimization of the plutonium down blending process in the K-Area Interim Surveillance Vault. Personnel interviews and field demonstrations are scheduled to start next week.

SRNL: After the Standards Lab informed SRNL personnel that they could not calibrate a new flow controller for less than 5 sccm (standard cm³/min), it raised questions about the calibration of other flow controllers. An extent of condition review identified fifteen flow controllers which had been calibrated for flow rates lower than the standard's certified range. This error had been occurring for a few years and had the potential to affect data used for safety class functions. The most significant impact would be if it affected any of the data used for qualifying sludge batch 9 at the Defense Waste Processing Facility. Affected controllers were also used for hydrogen generation rate and glycolic acid flowsheet studies for SRR facilities, but this data was being used for future safety basis work. SRNL is planning to perform additional measurements to determine how much of an impact there actually was for flow rates between 4-5 sccm.

The affected groups on site and off site have been informed and are in the process of investigating the impact of the usage of the data obtained with the incorrectly calibrated equipment. Additionally, DOE-SR has created a team to oversee the impact investigations. SRNS has yet to report this issue in the Occurrence Reporting and Processing System.