

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 5, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending April 5, 2024

Savannah River National Laboratory (SRNL): SRNL completed its implementation verification review (IVR) on revision 3 of the safety basis (see 3/15/24 report). Although the IVR team observed several software demonstrations that showed the implementation of new controls, the resident inspectors (RI) found it noteworthy that despite the significant number of new specific administrative controls (SAC) and Technical Safety Requirement (TSR) surveillances, the IVR team did not observe any demonstration of the field work necessary to implement these controls beyond walkdowns. Further, the executed scope of the IVR was limited regarding Research and Development (R&D) personnel, which is concerning given that R&D personnel will be required to implement several new SACs. More generally, during interviews, the IVR team demonstrated a lack of understanding in some site-specific processes and requirements regarding R&D's role in the implementation of the control set. In their assessment of the IVR, DOE-SR presented conclusions consistent with the RIs' observations. DOE-SR identified findings on the lack of field demonstrations, lack of personnel knowledge, lack of scenario-based training, and lack of preparedness of the IVR team. DOE-SR also discussed that the execution of the IVR was not consistent with portions of the site requirements, specifically that several IVR team members had not completed the required training for performing IVRs.

F-Tank Farms: SRMC performed an issue investigation for failure of a functional test for an alarm related to a tank level probe. SRMC personnel took proper immediate actions, including entering the relevant limiting condition for operation and making appropriate notifications. SRMC personnel executed a work order to troubleshoot the alarm and identified that the flasher can had failed. SRMC personnel have ordered a new flasher to correct the issue.

L-Area: Spent fuel and site personnel continued their efforts to process the 20-ton cask that recently fell off a flatbed truck (see 3/8/24 and 3/15/24 reports). An RI observed recovery activities throughout the week, including the lifting and securing of the cask to the transport trailer, followed by its transport to the transfer bay. The new transportation method (which includes numerous chain tie downs and an anti-friction mat under the cask) is a significant improvement to the prior methodology and was well executed by L-Area and site rigging personnel. Next, the cask was placed on the transfer bay floor, inspected, vented, submerged in the basin, and opened with no new issues noted. The L-Area operations team then removed the fuel from the cask, utilizing an updated procedure that included thorough inspections of each assembly to ensure it wasn't damaged during the fall. They methodically unloaded the cask, observing only minor damage on one of the assemblies which was within criticality safety acceptance criteria. The senior supervisory watches were engaged and added value to each of the steps observed. Throughout these evolutions, the RI routinely observed strong conduct of operations (specifically three-way communications, questioning attitude, and procedural compliance) along with significant SRNS leadership and DOE presence, which contributed to the successful processing of the 20-ton cask.