

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 28, 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 June 28, 2024

Savannah River National Laboratory (SRNL): SRNL personnel conducted eight of the ten planned specific administrative control (SAC) demonstrations this week as part of their continued efforts to implement revision 3 of the safety basis (see 6/14/24 report). Several of these demonstrations included implementation of multiple SACs. Prior to the demonstrations, SRNL management conducted practice evolutions to ensure the personnel involved in the execution had an adequate level of familiarization. The participation in the practice was largely limited to the personnel that would be performing the demonstrations the following day. This preparation can be considered successful in that the demonstrations revealed a much-improved level of familiarity compared to the previous attempts. However, many of the demonstrations simulated a significant portion of the preparation and prerequisite steps, including implementing conduct of operations practices. Considering most of the personnel involved in the demonstrations are engineers or researchers rather than operations personnel, and the recent demonstrations showing an unfamiliarity with execution of technical work documents, the decision to simulate these portions of the evaluated demonstrations is questionable. Further, the weaknesses revealed in the prior demonstrations raises a concern regarding knowledge of the personnel that will be called upon to perform SAC implementing procedures that were not involved in the demonstrations. Given the limited participation for the practice and evaluated demonstrations, this concern remains. BSRA management is in the process of developing a startup plan to initiate upon implementation, which is planned to address this concern.

H-Canyon: H-Canyon and construction personnel conducted a pre-job briefing for the removal of the electrolytic dissolver through-wall connectors and installation of new through-wall connectors (see 6/14/24 report). The facility has not performed this task since the 1960s installation of the through-wall connectors. Therefore, the facility does not have much data on the expected radiological conditions when the hot gang valve corridor is open to the hot canyon. On the day of, workers discovered that one of the tasks on the radiological work permit (RWP) was not active in the system when they tried to sign onto the job-specific RWP and get their electronic personal dosimeter (EPD). Therefore, management directed those workers to sign onto a standing RWP that had the same dosimetry requirements and suspension guides. However, the resident inspector noted that the minimum personal protective clothing requirements on the standing RWP was less stringent than the job-specific requirements and the EPD alarm setpoints were different than what was discussed in the pre-job briefing. The standing RWP allows for additional protective clothing per RPD direction, and those expectations were subsequently conveyed to the workers for that task. The facility successfully replaced the anode through-wall connector and plans to replace the cathode connector next week.

The federal readiness assessment for the Fast Critical Assembly (FCA) campaign resumed this week following the resubmittal of revision 18 of the H-Canyon safety basis and the implementation verification review (see 3/29/24 report). The federal readiness assessment team is looking at management systems, nuclear safety documentation, and nuclear criticality safety.