DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 2025

TO: R. T. Davis, Acting Technical Director
FROM: L. Lin and E. P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending January 10, 2025

Savannah River National Laboratory (SRNL): The facility conducted a drill scenario involving two transuranic drums in an outside storage pad spilling its contents after a tornado goes through the area. It also simulated a medical emergency and radiological contamination in the hot and warm zones. The initial protective actions and the categorization and classification of the event were timely. However, there was confusion in where the incident command post (ICP) was. Due to cold weather concerns, the controller organization intended to simulate the location of the ICP outdoors and move the ICP members to an indoor conference room. However, there were delays in the incident scene coordinator (ISC) going to the conference room. Eventually, the ISC was able to meet up and conduct turnover with the fire department, and the rest of the response was able to progress to completion.

Contract Transition: DOE's plan to transition H-Canyon, HB-Line, and L-Basin from the current Management and Operations (M&O) contract to the Integrated Mission Completion Contract on October 1, 2025, has been changed to coincide with the M&O contract transition (see 12/6/24 report). The current M&O contract expires at the end of fiscal year 2026, with the option to extend through fiscal year 2027. The contractor transition team is preparing a plan to be submitted to DOE in March 2025.

Seismic Safety: The resident inspectors conducted field walkdowns of SRNL and H-Canyon focused on the facilities' structural integrity programs, potential seismic interactions with supporting systems, and post-seismic responses. At H-Canyon, although the safety class (SC) structural concrete is in satisfactory condition, several documented issues remain unresolved. H-Canyon engineering performs visual inspections of all SC components every five years as part of their structural integrity program to confirm the 221-H facility passive safety features can fulfill their intended function. The last inspection was completed in 2020 and resulted in 24 issues classified as "meeting their design intent with identified maintenance required" due to a degradation mechanism that could impact the safety system component design intent in the future. Of those, five were carried over from the 2015 inspection. During the walkdown, it was identified that none of the 24 documented issues have been corrected and will be carried over to the upcoming inspection scheduled for this year.

At SRNL, the last structural integrity inspection was conducted in 2023. A few areas were not accessed during the last inspection (e.g., airborne radioactivity area/high contamination area, confined spaces, inside electrical cabinets). The facility has addressed the higher priority level 1 and 2 items that were a life safety concern or were questionable as to whether the system, structure, or component (SSC) could meet its design function. However, many level 3 items remain open, including ones identified previously, that had a degradation mechanism that could impact the design function in the future if left unaddressed. For some items, it was unclear if the design authority engineer had been contacted to see if additional actions are required (e.g., if the SSC is required to perform its function following a seismic event and repairs need to be made).