DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 14, 2021

TO: Technical Director
FROM: Savannah River Site Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending May 14, 2021

Defense Waste Processing Facility (DWPF): An operator wearing two pairs of coveralls and a respirator exited the railroad well after completing a task when the radiological protection department (RPD) discovered 30,000 dpm/100 cm^2 beta/gamma on the operator's inner elbow, on the outside of the first set of coveralls. RPD affixed tape over the spot and allowed the operator to continue doffing. At the step-off pad, RPD surveyed the operator after doffing the inner set of coveralls and identified additional contamination on the operator's skin on their inner elbow. RPD personnel escorted the operator to the decontamination room where they measured 180,000 dpm/100 cm^2 beta/gamma on the operator's skin and an additional 12,000 dpm/100 cm^2 beta/gamma on the operator's modesty clothing. RPD personnel were able to successfully decontaminate the operator's skin using a wipe. Further investigation by RPD found 200,000 dpm/100 cm^2 beta/gamma on the operator's outer coveralls. DWPF personnel are investigating the source of contamination.

Savannah River Tritium Enterprise (SRTE): SRTE personnel convened a fact-finding meeting to discuss the recent event in which a construction engineer inadvertently opened a 480 volt disconnect without authorization, training, or proper personal protective equipment (see 5/7/2021 report). The investigation revealed that the personnel involved—an engineer and a trainee—did not understand that they were required to get permission to cross a barricade even when not performing hands-on work. Additionally, they did not comprehend what an arc flash hazard (as posted on the disconnect) was. However, they did acknowledge that they have been trained to not touch equipment. SRTE and construction personnel are developing corrective actions in response to this event.

SRTE personnel presented the results of a common cause analysis of the numerous recent conduct of operations issues. The team identified three common causes: less-than-adequate work readiness, less-than-adequate procedure compliance, and insufficient training. SRTE personnel are developing a corrective action plan to address these issues and halt the ongoing negative performance trend.

DOE-SR: The resident inspector observed an oral board for an SRNL facility representative. This was the first oral board conducted in the Savannah River Laboratory Office of DOE-SR since its establishment several years ago. The questioning included a scenario in which a safety system was intentionally impaired for several hours by planned work, but the appropriate Limiting Condition for Operation (LCO) was not entered. The candidate did not recognize this as a violation of the Technical Safety Requirements (TSRs). After the evaluation was complete, the resident inspector asked the board committee about this scenario. They informed the resident inspector that they did not consider this to be a violation because the appropriate action (entering the LCO) occurred once a cognizant person became aware of the issue, despite the system being intentionally taken out of service several hours prior. This is consistent with the variability in criteria for declaring a TSR violation, as discussed in DNFSB/TECH-45.