DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 1, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: L. Lin and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending October 1, 2021

Oral Board: The resident inspectors (RIs) observed an oral board for a DOE-SR Facility Representative candidate. After the board committee completed the evaluation, the RIs provided feedback on the conduct of assessment, particularly on the manner feedback was provided to the candidate. The board committee agreed with the RIs' feedback.

H-Canyon: While preparing to perform a procedure to neutralize waste, H-Canyon personnel noted discrepancies, stopped work and discovered that the newest revision did not include all interim partial changes.

Savannah River National Laboratory (SRNL): BSRA personnel were tasked with packaging plutonium oxide into two criticality control overpacks (CCOs) for shipment to K-Area. The RI observed the pre-job brief and a portion of the loading evolution and noted several shortcomings. Specifically, it did not appear that the personnel involved in the evolution were adequately prepared and several lacked an appropriate level of knowledge regarding some key aspects of the process and evolution. While one individual involved in the evolution has a significant amount of experience with and knowledge regarding CCOs and packaging plutonium, others including the Principle Investigator (PI) and PI-in-training are new to this type of work. The others involved should benefit from this individual's experience; however, the individual's experience should not take the place of preparation and basic process and component knowledge. For instance, the PI that led the brief and the PI-in-training were unable to accurately identify the CCC [Criticality Control Container] when asked after the pre-job brief before work began. The CCC is the inner portion of a CCO and is referenced more than two dozen times in the eight-page checklist they had just discussed and would be using during the evolution. Additionally, when they reached the step in the checklist to torque the closure ring they sent one of the personnel in the field to retrieve it despite the fact it was attached to the eight-page checklist they had on hand. Further, no personnel involved in the pre-job brief were able to state the expected dose rates from the current container configuration other than it was not high enough to be a concern. The RI provided this feedback and other, less significant, observations regarding the checklist and pre-job brief administration to BSRA management, who are in the process of scheduling a post-job review. Most of the portion of the evolution observed by the RI was performed by the experienced individual without issue.

During the CCO loading evolution, the RI noted that several drums of flammable resin were stored in the room along with special nuclear material. There are no safety basis, fire protection, or chemical storage requirements that explicitly prohibit this practice. However, the BSRA management agreed that storage of the unused resin in the vicinity of special nuclear material is not a good practice. The resin has been in the facility for several years and was intended to be used in support of a now defunct campaign. SRNL personnel are investigating alternate uses or disposition options. Regardless, SRNL personnel are planning to relocate the resin to a different location as a practical measure to reduce any potential fire risk.