DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 18, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: L. Lin, Z. C. McCabe, E. P. Richardson Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending March 18, 2022

L-Area: During spent fuel transferring operations in the basin on 3/12/2022, a fuel handling tool inadvertently released the fuel assembly. The team took a timeout and communicated with the proper organizations to ensure there were no criticality concerns. The tool in question was replaced and is undergoing engineering evaluation to understand why it failed to function properly, but the decision was made to continue processing the cask without identifying the cause of the failure. The resident inspector observed the same process on 3/15/2022 along with the DOE facility representative. The transfer was conducted with no abnormalities noted. Then, on 3/16/2022, another fuel assembly was inadvertently released, this time while loading it into the fuel bundle for storage. Another timeout was taken, and the system was verified to be safe with all work stopped until after the issue investigation. Initial inspections on 3/18/2022 showed thread galling on the locking screw that maintains the tension setting on the two tools in question. A new path forward is being developed based on both fuel releases.

Saltstone: The resident inspector attended an issue investigation on 3/15/2022 discussing 12 personnel who performed electrical breaker and disconnect operations while not being qualified over the course of four months in the Saltstone Facility. They all expired on a hazardous energy course requiring recurring training. The site recently transitioned (9/20/2021) to a new Learning Management System (LMS) which modified automatic notifications (emails and expiring training report) of pending expirations which the facility did not properly address during the initial run-in phase of the transition. The issue investigation corrective actions were focused on the LMS and did not properly address internal issues that led to the error.

Savannah River National Laboratory (SRNL): SRNL held an issue investigation for a gas chromatograph sent to N-Area for excess that was improperly identified as having no release restrictions when it had a sealed radioactive source. N-Area personnel identified that it potentially contained radiological material so radiological protection surveyed the equipment and found no contamination. A procedure for evaluating excess property for radiological association specified that for property with a sealed source, the individual who is releasing the property for excess is to contact radiological protection to survey the equipment. The procedure requires a form of the radiological evaluation to be completed before it can be released and, in this case, the individual releasing the equipment and radiological protection would have both needed to sign it. Personnel involved in releasing the equipment were not aware of the procedure. SRNL is performing an extent of condition on all their excessed equipment staged in N-Area. Corrective actions are being developed to evaluate training and qualifications.

In a non-nuclear laboratory, a hose failure released ammonia into a hood and room. Those involved failed to properly take a time-out and inform appropriate personnel of the issue.