

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 30, 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 August 30, 2024

Staff Activity: Board technical staff member D. Campbell was on site to augment Resident Inspector (RI) coverage and observe the Tank Farms annual emergency preparedness exercise. Z. McCabe presented findings on DOE-SR's facility representative program (see 11/3/23 report) at the annual Federal Technical Capabilities Panel meeting at Idaho National Laboratory.

Defense Waste Processing Facility (DWPF): Based on observations from a week-long senior supervisory watch period and recent conduct of operations issues (see 8/23/24 and 8/16/24 reports), DWPF management conducted a two-day operational pause across the facility to address all four shifts. DWPF personnel discussed recent issues, existing problems, and the effectiveness of corrective actions already taken. The teams also performed monitored evolutions to reset expectations. Board staff members attended many of the sessions and were encouraged by the leadership demonstrated by the first line managers guiding the discussions and the authenticity of the participants.

H-Canyon: Operations personnel successfully completed dissolution of the first batch of fast critical assembly (FCA) fuel using the electrolytic dissolver after modifying the process based on issues identified in the initial charge (see 8/9/24 report). They have incorporated many lessons learned from the first run that should increase productivity moving forward.

DOE-SR Emergency Management: Following concerns raised by the RIs, DOE-SR changed their emergency exercise grading policy to now perform their exercise assessments entirely independent of the contractor. Previously, DOE-SR provided their exercise evaluation guides and grades to the contractor for incorporation into the contractor-generated after action report. This prevented either group from independently evaluating the event and contributed to the issues with the recent E-Area exercise grading (see 8/23/24 report). This change will also enable DOE-SR to more effectively evaluate the contractor's ability to self-assess their performance.

Tank Farms: Tank Farms conducted their annual emergency preparedness exercise, which involved a radioactive liquid release and a medical injury. Due to heat concerns at the site, part of the field play transitioned to a tabletop exercise.

Workers erecting scaffolding near the Tank 29 purge exhaust stack were potentially exposed to mercury levels that exceeded the site's action level. The work planning process failed to identify mercury as a job-specific hazard and appropriate controls were not implemented. As they were getting closer to the stack exhaust's level, workers recognized the need for mercury monitoring due to previous jobs. Industrial hygiene performed mercury surveillances on the second day and discovered elevated mercury levels. Workers were sent to site medical, and the results showed no mercury exposure. However, this is the third recent event with deficiencies in activity-level work planning (see 8/23/24 and 8/9/24 reports). Facility personnel are developing corrective actions focused on addressing elements of the work planning process.