

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending January 19, 2024

Defense Waste Processing Facility (DWPF): Following multiple unsuccessful attempts to perform the diesel generator largest load surveillance (see 12/8/23 and 12/29/23 reports), DWPF personnel successfully completed all required actions. A resident inspector (RI) observed the performance of the surveillance from the control room. The DWPF team worked very well together and exhibited good communications, procedural compliance, and leadership by the control room manager, especially during resolution of unexpected conditions.

Savannah River Tritium Enterprise (SRTE): SRTE personnel conducted the same drill performed last week (see 1/12/24 report) with the exception of the technical support room being staffed and participating in the evolution this week. The SRTE drill team continues to make incremental improvements to their conduct of drills. For instance, during last week's performance, SRTE personnel noted that data for a tritium air monitor was not included in the scenario and had to deem it out of service to allow the scenario to develop as intended. The most recent iteration of the drill included the necessary data as well as streamlined the drill props in the control room. Communications continues to be an acknowledged weakness during drill play, especially between the different venues. Additionally, SRTE personnel have also identified a weakness with regard to understanding specific vocabulary while classifying an emergency during drill play. SRTE has emergency action levels (EALs) for an unmonitored release of tritium along with a fire or along with an explosion. The confusion is centered around if a hydrogen deflagration (i.e., subsonic explosion) should be considered a fire, an explosion, or if SRTE should identify an additional EAL. The EALs differ in their source term calculations. There may also be a knowledge gap within some of the SRTE workforce with regard to understanding what a deflagration is.

SRMC Oral Board: An RI observed an oral board for a shift technical engineer candidate. The RI noted no issues with the conduct of the board and noted improvements made based on previous feedback.

SRMC Readiness Activities: Saltstone completed a facility self-assessment for operational readiness of Saltstone Disposal Unit (SDU) 9. The team identified three findings and one opportunity for improvement. Because the need date for SDU 9 is in 2028, many of the actions are several years out. A couple of the findings identified that the Management Control Plan should address these future items.

SRMC initiated an Independent Verification Review (IVR) for direct transfers of decontaminated salt solution from the Salt Waste Processing Facility (SWPF) to Saltstone. Previously, the only transfer path for decontaminated salt solution was from SWPF to Tank Farms to Saltstone. The IVR team is reviewing the changes made to the transfer control program and all the interfaces between the facilities.