

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2023

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 December 22, 2023

DOE-SR Saturation Review: Throughout the last few months of deliberate operations at the Defense Waste Processing Facility (DWPF), DOE-SR stated that they would increase oversight through a week-long saturation review and use the results as their measure of DWPF conduct of operations (ConOps) program health. As mentioned in the 12/15/23 report, twelve DOE-SR personnel assessed DWPF and identified eleven findings, six deficiencies, and eleven opportunities for improvement. Although DOE's increased oversight period was limited to these four days, the team identified problems indicative of the persistent ConOps issues at DWPF that had not previously been identified through routine oversight. The letter transmitted to SRMC concluded that DOE-SR "did not identify a systemic breakdown in the ConOps program" and that the "actions taken thus far... appear to be beneficial and the Department expects continued improvements." The saturation review and subsequent letter did not explicitly address the series of significant ConOps events that has repeatedly occurred over the last twelve months. These events include two technical safety requirements violations (see 6/2/23 and 9/1/23 reports) along with two near misses (see 2/17/23 and 8/4/23 reports), numerous lockout/tagout installation issues, a dropped empty canister (see 9/8/23 report), an inadvertent melter pour (see 8/18/23 report), removing the floor plug from a glass waste storage location containing a filled canister (see 12/9/22 report) and an inadvertent transfer of sodium permanganate (see 10/6/23 report). Since the saturation review finished, significant ConOps issues have continued including inadvertently transferring 400 gallons of water and having to stop a lockout installation due to incorrect nomenclature for a valve position in the approved order. SRMC management has acknowledged the persistent ConOps issues and remains in deliberate operations.

DWPF: The resident inspectors (RIs) attended the issue investigation meeting for the inadvertent transfer of 400 gallons of water due to an incorrect electrical jumper installation (see 12/17/23 report). The issue was caused by a first line manager (FLM) incorrectly transcribing information from one work package to another coupled with an inadequate review by the Fix it Now (FIN) coordinator and the Shift Operations Manager (SOM) that released the work. Additionally, the mechanics and FLM performing the work failed to verify the full nameplate on the equipment. The workers only verified the motor control cabinet number (which was incorrect due to the previous error) and not the pump name or valve number prior to installing the jumper in the incorrect cubicle. The facility is developing corrective actions.

Savannah River Tritium Enterprise (SRTE): While performing a periodic review of an alarm response procedure (ARP), the 234-H SOM identified that the version on the distributed control system (DCS) was an outdated revision. SRTE personnel performed an extent of condition and identified a total of five ARPs that were incorrect and an additional seven loaded onto the DCS that were no longer in use. SRTE personnel convened an issue investigation meeting, however, the investigation stalled due to less than adequate preparation and not including the appropriate personnel. SRTE personnel appropriately curtailed the issue investigation meeting until the necessary personnel are available.