

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 23, 2018

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Resident Inspector Report for Week Ending Feb. 23, 2018

Salt Waste Processing Facility (SWPF): Operations personnel identified that a lock was improperly installed on a valve. The 3-way valve's design precluded the lock from being installed as directed on the complex lockout record sheet. Neither the installer nor verifier had ever installed a lock on this type of valve. They attached the lock to the wrong side of the valve body, but it did not prevent changing the valve position. The verifier also did not flag the lockout on the Basic Process Control System. When a third worker did the verification of the mechanical safe energy state, he did not walk this valve down and used a method that would not differentiate between the intermediate off and C-A position. Afterwards, a fourth operator changed the valve position to support testing. This fourth operator later overheard some workers talking about this "locked" valve and realized it was the same valve that he had positioned while it was supposedly locked out. This discovery prevented work on the system with the valve in the incorrect position. Further inspections identified a different lock with a defective hasp. An extent of condition review of similar lockouts did not identify any similar problems.

235-F: SRNS implemented the revised Deactivation Basis for Interim Operations. This was action 1-8 in the Recommendation 12-1 Implementation Plan.

Tank Farms: SRR formally recommended to DOE that the 3H Evaporator be operated as-is with additional surveillances and controls to assure safe operations. These would include periodic cell inspections and cell floor cleaning, the surrounding stainless steel lined cell, the cell sump and level indicator and alarm to detect liquids on the floor, and the underliner sump beneath the secondary containment. The final set of controls is still under development.

Justification for Continued Operations (JCOs): H-Canyon has implemented the JCO associated with the indeterminate nature of whether the H-Canyon Exhaust Tunnel can perform its safety class safety function (see 10/27/17 report). The JCO allows H-Canyon personnel to accept limited types of spent nuclear fuel into H-Canyon for the first time since June (see 6/30/17 report). They are not planning to charge the dissolver until late next week due to a steam leak.

Savannah River National Laboratory (SRNL): SRNL personnel have submitted a JCO revision to DOE-SR based on the Resident Inspector's observations regarding planned maintenance and the meaning of "immediate restoration" (see 2/9/18 and 2/16/18 reports).

Additionally, SRNL personnel have completed a multi-month self-assessment (SA) concerning radiological source storage locations. Among other findings, the SA identified that the Auditable Safety Analyses (ASAs) and Hazard Assessment Documents (HADs) for multiple facilities allowed material up to the DOE-STD-1027 limits without a criticality safety review. However, the SRS requirements allow a much smaller amount of material unless there is a documented criticality safety review. SRNL personnel have restricted handling accountable quantities of fissionable material until the ASAs and HADs can be revised.