

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 13, 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 September 13, 2024

Staff Activity: Members of the Board's staff, D. Brown, D. Campbell, J. Flora, D. Montieth, R. Wu, and the resident inspectors (RIs), conducted a teleconference with Defense Waste Processing Facility (DWPF) personnel as part of the facility conduct of operations review. The onsite portion will take place next week.

Salt Waste Processing Facility (SWPF): An RI met with nuclear safety to discuss changes to the safety basis. Of note, SWPF has deleted administrative controls associated with their traffic control program. However, there are two transfer line jacket test ports that extend above-ground two feet outside SWPF but belong to the DWPF safety basis boundary. It is not clear how SWPF personnel would recognize the importance of these test ports to DWPF.

Liquid Waste System Plan: Senior SRMC management personnel provided a detailed brief to the resident inspectors and cognizant engineer regarding their strategic plan to achieve closure of the liquid waste facilities by 2037. A disposition plan for Tank 48 at H-Tank Farms, which has unique benzene concerns, needs to be developed to incorporate it into the system plan. SRMC highlighted the significance of the end-state contract developed by DOE for this mission area, which has set conditions for SRMC to accelerate disposition of waste in a manner that prioritizes near-term risk reduction through aggressive waste removal and tank closure. SRMC management indicated a 50% confidence level in the models used to project this completion date. SRMC is prioritizing older tanks in F-Tank Farms and tanks in the water table first. SRMC has changed the overall system plan to more aggressively remove curies from waste tanks, resulting in cumulative curie removal during the last 2 years equaling the cumulative removal during the previous 8 years. In addition, SRMC has taken substantial action to optimize operations at SWPF and DWPF to ramp processing capacity toward the 9 Mgal/year target. The current processing capacity is 5 Mgal/year, limited by DWPF availability. DOE and SRNS will need to determine the path forward for managing liquid wastes generated after the liquid waste facilities are de-coupled from SRNS's environmental management operations facilities.

H-Canyon: H-Canyon performed their annual emergency preparedness exercise. The scenario consisted of a fire and radiological release in outside facilities, along with two medical injuries. SRNS and DOE-SR will develop an after-action report to document their evaluation.

Savannah River Tritium Enterprise: The contractor readiness assessment for the Combined Tritium Facilities safety basis identified nine findings and nine opportunities for improvement. Eight of the nine findings were pre-start findings, of which three remain open and will have to be addressed before readiness can be declared. After SRTE closes all their pre-start findings, NNSA-SRFO will issue the assessment with the conclusions from their implementation verification review (see 8/9/24 and 8/16/24 reports).