

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 29, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending January 29, 2021

Savannah River National Laboratory (SRNL): Last week, SRNL personnel learned that the general service diesel fire pump came online through Site Utilities Department (SUD), who own the fire water supply, including the tank and pumps. Per procedure, SUD dispatched an operator to investigate the situation, and the operator identified that the diesel fire pump had started up. The SUD operator turned off the diesel pump but failed to recognize that the electric fire pump had also turned on because it is quiet. The SUD operator informed SRNL personnel about the diesel pump turning on and that they turned it off. SUD personnel then investigated the cause and identified a leak and isolated it hours later. SRNL personnel did not learn that the electric fire pump had started until hours later when a SRNL engineer reviewed the pump data. When SRNL was informed of the diesel pump running (but did not yet know the electric fire pump was running), they determined that entering a Limiting Condition for Operation (LCO) condition was not necessary as the technical safety requirements (TSR) state that both pumps being unavailable make the system inoperable. However, SRNL personnel later determined that a single pump running for an indeterminate reason makes the system inoperable per the TSRs as written, and thus requires entry into an LCO, which will be the practice going forward. SRNL personnel have determined that this does not constitute a TSR violation because SRNL personnel were not aware the electric fire pump was running and that the guidance to enter the LCO was not clear when a pump was running for an indeterminate reason.

Initial Conditions: The resident inspector (RI) examined how initial conditions were being used for unmitigated analyses at 235-F, H-Canyon, L and K-Areas, and the Solid Waste Management Facility. The RI provided SRNS and DOE several examples where initial conditions were only being protected by a safety management program or programmatic administrative control rather than a design feature or specific administrative control. One concern is that the misuse of initial conditions could preclude the identification of an engineered control. The SRNS nuclear safety manager had similar concerns, and SRNS will be reviewing all initial conditions to ensure they are being used properly.

Covid-19 Impacts: The RIs examined potential impacts on staffing, training and qualifications, maintenance, assessments and field oversight, and engineering. In many cases, the impact was minor, temporary, or reasonable considering the circumstances. One of the potential concerns is that the cancelation of most field drills prevented many facility and Emergency Operations Center staffers from participating in any drills last year. For example, SRR has 99 emergency response organization staff who did not. With the exception of tritium, none of the personnel supporting the Technical Support Room participated in a drill. The RIs are investigating the impacts of a significant rise in preventive maintenance deferrals on safety class and safety significant equipment at SRR facilities. There has been an increase in delays with SRR annual system health reports (SHR) due to competing priorities. SRR stated that they expect to complete the 15 late Tank Farms SHRs by April and the two late Defense Waste Processing Facility SHRs by March.