

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 5, 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 February 5, 2021

Savannah River National Laboratory (SRNL): The operability of the sprinkler system is defined as the ability to deliver an adequate amount of water (both pressure and flow) to a fire in its coverage area for two hours. While the Technical Safety Requirements (TSR) state the fire water supply is inoperable when both fire pumps are unavailable, having either the diesel or the electric fire pumps unexpectedly start up and continue to run is a strong indication that something is wrong. In a recent case (see 1/29/21 report), both the diesel and electric fire pumps started because of an underground leak although for most of the event, SRNL operations only knew that the diesel pump had started and had been shut down. SRNS has simultaneously argued that the current TSR is vague enough that their decision to not enter a Limiting Condition for Operation (LCO) is not a TSR violation, but clear enough such that there is not an urgent need to revise the TSR (via the Unreviewed Safety Question process) to state the expectation to enter the LCO in the future when one fire pump starts. The LCO requires that if the sprinkler system is inoperable due to loss of the fire water supply, that a fire patrol be performed immediately. Normally, if this fire patrol was not performed immediately, it would be a TSR violation. The reason SRNS did not know both pumps were running until hours later was due to an insufficient field inspection. SRNS stated that due to the “time of discovery” of the condition this event does not constitute a TSR violation. This practice is allowed by current DOE policy and allows the use of lack of awareness of the safety situation to justify not taking the required immediate action for several hours and then not have to declare a violation or even report the event as a management concern.

Covid-19: The site is implementing 100% mask use in control rooms, even those that had plastic shielding installed around watch stations. SRR is requiring N95/KN95 masks for close contact activities. Between March and May 2020, the number of preventive maintenance deferrals at SRR facilities increased from 70 to 145. Several deferrals on safety equipment were due to outages rather than Covid. While 82 of the deferrals last May were due to Covid restraints, this number fell to less than 5 by December.

H-Canyon: H-Canyon personnel presented the results of an updated hazards analysis to DOE-SR last week regarding the safety function of the (currently safety class) diesel generator. This revision includes reducing the material at risk (MAR) for all events to the levels used for the seismically initiated events which allowed H-Canyon personnel to no longer require the H-Canyon Exhaust Ventilation System to be safety class during and after seismic events. With the MAR reduction, H-Canyon personnel determined that there are no accident scenarios in H-Canyon that include a loss of normal power which result in calculated dose consequences to the co-located worker or maximally exposed offsite individual such that safety significant or safety class backup power is warranted. However, HB-Line, which ties into the HCAEX Ventilation System, does have events that warrant a safety significant diesel generator at present. A future planned revision (funding dependent) to the de-inventoried HB-Line would also eliminate the driver to keep the diesel generator safety significant.