

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 11, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: L. Lin, Z. C. McCabe, E. P. Richardson Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending February 11, 2022

H-Area New Manufacturing (HANM): Personnel discussed corrective actions related to the tritium gas release event on January 30, 2022 (see 2/4/2022 report). They are planning on revising procedures to preclude the use of a Recovery Gas Dryer in a direct stacking evolution, training for operators and engineers on the purge stripper system, and issuing a lessons learned. The sequence of alarms seems to confirm that tritium gas was released from the stack and then some got sucked back into the facility. The direction of the wind at the time was from the stack towards the HANM supply inlet. Other nearby facilities' tritium air monitors did not show an increase in tritium levels during the event. SRNS is planning to perform an analysis of the event and will develop corrective actions based on that evaluation.

H-Area: While reviewing a procedure, personnel noticed that a new firewater valve installed in September 2021 in H-Area was not included in the monthly surveillance procedure. This surveillance is required to be performed as part of a Technical Safety Requirement (TSR) to ensure that there is an unobstructed flow path from the H-Area fire water tank to the tritium facilities' safety significant fire suppression systems. The design change to install the new valve was approved in 2020. The surveillance procedure was approved in April 2020, but the modification had not been installed until after the work order was created in June 2021 which overlooked the inclusion of the new valve. The work order for installation was created in June 2021 and tritium personnel were not on the approval chain. Between the installation in the field and the discovery of the error in the procedure, site services had performed multiple surveillances using the flow path that included the new valve. Upon discovering the valve was not in the procedure checklist, the tritium facilities immediately entered the applicable Limiting Condition of Operation (LCO), and the surveillance was successfully performed on a flow path that did not include the new valve. The procedure is being revised, an extent of condition review will be performed, and the memorandum of understanding will be revised to include additional actions when there are design changes.

Oral Boards: The resident inspectors observed an oral examination for a control room manager position at a liquid waste facility. The result of the evaluation was appropriate. The resident inspectors provided some feedback regarding a lack of depth in the scenario-based questions. One such scenario-based question only required the candidate to state the minimum required flow rate to meet the operability definition for a safety system and to recognize they needed to enter the LCO if the system dropped below it. Scenario-based questions should be open-ended and explore the depth of a candidate's knowledge.

An oral examination is intended to be a final check of a candidate to ensure they are ready to assume their role on shift. It is not a comprehensive examination of the candidate's knowledge, which is accomplished through other means. Thus, the management team should be confident in the candidate's ability to perform their role prior to holding the oral examination.