

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 24, 2017

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 Nov. 24, 2017

H-Canyon/HB-Line: SRNS declared a positive unreviewed safety question for HB-Line last week when the facility received more plutonium from H-Canyon than was authorized by DOE (see 11/17/17 report). SRNS personnel have since determined that the inaccurate H-Canyon tank liquid level reading that resulted in the HB-Line issue was not a recognized failure mechanism and declared a separate potential inadequacy in the safety analysis for H-Canyon. The erroneous reading led to an inaccurate conclusion regarding the amount of fissile material in the tank, and thus H-Canyon personnel did not implement the required criticality controls for that tank since January 2017.

Training: The resident inspector observed a scenario-based training seminar at K-Area. The scenario involved an operator who observed a fault condition on the standby exhaust fan variable frequency drive and required the shift operations manager (SOM) to evaluate equipment operability, enter the proper Limiting Condition for Operation, report the occurrence, and address it during turnover. This seminar was conducted by facility management who ran it similar to a field drill. While the scenario package included several discussion topics during the seminar, there was not much interaction during the seminar. The seminar identified several opportunities where personnel knowledge and proficiency could be improved.

Salt Waste Processing Facility: A DOE-EM team conducted a safety culture assist visit of both contractor and federal staff. The team conducted an out brief of their preliminary observations and five recommendations, which addressed operations focus and leadership.

Tank Farms: Tank Farms personnel have completed welding and inspection of the 3H Evaporator pot (see 11/17/17 report) and are planning to perform a leak test later this week.

H-Canyon: H-Canyon personnel failed to properly follow the requirements of the assisted hazard analysis (AHA) for the removal of a sump pump. They began the pump removal, but then did not perform additional work for several days. Eye protection was in use for the evolution and a plumbed eyewash station was nearby, albeit the pathway was obstructed and therefore considered unavailable. While no work was happening, an industrial hazard subject matter expert (SME) performing a walkdown noted that the area did not have appropriate access to an eyewash station as required by the AHA and then informed the responsible first line manager (FLM). Further investigation revealed that the FLM did review and discuss the AHA during the pre-job brief, but confused the listed portable eyewash stations with personal eyewash bottles, which are only intended to be used for short periods of time on the way to a plumbed or portable station. Further, the AHA required multiple portable eyewash stations, yet the windbreak erected to support the evolution was not large enough to accommodate the personnel and all the stations, which is indicative of a work planning failure prior to the error during the pre-job brief. SRNS personnel are developing a lessons learned in addition to reinforcing the difference between portable and personal eyewashes to applicable personnel.