

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 2, 2018

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 March 2, 2018

H-Canyon: The resident inspector observed the first of four planned tabletop drills simulating an explosion. The scenario also included an option to include a breach of the canyon exhaust tunnel. The conduct of the tabletop drill was hampered by not clearly defining which positions were required to participate, not ensuring that participants were qualified for the positions they were playing, and not providing supporting facility data. The format was intended to be a tabletop drill with periodic pauses to discuss specific emergency response questions. In reality, it ended up being a large group of participants and controllers standing close together talking at the same time, where it was unclear if all parties were on the same timeline, and it was hard to determine what the actual response was. Like an earlier attempt (see 8/11/17 report) to examine the response to a tunnel breach, the format of this drill was ineffective in demonstrating that facility and support personnel would know how to respond to a breached exhaust tunnel.

Recommendation 2012-1: DOE and SRNS have indicated that Building 235-F work may cease in June. Furthermore, they may not commence remediation of the cells without assurance that they would have sufficient funding to complete the task without interruption to avoid leaving the cells in a breached condition. The Implementation Plan includes milestones to complete a readiness assessment (RA), if needed, for initiation of deactivation activities in cells 1 – 5 by 7/31/18 and complete all cell deactivation by 1/31/20. DOE is looking at other options too.

K-Area: K-Area personnel identified two separate procedure errors associated with the plutonium down blend process that resumed this week. As an improvement, K-Area personnel changed from loading down blend containers based on a bulk weight limit to a fissile gram equivalent (FGE) limit which changed the procedure implementation of a criticality safety requirement. As a result, K-Area personnel completely rewrote numerous down blend process procedures. K-Area personnel identified the first issue and notified the operations team while they were completing the pre-job brief prior to performing the evolution. This was a transcription error with a criticality safety related technical safety requirement (TSR) limit where the procedure allowed the blend can to be loaded to 15 FGE greater than intended (but only 5 FGE greater than the actual TSR limit). The step was also not flagged with the appropriate marking and trailer signifying that it was a criticality safety step. Discussions during an issue review revealed that this procedure was not properly reviewed, in that the representatives of specific groups appeared to be unaware that a complete rewrite of a procedure required a review of the entirety versus only changes. Further, the original scope of the procedure change request for the procedure in question did not include the change in the criticality safety requirement implementation. K-Area personnel performed an extent of condition review of all TSR and criticality safety steps associated with mass limits. After resuming down blending, operations personnel identified a second procedure error involving the change from bulk weight to FGE and called a time out. This step was not a TSR or criticality safety step. K-Area management have halted all further down blending activities until they can perform a 100% review of all procedures associated with down blending.