

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 16, 2016

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending September 16, 2016

Defense Waste Processing Facility: A 512-S crane operator was lowering the hook so that workers on the ground could detach an adapter hook that is used to lift cell cover plugs. When the crane operator “bumped” his control, the hook lowered more than anticipated and the hook adapter disengaged from the hook. The workers did not grab the hook adapter fast enough and it tipped over, contacting the back of a nearby worker performing radiological surveys. When nearby workers asked if he was hurt, the struck worker said he was OK. A first line manager observing from an adjacent room did not see the event, but was told about it. He decided to keep on working rather than call a time out when he looked at the work scene and everyone seemed to be fine. The crane operator and other workers performed the same task a second time, but this time workers had their hands on the hook adapter before it disengaged from the hook. Facility management did not learn of the event until nearly eight hours later when the struck worker requested medical attention.

Tank Farms: The Tank 15 Bulk Waste Removal (BWR) contractor Readiness Assessment (RA) team identified one pre-start finding and six post-start findings. SRR hopes to begin BWR next week by transferring solution from Tank 13 to 15 and then mixing Tank 15 to suspend the sludge. As the liquid level in Tank 15 increases, there is the possibility of reactivating former leak sites. When Tank 15 was rewet in 2015 (i.e., liquid level raised to 84”), some damp spots formed on the outside of the primary tank wall, but they salted over before any waste reached the annulus floor.

HB-Line: In response to Board staff comments, DOE directed SRNS to upgrade the HB-Line diesel generator from defense-in-depth/important-to-safety to safety significant (SS) within 6 months and to maintain it as SS until the upgrade was complete (see 2/8 and 2/15/13 reports). This upgrade is still pending. Meanwhile, the diesel generator has been out of service for months due to the failure of an air box damper and other degraded parts. Because of possible changes to HB-Line operations and the safety basis and the length of time to obtain NQA-1 compliant parts (see 7/15/16 report), SRNS plans to install general service parts to expedite the return to service of the diesel generator.

L-Area: When removing a loaded fuel bundle from the unloading station, L-Area personnel noticed that the bottom of the bundle would not clear the top of the unloading station. L-Area personnel then appropriately called a time out and suspended the procedure because they could not continue. The procedure prerequisite steps include installing a mechanical limit device (MLD) that limits the height a bundle can be raised. Per the procedure, the MLD was installed to prohibit raising the bundle above a predetermined level where Radiological Protection has determined there is adequate shielding for the operators. L-Area personnel installed the MLD conservatively which did not allow the bundle to be raised enough to clear the unloading station. L-Area personnel are evaluating opportunities to improve how the MLD is installed.

DRAFT – Not Reviewed for Public Release

K-Area: K-Area personnel have closed all of the pre-start findings identified during the recent SRNS RA of the Plutonium Down Blend project (see 8/26 – 9/9/16 reports). The SRNS startup authority has determined that they are ready to begin operations. SRNS plans to begin down blending in the coming weeks pending DOE-SR approval of the revised authorization agreement.