

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 19, 2016

TO: S. A. Stokes, Technical Director
FROM: Z. C. McCabe, Site Representative
SUBJECT: Savannah River Site Weekly Report for Week Ending August 19, 2016

H-Canyon: Just before beginning fissile operation of the H-Canyon second uranium cycle solvent extraction process (2nd U), a control room operator noticed that a procedure step explaining when to begin to take a reading for a criticality control was incorrect. Upon further investigation, H-Canyon personnel determined that three separate changes remedying a previous issue were omitted from the procedure. The three changes were a result of the recent event involving the failure to implement three criticality safety controls for 2nd U (see 2/19/16 and 3/4/16 weeklies). The changes to the procedure were originally implemented as part of a temporary immediate procedure change (TIPC) rather than a permanent change. That TIPC has since expired and H-Canyon personnel failed to include the three changes that ensured the criticality safety controls would be implemented as required in the new procedure. The procedure was subsequently revised and H-Canyon personnel began operating 2nd U. Shortly after establishing warm feed H-Canyon personnel shut down 2nd U because of a separate equipment issue.

Savannah River National Laboratory (SRNL): SRNL personnel opened a 9975 shipping container for inspection. They believed that the 9975 had never been used for radiological purposes and was empty, which allowed them to inspect the 9975 in a non-radiological facility. A SRNL technician removed the inner primary containment vessel (PCV) from the 9975 and opened the lid. Beneath the lid was some aluminum foil, which can be used as a spacer to prevent movement of an container inside the PCV. The technician removed the aluminum foil and discovered a container marked empty. The technician then removed the can which revealed a second container, also marked empty. Containers like these are typically used to hold radiological sources and were not expected to be inside the PCV. The technician then brought in their supervision and removed the containers a second time to take photographs before a time out was called. Radiological control personnel then performed surveys of the technician and the PCV and did not identify any radiological contamination or detectible dose. The following day SRNL personnel performed an assay of the PCV and did not detect any radiological source inside the two containers. The label on one of the containers has led SRNL personnel to believe that it was previously used at another SRS facility but has since been emptied. However, the technician identified that it is evident that something is inside at least one of the containers. SRNL personnel are currently developing the path forward to disposition the 9975 and containers.

Target Residue Material (TRM): TRM personnel have identified what they believe to be the issue with the truck well jib crane (TWJC) that caused the suspension of the TRM readiness assessment (RA) last week (see 8/12/16 weekly). After troubleshooting the TWJC for several days TRM personnel identified and repaired a loose wire in the pendant that is used to control the TWJC. Assuming the no further issues, the TRM RA will resume next week.

K-Area: SRNS personnel have identified seven Criticality Control Overpacks (CCO) that do not have an issue with the outer container gasket (see 8/12/16 weekly). Roughly 50 of the more than 1500 CCOs onsite have been inspected so far. The seven permissible CCOs should be sufficient for the plutonium down blend contractor readiness assessment planned to begin next week and the start of the operation.