

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 16, 2013

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending August 16, 2013

Messrs. Eul, Owen, and Sircar were at SRS observing the URS review of SRR's work planning and control program and the DOE Readiness Assessment (RA) at HB-Line.

HB-Line: The contractor RA team issued their report containing 48 findings (with 26 pre-start corrective actions and 27 post-start actions) and 82 opportunities for improvement. The team graded 36 of the 131 lines of inquiry as unsatisfactory. The Department of Energy team commenced their review Monday and is identifying several more findings. The numbers and significance of the two team's findings are high. The DOE team addressed the site rep's previous observation by conducting several process upsets during the dry runs, but facility personnel are still using excessive simulation with regards to personnel protective equipment. The actual demonstrations of the processes are going fairly well, but then these processes are highly automated with many interlocks. One of the issues that has bothered both review teams is the decision to use a core team concept. The core team members, however, do not have an additional qualification card and, in theory and on paper, all of the HB-Line control room and process operators are technically qualified for Phase II operations. HB-Line management has yet to define, much less document, their plans for transitioning from a core team to round-the-clock operations and what their criteria will be for determining that these additional operators are actually proficient on the processes. In the end, any successful startup will require some level of senior management oversight. However, during the RA this week, the operations manager made the decision to perform the filtrate transfer procedure despite the fact that several of the procedure steps were written for a particular H-Canyon tank, when in fact, the actual jumper configuration meant the solution was being transferred to a different H-Canyon tank. When the RA team asked the operations manager if he wanted to pause the dry run so the procedure could be changed, he decided to use the procedure as is and "take the hit" with an RA finding. The first line manager and operators then proceeded to perform the steps as directed rather than as written.

Recommendation 2012-1: SRNS conducted an RA to determine the ability of Building 235-F personnel to operate the facility within the bounds of the Basis for Interim Operations (BIO) for Surveillance and Maintenance. This BIO contains controls to protect the material at risk (primarily ^{238}Pu and ^{237}Np) from dispersal. These controls include confinement and filtered ventilation systems, a structural integrity program to protect these systems, and a transient combustibles program to limit the extent of a fire. The RA team identified several issues requiring pre-start corrective actions. These issues include a failure to correctly label safety systems; a failure to ensure that the BIO, fire hazards analysis, and procedures are consistent with the building layout; and a failure to ensure the workers maintain the requisite knowledge of the safety programs and the hazards associated with the building holdup.

Solid Waste Management Facility: This week the site completed confirmatory analysis to show that a former worker received an internal contamination of ^{239}Pu . This worker left SRS in October 2012. In February, when SRNS completed analysis of the original termination bioassay sample, the two split samples yielded non-confirmatory positive results. (The extended time between sample collection and analysis is based upon the long half-life of the material in the body and the small amount of material in the sample). SRNS received a second bioassay sample in April 2013, whose results confirmed a small positive uptake.

H-Canyon: Plutonium dissolution resumed. L-Area shipped a cask of fuel bundles to H-Canyon to support Sodium Reactor Experiment Phase III processing.