

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2012

TO: T. J. Dwyer, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending August 24, 2012

H-Canyon/HB-Line: The plutonium receipt and dissolution Readiness Assessment (RA) included pre-start corrective actions related to procedures and worker level of knowledge. Both facilities completed their pre-start corrective actions, including conducting additional training on recent authorization basis changes. Plutonium dissolution will not commence for several weeks though as DOE performs additional corrective actions unrelated to the RA. Meanwhile, SRNS completed dissolution of the fuel bundles from the first cask car. SRNS intends to start another RA after Labor Day for the next phase of Sodium Reactor Experiment fuel processing.

Fire Protection: Following the staff's fire protection review last September, SRNS put in place a Fire Protection Program Improvement Plan. Two of the initiatives dealt with reducing the number of open fire protection system impairments and addressing material condition issues across SRS (see October 14, 2011 report). The site rep met with DOE and SRNS to discuss their progress. Since last March, the number of open impairments has dropped from 88 to 57. The number of delinquent tests dropped from 44 to 10. While 22 of the impairments are older than 180 days, the affected systems are still classified as operable or functional. In addition, 110 of the 180 items identified during the material condition inspections of fire protection systems have been closed.

Tritium Extraction Facility/H-Area New Manufacturing: Last week's RA included findings related to the Management Control Plan, procedure compliance, minimum staffing, and quality control hold points.

L-Area: Construction personnel used the 90-ton crane for activities on the roof of L-Reactor. When they completed the task, they were in the process of preparing the crane for transportation over the roadway. As part of this process, they needed to remove and secure the crane jib boom to the crane. While attempting to remove and secure the crane jib boom, they experienced difficulty inserting all the required pins. They assumed that the pins they could insert would hold the boom in place; however, the crane jib boom slipped and rolled approximately 90 degrees around the latch that had been pinned correctly. Because the construction personnel realized a hazard existed, no one was hurt. Work was stopped, construction personnel notified the Shift Manager, and they barricaded the area around the crane.

SWMF: While performing clean-up operations in the Cell 11 tent used to remediate SRNL casks, SRNS employees detected contamination in excess of the specified radiological suspension limits. Approximately 13,000,000 dpm per 100 cm² α was detected. The SRNS employees took appropriate actions and stopped the task until the situation could be corrected. After obtaining the approval of supervision, the suspension guides were increased and they decontaminated the affected area.

SWMF personnel received an empty large steel box (LSB) from H-Canyon following remediation of the waste. While they were preparing the LSB for disposal in a slit trench, operations personnel observed a leak from a drain valve stem. The valve was found broken off and in the plastic bag that had been used to wrap the drain valve. They could not determine an exact cause for the drain valve failure. Radiological control personnel surveyed the area and found 2143 dpm/100 cm² α and 800 dpm/100 cm² $\beta\gamma$. They controlled the area and appropriate actions were taken in case an additional leak is detected while handling the remaining LSBs.