

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 21, 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 September 21, 2012

K-Area: Construction had to suspend their installation of a backup power source for the K-Area public address system when it was determined that the installation had not gone through the Unreviewed Safety Question (USQ) process. Engineering had previously completed an USQ screen for the final design. However, when an engineer approved the work order, he did not review the scope of the earlier USQ screen and mistakenly assumed it also covered the interim conditions that are introduced during the physical installation. This week, a different engineer began working on the USQ for the installation itself, realized the gap, and contacted construction. The processes used for approving the work order and releasing the work could be more explicit in ensuring the proposed activity has completed the required USQ reviews.

Recommendation 2004-2: After years of little progress, SRNS has begun addressing ventilation gaps in earnest at the Savannah River National Laboratory's Building 773-A. One gap was closed by providing an auto standby fan start capability for part of the off-gas exhaust system. The site reps walked down the installation of a new secondary confinement zone exhaust process ventilation system that will replace several 1950's – 1960's vintage systems in E Wing. Most of the ventilation equipment has been installed outside. When the interior work and final tie-in are completed next fiscal year, this project will address seven more gaps. SRNL has also installed 30% of the blanks that will improve their ability to conduct aerosol leak tests of safety-significant high efficiency particulate air filters.

Defense Waste Processing Facility (DWPF): The site reps met with SRR and DOE to discuss SRR's compliance with a specific administrative control (SAC) that was the subject of a recent SRR assessment finding. The SAC required that the contents of the Recycle Collection Tank (RCT) and Decon Waste Treatment Tank (DWTT) shall be characterized to ensure the calculated time to the lower flammability limit upon loss of proper ventilation for the vessels is greater than 4 days. The problem was that the resulting calculations that SRR performed for the RCT made no mention of the DWTT even though some of the conclusions were applicable. While SRR acknowledged their inadequate implementation of the SAC, the site reps maintained that the lack of documented compliance with this SAC with regards to the DWTT constituted a Technical Safety Requirement violation. The rigor of SAC implementation at DWPF was the subject of two occurrences during July (see 7/6, 7/27, and 8/31/12 reports).

Saltstone: After a rough start, Saltstone has conducted 12 processing runs over 13 days, processing a total of 394,459 gallons of Tank 50 waste since normal operations resumed. SRR reports that on 11 of the 13 production days, they were able to achieve the desired production volume. Furthermore, SRR's Saltstone Reliability Plan stated they needed to demonstrate the ability to process 232,000 gallons per week to support the volumes expected during the 2nd – 4th years of operations at the Salt Waste Processing Facility. Recently, SRR was able to process as much as 255,113 gallons during a consecutive 7-day period. While more time is needed to show that SRR can maintain this production rate throughout the year, the initial results are encouraging.