

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 8, 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 June 8, 2012

H-Tank Farms: Tank farm personnel realigned the 3-H evaporator drop tank from Tank 30 to Tank 37 so that waste could be transferred from the evaporator to Tank 37. Approximately 12,500 gallons of waste was transferred before the transfer was stopped because of a steam leak. After the transfer was complete, SRR found that the level in Tank 30 was higher than expected. Upon review of the data, tank farm personnel determined that approximately 7,200 gallons of waste had been transferred to Tank 30 and 5,300 gallons to Tank 37. To determine if the Tank 30 transfer valve was broken or malfunctioning, SRR personnel radiographed the valve. The valve was found to be in the closed position and not leaking. SRR is investigating how the actions of operators contributed to this inadvertent transfer to Tank 30 and will determine the necessary corrective actions.

Savannah River National Laboratory (SRNL): The Board's staff questioned the feasibility of the fire department directly connecting to the fire water supply tanks if the fire water pumps encountered an unplanned outage. In response, SRNS is revising their proposed compensatory actions in the draft Justification for Continued Operations to include more operational restrictions (see May 18 – June 1, 2012 reports). SRNL is also revising the work planning documents for an evolution to recover material from legacy equipment to address site rep comments (see 1/5/07 report).

235-F: Both exhaust fans were inoperable per the Technical Safety Requirements (TSR), although fan #2 was operating. SRNS spent the week trying to reduce the high vibrations on fan #1. Once that is fixed, SRNS plans to swap the fan so they can modify fan #2. After weeks of troubleshooting fan #2, engineers have concluded that the response of a ferroresonant regulating transformer (installed in 2010) to switching conditions is causing intermittent high in-rush currents. SRNS believes these currents have repeatedly opened the primary control fuse during the last 9 months. Based on manufacturer input, SRNS plans to install a different class of fuse that is expected to withstand the in-rush currents (see April 20 through June 1, 2012 reports).

SRNS also found an 18" long by ½" wide crack in the exhaust fan duct, downstream of the sand filter and the fan's discharge dampers. The functional classification of this section of the duct is not clear in the existing safety documentation although a 2010 Unreviewed Safety Question (USQ) screen concluded it was general service. DOE and SRNS are debating the configuration management of this duct and the appropriateness of the USQ screen.

H-Canyon: The site rep observed workers safely remove drums from a concrete culvert. The drums were degraded, unvented, extremely contaminated, and sometimes were leaking or had high radiation levels. The site rep had to remind workers to avoid positioning their torsos over the lids of the unvented drums because of the potential for explosions.

Transuranic (TRU) Waste: SRNS has found that several of the items that were previously classified as Very Difficult Waste, can be treated as normal TRU Waste and sent to WIPP using the already established procedures, or removed from the site using the NNSA sponsored Off-Site Source Recovery Project (OSRP). These options greatly simplify or eliminate the remediation of the Very Difficult Waste at the Savannah River Site.