

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 16, 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 November 16, 2012

Board Activities: The full Board was at SRS this week to discuss nuclear materials disposition and storage, vital safety systems, nuclear safety analyses, emergency planning, and liquid waste operations. In addition, Board members visited 235-F, Saltstone, the Salt Waste Processing Facility, H-Canyon, L-Basin, H-Tank Farms, the Defense Waste Processing Facility, and H-Area New Manufacturing.

Unreviewed Safety Questions (USQ): SRR declared a positive USQ because the assumed recycle stream at the Defense Waste Processing Facility did not account for the presence of significant amounts of sludge solids. As a result of their extent of condition reviews, SRNS declared positive USQs for the safety-significant, K-Area Shuffler Room and 772-F (F/H Laboratory) fire suppression systems. The issues with the sprinklers are related to the dimensions used to calculate the minimum required sprinkler flow rates and pressure, sprinkler spacing, and sprinkler coverage. SRR and SRNS implemented compensatory actions in response to the USQs. (See November 9, 2012 weekly report).

H-Canyon: While an operator moved the old hot canyon crane in preparation for maintenance, an electrical junction box on the side of the crane cab struck a rail shim that was protruding from the canyon wall. Based on past photos, it appears that the shim had worked itself out over the last few years.

Engineers plan to revise their plutonium metal flowsheet because the plutonium metal is taking significantly longer to dissolve than anticipated. Part of the problem is that the fluoride concentration was lowered to reduce the corrosion rate and extend the life of the dissolver coils.

K-Area: The DOE Office of Enforcement and Oversight issued a preliminary notice of violation to SRNS for the July 1, 2011 worker fall from an adjustable work platform. DOE's evaluation identified significant weaknesses in SRNS' processes to identify, control, and manage construction safety and industrial hygiene hazards during facility modifications at the Purification Area Vault. DOE cited four violations with a total proposed base civil penalty of \$225,000, reduced to \$159,375 civil penalty based on SRNS' response. One of the violations addressed SRNS' failure to establish and implement a work planning and control process that identified, assessed and abated workplace hazards consistent with 10 CFR 851. Another violation addressed SRNS's failure to properly qualify and train workers in safety-related work practices and procedural requirements necessary to perform disassembly and removal work.