

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 19, 2010

TO: T. J. Dwyer, Technical Director
FROM: D. L. Burnfield and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending March 19, 2010

H-Tank Farms: After performing crane inspections in Diversion Box 8, an arc flash occurred when workers tried to restore the bridge crane disconnect switch. The workers wore adequate personnel protective equipment (PPE) and were not injured. Equipment testing is ongoing since visual inspection was inconclusive.

Operations:

- Due to inexact communications, operators missed a required verification of glovebox oxygen concentration, causing a Technical Safety Requirement violation at H-Area New Manufacturing.
- A safety interlock tripped at HB-Line when operators initiated a transfer of nitric acid whose concentration had been allowed to concentrate over time to the point it approached the interlock setpoint.
- During a recycle transfer from Tank 38 to 43, operators allowed an extra 23,000 gallons of waste to be transferred before they realized they had exceeded the value on their Evaluated Transfer Approval Form.
- While a worker undressed at F-Canyon, his breathing air hose popped off the manifold. The dust cap retaining-ring interfered with the hose's locking mechanism, repeating a recent C-Area incident (see 2/19/10 report). Construction and Radiological Protection Division personnel took the proper corrective actions and no one was contaminated.

H-Canyon: DOE and SRNS have agreed that new Limiting Condition for Operation values will follow the traditional approach of incorporating instrument uncertainty and a qualitative safety margin. SRNS will take advantage of existing safety margins, where warranted, and write the Technical Safety Requirements (TSR) in such a manner as to reduce the time to develop the TSRs and the need for future updates of them.

In response to a recent procedure error (see 3/5/10 report), H-Canyon personnel are revising their procedure to incorporate a site rep suggestion for formatting calculated numbers to reduce the chance they are misread.

Saltstone: Rather than try to determine which of 23 waste bags was leaking, management decided to just remove three bags that did not belong in a metal box (see 3/5/10 report). The pre-job brief, however, quickly devolved into a planning session due to many questions about the scope of work, radiological protection and waste handling requirements, PPE, and contingencies, most of which were not addressed in the work package. The site rep discussed these observations with the operations manager. After the latter received similar feedback from the shift operations manager, the pre-job brief was stopped until the work could be fully planned. The site rep walked down the operational areas of Saltstone including the area where the contamination event occurred as well as the roof of vault 4.

Tank 48: Because of the uncertainty with qualifying a coating for carbon steel against multiple environmental factors, SRR will build the Denitration and Mineralization Reformer with Hastelloy C276 (see 2/19/10 report).

F-Canyon: The site rep observed workers puncturing cans from transuranic waste drums. The worker handled the puncture device, straps, the can opener, and cut cans much better than last week.

Reactors: The site reps visited P-Reactor to see the batch plant that is being built and the new evaporators, which will evaporate basin water over several months. The site rep also watched workers disassembling an old crane on the roof of R-Reactor and transport the pieces to the ground with a large crane.