

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 22, 2016

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman, D. L. Burnfield, and Z. C. McCabe Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending January 22, 2016

Specific Administrative Controls (SAC): The site rep previously noted that when SACs are in a limiting condition for operations (LCO) format versus a directive action that violating them would result in a LCO condition entry rather than a Technical Safety Requirement violation. This could complicate tracking of non-compliances with these limits and prohibitions and would not require an investigation of what conduct of operations breakdown(s) led to this situation (see 8/28/15 report). In response to this observation, the contractors are planning to revise their issue investigation procedure to address unplanned LCO entries associated with conduct of operations issues.

Emergency Preparedness: The site rep observed a drill simulating a transuranic waste drum fire at K-Area to see if initiatives to improve coordination between the fire department and facility personnel were successful (see 8/7/15 and 8/28/15 reports). Responders exhibited a greater awareness of contaminated areas and coordinated the locations of the decontamination zones and fire engine.

HB-Line: Prior to sending the contents of tank NT-51 to H-Canyon, HB-Line samples the tank and sends the samples to Analytical Laboratory personnel co-located in HB-Line. The lab personnel measure the plutonium concentration of the sample and report the results to HB-Line Operations. The analysis of the sample results allows HB-Line to determine if the contents of NT-51 meet criticality safety operating limits required to transfer to tank 9.6 in H-Canyon. While performing this analysis a lab operator entered an incorrect volume for the sample, resulting in a reported concentration that was approximately 5 times the actual value and slightly above the criticality safety operating limit (CSOL). HB-Line Operations, Engineering and the lab took appropriate action, by diluting the tank, resampling the tank, and comparing the diluted sample to the original sample. This allowed SRNS to make the final determination that the original data entry was incorrect and to begin corrective actions until permanent compensatory measures are taken. Concurrently with site personnel, the site rep discovered several issues with the lab procedures for performing the sample analysis, some of which could potentially result in a non-conservative value for the tank concentration. Once identified the site initiated appropriate action to ensure that these issues had not and cannot result in future transfers that exceed the CSOL.

In response to site rep concerns about the explosion prevention strategy, DOE directed SRNS to maintain the diesel generator (DG) as safety significant (SS) and to formally upgrade them to SS within six months (see 2/8 and 2/15/13 reports). Due to conflicting priorities and resources, this upgrade has not occurred yet. Finding replacement parts and information to support commercial grade dedication (CGD) on them is becoming increasingly difficult since the current DG has been in service for 34 years and the vendor has been bought out a few times. Meanwhile, two new generators that were bought for HB-Line in 2010 continue to sit in a warehouse because funds for CGD and installation are not available.

L-Area: The site rep accompanied SRNS and SRNL personnel conducting semiannual visual inspections of known basin-water leak sites (see 2/24/12, 9/26/14, and 5/1/14 weekly reports). At the time of inspection, the leak sites were largely dry with the exception of a single drop of water and the surrounding few square inches. The team noted no new leak sites.