

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 2, 2012

**TO:** T. J. Dwyer, Technical Director  
**FROM:** M. T. Sautman, Site Representative  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending November 2, 2012

Mr. Burnfield was offsite this week.

**Savannah River National Laboratory (SRNL):** The Board's March 27, 2012 letter expressed concern with the process used by SRNS to upgrade fire water systems to safety significant. This week, the site rep observed portions of the Engineering Review Board's (ERB) evaluation of the revised backfit analysis (BFA) for the Building 773-A fire protection automatic sprinkler system (FPAS) and its compliance with National Fire Protection Association (NFPA) 13, *Standard for the Installation of Sprinkler Systems*. The Authority Having Jurisdiction has approved 11 code equivalencies for the FPAS. The BFA identifies 100 code non-compliances for the FPAS and recommends corrective actions. Because the BFA calls into question whether the FPAS complies with NFPA 13, SRNS declared a Potential Inadequacy in the Safety Analysis (PISA). Next week, the ERB is reviewing the revised BFA for the A- and M-Area outside underground fire water supply system, fire pump and fire water storage tank, which were the subjects of a 2011 PISA. In light of the above issues, SRNS is reevaluating the adequacy of other fire suppression system BFAs (i.e., F/H Laboratory).

**Tritium Extraction Facility:** SRNS declared a Technical Safety Requirement violation after they identified that they did not enter a Limiting Condition for Operation (LCO) for one of the tritium air monitors (TAM) whose automatic function was temporarily disabled. Workers were upgrading the horns of 5 TAMs and doing post-maintenance testing. After shift turnover, the shift manager (SM) mistakenly believed that the LCO had been entered for all 5 TAMs. When the SM reviewed the work package, its format prevented the identification that only two of the five horns had actually been replaced so far. As a result, the SM briefed the wrong scope of work at the pre-job briefing.

**K-Area:** SRNS declared a positive Unreviewed Safety Question this week because of the potential non-conservative analysis of criticality scenarios involving comingled arrays in the Material Storage Area. While safety analysts examine a variety of scenarios, there is no documented verification that the combined reactivity is compared against the appropriate k-safe value. A SRNS evaluation determined that under certain circumstances, there are combinations of package types that could decrease the margin of safety.

**Saltstone:** SRR processed a record 664 kgal of waste last month, depleting available feed. SRR will suspend grouting operations for a few months until Tank 50 is refilled with decontaminated salt solution.

**Defense Waste Processing Facility:** The site rep observed pipefitters install piping for new process vessel valves. The site rep identified that the activity lead and Radiological Control organization did not sign two previously completed steps in the safety class work package.

**H-Canyon:** SRNS completed Phase 2 of the Sodium Reactor Experiment fuel campaign.