

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2013

**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 January 11, 2013

**K-Area:** The handling of recent out-of-range electric fire pump data led to the identification of some weaknesses. For instance, the acceptance range for the discharge pressure is different in the inspection round sheet than the range listed in a maintenance procedure. The operator comment provided in the fire pump procedure incorrectly gave the impression everything was acceptable even when the associated discharge pressure was out-of-range. The initial engineering review of the data did not highlight the out-of-range data because of an incorrect assumption by the reviewing engineer.

**Defense Waste Processing Facility:** The site rep observed operator rounds and reviewed control room forms, logs, and permits. The site rep noted an apparent uncontrolled operator aid on a tank gage and identified documentation issues with some of the forms and permits.

**Waste Solidification Building (WSB):** The site rep walked down the construction site with the Federal Project Director and the NNSA startup lead. Nearly all of the major equipment is at SRS and startup testing will begin in earnest this summer and fall. Because of the gap between the WSB and the Mixed Oxide Fuel Fabrication Facility construction completion dates, NNSA is considering having the WSB go through a readiness review modeled after the requirements in DOE Order 425.1D for the start of non-nuclear operations rather than a full-fledged Operational Readiness Review (ORR). A complete ORR would be completed later before hot operations.

**235-F:** The site reps met with DOE and SRNS to discuss two upcoming Recommendation 2012-1 Implementation Plan (IP) deliverables: a 2013 F-Area drill schedule and transient combustible control program procedure. The site reps provided feedback on the draft deliverables. One of the open issues is the extent of participation in the drills by one of the nearby construction sites. In addition, SRNS will be resubmitting their Startup Notification Report after the site rep noted some inconsistencies with the readiness review scopes and the IP.

**2F Evaporator:** During much of 2012, tank farm personnel battled a problem with contaminated overheads from the evaporator. In the second half of the year, SRR personnel determined that the demister should be replaced and then completed that high contamination job over the holidays. (See 10/5, 19, 26, and 11/9/2012 reports.) As part of the start-up testing, tank farms personnel performed a pressure test on the tube bundle. They found contamination in the flush water from the vent line and the pressure test rig probed 200,000 dpm beta-gamma. They also identified increased liquid level in the evaporator pot. They then flushed parts of the test rig and the evaporator tubes. They once again observed increased water level in the evaporator pot, confirming an indication of tube leakage. They have only one spare evaporator available that can be used as the 2H or 2F Evaporator. Procurement of another evaporator could take as long as two years. Since SRR could use the H-Area evaporators to support F-tank farm operations, SRR must determine if the spare should be used in F-tank farm or reserved for use in H-tank farm.

**Solid Waste Management Facility (SWMF):** The SWMF operator took action and used the emergency stop button to shut down the large real time radiography when the turntable malfunctioned. SWMF personnel and the vendor determined that the software configuration parameters had become corrupted. The system was re-booted to reset the configuration parameters and the turntable appears to be working properly. As part of the corrective actions from the event, the operator recommended that the emergency stop button be moved closer to the operator's station.