

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 1, 2014

**TO:** S. A. Stokes, Technical Director  
**FROM:** M. T. Sautman and D. L. Burnfield, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending August 1, 2014

**Tritium Facilities:** During July, SRNS experienced ten events involving conduct of operations, quality control, or security deficiencies. (See 7/11, 7/18, and 7/25/14 reports). These events included: 1) a failure to follow procedures resulting in a blown rupture disk, 2) an inadvertent transfer of contaminated gas, 3) the inadvertent operation of a fan for several shifts without operations personnel realizing that the fan was running, and 4) a power loss to the Tritium Extraction Facility. While some of the individual events were relatively minor, SRNS management determined that the number of events warranted increased attention. As a result, SRNS has placed senior supervisors on the watch bill to oversee all non-routine operations. These supervisors will use a detailed grading process to determine when each shift can resume normal operations. NNSA facility representatives will be shadowing the senior supervisory watches to provide the necessary oversight of tritium operations. In addition, SRNS has gathered conduct of operations mentors from across the company who will assist in training and coaching tritium operations personnel.

**Saltstone:** Last December, the grout pump variable frequency drive experienced an overload fault due to high current when SRR attempted to transfer grout into one of the new (and further away) Saltstone Disposal Units (SDU). (See 12/6/13 report). In order to reduce the chance of this recurring, SRR recently installed a new, more powerful grout pump motor. SRR conducted two successful grout runs this week with the new motor, filling up the last of the older SDUs. However, their planned grout run using a new SDU was cut short when the screw feeder failed (an unrelated event) during the grout run preparations before the waste grouting began.

**H-Canyon/HB-Line:** SRNS conducted a Readiness Assessment (RA) on the physical and safety basis modifications to close the ground level release positive unreviewed safety question. Closure of the RA findings is imminent. This will allow H-Canyon and HB-Line to resume normal operations. Hot operations in HB-Line may commence late next week. The Sodium Reactor Experiment fuel campaign is making good progress, although some batches are requiring additional dissolution time. The site rep observed operators probing the dissolver wells in order to verify that the fuel completely dissolved. When one well was identified as still containing a fuel fragment, they stopped and took the proper actions.

**Training and Qualifications:** The site rep attended an oral board for a new shift operations manager in L-Area. The Board conducted the oral examination professionally and the candidate passed the oral board. The site rep reviewed the written examination and it met the site standards. The site rep later met with the new deputy training manager and discussed his thoughts on methods to improve training and written examinations. However, candidates at HB-Line are still experiencing problems passing written examinations and oral boards.

**Quality Assurance:** The commercial grade dedication (CGD) process was originally envisioned to allow commercially available items to be evaluated and used for safety related applications. In the 2008 revision to ASME NQA-1, *Quality Assurance Requirements for Nuclear Facility Applications*, DOE had a change included in the standard to allow DOE contractors to procure items engineered specifically for nuclear applications using this process. The site rep attended a meeting involving senior engineering, operations, and quality assurance personnel where SRR invoked this revision for the first time for the CGD of an engineered component. The attendees correctly evaluated the CGD for a reheater and determined that several changes were required in the paperwork.