

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 24, 2009

**TO:** T. J. Dwyer, Technical Director  
**FROM:** M. P. Duncan and M. T. Sautman, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending April 24, 2009

D. Burnfield, J. MacSleyne, and R. Verhaagen visited SRS to review activity-level work planning and control. The review focused on research and development at Savannah River National Laboratory as well as operations and maintenance at the tritium facilities.

**Tank Farms:** Mechanical cleaning of Tank 19 has resulted in ~100% of the bulk solids being removed from the tank floor. Mapping of the tank floor is also finished. Despite the continued good performance of the coalescers and the successful resolution of several operational issues, the cumulative impacts of these chemical, physical, and mechanical issues is that the salt waste processing throughput between January and April was only 40% of the volume planned.

**H-Canyon:** Workers completed charging the last item for the Super Kukla campaign at H-Canyon. Engineers have spent the week trying to understand why there was a discrepancy in the total uranium dissolved during the first two charges of uranium metal from Lawrence Livermore National Laboratory. When the dissolver was heated up again, additional uranium dissolved so a longer dissolution time may be needed. There is not a criticality concern because the fissile masses match. Plastic suits are also being inspected because 3 suits failed during an evolution. Two failed during pre-operational checkouts and one mechanic had a drastic loss of pressure during field preparations.

**Facility Representatives:** DOE-SR and the National Training Center are providing a two-week Engineering Fundamentals course to 19 facility representatives, safety system oversight engineers, and other technical staff from five DOE sites working on their qualifications. A second class will also be conducted for the upcoming round of new hires. (8/29/08 report)

**Solid Waste Management Facility:** The Site Rep observed the second Removable Lid Canister being loaded into a 72-B Cask. Future remote-handled transuranic waste drums have dose rates up to 4.3 rem/hr at 30 cm.

**Readiness Reviews:** SRNS has started issuing a quarterly list of upcoming activities that were determined not to require a formal readiness review. Although not formally required, this is an idea that both DOE and the Site Reps have been encouraging to ensure all parties agree on these decisions ahead of time.

**Conduct of Operations:** The Site Rep attended a Conduct of Operations Champion and Advisor briefing where lessons learned from three recent events (4/10/09 report) were discussed.

**Savannah River Remediation:** The Site Reps met with executives to discuss Board issues and future interactions. (4/3/09 report)

**Tank 48:** The proposed criteria for selecting the treatment process for Tank 48 waste include project and operating costs, project and operating schedules, number of safety basis controls, system robustness (safety, operations, and maintenance), quality assurance, downstream impacts, proof of technology viability, and difficulty of continued advancement.