

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 19, 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 June 19, 2009

Sautman was offsite this week. Gutowski stayed several days after the Board visit to perform Site Rep duties and observe operations at H-Canyon.

**Board Visit:** Dr. Eggenberger and Dr. Mansfield along with staff members Burnfield, Gutowski, and Ogg were at SRS this week. The Board and its staff visited several facilities and discussed several topics, including (1) the ongoing study of alternate disposition paths for 5 metric tons of plutonium not considered suitable for feed to the Mixed Oxide Fuel Fabrication Facility, (2) pre-conceptual design for a project under evaluation that would combine the functions of the Pit Disassembly and Conversion Facility and Plutonium Preparation Project in the existing structures of the K Area Complex, (3) Quality Assurance at the Salt Waste Processing Facility, including commercial grade dedication and recent drain pipe weld issues, (4) American Reinvestment and Recovery Act projects, including plans for hiring and training new workers, DOE and SRNS oversight, nuclear safety, and ensuring readiness, (5) recent conduct of operations performance at the tritium facilities, (6) DOE-SR's progress in hiring and qualifying Facility Representatives and Safety System Oversight personnel, (7) Fluidized Bed Steam Reforming and Wet Air Oxidation test results for Tank 48 waste disposition, (8) mechanical and chemical cleaning of high-level waste tanks, (9) proposed changes to the Implementation Plan for Recommendation 2001-1, and (10) recent performance and technical issues of the Modular Caustic Side Solvent Extraction Unit and the Actinide Removal Process.

**Actinide Removal Process:** There are two tanks in 241-96H where operators add monosodium titanate (MST) which adsorbs strontium and actinides in salt waste. By mistake, an operator performed the incorrect section of a procedure, resulting in a valve lineup that transferred MST to the wrong tank. Another operator had performed an independent verification to ensure a valve was open and did so properly, but missed the opportunity to recognize they were in the wrong section. Though there was no immediate safety issue, potential downstream impacts had to be assessed prior to transfer of the waste to 512-S.

**SRNS Facility Evaluation Board (FEB):** The SRNS FEB recently reviewed operations in K Area. In an encouraging sign that the effectiveness of the FEB is improving, review of the quality and quantity of the strengths and weaknesses reported by the FEB indicates it was a thorough and useful review, both for K Area management as well as SRNS senior management.

**Tritium Extraction Facility:** The fourth extraction and processing of tritium from irradiated Tritium Producing Burnable Absorber Rods (TPBARs) has been scheduled for this month. The Site Rep has been observing several portions of the overall process during the past several weeks and observed proper conduct of operations. Since full hot operation of the facility is infrequent, facility operations personnel made good use of pre-job briefings where they otherwise might not have been required. Upon completion, the next cycle of TPBAR cutting and extraction is currently planned to occur in approximately a year.