

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 17, 2006

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** J. S. Contardi/M.T. Sautman, SRS Site Representatives  
**SUBJECT:** SRS Report for Week Ending November 17, 2006

**DNFSB Activity:** Staff members V. Anderson, F. Bamdad, R. Kasdorf, B. Layton, and C. Shuffler were onsite for a review of the 3013 Container Surveillance and Storage Capability project.

**Tritium Extraction Facility (TEF):** This week, the National Nuclear Security Administration formally requested the contractor provide a path forward for equipment reliability issues associated with the facility. During the last several months, equipment failures have significantly hampered operational evolutions associated with both Operational Readiness Reviews (Site Rep weekly's 9/1/06, 9/8/06, 10/27/06 and 11/3/06). Following successful completion of ORR related corrective actions, tritium introduction is expected in early December and tritium extraction early next year.

**Technical Safety Requirement (TSR) Violation:** Due to severe weather in the area, tank farm personnel implemented an Emergency Operating Procedure (EOP). The severe weather included heavy rains and a tornado watch. While operating within the EOP, sump transfers are prohibited. The severe weather resulted in rain water accumulating in a sump, which was subsequently pumped. The action of pumping the sump while in the EOP resulted in a TSR violation. A similar TSR violation occurred last year.

**Saltstone Production Facility (SPF):** The Department of Energy has concluded their Readiness Assessment (RA) for operating the SPF with 0.2 Curie/gallon waste. The RA resulted in 10 pre-start and 10 post-start findings.

Due to an equipment malfunction last week the RA team requested to observe an additional extended grout run this week. No anomalies were observed during the operation. However, following the completion of the run the contractor disassembled portions of the facility for visual inspection and observed significant accumulation of grout. In one section, the accumulation resulted in approximately 60% of the pipe being plugged. The contractor is currently investigating the cause and preparing a path forward.

**Modular Caustic-Side Solvent Extraction Unit (MCU):** Major construction activities for MCU have concluded and system flushing has begun. During one flushing evolution, liquid inadvertently leaked out of the system due to a partially opened valve. A critique was held and corrective actions developed. Of particular interest was the finding that no job specific hazard analysis was performed for system flushing. In addition, clear roles and responsibilities for the conduct of the activity were inadequate.

**Modular Repackaging System (MRS):** While removing a high plutonium equivalent curie drum from the glovebox, a continuous air monitor alarmed (~ 1,500 DAC-hr). Facility personnel responded appropriately and no personnel contaminations occurred. The probable cause has been attributed to tears in the drum sleeve.