

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 20, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending May 20, 2005

Salt Waste Processing Facility: In response to an August 2004 Board letter regarding the Salt Waste Processing Facility (SWPF), the Department of Energy (DOE) commissioned an independent peer review team to evaluate the current facility design. The team was led by Philip Hildebrandt and included experts in the fields of safety bases and structural engineering. The peer review team scope of work required the evaluation of the following questions:

- Did the hazards analysis process identify a complete set of potential natural phenomena hazards (NPH)?
- Were the unmitigated consequences of the NPH-induced hazardous conditions conservatively estimated consistent with DOE directives?
- Are the unmitigated consequences from NPH events severe enough to warrant invoking higher Performance Categories than assigned in the Preliminary Documented Safety Analysis (PDSA)?
- Are the functional classifications derived in the PDSA for the Central Process Area and (CPA) Actinide Finishing Facility (AFF) confinement structures, systems, and components (SSCs) appropriate?
- Are the Performance Categories derived in the PDSA for the CPA and AFF confinement SSCs appropriate?

The peer review team's final report is expected to be submitted by the end of May.

Operations: The Site Representative walked down the 5 control rooms that were being used to monitor the transfer of waste from Tank 11 to 51 and observed in-tank camera operations to look for exposed sludge mounds. The Site Representative observed the Facility Radiological Action Team's review of a work package to remove a fixed length jet from a tank. Upon questioning, supervisors exhibited a familiarity of lessons learned from other incidents in the DOE complex involving removal of contaminated equipment. The Site Representative also walked down the SRS Operations Center and the Emergency Operations Center.

Lock Out Program: Last week, workers in a room inside a tritium facility were temporarily left without room air monitoring when a single point lockout of an electrical panel also inadvertently de-energized the monitors and the associated uninterruptible power supply was subsequently drained. The panel's circuit directory did not describe all of the loads.

Radioactive Waste Bag Failures: Recently, several polyethylene radioactive waste bags failed while being used. Inspection of unused bags with the same material identification number revealed defects with the fusion weld at the bottom seam. An administrative hold was placed on all bags from the affected lot and the vendor was notified. The vendor has recognized the issue and will replace the defective bags. The contractor has also identified a similar issue with a specific production run of polyvinylchloride bags.