DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 11, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending August 11, 2006

Transuranic (TRU) Waste Remediation: While repackaging TRU waste in a glove bag at F/H Laboratory, a worker's hand was punctured by an unknown object. The worker was wearing leather gloves as required. Initial surveys of the wound indicated 6,000 dpm (alpha) and 10,000 dpm (beta/gamma). The worker was transported to the site medical facilities for additional treatment which included chelation and excisions around the wound. Because this was the second puncture wound involving TRU remediation (Site Rep weekly 4/28/06), the contractor suspended all four TRU drum remediation lines at SRS until better controls can be implemented across the site. Operations managers from the four existing repackaging lines and the upcoming F-Canyon lines have formed a team to identify the best practices for handling transuranic waste among the lines, reduce hands-on operations, and develop new engineered controls.

The Site Rep observed dry runs, drills, and interviews associated with the F-Canyon TRU Drum Repackaging Readiness Assessment (RA). After the Site Rep informed the team he overheard a worker discussing an upcoming upset condition scenario, the team revised the drill scenarios and restricted advance knowledge. Likely findings will address training, radiation control, operations, and safety documentation. There will be a pre-start corrective action to incorporate the results of the TRU remediation team's (see above) recommendations.

Site Deactivation and Decommissioning (D&D): This week, two events occurred which resulted in either the spread of contamination or spill of potentially hazardous liquids onto workers. Contributing factors to the events included not wearing the proper personnel protective equipment, inadequate radiological practices, and failure to follow procedures. A troubling finding was the failure to implement lessons learned from a previous event. Based on the recent events the site contractor has suspended D&D work involving liquids.

H-Canyon: While performing a Technical Safety Requirement surveillance in H-Canyon, an unanticipated alarm was received in the control room because the input wires for a signal converter had been inadvertently reversed. Operations in affected portions of the facility were suspended until the corrective actions and an extent of condition review could be completed.

Tritium Operations: Certain operations were suspended after an extent of condition review identified additional valves that contain another material that was also not intended for radiological service (Site Rep weekly 8/4/06). In addition, a review of the Tritium Extraction Facility identified several noncompliant valves which are safety significant.

F/H Laboratory: When a laboratory technician added 30% hydrogen peroxide to a liquid sample returns composite bottle containing 3 M nitric acid, 2 M ferrous sulfamate, and 3 M sodium nitrite, it erupted, splashing the chemical mixture on the technician's gloves and lab coat. The contractor plans to take a hard look at how they control the disposal of excess chemicals.