DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 14, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: M. P. Duncan and M. T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending December 14, 2007

Transuranic (TRU) Waste: Decontamination of the TRU remediation lines at F-Canyon and the Solid Waste Management Facility (SWMF) was satisfactorily completed. (See last week's report). These two events have been extensively investigated by independent DOE and contractor teams. The Senior Corrective Action Review Board also reviewed corrective actions to resolve both the common and facility-specific issues. A partial list follows. Operators and Radiological Control Inspectors are being provided training on safe waste handling techniques, Pu-238 radiological hazards, and proper response to alarms. The contractor will also ensure that specific qualification and proficiency requirements are established for all TRU Remediation high-risk activities. Laundry bags with handles will be required for handling heavy items and procedures will limit the number of heavy cans allowed per bag. Actions are also being pursued to reduce the number of cans that need to be opened, which will reduce the amount of loose Pu-238 oxide handled in the remediation lines. At SWMF, workers will resume wearing two pairs of anti-contamination clothing. Furthermore, in the event of another release, workers will evacuate to a larger room that is being modified to improve ventilation for contamination control. At F-Canyon, a hard plastic liner will be used inside the bag sleeve to reduce the possibility of tearing the sleeve and localized ventilation will be used during bag cuts. Before work resumes, additional emergency drills will be conducted and an oversight plan is being developed.

Tritium: Recent exhaust fan failures at the H Area Old Manufacturing Facility highlighted weaknesses in how ventilation equipment was being operated and maintained. Fan A failed three times in one day because its uninterruptible power supply's (UPS) batteries were nearing end of life. (The UPS was used for power conditioning). Preventive maintenance was not being performed for these batteries. When Fan A failed, Fan B was not able to be used since it was not operable. Although repairs to Fan B were completed in early October, post maintenance testing had not been performed or even scheduled yet. When the fan failure occurred, an operational emergency was inappropriately declared which allowed normal process requirements to be bypassed. The Shift Manager also did not recognize when to enter the Limiting Condition for Operation. Corrective actions are being pursued.

Integrated Salt Disposition Project: The Management Self Assessment resulted in 82 findings. Procedure adequacy was a key finding. Some procedures could not be performed as written.

Tank Farms Maintenance: The Site Rep observed a Facility Radiological Action Team (FRAT) review of a high risk activity to remove several jumpers from a diversion box. The proposed radiological controls and work sequence were better than that observed at other FRATs. While the intent was to complete a long series of actions on a jumper and then repeat them for the next jumper, the work instructions did not support that since individual steps or sequential steps required the action to be performed on each jumper before continuing. Thus the person in charge would have to skip or repeat multiple action steps in violation of the instructions. When this was pointed out, the planner's response was that this was allowable since they would discuss what they would actually do at the pre-job briefing. Management in attendance understood the conduct of operations implications and requested the instructions be rewritten to match how the steps were intended to be implemented.