DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending September 1, 2006

Tritium Extraction Facility: Messrs. Contardi, Duncan, Quirk, and Sautman observed the contractor Operational Readiness Review (ORR), which continues through next week. During a dry run, the Site Rep called a time out because of the slipping hazard associated with climbing a ladder with metal rungs while wearing 1-2 pairs of slippery plastic shoe covers. During the subsequent management review, it was reported that workers had previously identified this hazard, but it had not been resolved. In the short term, rubber shoe covers with a distinct heel and improved traction will be used while possible changes to the ladder are evaluated. The Site Rep and members of the ORR team also raised the issue that the available radiation work permits did not allow observers to watch simulated, higher radiological risk activities. An acceptable solution was later developed that would not inhibit oversight of these activities. The emergency drill had to be terminated shortly after initiation due to an actual upset condition and will be repeated. In general, performance is rougher than expected, considering the months spent performing tiger team and management self-assessments.

Saltstone Production Facility: During a grout run using water instead of salt waste, a plug developed between the mixer and the grout hopper. Approximately 1:15 hours into the process run the liquid feed flow rate dropped suddenly and dust was observed coming from the mixer. Shortly thereafter, the liquid conductivity probes in the dry feed alarmed. Operators attempted to clear the system by running the mixer and utilizing a liquid spray. These efforts resulted in additional liquid backing up into the dry feed system as well as leaking out from the mixer seals. A critique was held to identify the possible causes. The contractor is still investigating the event but believes the likely cause is due to inaccuracies in the liquid flow indicator. The inaccurate flow measurement could have resulted in lower flow rates and hence a thicker grout which the mixer could not adequately handle. Had this event happened while processing low-curie salt waste the recovery would be significantly more difficult. This is the second significant pluggage in the last several weeks (Site Rep weekly 7/28/06).

Management Walkthroughs: The Site Reps informed Department of Energy and contractor senior management that the management at some facilities did not have the necessary training to observe key activities at their facility. A comprehensive review by the contractor identified a significant number of area project, operations, radiation control, maintenance, safety, and area support managers who did not have radiation worker and/or respiratory protection training. The expectation for managers who have work in radiological and/or airborne radioactivity areas to maintain this training has been clearly communicated recently.

F/H Laboratory: Due to several recent analytical errors, the contractor has commenced an assessment of the F/H laboratory analytic capabilities. Representatives from across the site as well as independent assessors from New Brunswick Laboratory will participate in the review.