DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending August 24, 2007

Tritium: Last week, a reservoir was removed from a loading manifold without evacuating and flushing the manifold beforehand. Some of the released tritium diffused through the glovebox gloves and set off the room activity alarm. Although bioassays indicated that worker doses were less than a millirem, there were multiple conduct of operations issues leading up to and after the release. Despite logbook entries which indicated the procedure step the previous shift had stopped at, confusion resulted because the verbal turnovers and checklists were inadequate. Furthermore, the procedure required the auxiliary operator to contact the control room operator (CRO) to ensure the configuration of a number of items before getting a supervisor's permission to remove the reservoir. However, the supervisor performed all three steps himself without the procedure in hand. The CRO did not pull up the screen to verify fill valve positions in response to the supervisor's vague inquiry if the reservoir was ready to remove. An investigation is also ongoing into the reason why the release was not mentioned on the procedure or in any of the operations staff logbooks, not discussed at shift turnover, and not discussed with facility operations management. After the critique, the contractor called a pause in tritium operations. A Management Control Plan allowed work to resume in a deliberate operations mode under Senior Supervisory Watch (using lessons learned from H-Canyon). The Site Rep attended the senior management briefing to the staff who will be performing Senior Supervisory Watches (SSW).

H Area Material Disposition: All shifts have been released from SSW at H-Canyon.

- The Plutonium-Beryllium Facility Self Assessment at HB-Line and H-Canyon was completed.
- Construction workers drilled four holes into a safety class concrete floor without authorization. Poor communication between the construction supervisor, construction workers, Radiological Control, and the shift manager led to confusion over the scope of work to be performed and the approval status of the revised work instructions. The construction workers had the original, approved version with them, but its scope excluded drilling. Although the revised instructions included drilling and the workers were familiar with the new scope, these instructions were not approved nor were they at the work site. Furthermore, these draft instructions included a Radiological Control action that was not performed.
- After an operator forgot to close the inlet valve for the oxalic acid flush tank after a flush, segregated cooling water overflowed onto the floor until it was discovered during rounds.

F-Canyon: The cause of the HEPA filtered vacuum failure last week was the use of paper filters to vacuum abrasive concrete chunks rather than poly composite filters.

Safety-in-Design Workshop: Savannah River hosted a workshop to discuss the implementation of DOE Order 413.3A, DOE Environmental Management (EM) Interim Guidance, and the draft DOE standard 1189. Several liquid waste projects (e.g., Tank 48) were used as case studies.

Facility Representatives (FR): Savannah River hosted an EM-wide summit on the status of the FR program. Both the Board's staff and key senior DOE officials contributed to the meeting.