

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 6, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: M. P. Duncan and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending June 6, 2008

F Tank Farms: During a mock-up of the oxalic acid addition process, the Site Rep and Facility Representative noticed an improperly labeled operator aid. The Site Rep also questioned whether it was valid to credit past walkdowns when performing and independently verifying a step that implemented an administrative control to verify the dedicated transfer path.

Modular Caustic Side Solvent Extraction Unit (MCU): MCU operations remain shut down. Because acid cleaning did not improve the differential pressure in the Decontaminated Salt Solution Coalescer, the contractor has decided to replace the coalescer filter media. Temporary shielding will be required because flushes and solution transfers were only able to reduce dose rates to ~800 mrem/hr. The Site Reps observed a mock-up of the planned evolution and a management review of the work package. The initial review was suspended because this was another case where the work package was not really ready to be reviewed. (See 5/23/08 report).

H-Canyon: The Site Rep observed an inspection of the H-Canyon Fan House underground structure with a robotic crawler. No signs of significant degradation were noted besides some expected erosion of the walls where the fans discharge into the tunnel.

System Engineers: The Liquid Waste Organization began implementing a system-specific qualification for existing system engineers. The process includes a walkdown and an oral assessment for the engineers to demonstrate their knowledge. (See 5/2/08 report). In addition, DOE approved retention incentives for qualified criticality safety specialists and facility engineers (i.e., safety system oversight). (See 4/25/08 report).

Contract Transition: The Site Reps observed Savannah River Nuclear Solutions (SRNS) personnel walk down F- and H-Canyons and HB-Line as part of SRNS transition activities. The Site Rep reviewed their lines of inquiry for the due diligence assessment of nuclear and criticality safety and provided comments. The Site Reps also discussed operations across SRS with SRNS management.

F-Canyon: An outlet valve was inadvertently left closed on a breathing air compressor used to supply air for workers wearing fresh air hoods in the F-Canyon truckwell enclosure. This error was not immediately detected and four workers entered the airborne radioactivity area with air being provided from several emergency egress bottles that are attached to the system. Less than 45 minutes later, a radiological control operator noted that the pressure in the breathing air manifold was decreasing and everyone responded appropriately by exiting the area. At DOE's urging, a critique was performed the next day. Since the person operating the compressor worked for Construction and not Operations, he had an operator guide instead of a procedure that must be used every time. Planned corrective actions include requiring everyone to use the procedure.

Solid Waste Management Facility: Venting of bulged transuranic waste drums is nearly complete. After a discussion with management, operators were able to show that dirt could still be cleaned from potentially pressurized drum lids with much less force than typically used. They also clarified what actions were authorized when the venting system malfunctions. (See 5/30/08 report).