

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 22, 2008

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** M. P. Duncan and M. T. Sautman, SRS Site Representatives  
**SUBJECT:** SRS Report for Week Ending February 22, 2008

**Interim Salt Disposition Project:** The DOE Operational Readiness Review commenced. A number of evolutions were delayed due to the failure of the 512-S Hold Tank transfer pump outlet valve, excessive contactor vibration, and rain-induced sump alarms. Messrs. Dunlevy and Zull were onsite to observe ORR activities.

**Saltstone:** The Saltstone facility remains in an operational pause while an engineered solution is designed, procured, and installed to deal with higher than expected contamination inside enclosures on the roof of the vault (see last week's report). The primary control to prevent the spread of contamination is expected to be the addition of passive filtration to the vents on the roof. Previously, filters were deliberately not installed to preclude the possibility of plugged filters allowing accumulation of flammable gases in the headspace of the vault's cells. The contractor submitted a change to the Documented Safety Analysis and argued that even if both of the cell's filters became plugged, other vent paths in the vault would be adequate to perform the safety function. Even so, the contractor plans to replace the filters often. The facility could resume salt waste processing as early as next week.

**Mixed Waste Storage:** Recently, a radiological facility temporarily exceeded the Hazard Category 3 threshold. Upon discovery, operations personnel took appropriate action consistent with the technical safety requirements. Some containers had previously been excluded from the inventory calculation based on an interpretation of DOE-STD-1027-92. Also contributing was that one of the excluded containers had more tritium than previously estimated. The contractor plans to review the entire Solid Waste Management Facility against the DOE-STD-1027-92 supplemental guidance released last year to ensure there are no other issues with excluded inventory.

**F-Canyon:** After exiting the south dock of F-Canyon, a worker found alpha contamination on his shoe. Subsequent facility surveys discovered transferrable contamination at two other nearby locations. When surveys were conducted of all personnel that had been on the dock, contamination was also found on a second worker's shoe. The source(s) of contamination is still inconclusive since subsequent counts of the smears showed erratic decay trends (one actually increased) and because there was no supporting evidence of where the release(s) occurred.

**Radiological Control:** The contractor finished a report documenting a causal analysis for contamination events between late November and early January (see the 1/11/08 report). Existing initiatives are expected to improve performance in the areas where issues were found. The contractor will consider adding a trigger in their ALARA review process to perform a more detailed review whenever Pu-238 hazards are expected.