

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 5, 2007

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending January 5, 2007

Mr. Linzau was out of the office this week.

K Basins Closure (KBC): The site rep observed the transfer of sludge from K East container C-102 to containers in the K West Basin. The design had been modified to inject dilution water into the sludge immediately after it exits the container. Procedures were also modified to permit back flushing the container outlet before starting the transfer as well as anytime there are indications that the pumps in the basin are losing suction pressure. These changes permitted around the clock operation for almost two full days. It is estimated that as much as three cubic meters, approximately half the sludge in C-102, were transferred during this period. The Hose-in-Hose system continues to experience a loss of seal water reservoir fluid when the booster stations are idle and during startup. The site rep noted that the visibility in K West Basin was approximately two feet almost two days after the transfer operation. Project personnel stated that this was a significant improvement from just after the transfer, and visibility problems in K West are hampering sludge vacuuming operations and debris removal preparations.

Efforts last week to install the modified strainer into the outlet of sludge container C-101 were unsuccessful even though water was injected into the strainer to liquify the sludge. Based on the success of using additional dilution water and back flushing in C-102, the project plans to not use the in-container strainer but will modify the flowpath from C-101 to match C-102.

River Corridor Closure Project: The recently submitted Startup Notification Report (SNR) from Washington Closure Hanford (WCH) indicates a more cautious approach to starting new activities when there are significant radiological hazards. There is a 5-month slip, from January to June 2007, in the contractor Operational Readiness Review (ORR) for the characterization of waste in the reactor silos located in the 118-K-1 burial ground (see Hanford Activity Report 4/7/06). The planned activities include installing a number of steel casings for lowering multi-detector probes into each of the six silos. The work also includes the removal of a 42-inch-diameter, 25-foot-long core with a projected 100 to 200 Ci of cobalt-60 from an irradiator as well as other waste. The disposal path for the removed monolith has not been determined.

The SNR did not include the characterization of waste in burial ground 618-10 and -11 because the activity is no longer expected to start within the next year (see Hanford Activity Report 8/18/06). The SNR from last quarter indicated that WCH expected to begin the review of this activity in March 2007. The SNR also indicates that the contractor ORR for the monolithic removal of hot cells in Building 327 will begin in September 2007.