

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 9, 2007

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending February 9, 2007

K Basin Closure (KBC): The project continues to develop a recovery plan for vibrations noted in booster stations 1, 2, and 3 last month. The attempts to clear the blockage in the impeller of pump 302 this week were unsuccessful. The most likely path forward includes using the backup pump in booster station 2. The project is evaluating maintenance activities to remove the relatively small amount of sludge that is believed to have collected on the trailing edges of the impellers in booster stations 1 and 3. One approach would be to put the pumps in a recirculation mode and induce minor cavitation. Changes to the impeller design are also being evaluated.

The KBC Project Plant Review Committee declared a Potential Inadequacy in the Safety Analysis (PISA) for the Cold Vacuum Drying Facility (CVDF) when it was discovered that two concrete footings for columns were thinner than assumed in the design calculations. In the original calculations for normal and seismic loads, the footings were two feet thick, but a recent analysis revealed that the footings were constructed only one foot thick. The facility is not currently in operation. The site reps requested additional information on this discrepancy.

River Corridor Closure Project: The site reps met with the Richland Operations Office (RL) team leader for the review of 618-7 burial ground start-up activities (see Hanford Activity Reports 12/8/06 and 11/10/06). The RL team was created to provide focused oversight of Washington Closure Hanford (WCH) preparations to start remediation activities. The team is using the WCH start-up checklist as a guide for their reviews. The checklist includes, as prestart activities, a series of mock-up simulations and emergency drills. The start of remediation activities has been delayed until next month, but a specific date has not been announced.

The site rep attended a training session for all WCH work planners designed to allow the new work control director to express his expectations. In general the training was good but could have had more focus on specific weaknesses in hazard analysis and work instructions.

The site rep was briefed by WCH personnel on an upcoming job at 107N building. The project is preparing to sluice 210 cubic feet of contaminated resin from two tanks in the building and then grout the resin in drums for disposal at the Environmental Restoration Disposal Facility. Start-up activities are scheduled to commence in a few weeks.

Tank Farms: This week Waste Feed Operation initiated a cross-site transfer of 800,000 gallons of high-level waste. The transfer was required to create space in the SY Tank Farm so that retrievals from single-shell tanks in S Tank Farm can continue. The site rep noted that the number of nuisance alarms previously observed (see Hanford Activity Report 1/12/07) was significantly reduced.