

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 27, 2008

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending June 27, 2008

K Basin Closure (KBC): The Contractor Operational Readiness Review (CORR) for the restart of spent nuclear fuel (SNF) operations was completed this week. The CORR team lead identified 18 pre-start and eight post-start findings at the outbrief. The final report is still being developed and it will likely also include one positive and 10 other observations. The KBC project director indicated that some of the pre-starts will probably be added to the manageable list of items that will be addressed after the start of the DOE ORR, which is expected to begin on July 7, 2008. The detailed Richland Operations Office (RL) oversight assessment report for the preparations leading up to and including the CORR should also be issued soon.

The findings and observations noted above are consistent with those noted by the site reps last week. One of the most significant findings dealt with weaknesses in procedures and the failure to explicitly follow step-by-step requirements. In subsequent discussions with RL management, the site rep learned they will probably require the use of a senior supervisory watch during actual SNF operations to preclude procedure noncompliance. The significant number of problems identified during the CORR may demonstrate a need for the DOE ORR team to observe more activities than those performed during the CORR, such as lowering the multicanister overpack into the basin. However, the site rep agreed with contractor management that as the ability to follow procedures as written is demonstrated during the DOE ORR, the number of observed evolutions required to adequately confirm readiness could be re-evaluated.

Tank Farms (TF): The Office of River Protection (ORP) and the contractor have been debating the applicability and implementation of Specific Administrative Controls (SACs) in the TFs, including the SAC for dome loading above waste tanks (see Hanford Activity Report 6/20/08). In an assessment completed in January 2008, ORP identified problems with SAC implementation (see Hanford Activity Report 2/1/08). Since this assessment, ORP has been working with the contractor to clearly define SACs in the Technical Safety Requirements, but the problems identified in the assessment are not yet resolved.

Waste Treatment Plant (WTP): ORP approved three Authorization Basis Amendment Requests addressing hydrogen in piping and ancillary vessels. In their approval letter, ORP said they will not close an existing condition of approval until the ongoing tests to confirm piping support loads are completed.

The WTP and TF contractors held an integrated safety design meeting to discuss the control selection for the transfer lines between the Interim Pretreatment System (IPS) and the Low Activity Waste (LAW) facility. A number of design challenges were identified in the integration of safety approaches from the separate contractors, but these challenges appeared to be solvable through continued discussion. A valve box on the WTP site is being considered because the transfer lines to the LAW facility will have to bypass the Pretreatment facility. The current plan is to have this line above ground instead of buried like all the other transfer lines on the WTP site. Because above-ground lines present additional hazards, a new hazard analysis will be required. Also discussed were controls to prevent high-level waste transfers to the LAW facility and the toxicological hazards of the waste. No ORP representative was present at the meeting.