

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 18, 2009

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending September 18, 2009

Waste Treatment Plant (WTP): The contractor completed the root cause analysis (RCA) for deficiencies noted in supplier commercial grade dedication (CGD) activities. In July, the Office of River Protection reported the results from surveillances of two vendors that are providing safety-related equipment and identified technical issues in the implementation of the CGD process (see Activity Report 7/17/09). Two root causes were identified in the RCA: the project failed to ensure vendors understood how to do CGD, and the project inadequately verified that quality programs flowed down from the vendors to their sub-suppliers. The RCA also has four contributing causes and 25 judgments of need. The project is continuing their extent of condition (EOC) reviews. To date, of the 57 vendors actively supplying safety-related components (Q vendors), 34 have been reviewed, and 11 have been cleared to ship commodities and equipment. The project is conducting testing on components already delivered, some of which are installed. Few components failed to meet specifications and none of these will require destructive rework. The EOC reviews are to be completed by October 31, 2009.

U Canyon D&D: A critique was held this week for an event that occurred on September 2 in which radiological work permit (RWP) void limits were exceeded. Workers were setting up to perform work in an area believed to have low levels of contamination but entry surveys indicated that levels were approaching the RWP void limit. The workers appropriately backed out of the area to prevent exceeding the limits of their RWP. They gathered and discussed how to proceed and believed they could continue by switching to controls for a high contamination area with a higher void limit. The higher void limits were on a different RWP, which was not authorized for this work, but were mistakenly applied. The workers completed the work task but exceeded the void limit for the RWP assigned to that work package. The site rep heard about this event last week and both he and the DOE facility rep questioned why no critique had been held. It appears that if they had not questioned the lack of critique, none would have been conducted and no corrective action or lessons learned would have been generated.

100 K Project: The DSA for removing the K East Basin has clear step-out criteria for determining when the DSA would no longer be in effect, including removing the entire basin floor and all of the walls except for the wall immediately adjacent to the reactor discharge chute. The contractor and RL had expected to be able to step out of the DSA after removing the basin but concluded that the DSA needs to remain in effect because a small portion of the basin floor near the discharge chute remained in place to support steel plate shielding (see Activity Report 7/10/09). The contractor will incorporate the scope of soil remediation into the DSA, train personnel, and then complete the remediation in two phases. The first phase would be to remove the soil, and the second phase would be to scabble approximately two inches of the discharge chute wall to reduce the dose and then remove the last portion of the floor. The site rep questioned if this sequence was safe and consistent with ALARA practices because the high dose rates from the discharge chute would be present during large-scale soil remediation. The contractor convened a Technical Response Team and determined that the steel plates would be removed, but clean soil would be used to shield the discharge chute so the dose to the workers performing soil remediation will be low and the hazard from the steel plates falling would be eliminated. Only then would they conduct the large-scale soil remediation.