

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 30, 2010

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending July 30, 2010

Staff members S. Lewis, A. Poloski, and D. Wang were on-site observing the small-scale mixing demonstration workshop.

100K Project: Last Friday, a small fire began in the K East (KE) Reactor Building after the contractor used explosives for the controlled drop of the C-elevator counterweights and bridge cranes inside and the ventilation exhaust stack just east of the building. The stack fell in the desired location and both the heavy counterweights and cranes inside the reactor building fell onto the engineered impact absorbers without damaging the concrete floor. During the planned post-demolition walkdown a worker encountered a small fire and used a fire extinguisher to put it out, but did not direct others to call the site emergency number (911.) The field work supervisor first learned of the fire almost a half hour later, but rather than call 911 he made a non-emergency call to the Hanford Fire Department Battalion Commander. Workers failing to call 911 is a recurring problem previously noted in the trench 11 event in February and the waste spill at S-102 in 2007. Additionally, over 2,000 square feet of asbestos-containing transite wall panels on the exterior of the reactor building were destroyed or damaged during the demolition. The contractor expected some minor damage to the wall panels, but not to this extent.

Plutonium Finishing Plant (PFP): The contractor completed the actions to incorporate the 2736-Z complex into the PFP D&D DSA and cancel the 2736-Z DSA. A worker performing a combustible loading surveillance in 2736-Z at 11:00 PM identified a situation that would not be compliant with the TSR control for combustible loading that was scheduled to go into effect at midnight. The shift manager conservatively entered the limiting condition for operation and exited it the next day after workers placed a fire blanket over the waste containers. The contractor is investigating why the discrepant condition was not identified earlier.

Waste Treatment Plant: The Office of River Protection (ORP) Safety Review Board (SRB) reviewed the draft Safety Evaluation Report (SER) for an Authorization Basis Amendment Request (ABAR) which changes the number of safety-class emergency diesel generators (EDGs) from four to two larger EDGs. The contractor has not determined the precise means for dealing with the impact of the design basis volcanic ashfall event on the EDGs, and the draft SER notes this will be resolved in a future ABAR and SER. The site rep also questioned if the ABAR-specified two-hour fire barrier between the EDGs is consistent with the IEEE standards. An ORP engineer later determined that a three-hour barrier is required unless there is an analysis which supports a shorter time and the contractor will develop the required analysis.