

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 9, 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 9, 2010

Tank Farms: Late last week, contractor management suspended all work that required a lock out/tag out (LO/TO) after a number of problems were identified. On Monday, a series of meetings were held in which managers briefed workers on the problems and provided refresher training on the LO/TO process. In addition, verification of existing LO/TOs was initiated. The contractor is releasing work requiring use of a LO/TO on a case-by-case basis after verifying that the procedures were adequately implemented or deficiencies corrected.

100K East Demolition: The contractor plans to use explosives later this month to drop the K East exhaust stack, elevator counterweights, and two overhead bridge cranes. The work will be performed by a subcontractor with oversight by the contractor and the Richland Operation Office (RL). The stack is 175 feet tall and has a diameter of 22 feet at the base, but the contractor has determined that it can be dropped with negligible effects on surrounding buildings. The two elevator counterweights, which weigh approximately 40,000 pounds, will fall about 50 feet onto shock-absorbing timbers to minimize damage to the concrete floor. Likewise, timbers and other shock-absorbing material will be used to prevent damage to the floor when the two bridge cranes are dropped. All the explosive demolition is planned to be completed in one day and public access to the river adjacent to the area will be prevented by local authorities. The site rep requested copies of the analysis that demonstrates the work can be completed safely.

Waste Treatment Plant: The site rep met with the contractor to discuss their initiative to conduct process hazard analyses (PHAs) for some of the remaining major design changes to the Pretreatment facility. The design changes are from the resolution of long-standing technical issues and include: modifications associated with solving the mixing issues; incorporating the changes anticipated for the controls for hydrogen; installing a recirculation loop to prevent the formation of solids in the cesium ion exchanger; installing a secondary steam loop for the evaporators to prevent contamination of the plant steam system from a heat exchanger leak; and modification to the vessel ventilation system to handle excess solid entrainment. One of the purposes of the initiative is to conduct hazard analyses for the initial design solutions and then continuously as these changes are incorporated. This effort is also trying to ensure the new components will fit, prioritize implementation, and manage schedule. The schedule that integrates the PHAs into the final design process should be completed in September.

River Corridor Closure Project: The contractor conducted a workshop to identify hazards associated with the remaining D&D activities at Building 324. The remaining work includes: removal of stabilized contaminated piping and duct work, demolition of the building shell, demolition of the exhaust stack, diamond-wire cutting of the hot cells, and shipping the hot cell monoliths to the Environmental Restoration Disposal Facility for final disposition.

DOE Managers: DOE-EM announced that D. Brockman will be switching from the Manager of RL to the Manager of the Office of River Protection (ORP). He will be replaced by M. McCormick, who is the RL Assistant Manager for the Central Plateau. The current ORP Manager, S. Olinger, will take a position at DOE-HQ.