

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 6, 2010

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending August 6, 2010

Office of River Protection (ORP): The site reps met with D. Brockman, the new manager at ORP, and summarized issues being reviewed by the Board and staff, primarily those associated with the Waste Treatment Plant (WTP) and work control in the tank farms.

Waste Treatment Plant: ORP and the contractor acknowledged there should be large-scale testing of mixing in tanks before cold commissioning. ORP and the contractor entered the planning for large-scale testing of mixing into their technical issue tracking system (a “cut sheet”). The cut sheet indicates that a strategy to support detailed planning will be completed in late September.

The contractor conducted an integrated safety design meeting to determine the appropriate control strategy to protect workers from waste leaks into the black cells and hot cells of the Pretreatment facility. They determined during the meeting that crediting the stainless-steel liner on the interior of the cells was the appropriate control for a slow leak that would be hard to detect. Because the liners were not previously credited with a safety function, they were installed without the quality pedigree associated with safety equipment. The project proposed conducting commercial grade dedications for the installed liners. The piping and vessels in the black cells are classified as safety-significant for confinement but were not selected as the credited control.

Plutonium Finishing Plant: The contractor submitted an occurrence report that is categorized as a recurring event for a perceived failure of previous corrective actions to resolve issues in work management and performance. For the second time in five months, operators isolated the air supply to a worker wearing a supplied-air respirator mask who was still in an airborne radioactivity area. On Monday, workers entered the Plutonium Reclamation Facility (PRF) canyon to repair the bridge crane that failed last week. The lead operator was very familiar with the lessons learned from the prior event but mistakenly directed the air be turned off without verifying all the workers were disconnected. The affected worker immediately exited the containment tent when he noted the loss of air rather than turning on the portable emergency air bottle as trained.

During the critique, workers frankly discussed problems during the work evolution and other weaknesses, including support personnel leaving the area prematurely. It appears that workers were aggressively pursuing repairing the crane to continue cleaning debris from the PRF canyon. Management recognizes the need to proceed at deliberate speed while still ensuring safety.

Environmental Restoration Disposal Facility (ERDF): Two events occurred this week that put workers at risk of serious injury. One of the events occurred during maintenance of a waste container used to transport bulk waste to ERDF. A small gantry crane flipped over during lifting/opening of the top-hinged door on the back of the container. The crane fell within two feet of the workers and struck the floor with enough force to spall the concrete. The other event occurred when a container slid off the back of a transport truck in an uncontrolled manner during offload because of a failure to strictly follow the handling procedure.