

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 14, 2012

TO: T. J. Dwyer, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending December 12, 2012

Board members P. Winokur, J. Bader, J. Mansfield, and S. Sullivan as well as staff members T. Dwyer, M. Forsbacka, D. Jonas, S. Lewis, J. Meszaros, and J. Troan were on-site to discuss various topics with DOE and the contractors. They also performed walkdowns of the 242-A Evaporator, Tank Farms, Plutonium Finishing Plant, Waste Treatment Plant (WTP), and Waste Encapsulation and Storage Facility (WESF) as well as observed work at an off-site facility where testing of tank waste mixing and sampling is being performed. Staff member D. Kupferer was on-site to observe a meeting on criticality safety at the Waste Treatment Plant.

Tank Farms. A Differing Professional Opinion (DPO) Review Panel provided their recommendations on the DPO regarding abrasives addition to the tank farms (see Activity Report 8/17/2012). They determined that the estimated additional wear in WTP from abrasives added to the tank farm would be small compared to the large uncertainties in current wear estimates. Based on this assumption, the Panel recommended that abrasive cutting proceed as planned in the tank farms. The Board's staff plans to independently evaluate the potential safety impacts of abrasives in WTP.

The contractor started retrieval from Single-Shell Tank C-101 to Double-shell Tank AN-101 using a sludge depth limit of 170 inches in the receiving tank. This retrieval marked the first use of safety-significant temperature monitoring of the waste transfer system. The site rep observed the completion of some prerequisites and noted the workers were familiar with the concurrent verification requirements for the new DSA controls but the senior supervisory watch was not.

Central Plateau Remediation. The contractor's Nuclear Safety Performance Evaluation Board (NSPEB) completed its review of the Sludge Treatment Project (STP) and concluded that their performance met expectations. This review is the last assessment that RL and the contractor committed to perform as a corrective action from the Board's 10/6/2011 letter regarding WESF. The NSPEB noted that contractor management was too focused on the engineering, procurement, and construction aspects of the project and was not providing adequate oversight of other areas.

Plutonium Finishing Plant. The contractor determined that a worn drive belt was the failure mechanism for the Plutonium Reclamation Facility canyon crane. They performed a canyon entry to attempt to replace the belt but were unsuccessful.

Environmental Restoration Disposal Facility. The contractor held a fact finding on an incident where a worker detached and then reattached his supplied airline which was tangled. The airlines were in use for a chemical hazard in a high radiation area. The contractor is collecting additional field data to determine the appropriate level of personal protective equipment to use for this activity. Reattaching a detached airline is not consistent with site training. The fact finding meeting was dominated by the manager leading the investigation who directed the depth and breadth of the process. The workers had little uninterrupted opportunity to provide their input to the process. The site reps provided feedback to the manager regarding leading fact findings.