

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 17, 2012

TO: T. J. Dwyer, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending November 17, 2012

R. Quirk was out of the office this week. Board staff member T. Hunt and outside expert D. Boyd were on site to review conduct of operations at the Plutonium Finishing Plant.

Tank Farms. The contractor is finalizing a change to the safety basis that will permit continued operation of the C-107 Mobile Arm Retrieval System (MARS) system during cold weather months (see Activity Report 11/10/2012). The proposed control strategy relies on multiple temperature measurements at different locations in the MARS with a monitoring frequency dependent upon the outside air temperature which will be monitored locally in the Tank Farms. Operators will shut down the system in the event of outside temperatures below 10 degrees F or low temperature measurements within the MARS to prevent plugging from freezing.

The Office of River Protection (ORP) continues to evaluate the path forward to address the leak in the primary tank of double shelled tank (DST) AY-102 (see Activity Report 10/19/2012). The annuli of six additional DSTs will be visually examined over the next few months for evidence of additional leaks. ORP is preparing equipment to support transfers out of the tank if they get direction to do so.

Plutonium Finishing Plant. The staff and site representative observed multiple operations at the Plutonium Finishing Plant (PFP). In general, the implementation of conduct of operations at PFP showed improvement over previous years. Communication practices and work execution skills are two positive examples of improved work practices. Procedure quality and development of work packages are areas where further improvement would be valuable.

The site rep observed a portion of the activities to recover from last week's criticality nonconformance during pencil tank size reduction (see Activity Report 11/10/2012). The contractor developed a recovery plan and modified the procedure to 'rezero' the fissile inventory. Rezeroing involves cleaning debris from specified areas until the amount remaining satisfies a subjective determination by the criticality safety representative. The new procedure added more specificity as to the exact locations that needed to be cleaned during the process. The criticality safety representative determined that the area was clean enough to rezero. Work in the area is continuing with preparations to repair the canyon crane.

Waste Treatment Plant. The contractor's Differing Professional Opinion (DPO) Review Board met to assess the DPO on code interpretation for placement of fire sprinkler hangers (see Activity Report 10/12/2012). Independent, qualified experts presented their assessment of the DPO to the Review Board and involved parties. The Review Board expects to issue their decision on the DPO next week.