

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 18, 2015

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending December 18, 2015

**Plutonium Finishing Plant (PFP).** The contractor held a critique to collect facts related to a loss of radioactive material control (see Activity Report 12/11/2015). They determined that eleven vortex coolers had been sent off site to investigate mechanical joint failures. Although the units had been surveyed and released, RL and the contractor decided to retrieve them because of the previously unidentified potential for contamination. They subsequently discovered that the local manufacturer's representative had sent eight of the units to the manufacturer for testing, and that the manufacturer had then sent the units to a sub-tier vendor. The contractor retrieved the three units that remained in the local area and performed surveys. Although two of the units had low levels of contamination (below DOE Order 458.1 clearance thresholds), no other contamination was found in the surveyed locations. RL also worked with DOE Headquarters to deploy two Radiological Assistance Program (RAP) Teams to the sub-tier vendor (Ohio) and manufacturer (Pennsylvania) facilities. The RAP Teams retrieved the eight remaining units and surveyed both facilities. No contamination was found in either of the facilities.

RL and the contractor met to discuss ongoing safety trends and other concerns. They decided to suspend much of the ongoing high hazard work during the holiday period. The contractor will brief RL senior management regarding actions taken to support resuming work in early January.

**Tank Farms.** The site rep observed a portion of the field work to flush a transfer pump in tank AW-106 (see Activity Report 12/4/2015). The field crew performed well however the high pressure water system was not able to dislodge the waste from the pump. The contractor is evaluating a path forward.

The contractor held a control decision meeting to evaluate possible controls to protect temperature limits for safety-significant components when new in-pit heaters are installed. During the summer months, it is possible for a runaway heater, combined with other thermal inputs to cause pit temperatures to exceed component limits. The contractor's preferred control is a specific administrative control that would forbid unlocking a waste transfer path unless the heaters are locked out during the months when an over temperature scenario is feasible.

**Building 325.** The contractor held a critique to discuss a discrepancy between a recently changed work control practice and the TSRs. The change replaces a committee-based review of new research activities with a procedure-based review. The committee, which stopped activities in November, is specifically noted in the TSRs. The contractor concluded that this is not a TSR violation or a PISA and is incorporating a change to the TSRs in the imminent annual update.

**Waste Treatment Plant (WTP).** The staff briefed ORP and the contractor regarding the results of a review of the contractor's processes and practices related to storage and control of material that will be installed in WTP safety systems. ORP's Assistant Manager for Technical and Regulatory Support and the Deputy Assistant Manager for WTP attended the brief.