

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 5, 2014

TO: S. A. Stokes, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending September 5, 2014

D. Gutowski was offsite.

242-A Evaporator. The contractor began the first waste volume reduction campaign in almost four years (see Activity Report 10/8/2010). Similar to what happened in the cold run and then during the contractor and DOE Readiness Assessments (RAs), absolute pressure (vacuum) in the evaporator vessel plateaued above the desired pressure. However, after a few hours, it dropped to the specified value with no apparent operator action. Following the DOE RA, the contractor completed maintenance intended to resolve this problem. The contractor is now evaluating other potential solutions.

The evaporator feed pump in double-shell tank AW-102, which has not operated since the last campaign, failed to start Friday evening. The contractor is investigating why the pump did not start.

Both ORP and the contractor are providing around-the-clock oversight of operations at the facility. One focus area for these personnel is procedure compliance. A Facility Representative identified procedure error traps and poor sequencing of language in a procedure. The contractor changed the procedure to address this observation.

Plutonium Finishing Plant. RL issued a Safety Evaluation Report (SER) that closes the long-standing Justification for Continued Operation associated with the catastrophic destruction of a safety-significant exhaust fan (see Activity Report 5/2/2014). The SER notes that RL is accepting additional programmatic risk by continuing to use the six remaining aged and degraded exhaust fans. It also notes that the fans do not meet design criteria for safety-significant fans but the risks associated with this were already accepted in earlier versions of the safety basis. The SER has one condition of approval associated with additional requirements for a specific administrative control for fans with high radial and/or axial vibration.

Workers made multiple entries into the Plutonium Reclamation Facility canyon to repair the bridge crane. Similar to entries last week, contamination levels on lapel samplers from one entry indicated that airborne radioactivity levels in the immediate work area were higher than anticipated. Bioassays are being performed on the affected workers. After that entry, workers wiped down the work areas with damp cloths rather than just spraying fixative, and this seems to have resolved the issue. The contractor expects to return the crane to operation and resume pencil tank size reduction activities next week.

Sludge Treatment Project (STP). The site rep and contractor construction manager completed a walkdown of the STP annex. Workers were installing exterior wall panels on the superstructure. The project team anticipates finishing this activity early next week. The facility will be fully enclosed when several doors are installed.