

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 8, 2013

TO: S. A. Stokes, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending November 8, 2013

Board staff members R. Kazban and S. Seprish were on site this week to observe the Construction Project Review as well as Hazards Analyses for the Waste Treatment Plant.

Tank Farms. The contractor is continuing efforts to remove the failed C-107 slurry pump (see Activity Report 11/1/2013). It is unclear whether the pump impacted the bottom of the tank when it unexpectedly extended or whether it stopped a few inches off of the bottom. The pump is currently a few inches above the tank bottom. The contractor completed a technical evaluation which concluded that a drop of these remaining inches would not damage the tank liner. The site rep observed field work to troubleshoot the winch that extends and retracts the slurry pump. The workers discovered that the winch was not functional and believe that a pin had sheared.

The contractor completed an unreviewed safety question (USQ) determination for continued retrieval using safety-significant equipment of questionable quality (see Activity Report 11/1/2013). Their conclusion is that it is not an USQ and continued retrieval operations were compliant with the safety basis. Members of the Board's staff are evaluating this conclusion.

242-A Evaporator. The site rep met with representatives from the Office of River Protection (ORP) and the contractor to discuss if firmware in safety-significant instruments should be considered safety software. The contractor's position is that it is not safety software because the software is integral to the hardware which is tested before use. They justified this approach by noting that this is an acceptable method in NQA-1-2004 Subpart 4.1. The ORP representative noted that this section of NQA-1 is not currently a requirement in the contractor's QA Plan.

The site reps walked down the condenser room in the evaporator with an ORP facility representative (FR). They discussed the safety instrumented systems (SISs) in the condenser room and the caustic spray incident (see Activity Report 10/4/2013). The caustic spray area included the new safety-significant vacuum break that was installed as part of the SIS. The FR told the site reps that the spray had not adversely impacted the safety function of the valve.

Plutonium Finishing Plant (PFP). The site rep observed a thorough pre-job briefing for making additional repairs to the bridge crane in the Plutonium Reclamation Facility. Fuses on the crane blew last week following a brief period of operations to size reduce pencil tanks. Earlier this week during entries into the canyon, workers identified insulation failures on the power cable to the bridge crane trolley. The damaged sections of the cable were removed.

Sludge Treatment Project. The contractor formally submitted the revised Preliminary Documented Safety Analysis to the Richland Operations Office for review and approval. This is a key step for final approval of the Critical Decision-2/3 package.

Waste Treatment Plant (WTP). The DOE Construction Project Review (CPR) team was on site to evaluate the project. A specific focus for the CPR was the project's ability to successfully complete direct feed to the Low Activity Waste Facility.