

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 6, 2013

**TO:** S. A. Stokes, Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending December 6, 2013

**Plutonium Finishing Plant (PFP).** The site reps and a contractor manager discussed several proposed changes to the PFP safety basis. One of these changes addressed foaming gloveboxes to stabilize the material at risk (see Activity Reports 7/19/2013 and 8/2/2013). Another was a proposed major change to account for the holdup that has been removed from the facility and the incredibility of the existing design basis fire. The current design basis fire has the fire propagate from one process glovebox to another but the manager said this cannot happen now because many of the gloveboxes were removed from the facility and others have been physically separated. The contractor believes that revising safety analyses to reflect the current condition of the facility will show that a fire resulting in a general emergency is incredible.

The site rep observed workers removing combustible material from the highly contaminated hydrogen fluoride scrubber room, which is the room where paint overspray was noted on a fire sprinkler head (see Activity report 11/22/2013). The work team efficiently removed a significant amount of material from the room. Later in the day, fire protection personnel concluded that the removal of the combustible material met one of the key steps in the recovery plan for paint overspray on two sprinkler heads in the room.

The contractor concluded that the fire barrier deficiencies identified last week (see Activity Report 11/29/2013) are unreviewed safety questions.

**Waste Treatment Plant.** The Office of River Protection (ORP) is nearing completion of a review of 15 systems in the High Level Waste (HLW) Facility. The review team was tasked to determine if the as-designed systems will perform their design and safety functions. The team has preliminarily identified a large number of issues, many of which were categorized as high and medium vulnerabilities. ORP plans to release the final review report in February. The ORP manager for the review noted that the lack of system engineers appears to be one of the key causes for the problems. The lack of system engineers is a long standing issue noted by previous Construction Project Reviews (see Activity Report 11/5/2010).

ORP and contractor personnel met to discuss how the Safety Design Strategy (SDS) in development for HLW will inform safety basis revisions and realign the design and safety basis. No formal conclusions were reached, but the contractor plans to document their approach for using the SDS to ORP in the near future.

The management levels of the High Level Waste Safety Design Integration team started their discussions on the first five design basis accident travelers that the working team completed (see Activity Report 11/29/2013). They intend to provide feedback once the working team completes the full suite of eleven travelers. The working team has now completed 9 of the 11 travelers.

**Tank Farms.** The contractor removed the failed slurry pump from single-shell tank C-107. Due to the challenges involved with removing this pump, the replacement pump was field modified to address some of the possible binding locations.