

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 13, 2015

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending March 13, 2015

Board staff member M. Horr was on site for discussions on Tank Farms activities with ORP and the contractor.

**Plutonium Finishing Plant (PFP).** The index finger of an individual working on the PFP duct level was cut during the separation of a horsetail closure with a knife. Although low levels of contamination were present on the knife, no contamination was found in the wound. The event critique determined that the worker was not wearing gloves with an adequate level of cut protection when the injury occurred, and it was noted that there is a poor understanding of personal protective equipment (PPE) for hands among both workers and management. The contractor has provided additional information to the work force and is evaluating other measures to ensure that appropriate hand PPE is worn while performing work, and is evaluating the methods used to perform horsetail separations.

Because of recent events including two worker injuries, several problems with the use of PPE, and a dropped counterweight in the Plutonium Reclamation Facility canyon (see Activity Report 03/06/2015), the contractor intends to perform a safety stand down to communicate lessons learned from recent adverse events to the work force.

**Tank Farms.** The site reps observed an AN tank farm drill at the incident scene and the incident command post. The drill scenario had a spill of waste from a piece of long length contaminated equipment while it was being lifted free of a tank. An individual was splashed with caustic tank waste as part of the scenario. The activity included initial response to the incident, response from the Fire Department, evacuation of the casualty, and doffing of contaminated bunker gear.

The site rep and staff met with ORP and contractor personnel to discuss activities related to Recommendation 2012-2. One key topic was the design of real time flow monitoring for double-shell tank ventilation systems. The contractor has a conceptual design for SY farm which includes a bypass loop in the ventilation ducting with the flow monitors installed on that loop. The approach for AW, AN, and AP farms is expected to be similar while AY/AZ is still under evaluation.

**Sludge Treatment Project.** A small fire occurred in recently applied fire retardant coating material located near a K-annex construction welding operation. The fire was put out by the welder. The critique determined that the work was being performed in accordance with current guidance for hot work. Although the cause of the fire is unknown, and although the required curing time for the fire retardant coating has passed, the contractor surmises that the heat from the weld may have ignited a pocket of volatile organic chemicals that could have developed during the fire retardant curing process. The contractor has notified the manufacturer and is working to gain a better understanding of the event cause. Similar fire retardant material is being used to protect metal frames in other nuclear facilities that are under construction and a lesson learned will be issued when additional information is available.