

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 10, 2014

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox, D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending October 10, 2014

**Emergency Preparedness.** RL issued the report for the annual field exercise (see Activity Report 6/20/2014) and concluded that 12 of the 13 exercise objectives were adequately demonstrated by the contractors. The objective that was marginal was the requirement to properly mitigate, stabilize, and gain control over the emergency situation. The report describes a number of problems captured in three findings and five suggestions for improvement.

**Waste Treatment Plant.** The contractor resumed hazards analysis meetings for the High Level Waste (HLW) Facility's concentrate receipt, melter feed processing, and glass former reagent systems. They suspended this activity last year to devote resources to developing the Safety Design Strategy (SDS) for the HLW facility. They plan to revisit completed work to ensure that controls identified in the SDS are included as candidate controls in the hazard analysis reports.

**Plutonium Finishing Plant (PFP).** The contractor is drafting a major revision to the PFP safety basis (see Activity Report 6/13/2014). One major change under consideration is downgrading the safety-significant confinement ventilation system. Also, the option to remove high plutonium holdup gloveboxes from the facility without first performing size reduction will be removed from the safety basis. (see Activity Report 12/13/2013).

The site reps performed a walkdown of the Remote Mechanical (RM) A and C lines. Most gloveboxes have been removed or staged for removal from the facility.

There were four cases of skin or personal clothing contamination over the last two weeks. All four events occurred when the worker was wearing a single set of reusable cloth anti-contamination (Anti-C) coveralls. The contractor's initial efforts to control the problem are focusing on the type and condition of the Anti-C clothing used by the workers. Management initiated three controls to address the problem until the cause is determined and addressed. Use of one type of reusable coveralls was suspended, workers that perform activities in RM C line high contamination areas must wear two sets of Anti-C's, and the option to self-survey after exiting an area that requires a whole body survey was suspended.

Workers in Room 242-Z use level B suits and airline respirators equipped with emergency escape bottles. During training with this ensemble, the air supply manifold did not operate as expected when a failure of the airline supply was simulated. The result was an inadequate supply of air from the emergency bottle to the individual's face mask. Work has been suspended in 242-Z until the cause of the unexpected operation is determined and corrected.

**Waste Encapsulation and Storage Facility (WESF).** The contractor submitted the conceptual design report for the WESF stabilization and ventilation project and a draft request for proposal for placing the capsules into dry storage.

**Richland Operations Office (RL).** RL directed two of their contractors to use 2012 values for natural phenomena hazards and to treat this as new information.