

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 21, 2014

**TO:** S. A. Stokes, Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending March 21, 2014

Board staff member J. Abrefah observed a technical review of deep sludge gas retention and release in double-shell tanks. Board staff member R. Kazban observed a CRESF review.

**Plutonium Finishing Plant (PFP).** Late last week, the contractor declared a criticality safety infraction when a surveillance operator noted that workers had covered a safety-significant criticality safety drain with a fire blanket. The fire blanket was over a pile of debris from pencil tank size reduction activities in the Plutonium Reclamation Facility canyon. The drain served two adjacent gloveboxes. The contractor entered the appropriate limiting condition of operation and developed a recovery plan. This week, the contractor completed the recovery by moving the debris and fire blanket away from the drain. This is the first criticality safety infraction at PFP since 2010 (see Activity Report 12/30/2010), but the ninth time they have formally evaluated potential criticality safety non-conformances since May 2013. At least four of these resulted in the identification of deviations from established controls, and a fifth is still being evaluated as a potential infraction depending on the result of non-destructive analysis. The contractor initiated a review to determine if there is an adverse trend related to these recent criticality safety non-conformances.

**Waste Treatment Plant (WTP).** The Consortium for Risk Evaluation with Stakeholder Participation (CRESF) reviewed the status of recommendations from their December 2013 letter including the path forward for standard high solid vessel designs in the Pretreatment facility. The staff and site rep walked down the Pretreatment Facility with the CRESF team to observe current black cell configuration and potential changes due to standardized vessel design. At their outbrief with Office of River Protection (ORP) senior management, the CRESF team noted that the contractor was only responsive to one of the nine issues, standardized vessel design, identified in the December 2013 letter.

The prime contractor announced a major reorganization of the WTP management team. Among the changes was a shift of nuclear safety responsibility from a major subcontractor. The current Environmental and Nuclear Safety organization will have its nuclear safety function moved to a Nuclear Safety Engineering organization reporting to the prime contractor's Design Authority.

**Emergency Preparedness (EP).** Richland Operations Office personnel, site EP contractor personnel, and the site rep observed a drill at the Canister Storage Building. The scenario involved hydrogen gas leaking from a multi-canister overpack (MCO) and igniting under the turret of the MCO Handling Machine. As part of the site's EP program, this drill fulfilled the annual requirement for all personnel in the 200 East Area to take cover. One positive aspect of drill performance at the scene was the strong command and control exercised by the work supervisor. Negative aspects included the slow response of support workers from other facilities and problems activating the take cover sirens.

**Low Activity Waste Pretreatment System (LAWPS).** A DOE team began an evaluation of the LAWPS project. The team is tasked with providing a recommended path forward on LAWPS to DOE-EM senior management. The LAWPS project was most recently known as the Interim Pretreatment System and is the latest iteration of the Supplemental Treatment Project (see Activity Report 1/28/2011).

**Office of River Protection.** ORP issued their implementing procedure for DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities* (see Activity Report 7/22/2011).