

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 18, 2014

TO: S. A. Stokes, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending April 18, 2014

Plutonium Finishing Plant (PFP). The contractor experienced a third spread of contamination event in three weeks while removing a forty pound flanged segment of contaminated piping. Alpha contamination levels as high as 500,000 dpm/100cm² were found on the floor below the waste package and 100,000 dpm/100cm² on the outer set of a worker's protective clothing. Workers successfully recovered from the event, but it is unclear why lessons learned, including padding and double bagging contaminated equipment before placing it on the floor, were not practiced.

The site rep spoke to various RL and contractor managers concerning the repeated contamination spread events at PFP. The contractor has temporarily assigned a rad con manager from the central organization to the PFP project to assist the deputy manager.

242-A Evaporator. The contractor determined that the potential inadequacy in the safety analysis regarding fire impacts on safety controls is an Unreviewed Safety Question (USQ) (see Activity Report 4/4/2014). The USQ is specific to fires in the Evaporator Room. The contractor is evaluating possible near and longer term control solutions to address fires in all areas of the facility with safety controls.

Waste Treatment Plant (WTP). ORP issued an assessment report on the environmental monitoring system (EMJ) which detects hazardous chemicals from the primary and secondary offgas systems in occupied areas of the Low-Activity Waste Facility. The assessment team determined that the EMJ had been reclassified as non-safety despite consequences to facility and co-located workers that drive the need for safety-significant controls. Instead, the current control strategy relies on safety management programs. The assessment also noted that the procurement of the EMJ did not follow a graded approach for quality assurance and instead procured the systems as commercial grade material.

Fire Protection. The contractor completed the overdue Baseline Needs Assessment (BNA) (see Activity Report 3/29/2013) and concluded the Hanford Fire Department is prepared to respond to site emergencies. The BNA noted that most recommendations from the previous BNA have been addressed. The BNA identified a number of new recommendations which will be reviewed by RL, including replacing or refurbishing three vehicles.

Beyond Design Basis Events. A team from DOE headquarters was onsite to perform an assist visit to share lessons learned for evaluating beyond design basis events. The team reviewed the Low Activity Waste Facility, the High-Level Waste Facility, and the Tank Farms. One item they noted was that DOE does not have any policy regarding evaluating co-located and facility worker hazards in beyond design basis events.

100 Area Reactors. The site rep met with personnel from the mission support contractor and RL to discuss what parts of the nuclear safety rule and which DOE orders should apply to the long term surveillance and maintenance of the interim stabilized reactors.