

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 17, 2016

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending June 17, 2016

Staff members F. Bamdad, D. Cleaves, L. Lin, and J. Meszaros were on site for a review of the Plutonium Finishing Plant demolition planning. Staff members C. Beaty, M. Bradisse, A. Hutain, and M. Randby were on site to observe the annual site emergency exercise.

Plutonium Finishing Plant (PFP). Workers evacuated PFP facilities when an unplanned criticality alarm occurred during the performance of monthly functional tests. The facility emergency response organization established an incident command post (ICP) using the alternate ICP trailer and workers proceeded to assembly areas. Approximately 50 individuals who had been working in contaminated areas were segregated from other individuals and subsequently doffed their protective clothing with no personal contamination incidents. The alarm was triggered by panel testing, but the cause has not been identified. Evacuation routes and assembly areas were surveyed, and appropriate contamination boundaries were established. The most significant areas of contamination spread were associated with the evacuation route and assembly area used by individuals who evacuated from the highly contaminated 242-Z facility.

A worker narrowly missed a contaminated wound while preparing equipment for disposal in the 242-Z facility. A wire on the device punctured all four protective clothing glove layers which included a cut and puncture resistant glove, level B suit glove, and two sets of surgeon's gloves. The individual's skin was not punctured and no skin contamination occurred.

Emergency Preparedness. The site reps and staff observed the annual site emergency exercise from the event scene, incident command post, and emergency operations center. The scenario was a spray leak along the AY-102 to AP-102 retrieval path. The exercise was terminated before all of the defined exercise objectives were achieved due to the criticality alarm at PFP.

Building 325. A contamination spread was discovered during routine surveys. One of the involved workers had a positive nasal smear. All involved workers are receiving bioassays.

Tank Farms. The contractor removed one of the sluicers from AY-102. During weekend preparatory work for this activity, a metal plate being lifted contacted a tank riser. There was no damage. The contractor is evaluating spotter practices during lifts in congested areas as well as whether field walkdowns should be included in their lifting activities form.

In February, there was a radiological work permit void due to contaminated condensate dripping from a leaking flange in the AN farm primary ventilation system. The area was marked as a high contamination area/airborne radioactivity area, stabilized and a work package for repair was initiated. This week, a concerned worker informed the site rep that the source of the drips has not yet been repaired. The site rep elevated this concern to ORP and contractor management.

Waste Treatment Plant. ORP issued a Safety Evaluation Report (SER) approving the Preliminary Co-Precipitated Plutonium Criticality Safety Evaluation Report.