

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 24, 2015

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending July 24, 2015

Board staff members D. Cleaves, A. DeMatteo, and R. Wu were on site observing activities.

Tank Farms. ORP's Senior Review Board recommended approval of a safety basis amendment that updates the Tank Farms and Evaporator safety bases to reflect a new criticality safety evaluation report, close a planned improvement for abrasive testing of safety-significant valves, and add a number of TSR improvements stemming primarily from a safety basis implementation review by the contractor's corporate parent (see Activity Report 1/10/2014).

The contractor stopped work on the operational acceptance test (OAT) for the T-111 exhauster when they discovered workers were performing checks of a continuous air monitor (CAM) without adhering to the electrical safety program. The checks required entry into an electrical cabinet with exposed power sources. The contractor conducted an event investigation and developed a path forward to support completion of the OAT.

Inactive Waste Sites. One leg of a worker broke through the ground surface while performing a radiological survey of an underground radioactive material area. The cavity was large enough to cover the worker's leg up to the knee. The worker was not injured or contaminated. Although the area was marked as a potential subsidence area, a covered cavity was unexpected and the work instructions did not contain controls to address the hazard. The contractor stopped work at potential subsidence areas pending a review of hazards and related controls.

618-10 Burial Grounds. Workers entered a beryllium controlled area without appropriate PPE. The area, which was also being controlled as a HCA, was down posted to a radiological material area (RMA). While being controlled as an HCA, the PPE requirements of the RWP provided a higher level of protection than required by the beryllium work permit (BWP). Consequently, the workers were originally protected from both hazards. When the area was down posted to an RMA the workers did not recognize the need to apply the BWP PPE requirements.

Plutonium Finishing Plant. A CAM alarmed when workers uncovered a legacy condition involving improperly terminated contaminated piping. The piping had been cut off, covered with rags and tape, and abandoned. This apparently created an area of loose contamination that was disturbed when workers removed the rags to investigate the condition of the pipe. The workers were wearing PPE appropriate for the work and responded per their procedures. None of the workers were contaminated beyond their external PPE and nasal smear results were negative. The contractor has modified their work instruction to provide for the application of fixative inside of walls when they are breached to investigate pipe routes or remove piping.

DOE Headquarters Oversight. The DOE EM Quality Assurance Office is performing an audit of ORP's Tank Farms project to evaluate implementation of ORP's quality assurance program. This team has previously audited other groups within ORP's organization.

242-A Evaporator. The contractor completed evaporator campaign EC-02. They processed approximately 850,000 gallons of waste and evaporated about 400,000 gallons of water.