

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 14, 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 November 14, 2014

R. Quirk was offsite this week.

Tank Farms. Retrieval workers failed to note that some of the temperatures on an operating retrieval system had dropped below the minimum allowable temperature for system operation. This error resulted in a Technical Surveillance Requirement violation associated with the specific administrative control for waste transfer system freeze protection. The problem occurred over two separate shifts and in multiple locations. The out of specification values were not noted by the field workers, operations engineers, or the senior supervisory watches that were in place during the operation. The system was secured when the problem was discovered approximately 17 hours after the first out of specification temperatures were recorded. The contractor is performing an operability evaluation to confirm that there was no damage to the system. The contractor is also evaluating this event in light of other recent problems related to valve operation, communications, reporting, procedure compliance, and status control to determine actions necessary to improve conduct of operations in the tank farms (see Activity Report 10/24/2014). The contractor has restricted all transfers until the necessary evaluations are complete.

Plutonium Finishing Plant (PFP). The air compressors supplying breathing air to the protective suits used for entry into the Americium Recovery Facility (see Activity Report 9/12/2014) shut down unexpectedly two times this week because of temperature-related trips. The contractor requested the equipment vendor evaluate the situation. They determined the causes of the shutdowns and suggested compensatory measures to maintain appropriate operating temperature ranges of the equipment.

Waste Treatment Plant (WTP). With one exception, ORP has concurred with the contractor's interpretation of previous ORP direction to use an atmospheric dispersion factor of 3.5×10^{-3} s/m³ for mitigated and unmitigated safety analyses that affect co-located workers at WTP. The exception allows modification of the value to account for elevated releases in cases where the ventilation exhaust stack is identified as a credited control for certain chemical hazards accidents at the Low Activity Waste Facility. The letter of direction that specifies this atmospheric dispersion factor also specifies the computer codes that may be used to support the analyses.

REDOX Plant. The contractor started their annual surveillance entries for the REDOX Plant. The site reps accompanied two of this week's entries which focused on non-radiological outer areas of the facility. The entry teams observed areas of degradation due to water intrusion and age.

Site Infrastructure. A backflow preventer in a water line in the 200 West area ruptured due to freezing temperatures and spilled 36,000 gallons of potable water. The spill was isolated and had no impact on facilities or roadways.