

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 2014

**TO:** S. A. Stokes, Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending May 16, 2014

Board staff members J. Abrefah, M. Horr, J. Meszaros, and D. Shrestha were onsite to discuss changes to the Sludge Treatment Project (STP) that are intended to simplify the design. They also performed walkdowns of the 100 K West Basin and the STP test facility in the 400 Area, met with DOE counterparts for other projects, and observed an emergency preparedness drill.

**Plutonium Finishing Plant.** The contractor continues to recover from the exothermic event that occurred while size-reducing a drain line (see Activity report 4/25/2014). This week, the contractor obtained a liquid sample from another segment of the line. The small amount of solids retrieved from inside a pipe segment is still awaiting shipment to the 222-S Laboratory for analysis. The stop work for cutting pipes, vessels, and ducts remains in effect.

Workers were using a glovebag to separate a glovebox from the exhaust ventilation system when one worker observed a hole in the glove being used by another worker. No spread of contamination was detected, including when workers identified three other tears in the plastic sleeve around the short sections of an associated pipe. It appears that the strong vacuum in the glovebag from the ventilation exhaust system prevented any migration of contamination outside the confinement. The site rep observed the shift manager and a responsible manager respond in a professional manner, providing clear directions to the field work supervisor during the upset condition and recovery. Workers were not able to identify the cause of the confinement breaches, but suspect they occurred when they were removing the 80-pound pipe elbow and exhaust damper assembly from the flanged pipe attached to the glovebox. The workers successfully removed the assembly and staged it for disposal.

**242-A Evaporator.** The contractor's Plant Review Committee approved the safety basis amendment to address the unreviewed safety question for the impact of fires on safety systems and ORP's direction to implement a compensatory measure related to steam isolation (see Activity Reports 4/18, 5/2/2014). The safety basis amendment includes a number of administrative controls addressing combustible loading, operator actions during fire scenarios, and feed properties. It also includes planned improvements to upgrade the vessel flammable gas and high level controls to fail safe during a fire and to modify the vessel dump system to automatically actuate upon detection of a seismic event.

**Tank Farms.** ORP issued a Safety Evaluation Report for the revised Justification for Continued Operations (JCO) that requested increased sludge depths in double-shell tanks (DST) supporting single-shell tank (SST) retrieval (see Activity Report 5/2/2014). ORP had one condition of approval: increased sludge depths are only allowed in DST AN-101 because ORP saw no driver to also approve an increased depth for DST AN-106. Retrieval from SST C-102 to DST AN-101 was halted this week to avoid exceeding the sludge depth limits in the original JCO.

**Central Waste Complex (CWC).** The contractor staffed its Incident Command Post as a precautionary measure following the discovery of liquid draining from a transuranic waste box in the outside storage area of CWC. No spread of radiological contamination was discovered.