

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 26, 2013

TO: S. A. Stokes, Acting Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending July 26, 2013

D. Gutowski was off-site. S. Lewis and J. Meszaros were on-site for training and site rep support.

Waste Treatment Plant (WTP). DOE Headquarters provided guidance to the Office of River Protection (ORP) on the use of Probabilistic Risk Assessment (PRA) for identifying design basis and beyond design basis accidents at WTP. This pilot effort will support the development of DOE directives for PRA. The site rep was told that ORP will direct the contractor to implement the guidance from Headquarters and develop a PRA plan. The PRA plan will be reviewed by various Headquarters technical groups, including the EM Central Technical Authority.

River Corridor Closure. The contractor completed an effectiveness evaluation of six performance improvement initiatives. At the evaluation outbrief, the review team identified four findings associated with the work control program, highlighted improvements in the corrective action program, and noted that subcontractor oversight corrective actions require more time to mature. The contractor's safety culture program was also evaluated. The review team noted that workers generally perceive that the contractor is committed to a strong safety culture, but also noted that workers perceive subcontractors are reluctant to raise behavioral issues with their management and are under production pressure. The overall effectiveness of the performance improvement initiatives was given a grade of "improving with significant progress."

The contractor completed their readiness assessment (RA) for restarting the remediation of the 618-10 burial ground trenches. The RA was required because the work was upgraded to Hazard Category (HC)-3. DOE Headquarters had approved using an RA with enhanced Richland Operations Office (RL) oversight rather than two independent Operational Readiness Reviews (see Activity Report 4/26/2013). The contractor team identified four relatively minor findings, one of which is a prestart, and approximately 20 opportunities for improvement. The RL team also identified four findings, of which three were prestart items. The most significant finding by RL was that the compensatory measure for a non-compliance with separation requirements in the fire hazard analysis was not implemented properly. Both the RA and RL teams praised the professionalism of the workers, noting excellent conduct of operations and prejob briefings.

Several months ago, the contractor found significant contamination in the soil below Building 340. The above grade portions of the facility, which was used to collect and treat radioactive waste from the various facilities in the 300 Area, were removed in 2011. Late last week, workers noted rapidly increasing airborne contamination levels when they were removing contaminated soil beneath the below-grade portion of the facility, known as the vault. The workers stopped intrusive work, applied fixative to the soil and equipment, and exited the work area. Workers were wearing appropriate personnel protective equipment, including respirators, and no airborne contamination was detected outside the excavated area. At the fact finding, the workers openly discussed the event and the actions needed to prevent further spreading of the contaminated soil. The site rep was also told that corporate reachback resources who are experts on heavy lifts will perform independent assessments of the plan to lift the 1,100 ton vault, with its two waste tanks, as a monolith and ship it to the onsite burial ground.