

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 31, 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 31, 2015

Plutonium Finishing Plant (PFP). The contractor entered the Plutonium Reclamation Facility canyon to commence final cleanup and characterization activities. With the start of this activity, PFP work teams are now executing three very high hazard jobs using supplied air respirators. Two of the high hazard jobs use OSHA level B protective suits. This week, there were two skin contamination events involving individuals wearing level B suits and two other cases where level B suits were damaged during work activities. Both skin contamination events appear to have resulted from cross contamination that occurred during doffing of the suits. In both cases, the individuals were subsequently decontaminated to less than detectable levels of contamination.

The suit breach events did not result in personal contamination. They occurred when the suits were damaged by sharp edges. The contractor held work reviews for each of the four events. On Thursday morning, contractor management stood down work activities that require use of level B suits and met with teams to obtain feedback and discuss potential work activity improvements to prevent future occurrences similar to the above events. The contractor subsequently resumed work with level B suits after implementing process changes. They also emphasized the need to apply existing methods to effectively cover sharp edges during work activities.

Tank Farms. The contractor suspended all work performed under the lockout/tagout program following another electrical safety incident. Workers discovered lighting within a work boundary that was powered by a portable generator. The contractor plans to resume work following implementation of compensatory measures developed during the event investigation.

The contractor Plant Review Committee approved a negative USQD that partially closed the evaluation of a PISA (see Activity Report 7/3/2015) related to the potential to exceed design temperature on process hoses. This allows use of all AN-106 pump functions, but the USQ remains open for adjustable slurry and supernate pumps in tanks AN-101 and C-111 until similar evaluations are completed for those pumps.

Waste Treatment Plant (WTP). The contractor lifted the management suspension of work on nuclear safety activities (see Activity Report 4/24/2015)

ORP's Senior Review Board recommended approval of a Safety Basis Change Package that changes the High Level Waste Facility PDSA to reflect removal of steam jumpers from the design. These jumpers had originally been present to clear drain line plugs using high pressure steam. However, they could have potentially caused a vacuum and siphon contaminated material to occupied areas.

Environmental Restoration Disposal Facility. Late last week, the contractor discovered a contamination spread in the macroencapsulation area which is controlled as a radiation area. A piece of long length contaminated equipment (LLCE) from the tank farms had recently been removed from the area. The contractor held a fact finding meeting with the tank farms contractor. They were unable to determine the cause of the spread but developed several compensatory and corrective actions regarding receipt of LLCE from the tank farms.