DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 4, 2009

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending December 4, 2009

W. Linzau was off-site this week.

Plutonium Finishing Plant (PFP): The pace of D&D work at PFP continues to accelerate as workers who were involved with the recently completed de-inventory are now performing D&D, and the number of workers at PFP has also increased by more than 50 percent. Many of the new workers have Hanford experience, but a significant number had no prior Hanford and/or nuclear experience. The site rep watched several work activities this week, primarily in the heavily contaminated Plutonium Reclamation Facility (PRF), and opportunities for improvement were shared with contractor management and a facility representative. Workers are still removing equipment and decontaminating gloveboxes in the main PFP facility. Efforts to install a platform to repair the trolley of the PRF canyon crane were stopped when airborne contamination levels reached 1800 DAC even though fixative had been applied. Other workers are continuing to remove heavily contaminated equipment from the large gloveboxes on the exterior walls of the PRF canyon. Another team of workers inspected the interior of an acid tank that has been stored for years in the large airlock for the PRF canyon so they can perform a hazards analysis for disposal of the heavily contaminated tank. A team of workers is preparing to enter the so-called McCluskey room to characterize waste in preparation for debris removal and D&D. The McCluskey room is in essentially the same condition as it was after an explosion more than 30 years ago peppered H. McCluskey with large quantities of Americium-241.

Tank Farms: The contractor is re-analyzing the suite of unmitigated waste transfer accidents, using the brake horsepower of the pumps as the limiting factor rather than relying on limiting pump speeds with non-safety-related variable frequency drives (see Activity Report 11/20/09). The contractor believes the dose to the 100-meter worker will increase to more than 100 rem TEDE, but the number of safety-related components should not increase because they were already being reclassified as safety-significant for toxicological reasons.

A vendor entered a posted contamination area to refill a nitrogen tank near the SY tank farm but left without performing the required contamination surveys. When the contractor realized this, the vendor had already refilled three other tanks and then left the site. The vendor had completed the required annual training for site access and had refilled this tank for approximately 20 years, but had not refilled this tank since the fenced-area was recently posted as a contamination area (CA). Surveys were conducted in the area inside and outside the fence where the vendor had been, the three other areas where he worked on-site, as well as areas he had been off-site, but no contamination was found. The area is a CA because of contaminated rabbit droppings.

Plateau Remediation Contractor (PRC): The PRC restricted the use of all tube and clamp scaffolding when workers identified deformation in new tubing when the clamps were tightened. The vendor for the scaffolding is working with the PRC to understand the cause of the tubing deformation. The affected tubing appears to be limited to material purchased since July. The site rep and Richland Operations Office managers questioned why the suspect material has not been reported in the DOE occurrence reporting system.