

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 14, 2009

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending August 14, 2009

U-Plant D&D: A worker almost fell 40 feet while erecting a scaffold in an ancillary building at U-Plant. The worker was inspecting a partially completed scaffold prior to proceeding with its construction when he grabbed a horizontal support that rotated and caused him to lose his balance. The worker was able to grab a secure support, which prevented a fall. The worker was not wearing fall protection gear because the procedure allowed the worker, in the role of the competent person, to decide if fall protection was feasible. The site rep questioned why the worker was allowed to take the risk of not having any fall protection without specific authorization from management or safety personnel and why no alternative was considered if a fall restraint was not possible. Senior contractor management informally instructed the projects that decisions to perform work at elevations without fall protection requires a second check from management or a safety representative, but a formal management directive has not been issued.

Waste Treatment Plant (WTP): The contractor, using an unreviewed safety question (USQ)-like screening process, justified revising Preliminary Documented Safety Analysis requirements for all safety-significant (SS) items to be procured as nuclear grade equipment. The changes allow items that are SS only for toxicological events to be procured as commercial grade equipment, but commercial grade dedication will not be required. The contractor will brief the site rep on why they believe this approach is acceptable. The site rep also questioned why this change could be made without explicit concurrence from the Office of River Protection (ORP).

DOE conducted a Construction Project Review of WTP with the objective to evaluate the project's status of open technical issues, cost and schedule estimates, construction schedule, and project management. The team provided recommendations at the exit briefing, including: the project should review and revise procurement documents to ensure clear direction is provided concerning commercial grade dedication; and the approval of the safety basis change request for MAR should be expedited and testing associated with hydrogen controls should be accelerated. There are plans for a more focused review in November and periodic reviews afterward.

Tank Farms: The contractor declared a violation of a Technical Safety Requirements (TSR) administrative control because instruments used for measuring tank farm temperatures were not calibrated or functionally checked. Tank temperatures are an important parameter for calculating the time to reach lower flammability limit concentrations. The problem was discovered during a review of TSR specific administrative controls (see Activity Report 7/2/09).

An electrician received a shock when he came in contact with an unexpectedly energized wire because he was not wearing appropriate PPE. The failure to properly specify and then comply with required PPE was noted by ORP during an assessment of electrical safety in June 2009. An ORP manager questioned why corrective actions for the earlier events were ineffective.

100 K Project: Project members started the preliminary design review for the removal of the K East reactor core, but the site rep questioned if they had enough information to call it a 30 percent design review. Multiple samples of the concrete bioshield, iron thermal shield and graphite core need to be taken to confirm physical and radiological conditions.