

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 13, 2009

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending November 13, 2009

Tank Farms: The Office of River Protection (ORP) informally instructed the contractor not to use variable frequency drive (VFD)-controlled pumps until questions concerning over-pressure protection and compliance with nuclear safety requirements are resolved (see Activity Report 11/6/09). In addition, the contractor drafted a Justification for Continued Operation (JCO) for the waste transfer pump for double-shell tank AN-101 to address the deficiencies captured in a potential inadequacy of the safety analysis (PISA) and the associated positive unreviewed safety question (see Activity Reports 8/21/09 and 8/28/09). The draft JCO has been informally submitted to ORP and the issue has been raised to the EM Technical Authority Board (TAB) for evaluation. The TAB is expected to meet next week to consider this issue.

Waste Treatment Plant: ORP directed the contractor to provide a plan to address potential mixing design problems in the feed receipt vessels at the Pretreatment Facility. ORP asked that the plan include an assessment to determine if the vessels comply with mixing requirements and, if not, provide possible design improvements.

The recently submitted safety basis change package for revised material at risk and hydrogen controls was updated to include additional sections on uncertainties because of comments received after the initial submission in October. The previous version had six uncertainties and it has been revised to include uncertainties associated with plume deposition velocity, unit liter dose of waste during processing, and the seismic category of safety-significant components.

Plateau Remediation Contractor: The contractor identified a PISA because a rupture of potable water lines was not evaluated for flooding of retrieved or stored waste containers. The hazard analysis for the 200 West Low-Level Burial Grounds, Central Waste Complex, and Waste Receiving and Processing facility did not evaluate the impact of the adjacent 10-inch and 12-inch water lines. Flooding due to natural phenomena was evaluated but is considered an unlikely event because these facilities are not located in an area with the potential to flood. The PISA determination document states that the failure of these water supply lines should be considered an anticipated event.

The contractor is revising their procedure on how to determine the appropriate readiness review for a new or changed activity. The revised procedure allows for graded scoring for questions that are difficult to answer with a "yes" or "no" when trying to determine if a readiness assessment is required. In addition to revising the procedure, the contractor is creating a review panel known as the Joint Evaluation Team (JET). The JET will provide a forum that project managers can use to reach common agreement on the required level of readiness review and the contractor envisions that personnel from the Richland Operations Office (RL) will participate during these meetings. It appears that one of the contractor's goals is to have a better understanding of RL's expectations prior to submitting a selected readiness review approach in the quarterly Startup Notification Reports.