

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 24, 2012

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending February 24, 2012

Plutonium Finishing Plant: The contractor determined that the most likely cause for the significant contamination found last week was a loose nut that held a plate to a flange on a ventilation exhaust header (see Activity Report 2/17/12). The corrective actions will likely include ensuring bolts on nearby contaminated equipment are tight before they proceed with D&D. This practice was previously implemented for work involving the removal of gloveboxes from the facility but was not required for other types of work.

Tank Farms: Last summer, the Office of River Protection (ORP) directed the contractor to implement the latest version of the DOE O 425.1, which addresses verifying facilities are ready to start or restart (see Activity Report 7/22/11). The site rep discussed the delay with implementing the latest version with both the contractor and ORP managers. The contractor acknowledged that developing a compliant procedure has taken longer than planned, but they expect to submit their new procedure to ORP for approval next month. The contractor indicated that once ORP approves a new procedure, they will provide ORP with the impact to cost and schedule for complying with the new procedures because it is likely that formal readiness reviews will be more common. Until implementation of the procedure, the contractor will continue to use a process based on DOE O 425.1C.

Sludge Treatment Project (STP): The Richland Operations Office (RL) approved a change to the safety basis for processing Knock-out Pot (KOP) sludge in the 100K West Basin but deferred approval of related changes for the Cold Vacuum Drying Facility (CVDF) and Canister Storage Building safety bases. RL will review the CVDF and CSB safety bases after the contractor resolves an issue with a potential inadequacy in the safety analysis (PISA) (see Activity Report 1/27/12). The PISA was declared due to errors in the model used to prove that the spent nuclear fuel stored in Multi-Canister Overpacks (MCOs) was sufficiently dry. The contractor expects to complete the analysis for the PISA soon but they anticipate the condition will be declared an unreviewed safety question for both the CVDF and CSB.

Waste Treatment Plant (WTP): The contractor held a meeting to discuss an authorization basis amendment request (ABAR) to change the standards in the Safety Requirements Document used for the procurement of pumps. The project wants to change the standards because they are having difficulty procuring pumps that are designed to the older versions of the standards, and some standards are widely used, which makes it easier to procure and replace pumps designed to those standards. An example of the proposed change is updating an American Petroleum Institute standard used on the project from a 1995 version to a 2010 revision. The approval of these changes is not trivial because the revised standards often point to different daughter standards that may not be adequate for nuclear facility design and fabrication. ORP engineering personnel noted during their review of the ABAR a number of instances in which the daughter standard did not address confinement requirements. To address these concerns, the project proposed changes to the ABAR, such as requiring engineering evaluations of the equivalency of the requirements in the daughter standard. The revised ABAR will be provided to ORP for their review and approval.