

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 23, 2007

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending March 23, 2007

Criticality Safety: There were three criticality safety non-conformances identified at the K Basins Closure Project (KBC) in the last two weeks. Two were identified by a facility representative. The first involved inadequate sampling to confirm that backflushing of the sand filter did not result in an unacceptable buildup of fissile material in the North Load Out Pit. The second deficiency involved the inadequate incorporation of required criticality safety controls in the implementing document for the Dummy Elevator and Tech View pits and was resolved concurrently with the first problem. The third problem was identified by the facility manager who noticed that a criticality posting in the K East Basin had not been updated to reflect more restrictive controls. The posting was corrected and personnel are investigating why the posting was not updated when the associated criticality safety evaluation report was modified.

There was a criticality safety non-conformance identified in Plutonium Finishing Plant when separation requirements between two containers were not met. The criticality safety issues at the solid waste operations complex noted in the last Hanford Activity Report are still unresolved.

Washington Closure Hanford (WCH): The site rep attended a critique for failing to comply with an administrative Technical Safety Requirement (TSR) at the 118-K-1 burial ground. It was determined that a violation of the TSR did not occur, but the flowdown of program requirements to activities in the field was less than adequate. The radiological work permit for retrieving waste from trenches and silos is being modified to comply with program requirements.

Waste Treatment Plant: The Office of River Protection (ORP) completed an assessment of adequacy of Bechtel National, Inc. (BNI) quality assurance (QA) requirements for commercial grade dedication (CGD) of materials. Late last year, BNI incorporated NQA-1-2004 to allow the dedication of engineered items and services (see Hanford Activity Report 11/03/06). The preliminary results indicate three findings and five observations. The findings include a comment that the CGD processes are incomplete and the procedure lacks sufficient detail to assure consistent and acceptable results. The ORP review of procurement packages using CGD found that the packages were adequate but credited the success to the heightened management attention and not due to rigor of the procedure.

The site rep conducted a walk-down to look at the application of fire protection intumescent coatings on structural steel from a new manufacturer. The project has switched to a new supplier because their product has Underwriters Laboratories ratings for the steel member sizes requiring fire protection (see Hanford Activity Report 10/27/06).

Plutonium Finishing Plant (PFP): Exhaust Fan (EF)-6 was shut down and electrically isolated when smoke was observed emanating from it. The site reps have a meeting with PFP management scheduled for Monday, 3/26/07, to discuss this and other recent events.