

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 24, 2009

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending April 24, 2009

Tank Farms: DOE completed the effectiveness review of the corrective actions from the Type A investigation of the waste spill at tank S-102. The DOE team noted that they reviewed 220 corrective actions for the two DOE field offices and three of their prime contractors, and concluded that overall the implementation of corrective actions was effective. However the team identified one significant weakness, which was inadequate implementation of conduct of operations requirements by the Tank Operations Contractor (TOC). This was associated with inadequate response to abnormal conditions previously identified by the Office of River Protection (ORP) (Activity Reports 1/16/09 and 3/27/09). During the review, the team did not identify any instances where procedures were not followed, but this may correlate to the failure of the TOC to complete most of the planned work activities that were scheduled. However, on a back shift, the site rep observed an Abnormal Operating Procedure not being implemented as written. The team noted 26 other areas where improvement was needed, four for ORP and all others for the TOC. The team noted weaknesses in the TOC self-assessments, various aspects of the work control program, and work scheduling and implementation. The team also suggested that ORP provide a date for the TOC to implement a change to the safety basis associated with an S-102 corrective action (Activity Report 4/17/09) and increase the presence of subject matter experts in the field to assist the facility representatives in oversight activities.

Waste Treatment Plant: ORP directed the contractor to implement a revised safety classification process. The previous direction from ORP, sent in October 2008 (Activity Report 10/24/08), required safety-significant controls for consequences to co-located workers greater than 25 rem, but the new letter raises the threshold to 100 rem.

ORP sponsored a Peer Review Team to review seismic qualifications of WTP equipment. The team is still formulating results but believe they will make a recommendation that a database be created for all safety-related equipment documenting the safety and seismic classifications and functional requirements.

Plutonium Finishing Plant: The contractor declared a Potential Inadequacy in the Safety Analysis because the analysis did not consider boiling liquid expanding vapor explosions for the propane tanks on forklifts used outside the facility buildings.

The project completed the isolation of two oldest HEPA filter banks (Activity Report 11/28/09).

100K Project: The contractor completed the Readiness Assessment (RA) for the final phase of the K East Basin demolition. There were no findings, but several opportunities for improvement were identified. The RA was required because the basin had been downgraded to less than Hazard Category (HC)-3, but the material at risk for the final work is larger than the HC-2 threshold. The final categorization, based on segmentation, is HC-3. There are no safety SSCs or TSR controls. The completion of the demolition is targeted for the end of July 2009.

Waste Stabilization and Disposition Project: The project is completing preparations to ship large containers of low-level waste to an off-site treatment facility in Richland using railcars.