

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 17, 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 17, 2009

Board outside expert (OE) D. Boyd was on-site assisting the staff in the observation of the S-102 Corrective Action Program Effectiveness Review.

Tank Farms: The Office of River Protection (ORP) and the contractor are proposing to use a Justification for Continued Operation (JCO) to change safety basis (SB) requirements rather than following the more time-consuming SB change process. The contractor believes the ventilation systems used for double-shell tank flammable gas control and the leak detection system used to detect leaks during waste transfers no longer need to be classified as safety-significant. For the flammable gas control the JCO would credit an administrative control rather than the existing safety system. For leak detection the JCO would credit a change to the SB that ORP approved in July 2008 as a corrective action for the S-102 spill but remains unimplemented. This unimplemented SB change will upgrade the primary barrier for confining waste, such as the inner pipe of transfer lines, to safety-significant. Given the age of some of the transfer lines, the site rep noted that even after the change to the primary barrier is formally implemented, the leak detection system should remain safety-significant as a significant contributor to defense-in-depth. The driving force behind this JCO is to avoid costs associated with commercial grade dedication of parts used to maintain safety-significant systems (see Activity Report 1/16/09).

The site rep and OE met with the manager of Base Operations to discuss corrective actions for the failure to comply with approved procedures at the 242-A Evaporator (see Activity Report 3/27/09). This senior manager held training sessions with various managers and supervisors to express the need for personal accountability, technical inquisitiveness, procedural compliance, and a willingness to stop when unexpected situations arise. He provided incidental evidence that the lessons have been learned in the short term but also acknowledged that changing the work culture in the tank farms is a long-term effort. He is instituting an annual con ops improvement plan, which will be used to target selected areas for focused attention, such as conservative decision-making. This effort is independent of the recently formed Con Ops Council.

Waste Treatment Plant: During a review of the Cathodic Protection System (CPS) used for protecting buried pipe from corrosion, ORP identified an example where upper tier requirements were properly flowed down but then removed from lower tier documents without technical justification. Specifically, ORP noted that last month the contractor removed the acceptance criteria required by consensus standard NACE RP 169 from the CPS System Description, which resulted in the failure to include effective acceptance criteria in the system functional test. Similar deficiencies with the flow down of requirements have been noted in the recently completed report for the Broad Based Review, and this indicates that compliance with upper tier requirements continues to be a challenge at the project.

American Recovery and Reinvestment Act (ARRA): DOE and the contractors for the Central Plateau, River Corridor Closure, and Tank Operations signed contract modifications for the work to be completed under the ARRA.