

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 19, 2006

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending May 19, 2006

Tank Farms: A report for independent verification review (IVR) of the tank farm Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) was issued this week. It identified six findings, seven observations, and two strengths. Only one of the three objectives was validated. The Office of River Protection requested the IVR because of a number of positive Unreviewed Safety Questions (USQ) and the most recent assessment of the Integrated Safety Management System noted weaknesses in the safety basis document control process. The most significant finding was that the knowledge level of shift managers was inadequate in the application of DSA/TSR requirements for tank farms during normal and upset conditions. The knowledge of managers for safety management programs was also found to be inadequate. One observation was that the use of vehicle access restrictions for reducing the probability of leaks from above-ground transfer lines was not procedurally controlled in the double-shell tank farms.

Subsequent to the IVR, a DOE facility representative noted during the recent cross-site transfer that the vehicle impact barriers in the SY tank farm did not appear to meet the criteria established in the DSA. CH2M Hill Hanford Group (CHG) agreed that the vehicle impact barriers did not meet the design requirements. This was determined to be a positive USQ this week. The deficient vehicle barrier was replaced with a compliant barrier. The site reps will meet with CHG next week to review the status of the corrective actions for the IVR report.

Washington Closure Hanford (WCH): The contractor completed their Readiness Assessment (RA) for work on the 118-K-1 Solid Waste Burial Ground. In January 2006, the Richland Operations Office (RL) granted an exemption from the requirement for conducting an Operational Readiness Review to allow startup of the remediation activities. A contractor RA with RL oversight and approval authority was selected as the appropriate level of readiness review for these Hazard Category 3 activities because it was believed that no new risks were present and controls were identical to ongoing remediation activities. In March 2006, additional site characterization work determined that activity levels in one location were significantly higher than assumed in the DSA. The scope of the work had to be revised to exclude this higher hazard work (See Activity Report 3/31/2006). The contractor startup review produced seven pre-start findings and four post-start findings. Examples of the pre-start findings were: the lack of a process to implement activity hazard assessments, failure to address the potential for higher dose rates from N-Reactor fuel in the ALARA Checklist, and procedural violations noted during dry runs of responses to anomalies. In addition to the contractor finding, the RL oversight team prepared a list of preliminary pre-start and post-start findings. Examples of the RL preliminary finding were the incomplete identification of hazards and documentation of associated controls and the incomplete flow down of appropriate radiological control requirements to the subcontractor. WCH and RL are now combining the findings and working to correct the deficiencies noted.