

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 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 10, 2009

Tank Farms: The site rep identified that the software system used to develop the Material at Risk (MAR) values used in the safety basis was improperly classified by the contractor as well as the software developer. The contractor required the developer of the software, Pacific Northwest National Laboratory (PNNL), to ensure the Best Basis Inventory (BBI) software complied with DOE Order 414.1C and DOE Guide 414.1-4. The software should have been classified as Level A safety software, but was classified as Level B. This error allowed a graded approach to software quality assurance (SQA) requirements. PNNL personnel will perform a crosswalk between the requirements for Level A safety software and existing SQA documentation. The Office of River Protection (ORP) has proposed using information obtained from the BBI to significantly reduce the MAR values used in the Waste Treatment Plant.

The contractor reported they completed all preparations for the Phase I Integrated Safety Management System (ISMS) review, and estimates that they will declare readiness for Phase II in July. ORP plans to conduct a combined Phase I and II ISMS review this summer.

As part of the Phase I process, the contractor replaced the Standards/Requirements Identification Document (S/RID) with a management plan, the *Tank Operations Contractor Requirements Basis Document*. This plan does not have the specificity that was in the S/RID and will hinder understanding of which requirements are applicable to the Tank Farms.

The contractor performed an assessment of work control and job hazard analysis procedures as part of the ISMS reviews. The assessors used the NNSA Work Planning and Control Process CRADs for this review. The contractor identified three findings, including an inadequate definition of when subject matter experts should be involved in work planning.

Plutonium Finishing Plant (PFP): The contractor's Performance Oversight organization performed an assessment of the PFP Closure and D&D Infrastructure Project for compliance with requirements during work activities and implementation of ISMS. The team members were from outside the project organization, which provided a level of independence to the review. The team found seven findings and 10 opportunities for improvement. The issues included poor procedural compliance, communications to and from management, pre-job briefings, and housekeeping. The issues identified by the team are consistent with site rep impressions noted last month (see Activity Reports 3/27/09 and 3/13/09). The issues have been entered into the contractor's corrective action management program and plans to improve conduct of operations are being formulated, including hiring additional management to provide focused supervision.

River Corridor Closure Project: The contractor revised the risk-ranking for the wire-cutting of the hot cells in Building 327. Last month, the site rep commented that the ranking of "low" risk did not seem appropriate for the work (see Activity Report 3/20/09). The contractor raised the ranking to "medium," which drives the contractor to perform a "what if" analysis and revise the work package to include additional controls as necessary. Senior contractor management has also committed to doing an extent of condition review of other work packages in the 300 Area.