

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 5, 2010

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending March 5, 2010

Waste Treatment Plant (WTP): The contractor is assembling an independent team to review design criteria and methodology associated with the control strategy for the hazards of hydrogen in piping and ancillary vessels (HPAV). The contractor's expectation is that the team will evaluate if the criteria and methodology provide reasonable assurance that: an HPAV event will not adversely affect the ability of structures, systems, and components (SSCs) to perform their safety function; and the repair of SSCs damaged in HPAV events will not adversely impact the WTP mission duration. The contractor has not set the schedule for the review, but senior management envisions that the review may take several months.

The site reps met with the contractor to discuss their revised graded approach to quality assurance. The new approach would still require safety SSCs to meet NQA-1 requirements but provides flexibility on the how those requirements are met (see Activity Report 12/18/09). The changes will allow the contractor to flow down applicable requirements from NQA-1 to sub-contractor suppliers directly in a procurement package, but would not require the suppliers to have a NQA-1 program. The flexibility would be applied on case-by-case procurements, and the non-NQA-1 supplier would only be added to the evaluated supplier list for that procurement. The site reps noted that it is important for the contractor to have rigorous verification of flowdown and implementation of the requirements to prevent recurrence of past quality problems (see Activity Reports 10/3/08, 10/19/07, and 3/16/07).

Plateau Remediation Contractor: The Richland Operations Office (RL) issued the final report from the ISMS Phase II verification in which the team recommended that RL approve the program after corrective actions are implemented and verified. The team noted there were four concerns, 23 opportunities for improvement, and nine good practices. The four concerns are: packages covering long-term work did not have specific hazard and controls identified for work performed on a given day; inconsistent definition and understanding of the roles and responsibilities for nuclear safety and engineering staff when matrixed into individual projects; safety requirements were not integrated into six of 24 work packages reviewed; and ineffective implementation of feedback and improvement. Additionally, the verification team noted six specific concerns for the Waste Retrieval Project (WRP) (see Activity Report 2/12/10).

Waste Fuels Management Project managers told the site reps they are developing abnormal operating procedures to address high probability/low consequence events at WRP. The project will also modify other procedures and then restart operations except for in trench 11. After verifying ISMS is implemented, they will ask RL to re-assess ISMS at WRP.

Tank Farms: The contractor implemented major revisions to the work control procedures that are intended to resolve concerns raised by the Board's staff and the Office of River Protection. The contractor does not plan to update hundreds of approved work packages that do not meet the more stringent requirements of the new work control process.

Sludge Treatment Project: Last week, the contractor submitted to RL the CD-1 package for retrieval and transfer of sludge from the engineered containers into casks for transport.