

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 21, 2009

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending August 21, 2009

Board staff members A. Poloski and S. Seprish observed mixing testing for the Waste Treatment Plant (WTP). S. Lewis observed the DOE Integrated Safety management System (ISMS) combined Phase I and II verification at the Tank Farms.

Tank Farms: In advance of the DOE verification review of ISMS, the Office of River Protection (ORP) completed an assessment of the implementation of ISMS. ORP concluded that two of the five ISMS core functions (perform work within the requirements, and feedback and improvement) were marginally implemented but recommended that the DOE combined Phase I and II verification should proceed.

The contractor identified a PISA because the rupture monitor on safety-significant rupture disks will not detect a small leak in the disk, such as a pin-hole leak caused by corrosion. The ASME code requires the space between the disk and the relief valve to be monitored for leakage.

WTP: Twice in the last month, personnel on the WTP construction site entered areas barricaded to prevent exposure during radiography for non-destructive weld testing. The first event occurred when a worker entered a posted area to retrieve a water bottle just inside the boundary, but the source was not exposed at that time. The second event occurred when a group of 11 people (eight contractor and three vendor employees) bypassed the barrier tape at 100 feet from the source, which was the two mR/hr boundary. During this event, the source (Selenium 75) was exposed for a minute and a half before the group was noticed and the source secured. The doses to the personnel are estimated to be low due to the limited time of exposure and distance from the source. The site rep discussed the event with the contractor construction manager, who appeared to understand the significance of the event and the potential for serious harm during radiography. The construction manager formally suspended all radiography on the construction site without his specific approval and entered this problem into the corrective action program.

ORP presented a summary of the results from construction surveillances done during the second quarter of this year. ORP had seven findings, including a finding for installation of a sprinkler in the Analytical Laboratory directly above a future location of an electrical load center and a failure to flow down code requirements into the specification for supports of electrical raceways. In addition, ORP provided an update on the extent of condition review being conducted by the contractor for the commercial grade dedication (CGD) issues ORP identified earlier this year (see Activity Report 7/17/09). Three more vendors have similar CGD problems.

Plateau Remediation Contract (PRC): The contractor revised the procedure on scaffolds to strengthen the requirements in response to an event in which a worker almost fell during scaffold erection (see Activity Report 8/14/09). The procedure now requires two competent persons to review if fall protection is feasible and the approval from a vice-president if it is not feasible.

Mission Support Contract (MSC): Richland Operations Office completed their transition readiness review for the MSC. The pre-start items are closed and transition to the Mission Support Alliance as the MSC will occur Monday morning.