

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 10, 2010

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending September 10, 2010

Plutonium Finishing Plant (PFP): The site rep attended a formal post-job review for the unplanned rupture of three grout-burst bags on a glovebox that was being prepared for disposal in a waste box. Workers installed the 8-inch-diameter bags as a confinement boundary last week when the gloves were removed. The glovebox is still connected to the facility ventilation exhaust system, but when it is disconnected for disposal, the glovebox will be loaded into a waste box for subsequent grouting to fill the void spaces. The bags have a designed weak seam that will open when grout fills the waste box but should not rupture when subjected to normal exhaust ventilation differential pressure. For an unknown reason, all the bags ruptured over the long weekend, two on the designed rupture point, but the third bag failed along another seam. The problem was identified on Tuesday and the bags were replaced, but the post-job review was not held until Friday afternoon after a facility representative questioned the manager of this work why a post-job review or critique was not held. The compensatory actions developed during the post-job appear to be adequate, but it is unclear why a critique was not held.

Office of River Protection (ORP): The site rep observed an effective training session for the revised procedure for performing assessments and surveillances. The procedure was completely revised to address major weaknesses noted during an internal assessment. The revisions provide significantly more details on how to perform assessments, including documenting results in formal correspondence; capturing all findings in the ORP corrective action tracking system; and ensuring corrective actions are developed, implemented, reviewed for adequacy, and then formally closed. The procedure also provides more directions for documenting the less formal but more numerous surveillances. In addition, now all changes in due dates for corrective actions must be formally approved and tracked. All ORP employees, with the exception of those assigned to the Waste Treatment Plant (WTP), are required to attend the training on the revised procedure. The site rep was told that personnel assigned to WTP were exempted from attendance because it is unclear if they will follow this process or a WTP-specific process.

Waste Treatment Plant (WTP): ORP has reviewed a contractor's authorization basis amendment request (ABAR) for adding a tailored version of ISA 67.04.01-2006, *Setpoints for Nuclear Safety-Related Instrumentation*. The ABAR also modifies the tailoring of IEEE-603-1998, *Standard Criteria for Safety Systems for Nuclear Power Generating Stations*, noting that the setpoints for electrical equipment will be calculated using another process that was not identified. ORP's safety evaluation report (SER) is in the final approval cycle, but when the site rep questioned the author of the ABAR and the ORP author of the draft SER, neither was able to answer questions on why some of the tailored changes to the standards were acceptable.

Plateau Remediation Contractor (PRC): The contractor completed a root cause analysis (RCA) for the undetected pressurization of a drum at T-Plant (see Activity Report 8/13/10). The root cause for the pressurization event was determined to be that there were inadequate controls in place to mitigate this hazard. The RCA notes a similar event occurred in 2003 during which a drum liner caused undetected drum pressurization and subsequent lid ejection. The corrective actions focus on ensuring there is clear evidence drums and liners both have unobstructed vent paths prior to opening and requiring new vents be installed if an open vent path is questionable.