

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2013

TO: S. A. Stokes, Acting Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending July 12, 2013

Plutonium Finishing Plant (PFP). After workers inadvertently spread contamination during glovebox work (see Activity Report 7/5/2013), the contractor mandated new controls for work with this and two other fluoride process gloveboxes. Any activities that disturb unexposed surfaces on these gloveboxes, such as port activations; glove changes; and removal of paint, adhesive, or sealant, will require the use of point source ventilation or another engineered barrier that has been approved by the PFP Rad Con Manager. The contractor is placing these controls into a procedure.

Tank Farms. The contractor is ready to initiate transfer of supernate from AY-102 to AP-104. The leak detection pit pump with elevated contamination levels was moved to the 222-S Laboratory and destructively evaluated.

The site rep met with contractor personnel to discuss the cone penetrometer that will be used to obtain in-situ shear strength data of sludge waste. This data is intended to support an improved technical basis for the flammable gas retention and release properties of deep sludge layers.

The site reps noted an apparent increase in minor events at the tank farms. These observations were shared with contractor management who stated that they had also noticed the trend and were evaluating whether there were common causes behind these events.

The contractor switched single-shell tank retrieval from C-107 to retrieval from C-101 due to the slurry pump leaking waste back into C-107. The contractor subsequently decided to run the C-107 pump to failure and resumed C-107 retrieval activities with high-pressure water washing.

Radiochemical Processing Laboratory. The Pacific Northwest Site Office (PNSO) reviewed the contractor's Unreviewed Safety Question Determination (USQD) for inconsistencies between the installed fire protection sprinkler system and the safety basis (see Activity Report 5/10/2013). PNSO noted in their surveillance report that the conclusion of the USQD document was "technically adequate," but the quality of the documentation did not meet their expectations. PNSO also noted that they had seen similar problems with the quality of USQDs last year.

Waste Treatment Plant (WTP). The Office of River Protection (ORP) completed a surveillance on the procurement process for safety-class vessels used in black cells. The report contains several findings and concludes there were weakness in the performance and compliance with Quality Assurance procedures.

The contractor briefed ORP on their approach to resolve Board issues (see letter dated 4/13/2012) concerning the use of valve-regulated lead-acid (VRLA) batteries. ORP has prohibited the batteries from being energized until the issues are resolved. The contractor is resolving comments raised by ORP during the briefing.