

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 16, 2016

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending December 16, 2016

Staff member M. Bradisse was on site providing site rep support.

Tank Farms. The contractor resumed retrieval of AY-102 after a pressure instrument damaged by freezing was replaced. They started briefly on Saturday before stopping due to issues with a level instrument in AP-102. The instrument was flushed and evaluated to be adequate for use with some minor inaccuracy. The startup attempt Monday night was halted due to a flow interlock on the AP-102 supernate pump. After adjusting the procedure to address the interlock issue, the contractor successfully sluiced for about four hours on Tuesday night shift. If weather conditions allow, the contractor plans to resume retrieval over the weekend.

The staff member and site rep met with ORP and contractor personnel to observe and discuss recently installed control room equipment supporting safety-significant (SS) freeze protection and annulus level detection (see Activity Report 12/2/2016). They also viewed bypass ducts that will be installed in AP farm to support SS flow monitoring. SS annulus level detection and flow monitoring are deliverable actions for Board Recommendation 2012-2.

The contractor attempted to move the AP02A mixer pump after revising the work instructions to address degraded sleeving and contamination spread. They halted after discovering further degradation of the sleeving and solid debris dropping from the pump. The job has again been paused for additional planning and to evaluate potential beryllium hazards.

Waste Treatment Plant. ORP has forwarded their intended approach for resolving Technical Issue 1 (Hydrogen in Vessels) and Technical Issue 2 (Criticality Design) to DOE EM-1. These resolution approaches, along with a similar pending document identifying an approach for resolving Technical Issue 3 (Hydrogen in Pipes and Ancillary Vessels) will be used by ORP to support a decision to move forward with the Pretreatment Facility design.

Building 324. The contractor is investigating use of a jet grouting process to improve the placement location of caissons that will be used to support the building while contaminated soil is excavated from below the "A" hot cell. The contractor believes this approach would allow the work to be performed without the installation of a large spreader beam which would, in turn, allow safer and more efficient accomplishment of the project.

Waste Encapsulation and Storage Facility. The contractor resumed grouting activities to stabilize unused facility hot cells after identifying and resolving the problems that led to clothing contamination on four individuals (see Activity Report 12/09/16).

Plutonium Finishing Plant. The contractor's Corrective Action Review Board (CARB) met to evaluate corrective action plans for two separate events: the cutting of a pressurized airline, and the discovery of paint inside respirator units. They rejected the plan for the first incident and approved the plan for the second incident, after incorporation of several comments and revisions.