

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 3, 2023

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 3, 2023

Board's Staff Activity: B. Sharpless was onsite for training and observations at 105-KW basin.

Tank Farms: Resident inspectors observed portions of a leak test of waste transfer nozzles and jumpers in the 242-A evaporator facility and AW tank farm. Valve lineups performed in AP farm to support the test were executed professionally, and the revised work package addressed the functional issues raised by evaporator operators during a previous test attempt (see 2/24/2023 report). However, while performing the test, significant quantities of water leaked from one of the jumpers in the 242-A facility. Facility workers responded to the resulting sump alarm appropriately. Test personnel paused work and placed the affected facilities and transfer lines in a safe configuration. The leak test is delayed until the leak cause is corrected.

Resident inspectors walked down recently excavated transfer lines in AP Farm with WRPS engineers who discussed ongoing work to evaluate the condition of transfer lines because of conditions found during a previous encasement inspection (see 6/3 and 6/17/2022 reports).

A resident inspector observed independent verification of a valve lineup in AX farm for AX-101 recirculation. The operator communicated well and confirmed the lineup was accurate. AX-101 retrieval continues with an estimated 12.9% of the salt solids retrieved to date.

105-KW Basin: A resident inspector and a cognizant engineer observed an attempt to transfer accumulated floor solids from the north loadout pit (NLOP) to a vertical pipe casing. The pre-job briefing was thorough and included a discussion of recent issues encountered while transferring floor solids, the unique radiological challenges of the NLOP area, and proper use of pole tools to reduce the potential for contamination spread. During setup, efforts to untangle hosing from a defunct pole tool in the NLOP were hampered by poor visibility and were unsuccessful; the crew paused work, which will resume after an evaluation of their approach.

REDOX: Resident inspectors observed the second hazard review board (HRB) meeting held to evaluate work instructions for hot tapping and sampling of a REDOX facility transfer line. The work instructions, which include use of glove bags and criticality controls on fissile material systems in REDOX had been previously rejected by the HRB. The HRB voted to approve the revised work instruction, with comments.

324 Building: Management stopped work at the facility when they determined that repetitive use work documents (RUWDs) were being used incorrectly to perform some work activities. In one case, workers attempted to remove a deactivated annunciation panel using an RUWD section that did not include the appropriate work steps to control electrical hazards. The panel was subsequently found to be energized by the workers. Management reviewed all released RUWD work and issued a timely order to reinforce expectations related to RUWD work. Work under RUWDs will resume after the work force has received training on the expectations.