

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 16, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending April 16, 2021

222-S Laboratory: Hanford Laboratory Management and Integration (HLMI) completed contract transition activities to provide analytical laboratory services at the 222-S Laboratory. HLMI is the successor contractor to both the Laboratory Analysis and Services Contract work scope, previously held by Wastren Advantage, Inc., and to the laboratory operations work scope from the Tank Operations Contract previously held by Washington River Protections Solutions (see 1/1/2021 report). HLMI will operate, manage and maintain the 222-S Laboratory Complex and provide analytical support for the storage and treatment of tank waste at the Hanford Site, while also supporting scientific research and other work needed to support DOE activities.

Waste Treatment Plant Low Activity Waste Facility (LAW): During integrated balance testing of the LAW building heating, ventilation, and air condition systems, test personnel responsible for remotely manipulating shield doors inadvertently closed the wrong set of doors. Upon realization of the error, they checked the operated doors and determined that one of the doors had contacted and displaced a monorail hoist unit.

A resident inspector observed contractor test personnel perform a functional test of a safety integrity level 2 standby film cooler low flow interlock. The interlock provides highly reliable thermal protection to components in the offgas system downstream of the Low Activity Waste facility's melters. These components must be protected to prevent failures that could result in the release of radioactive and chemically hazardous gases during normal and abnormal high-temperature conditions that could occur if there is a loss of air flow to the film coolers. The highly complex system performed as expected.

A resident inspector observed the performance of a coached field drill simulating an isolable leak from the ammonia storage facility. The drill was effectively managed and evaluated by the drill team. This is the last coached drill for the LAW facility; future drills will be used to certify qualification and proficiency of facility operations personnel.

Aging Structures Stabilization: During previous efforts to stabilize the 216-Z-2 crib with grout, the contractor encountered a blockage that precluded use of the only available access path for grout introduction (see 1/22/2021 report). A subsequent contractor investigation found that the layer of soil above the crib was deeper than expected, and that additional soil would adequately mitigate any potential radiological release in the event of a crib collapse. Based on this evaluation, the contractor proposed leaving the structure "as is." DOE approved the approach and the contractor subsequently announced completion of the stabilization task, which also included grout stabilization of the 216-Z-9 crib and the 241-Z-361 settling tank. The contractor is currently in the process of cleanup and demobilization at these two structures.

Building 324: Contractor personnel completed a pilot demonstration of their airlock training; once implemented, this would be the last item part of the project's corrective action plan for resumption of high risk operations for the project (see 3/6/2020 report).