

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: M. Bradisse, B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending November 6, 2020

Hanford Site: The number of COVID-19 infections within the Hanford workforce has increased substantially over the last month. This increase reflects local and statewide COVID-19 trends. DOE and prime contractor management are addressing the increase by modifying some onsite activities (e.g., the Tank Farm contractor changed a planned full-up emergency response drill with local observation to an incident command post (ICP) limited drill with remote observation) and decreasing the workforce density by increasing telework activity, where feasible. Additionally, they are reinforcing the need for workers to apply identified COVID-19 hazard controls during work and asking them to act responsibly in the community. So far, the COVID-19 case increase has not hindered required emergency response or facility staffing.

Tank Farms: The contractor plant review committee (PRC) met to evaluate a proposed change to the tank farms DSA and technical safety requirements to protect the integrity of safety-significant isolation valves. Previously, the contractor discovered a potential failure mechanism that could result in valve misalignment. Specifically, the failure of a universal joint in the valve mechanism could cause the remote valve position indicator to be misaligned from the actual valve position (see report dated 6/26/2020). The proposed changes would require operators to verify valve position using a camera installed at the location of the valve, unless a documented evaluation precludes this failure mode. The PRC recommended approval of the package.

A resident inspector observed an ICP limited drill simulating a tank dome collapse with an injured crane operator. The drill's scope and attendance was limited due to concerns about a spike in COVID-19 cases among the Tank Farms workforce. As a result, the resident inspector observed via video teleconference. However, audio and video quality severely impacted the ability to adequately observe the drill. The post-drill hot washes were not streamed, further limiting the effectiveness of remote drill observation.

Aging Structures Stabilization: Contractor personnel started their first placement of grout to stabilize the Z-361 tank, one of several underground structures with significant material at risk that were identified as potential collapse hazards (See 10/9/2020 report). This was the second attempt after the initial attempt was terminated because of a grout delivery hose plugging. Workers were able to deliver approximately one third of the required grout before the diffuser, which is used to mitigate waste disturbance, and the grout conveyance line became clogged. Project personnel are evaluating whether the remainder of the Z-361 tank grout placements will require the diffuser given the waste has over 30 inches of grout cover from the first placement. In addition, the contractor is preparing the Z-9 crib for grouting and working to resolve issues with an object inside of the Z-2 crib riser discovered during equipment setup.

Waste Treatment Plant (WTP): DOE-ORP approved the WTP contractor's plan of action for the WTP Low-Activity Waste Facility (LAW) contractor operational readiness review (10/9/2020 report).