

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 17, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 17, 2020

Central Plateau Risk Management (CPRM): The contractor performed a second mockup to evaluate the methods, equipment, and grout mix designs that they will use to stabilize three underground structures identified to have a high risk of a collapse (see 7/10/2020 report). After delivering grout to a half-scale mockup of the Z-361 tank, project personnel removed a wall of the mockup to confirm grout remained above the surface of the simulated tank sludge.

Plutonium Finishing Plant (PFP): The resident inspectors met with contractor and DOE managers to discuss contractor plans to reduce the extent of airborne radioactivity area postings within the PFP work control boundary. The contractor noted that retrieval of the highly contaminated Plutonium Reclamation Facility debris is suspended under the current COVID-19 partial stop work order and that the revised postings are appropriate for the type of work that is currently authorized within the area. The revised postings allow safe performance of work while conserving scarce personal protective equipment. They further noted that they consulted with DOE subject matter experts, worker representatives, and other stakeholders as part of their decision process. Under the plan, the existing high contamination area postings will remain unchanged. The current postings will be restored prior to resuming PRF debris retrieval.

Hanford Site: The site's mission support contractor completed a technical evaluation following a recent series of electrical distribution pole fires that caused power outages. They determined that, historically, the majority of the pole fires have been due to lightning strikes. However, this year, most have been caused by a phenomena called tracking which can occur under wet conditions if electrical insulators have a buildup of conductive contaminants such as dust. The age of poles at the site, with some dating to the 1940s, increases the likelihood that they can burn after an electrical arcing event. The evaluation notes that ongoing efforts to replace the poles of aging feeder lines at the site, testing and treatment of poles, and the phased replacement of wood cross-arms with fiberglass cross-arms will decrease the likelihood of future pole fires.

DOE and site contractors remain in the first phase of their resumption plans and DOE continues to evaluate state and regional data and trends, and consult with regional leadership prior to allowing any increase the onsite workforce.

The resident inspectors note that, despite current work restrictions resulting from DOE's ongoing efforts to control COVID-19 hazards, site contractors are making significant progress on outdoor construction projects. As a sampling of the ongoing work, the Waste Treatment Plant (WTP) contractor has paved a significant portion of the WTP area that supports direct feed low activity waste operations. Additionally, the Tank Farms contractor is placing foundations and pads for Tank Side Cesium Removal (TSCR) system equipment and has resumed work that supports retrieval of AX/A farm tanks. Lastly, the Central Plateau Remediation contractor has started outdoor work related to dry storage of cesium and strontium capsules, and has resumed site work at the Integrated Disposal Facility.