

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 21, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending May 21, 2021

Liquid Effluent Retention Facility (LERF): A Tank Farms Operation Contractor subcontract work crew commenced the removal of the LERF basin 44 cover. The existing cover leaks. Basin water that migrates through the damaged cover is a significant contributor to nearby biological vector contamination discoveries. Replacement of the cover is expected to reduce the frequency and severity of released contamination. This work will be conducted in a high heat, open air environment with substantial radiation and contamination hazards. The contractor is implementing controls that are informed by similar work that was performed at basin 42 and 43.

Hanford Site: The site Emergency Preparedness and Response organization conducted an exercise at the Waste Encapsulation and Storage Facility. The scenario simulated damage to the facility's K3N ventilation high efficiency particulate filter skid that resulted from a vehicle impact. This resulted in an alert level emergency and a take-cover action for the 200 east area. The scenario included two injured and contaminated individuals, one of which required transport to a local hospital. The other was treated at the site medical facility. Exercise simulations were limited, requiring a relatively complete demonstration of onsite capability at the event scene. The emergency operations center was activated, and the exercise included participation by off-site emergency response organizations.

The site manager announced that he has selected Brian Stickney as the Deputy Manager and Chief Operating Officer for the Richland Operations Office (RL), with an official start date of May 23. The position has been vacant since the retirement of Joe Franco in October 2020.

105-KW Basin: Contractor management declared their readiness to start retrieval of garnet filter media from the basin. The media will be transferred to sludge transport and storage containers, and then moved to T-Plant for storage until DOE identifies and completes final treatment and disposal requirements.

Plutonium Finishing Plant (PFP): Contractor personnel have resumed retrieval and loading of debris from the Plutonium Reclamation Facility (PRF). This debris contains the majority of the remaining material-at-risk for the facility. It is covered in soil overburden and fixative to prevent it from being dispersed by high winds prior to retrieval. During loading of some of this material in a waste container, high contamination values were detected on routine surveys of splatter shields meant to contain contamination within the container. After exiting the area, workers and contractor management planned and executed a reentry to finish loading the can, fix the contamination on the splatter shields, and survey the area. Contamination values outside of the container were not elevated and airborne radioactivity did not increase during loading. An in progress ALARA review held after the event noted that, while the radiological work permit was voided, controls to contain contamination were largely effective. Contractor personnel have been working to develop new controls using long reach tools to decontaminate splatter shields prior to their survey and removal from a waste container to prevent further recurrence.