

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 18, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca, P. Fox, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending November 18, 2022

DNFSB Staff Activities: D. Brown, R. Csillag, and B. Sharpless were on site to meet with DOE and CPCCo personnel regarding 324 Building conduct of operations and radiological controls.

Liquid Effluent Retention Facility (LERF): A contractor operational readiness review (CORR) team completed its evaluation and provided their out-brief to contractor personnel (see 11/4/2022 and 11/11/2022 reports). The CORR team had no pre-start findings, one post-start finding, and 7 observations. The post start-start finding addressed observed inconsistencies in the implementation of the conduct of operations safety management program. The CORR team concluded that, subject to approval of a corrective action plan to address the post-start finding, the contractor has adequately demonstrated readiness of equipment, procedures, and personnel at LERF to commence operations as a hazard category 3 nuclear facility.

105-KW Basin: The CPCCo joint evaluation team (JET) met to evaluate information that supports DOE's approval of startup actions and readiness activities, which should be accomplished, prior to dewatering and filling the 105-KW basin with grout and controlled density fill (CDF). The process presented to the team will remove water from the basin, pass the water through a filtration system to remove most suspended radioactive material, and then transport the water to the LERF basins using trucks. The water will be stored there until it is processed through the Effluent Treatment Facility (ETF) to remove any remaining radioactive material. Once most of the water is removed from the basin, a layer of grout will be placed over the material that remains in the basin. They will then fill the remainder of the basin with CDF. The project team intends to perform most of activities remotely to reduce radiation exposure to personnel. A water and glycerin mixture will be used to periodically wet the exposed sides of the basin during dewatering to reduce the potential for high airborne radioactivity levels. The building's filtered ventilation system will remain in operation to help contain any radioactive material that does become airborne during the work. The JET determined the proposed activity warranted the performance of a management assessment prior to start. The CPCCo President, acting as the chairperson, also added several conditions to the approval. First, the plan of action for the management assessment will be approved by the president and include a drill to demonstrate spill response. Additionally, he directed the team to arrange for involvement of the LERF/ETF project team in the management assessment to ensure any significant interface issues are identified and addressed. Lastly, he also directed the team to include involvement by Tank Side Cesium Removal project personnel to ensure relevant lessons learned from their recent readiness process are applied in the team's assessment of readiness for this activity.

Onsite Transportation: DOE headquarters staff and support contractors were onsite to evaluate the transportation and packaging of radiological materials as part of the Transportation Compliance Assessment Program (TCAP). The TCAP evaluation is intended to measure the overall health of the site's program and will help support a major effort by the site to develop a transportation documented safety analysis.