

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** B. Caleca, P. Fox, and P. Meyer, Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending August 2, 2024

**105-KW Basin:** CPCCo completed the transfer of contaminated water from the 105-KW Basin to the Liquid Effluent Treatment Facility (see 1/26/2024 report). Once initial technical issues were resolved (see 6/14/2024 report), the project team completed the work more quickly than expected without any significant radiological or safety issues.

**Waste Treatment Plant:** BNI submitted revision 1 of the *Safety Design Strategy for the High-Level Waste Project* to DOE for review and approval. In addition to providing a strategy for incorporating direct feed of waste into the design of the High-Level Waste (HLW) Facility, the strategy covers activities necessary to upgrade the Laboratory Facility for the HLW mission.

**Waste Encapsulation and Storage Facility (WESF):** Facility management and the CPCCo emergency planning organization conducted an emergency planning drill that simulated a seismic event that caused a breach in the WESF building. Actions in the incident command post were consistent with expected performance. However, the response by the field team was poorly controlled and untimely and did not adequately consider actions necessary to protect responders during periods of extreme temperatures. Facility management should evaluate current response practices and provide additional training to field personnel to address these issues.

**242-A Evaporator:** WRPS presented options to DOE field office management for operational and physical improvements to the evaporator facility prior to once again declaring readiness and resuming the DOE readiness assessment (see 7/12/2024 report). The option selected by DOE addresses maintenance backlogs, accelerates planned upgrades, such as the installation of safety significant freeze protection controls, and provides training for facility personnel on the 242-A safety basis. WRPS will then perform a cold run to verify the facility's ability to operate and measure the effectiveness of corrective actions that address findings from prior contractor assessments. DOE and WRPS expect the actions in this option to delay evaporator operations for six months and also potentially delay retrieval of waste from single shell tank A-101.

**REDOX Plant:** CPCCo performed its annual surveillance of REDOX facility areas not routinely accessed, including the roof, outside areas, and the storage gallery. Conditions found were generally good. A resident inspector observing the inspection noted the team did not include subject matter experts including fire protection. However, the team reviewed previous surveillance results and discussed facility condition changes with a responsible manager prior to entry. Additionally, the team members were knowledgeable in common issues with inactive facilities, having previously performed surveillances at other canyons. The resident inspector further noted that many known degradation issues, particularly water ingress, are in the active work areas of the facility and not in the areas inspected. Some inaccessible areas, such as the canyon deck, will not be inspected until at least next year. CPCCo management also solicited feedback from its teams as part of planned improvements to its annual surveillance procedure.