

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 16, 2022

**TO:** Katherine R. Herrera, Acting Technical Director  
**FROM:** B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending December 16, 2022

**Tank Farms:** A resident inspector observed an event investigation meeting after workers in the SX tank farm energized an extension cord that had been cut to take it out of service. While troubleshooting a problem with providing power to an air sampler, a worker discovered the cut cord. Despite this, work was not paused, and no notifications were made until the worker that discovered the energized wire reported it to their supervisor. During the investigation meeting, the resident inspector noted that participants were resistant to sharing details of the event despite efforts from event investigators to determine what actions contributed to the event and the decision to continue work. This resistance to sharing information at an event investigation meeting, and drive to continue work, shares similarities to conditions observed at a recent event investigation meeting at the Effluent Treatment Facility.

**Waste Encapsulation and Storage Facility (WESF):** Two resident inspectors observed the annual sampling of the pool cells. Both the pre-job and work evolution were well-conducted, with the procedure being closely followed. The resident inspectors provided facility management with their observations regarding potential areas for improvement to the procedure. Specifically, they noted that instructions for managing visible vapors resulting from small amounts of nitric acid in the sample bottles were provided verbally in the pre-job by knowledgeable personnel. However, because the sampling activity is annual, and given the potential for worker turnover, it would be more appropriate for the instructions to be incorporated into the procedure once validated by industrial hygiene personnel. Facility management agreed and committed to review and validate the procedure in the coming year.

**324 Building:** CPCCo is collecting radiation data to better define the scope of the contamination beneath the 324 Building (see 9/9/2022 report). While performing a pre-installation survey of equipment used to support the data collection, a radiological control technician discovered contamination levels substantially above the limits allowed for the work. The team stopped their activities, placed the worksite in a safe condition, and exited the area. The team's overall response was professional and indicated that they were well-prepared to address the abnormal condition. Management convened a meeting, effectively led by a knowledgeable radiological engineer, with the work team to discuss the condition found, the response to the conditions, and the radiological controls used to support the work. Based on information collected, the high contamination level was found in an area of the equipment where contamination is expected to collect. Although at a higher level than expected, the radiological control methods practiced during use of the equipment preclude any substantial concern for a loss of control of the contamination. Consequently, the radiological controls currently in place are adequate to support the ongoing work. However, facility management is considering potential controls on re-use of equipment and a change to the allowed contamination levels for accomplishment of this work.

**Waste Receiving and Processing Facility (WRAP):** Further evaluation determined that fire-rated rollup doors at WRAP have automatic closing devices as required (see 12/2/2022 report).