

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 24, 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 May 24, 2024

Hanford Site: HMIS electrical utility personnel removed a decommissioned transformer located inside CPCCo's 105-KW Facility boundary, without obtaining required authorization from facility operations personnel. CPCCo held a critique that included appropriate individuals from HMIS, to collect facts related to the event. The resident inspector notes that the review process described by HMIS personnel would not routinely result in appropriate release of work for a nuclear facility. The HMIS individuals involved in performing and managing the work were not aware of HMIS procedures related to obtaining approval for work within a nuclear facility boundary. This event is similar to when Hanford Fire Department personnel, who are also managed by HMIS, performed a controlled burn inside a nuclear facility boundary without obtaining required authorization in 2022 (see 4/15/2022 report). Although neither event resulted in a violation of any technical safety requirements, the results of the critique and repetitive nature of the event indicate a need for HMIS to improve its methods for identifying and obtaining approval for work that occurs inside nuclear facility boundaries with potential safety impacts.

Tank Farms: A resident inspector met with WRPS engineering and project personnel to discuss ongoing efforts to identify and develop dry retrieval methods for single-shell tank waste. Dry retrieval would reduce the quantity of liquids used during waste retrieval, which would help minimize potential environmental impacts during waste retrieval from leaking single-shell tanks. Additionally, minimizing the quantity of water introduced during retrieval could potentially improve the overall efficiency of the waste retrieval process by reducing liquid waste storage and processing requirements. WRPS is evaluating conceptual designs from three vendors and will down-select to one alternative that will undergo proof-of-concept testing.

242-A Evaporator: In response to findings identified by the contractor readiness assessment (see 5/17/2024 report), WRPS conducted an exercise to evaluate operator's ability to properly respond to procedures that cannot be completed as written or contain errors. Operators were tasked to conduct a pre-job brief and then execute a modified evaporator procedure. Facility managers then evaluated the operator's ability to recognize procedure errors or unexpected conditions added to the procedure. Operators successfully identified these issues, and raised additional concerns with the procedure that were outside the exercise scope and required management review. The resident inspector, DOE, and contractor observers provided additional feedback to WRPS on the procedure's language and the exercise performance.

B Plant: A CPCCo work team held a post job review to evaluate the results of the B Plant and 242-T Facility FY24 annual surveillance. The findings, while similar to other inactive facilities (see 1/12/2024 report), did indicate improved access to the interior of B Plant along inspection routes. Additionally, some water pooling observed during the previous surveillance was not found. Issues of unknown materials, insufficient lighting, and minor structural issues remain. During the meeting, significant effort was made to identify findings where characterization and waste disposition activities are needed so that corrective actions can be planned and executed.