

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 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 November 22, 2024

Central Waste Complex (CWC): In support of clean-out of Outside Storage Area (OSA) A, the contractor performed a nondestructive assay (NDA) on a large waste box which has been stored at the OSA since 2010. The NDA determined that the fissile mass value is an order of magnitude higher than the original NDA value of record. This new value exceeds the limit for this type of container stored at CWC. A Potential Criticality Nonconformance Response Checklist was initiated, and the box was confirmed to be in a safe configuration. Entry into OSA A is restricted pending completion of a final evaluation and development of a recovery plan.

Solid Waste Operations Complex (SWOC): An HFO Senior Review Board reconvened after previously reviewing an evaluation of the safety of the situation (ESS) and justification for continued operation (JCO) related to fuel fires that might impact multiple waste storage zones at SWOC facilities (see 10/20/2023 and 7/5/2024 reports). A Safety Basis Review Team (SBRT) presented results of additional analyses that were performed to address questions from the first SRB meeting. As a result, they recommended the material-at-risk zone limit be reduced. The SBRT also presented an analysis in response to a question raised concerning pool fires from fuel leaks from tanker trucks in proximity to facility waste containers but outside the fence line. The SBRT evaluated the scenario and determined the existing analysis and controls were adequate since the fuel pool would not encroach an existing 35-ft surveillance restriction on combustibles. The SRB voted to recommend the ESS/JCO be approved by the safety basis authority.

Waste Encapsulation Storage Facility (WESF): Several cover blocks for a hot cell have been staged outside WESF awaiting disposal. During loading onto a trailer using a forklift, a cover block slid off the trailer and landed near two spotters. CPCCo declared a near miss reportable event. The critique of the event was well-organized and captured the relevant information. Workers were not placed in the path of travel of the block, which prevented risk of injury, but the reused dunnage the blocks had been staged on was narrower than the blocks themselves, and space constraints required blocks to be loaded across the width of the trailer. Because fewer trailers were provided than originally requested, there was also a need to readjust the block to make space for the other blocks being disposed. This is the fourth forklift-related event in recent months involving CPCCo and HMIS personnel performing material moves.

T Plant: The CPCCo emergency management team conducted a full up emergency drill at T-Plant to support annual proficiency requirements for facility emergency response organization (FERO) personnel. The scenario included the detonation of an explosive device next to a waste container containing both chemical and radiologically contaminated waste. The scenario included injury to a responding patrolman and radiological contamination of other responders. A resident inspector observed activities in the incident command post (ICP). The drill team's overall conduct and evaluation of the drill was good, and, although some minor deficiencies were noted, performance of the FERO team in the ICP was also good. The resident inspector discussed his observations and potential improvement areas with the drill coordinator.