

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 20, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending September 20, 2019

DNFSB Staff Activity: Staff members D. Brown and M. Bradisse are onsite to provide resident inspector augmentation.

Tank Farms: During single shell tank AX-102 retrieval operations, operators noted difficulty extending sluicer 3's boom. After troubleshooting, they determined that one of the two pistons used to articulate the sluicer boom was bent, placed the equipment in a safe and stable condition, and made appropriate notifications. Contractor personnel reviewed in-tank photo and video footage to identify a possible cause and determined that the sluicer had contacted the tank bottom just before operators noted issues with the boom. Contractor personnel are performing a technical evaluation to assess using sluicer 3 with limited use of the boom to complete retrieval of that section of the tank. In addition, during retrievals with sluicer 2, a leak inside the tank was observed by operators. Troubleshooting identified that a connector in the AX-102C pit was leaking slurry back into the AX-102 tank, but there was no damage to the sluicer or release to the environment. Contractor personnel plan to perform maintenance to diagnose and repair the leaking connector and conduct leak detector testing prior to restarting retrievals using sluicer 2.

Plutonium Finishing Plant (PFP): PFP personnel conducted an emergency preparedness drill in the PFP mockup area to simulate moving waste packages in a high contamination area (HCA). The drill scenario consisted of a tele-handler and associate waste container catching fire with the vehicle operator having minor injuries. At the time of the drill hot wash, the drill team assessed that the evaluation objectives were met with opportunities for improvement. However, demolition work in the HCA was interrupted by drill communications over shared radio channels. The demolition crew was then directed to exit the HCA despite not having controller coverage and believing they were not participating in the drill. The incident command post also instructed personnel in the contamination area to egress in a direction that led them to cross through the HCA. This action resulted in a radiological work permit violation for entering an HCA without proper personal protective equipment (PPE).

400 Area: Contractor personnel held a critique after a radiological control technician (RCT) tasked to perform roof area surveys raised concerns that his work should not have had a fall protection work permit exception. The critique determined that the exception had been improperly applied. The work package provided to the RCT did not identify falling hazards or require fall protection; the RCT noted to the shift manager that this was not accurate for his scope of work. While the RCT did use fall protection during the task, this was requested by the RCT in consultation with the shift manager as a "voluntary upgrade" beyond the required PPE. This decision in part was driven by the need for roof surveys to be completed prior to roof maintenance scheduled later that day. Contractor management declared a management concern and suspended all active fall protection program exceptions based on the facts of the critique.