

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 31, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending May 31, 2019

DNFSB Staff Activities: D. Brown, M. Helfrich, and D. Minnema were onsite to observe the annual site field exercise.

Hanford site: DOE conducted their annual evaluated site field exercise. The scenario simulated the explosion of two improvised explosive devices that were placed in the Canister Storage Building by an employee resulting in evacuation of the facility, a severely injured individual who was transported to a local hospital, and expected declaration of an alert level emergency. In addition to evaluating the response of the Facility Emergency Response Organization, the event required activation and evaluation of a unified command (Hanford Patrol and Hanford Fire Department), the site Emergency Operations Center, and the Unified Dose Assessment Center along with the field monitoring teams.

Radiochemical Processing Laboratory: Facility management held a fact finding meeting to collect information related to the discovery of contamination on the shoe of an individual who had been working within the High-Level Radiochemical Facility (HLRF) radiological buffer area (RBA). No radiological work was occurring in the RBA during the time that the individual was in that area and there have been no recent entries into the HLF hot cells. In addition, attendees discussed potential sources of the contamination and determined that the particle was most likely deposited in the RBA during a recent change in ventilation alignment that required the stop of all confinement ventilation for a short period. The Facility Manager also collected and is evaluating proposed actions to mitigate or prevent similar future events.

Tank Farms: The Tank Farm Plant Review Committee (PRC) met to evaluate proposed changes to the Tank Farm Documented Safety Analysis and Technical Safety Requirements that support retrieval of AX Farm single shell tanks. The change will add new controls designed to prevent damage to AX Farm safety significant retrieval equipment due to low or high temperature conditions. The change also increases the frequency of flammable gas monitoring of AN Farm double shell tanks. The frequency change is required because of an upcoming waste transfer that will change the composition of the waste in AN-106. The PRC recommended approval of the change, which was forwarded to ORP for their evaluation.

105 KW: The contractor held a critique regarding a failure to make appropriate notifications when contamination was discovered in a 105 KE reactor building RBA. Contaminated mouse droppings were removed by a Radiological Control Technician (RCT) who discovered the contamination. Facility protocol requires the RadCon manager to be notified when contamination is found in an RBA. Procedures also require notification of facility management and an assessment by industrial hygiene prior to cleanup of biological contamination; the RCT did not perform either notification. The discrepancy was discovered by another RCT during a review of radiological survey reports. Attendees discussed expectations for handling and reporting contaminated biological material and changes to improve response to these discoveries.