

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 22, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 22, 2019

DNFSB Staff Activity: L. Schleicher, Y. Li, and M. Bradisse held a teleconference with Waste Treatment Plant (WTP) personnel to discuss the results of seismic site response calculations performed as part of the Hanford Site's Probabilistic Seismic Hazard Analysis update.

J. Abrefah, M. Bradisse, and R. Eul met with ORP and WTP contractor personnel to perform a factual accuracy review of Board's staff observations related to a review of safety culture.

105-KW: DOE RL approved revision 1 of the 105-KW DSA and TSRs. The revision changes the sludge layering strategy, providing more specific requirements that improve efficiency and help minimize the final number of Sludge Transportation and Storage Containers (STSC). The revision also increases the time allowed for inerting the Sludge Transportation Container Cask from 24 to 36 hours. This change improves the flexibility and efficiency of the STSC fill and transport sequence. Lastly, the revision includes actions necessary to closeout a directed action contained in the Safety Evaluation Report associated with revision 0 of both documents. The contractor's Plant Review Committee also met to evaluate and approve the implementation plan for the revised documents. The implementation plan delays incorporation of the revised layering strategy and increased inerting time into the relevant operating procedures until similar changes are approved for the DSA for T-Plant, where the sludge is stored, and the associated One Time Request for Shipment that supports transportation of the sludge to T-Plant.

Tank Farms: The resident inspectors observed a field drill that simulated a tank dome collapse triggered by a crane accident with an incapacitated operator. The event discoverers responded appropriately and were proactive in monitoring their location as well as assisting the emergency response personnel. The Incident Command Post and on-scene responders both appropriately prioritized life-safety of the incapacitated operator. In addition, this drill utilized a flag prop that simulated unannounced shifts in wind, which added to the drill's realism. The resident inspectors noted that there was a substantial delay between determining a rescue plan for the incapacitated operator and when emergency personnel entered the farm to execute the rescue. Also, considering the information available, the firefighter doffing team was given PPE instructions that appeared non-conservative, considering the potential hazards. Lastly, the failure to use physical barriers to isolate the scene resulted in some coordination difficulties.

PUREX Tunnel 2: The tunnel is over 90% full and the project team reported that they have verified that the 28 rail cars within the tunnel are fully encapsulated. Remaining grout insertion activities focus on filling the remaining void space.

Plutonium Finishing Plant: The contractor's Hazard Review Board (HRB) met to observe a mockup of activities and evaluate the work instructions that will support final demolition and loadout of the Plutonium Reclamation Facility. The HRB approved the document, with comments.