

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 26, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending June 26, 2020

Central Waste Complex (CWC): At CWC, metal waste containers, such as waste drums are classified as safety significant, and expected to provide assurance that radiological materials within the containers are not readily released during accidents. This safety function is protected by a container integrity program that is specified in a limiting condition for operation (LCO). During routine surveillances associated with the LCO, contractor personnel identified a small area of surface rust on a 55 gallon drum in one of the indoor storage arrays; there was also a small area of dried material next to the drum on the associated pallet. Operators performed surveys, which did not identify any radiological contamination external to the drum, and then inspected and sampled the container. Although the inspection did not reveal a breach in the container, the bottom of the drum was found to be corroded and the inspectors determined that the drum met the criteria for entry into the abnormal container management program (ACMP). This resulted in a determination that the container was no longer capable of adequately performing its assigned safety function. Per requirements in the ACMP, workers subsequently placed the drum into a larger container. The contractor intends to finish sealing the larger container and analyze samples of the dry material next week.

Tank Farms (TF): In some cases, TF Operations uses gear-actuated waste transfer valves, per technical safety requirements (TSR), to establish double-valve isolation during the movement of waste. However, during recent tests to support potential design modifications for the valves, two U-joints failed after an unexpectedly low number of closing cycles performed at the specified torque. The U-joints were not related to the design change and are the same design as those used on in service valves. TF engineers are working with the valve vendor to evaluate the cause of the failures. In the meantime, TF Operations has restricted the use of gear-actuated waste transfer valves for technical safety requirement compliance until TF engineers gather the information necessary to determine if the valves can be considered operable, and whether there is a potential inadequacy in the safety analysis. The restriction does not affect current operations.

Hanford Site: DOE and contractor management continue to follow federal and state guidance to reduce the transmission of the novel coronavirus disease (COVID-19) (see 6/19/2020 report). RL, ORP, PNSO, and all contractors remain in the first phase of their resumption plans.

A resident inspector and other members of the technical staff observed a virtual meeting of the Hanford Advisory Board (HAB). During the meeting, Tri Party Agreement (TPA) stakeholders provided periodic updates. Additionally, the HAB discussed DOE-RL's planned stabilization of three underground structures that have been determined to be at imminent risk of structural failure, and which contain significant material at risk (see 5/8/2020 report). Based on the discussion, the HAB generally approves of DOE's actions to protect workers and the community from the imminent risks, but wishes to have as much opportunity as practicable to review DOE's plans. Additionally, the discussions indicate that the HAB did not intend its support of this particular stabilization activity to apply to other underground structures, such as tank farms.