

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 13, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: P. Foster and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 13, 2018

DNFSB Activity: Board member J. Connery, and Board staff members J. Abrefah, M. Bradisse, D. Bullen, and R. Eul were on site to review the state of safety culture within the DOE-ORP and Waste Treatment and Immobilization Plant project organizations.

Plutonium Finishing Plant (PFP): A TSR non-compliance occurred when an equipment operator parked a bulldozer in a waste storage area overnight. The related TSR precludes the presence of flammables, such as the bulldozer diesel fuel, in waste storage areas unless they are directly associated with waste handling or staging area maintenance. Such transient flammables must to be removed if they are not actively in use. Upon discovery, project management immediately restored compliance by having the bulldozer removed from the waste storage area. The resident inspector notes that, although this non-compliance falls under a different TSR than the previous two non-compliances, it is the third TSR non-compliance to occur at PFP in the last six months that is related to waste material storage or staging.

The contractor finalized their plan for resuming PFP and Plutonium Reclamation Facility (PRF) demolition. The plan, which was developed with the assistance of a DOE Expert Panel, describes an approach that will occur in four phases. The first two phases encompass low-risk activities including the removal of existing 234-5Z building debris and demolition of the remaining 234-5Z building outside of the PFP A and C process line areas. The third and fourth phases include the high-risk work associated with removal of the A and C line process areas, and the retrieval and disposal of the remaining PRF rubble. The plan also describes demolition methods and establishes an enhanced control set that they will use to perform the work. The plan protects the control set by requiring a rigorous, documented change management process for the work package. DOE-RL has presented the approach to the Washington State Department of Ecology and the Environmental Protection Agency to obtain their approval for moving ahead with the low-risk work activities, and DOE-RL is communicating the approach to other stakeholders. The work will resume after the contractor completes identified pre-start actions and an independent management assessment of their readiness to execute the plan. Additionally, the contractor will perform a second management assessment prior to the start of high risk work. The first independent management assessment is expected to start in mid-August.

Waste Treatment and Immobilization Plant (WTP): DOE-ORP concurred with contractor's recommendation to terminate existing purchase orders for high solids process vessels in the black cells of the Pretreatment Facility (PTF). DOE-ORP's concurrence is based on their review of the contractor's evaluation that determined that the proposed standard high solids vessel (SHSV) design concept that was developed and tested over the last several years to replace the existing high solids vessel design supports WTP contract throughput and tank utilization requirements, and appears to be more cost-effective compared to testing and confirmation of the existing PTF high solids vessel designs. Consequently, they plan to use the SHSV design instead of the existing vessel designs when the PTF is authorized to resume production engineering.