

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 30, 2018

TO: Steven A. Stokes, Technical Director
FROM: P. Fox, Resident Inspector
SUBJECT: Hanford Activity Report for Week Ending March 30, 2018

Waste Treatment Plant: The contractor submitted the DSA and TSR documents for the Low-Activity Waste Facility to DOE-ORP for approval. The submittal is expected to close previously transmitted conditions of approval and planned design and operational safety improvements associated with LAW Facility PDSA. Additionally, the contractor stated that they have reviewed all previously identified Board issues. Their review determined that, although some issues remain open with respect to the High Level Waste Facility and Pretreatment Facility, all issues are either fully closed, closed with respect to the LAW Facility, or are not relevant to the LAW Facility. In the transmittal, they provide the basis for the determinations. Although submitted on an accelerated schedule to support development of the Safety Evaluation Report and timely approval of the DSA and TSR documents, the contractor and DOE-ORP continue to work to resolve a number of outstanding comments from DOE's ongoing review of the document. The contractor will provide another submittal near the end of April that is expected to address the remaining comments. Lastly, the DSA identifies nine new planned design and operational safety improvements that the contractor will need to address before the DSA is implemented.

The contractor submitted a revised Safety Evaluation Process to DOE-ORP for approval. The contractor will use the process rather than a USQ process during testing and cold operations to determine whether proposed design or process changes require DOE-ORP approval prior to implementation (see Activity Report 11/24/2017). The process is also intended to ensure that the DSA and TSRs are maintained consistent with the design for the permanent plant until the USQ process is implemented along with the DSA just prior to hot commissioning. The revision adds entry conditions that expand the type of design or process changes that are outside the technical scope of the process or which may require safety evaluation process documentation.

The contractor submitted their plan for implementing the LAW Facility DSA and TSRs to DOE-ORP for approval (see Activity Report 3/23/2018). The plan indicates that facility hazards will be managed throughout cold commissioning using an Auditable Safety Analysis (ASA) rather than the DSA. The ASA controls closely follow the controls identified in the DSA.

Building 324: The resident inspector observed contractor performance of an emergency preparedness Incident Command Post limited scope drill. The scenario simulated the explosion of unstable chemicals that were unknowingly placed inside a waste package during A-cell cleanout operations. The consequences of the simulated explosion included a breach of the facility structure and two fatalities. The resident inspector noted that the drill team effectively executed and evaluated the drill.

Tank Farms: The DOE-ORP Senior Review Board approved an amendment to the Tank Farm DSA that clarifies safety significant controls that are used to mitigate air blow accidents that could occur if a waste transfer primary pipe failed during pneumatic testing of the piping encasement (see Activity Report 2/2/2018).