

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 2, 2018

TO: S. A. Stokes, Technical Director
FROM: P. Fox, Hanford Resident Inspector
SUBJECT: Hanford Activity Report for the Week Ending March 2, 2018

DNFSB Staff Activity. R. Eul and S. Seprish were onsite to collect information related to potential closure of Board issues related to control and storage of material used for safety systems, structures, and components (SSCs) at the Waste Treatment Plant. The team discussed preliminary observations with contractor and DOE-ORP representatives.

Building 324. Workers performing an entry into the Radiological Engineering Complex (REC) airlock stopped work and exited when a survey that was performed to support the entry identified alpha contamination above the radiological work permit void limit. No personnel were contaminated and surveys taken outside of the airlock did not identify any contamination spread from the airlock. This is the second recent case where workers have identified very high alpha contamination levels in the facility (see Activity Report 2/9/2018). Building 324 does not have a history of significant alpha contamination levels. Consequently survey protocols previously focused on the identification of beta/gamma contamination. Surveys to detect alpha contamination were only routinely performed if significant levels of beta/gamma detection were first detected. However, in both of these cases, the level of beta/gamma contamination associated with the alpha contamination was relatively low indicating a potential weakness in existing survey protocols. The contractor held an in-progress ALARA review to collect facts related to the recent event and is evaluating both events to identify necessary survey and contamination control strategy changes for the facility. The contractor is also developing a recovery plan to support additional surveys and any necessary decontamination of the airlock.

Waste Treatment Plant. The contractor submitted their draft Facility Response Plan to DOE-ORP for approval. The plan was submitted to support upcoming renewal of the Hanford Facility Dangerous Waste Permit. However, the resident inspector notes that the facility emergency response organization and response protocols described in the document do not provide a robust capability for addressing on site emergencies, and that procedures related to emergency response need to be upgraded to support future Low Activity Waste (LAW) Facility operations.

ORP revised their previous direction that allows upgrade of some SSCs and the design and procurement of other SSCs prior to completion of related DSA documentation (see Activity Report 9/15/2017). This allowance is necessary to prevent adverse impact on the direct feed LAW startup schedule and is part of a group of initiatives that is designed to significantly accelerate completion of the LAW facility. The resident inspector notes that, although the initiatives appear to be effective in achieving their expected goal, some of these initiatives also relax controls that DOE previously established for design and construction of the facility.

105-KW Basin. The contractor Operational Readiness Review (ORR) team resumed their evaluation of contractor readiness to start sludge retrieval using the Engineered Container Retrieval and Transfer System (see Activity Reports 1/26/2018 and 2/23/2018) and will complete their review next week. The federal ORR is expected to start on April 9, 2018.