

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 26, 2018

TO: S. A. Stokes, Technical Director
FROM: P. Fox, Hanford Resident Inspector
SUBJECT: Hanford Activity Report for the Week Ending January 26, 2018

DNFSB Staff Activity. Staff member D. Cleaves was onsite to perform Resident Inspector support activities and to observe the Engineered Container Retrieval and Transfer System (ECRTS) contractor Operational Readiness Review (ORR) at 105-KW.

105-KW Basin. The contractor declared readiness and then started an ORR of the ECRTS at 105-KW Basin and the associated annex. The ORR is expected to complete next week.

Plutonium Finishing Plant (PFP). DOE-RL notified employees that the Washington State Department of Health (DOH) had provided DOE-RL with sample results from DOH sampling locations that show contamination was released beyond the PFP radiological control area in November and December. The observed contamination levels were above background, but do not pose a public health risk and are well below regulatory limits. The same notification provided a description of the initial results from bioassay analyses that were performed after the December PFP contamination spread events (see Activity Report 12/22/2017). Of the 91 completed bioassay analyses, 89 show negative results (no inhalation/ingestion of contamination detected). Of the two initial positive results, one is approximately 1 mrem and the other is approximately 20 mrem. Those doses are accumulated over a 50 year period. Second samples for the two positive results are being analyzed to confirm the dose. DOE-RL expects to complete the analysis of the remaining 180 samples by early March.

242-A Evaporator. The contractor issued the final report for an integrity assessment for the 242-A evaporator system, including the reboiler. The independent assessors concluded that the evaporator system is fit for use and they did not identify any findings that would indicate that the 242-A system was not operated or maintained per code or industry standard. In the report, the assessors identified 25 recommendations that address issues or observations that they identified. Among the assessor's recommendations were: review of system layup conditions; boroscope inspection of the reboiler steam side every 10 years; evaluation of steam condensate radiation monitoring for detecting leaks; improvements to detection and resolution of coating defects; and continued management of tank waste under the Waste Compatibility Program.

Tank Farms. The stop work that several Tank Farm workers placed last week on the use of tight fitting respirator masks was lifted on Wednesday (see Activity Report 01/19/18). The contractor completed a substantial sampling effort without identifying any potential biological or chemical causes for the rashes that were experienced by several workers. The contractor also provided workers an opportunity to walk down the mask cleaning facility. The walk down also did not identify any potential causes for the facial irritations.

Waste Treatment Plant. DOE-ORP concurred with the contractor's redraft study conclusions that allow upgrade of the carbon dioxide vessel sloped pad safety classification to safety significant (see Activity Report 1/12/2018).