

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 22, 2019

TO: Christopher J. Roscetti, Technical Director

FROM: B. Caleca and P. Fox, Hanford Resident Inspectors

SUBJECT: Hanford Activity Report for the Week Ending February 22, 2019

DNFSB Staff Activity: M. Bradisse and D. Brown were onsite to support Resident Inspector oversight activities. M. Bradisse, B. Caleca, and L. Schleicher participated in volcanic ashfall hazard discussions with ORP, USGS, NOAA, and Desert Research Institute subject matter experts. D. Brown also attended Beryllium Worker Training.

REDOX Facility: Workers assigned to perform radiological surveys, beryllium sampling, and other inspection activities on the sixth floor of the REDOX facility appropriately stopped work and safely exited the facility when they encountered surface contamination that significantly exceeded the void limits established in the radiological work permit (RWP). Contractor management held an ALARA review. The discussions revealed that the information used to plan the work was limited and provided a poor basis for the radiological limits or controls established in the RWP. The review also noted that the radiological screening characterized the work as “medium hazard” based on the same limited information. Consequently, the contractor’s Hazard Review Board did not review the work instructions. The resident inspector notes that a more conservative screening placing greater weight on the lack of information may have resulted in a more thorough review, and a better basis for establishing void limits. The contractor is developing a re-entry plan to survey and decontaminate the stairwell, and is re-planning the sixth floor characterization work to appropriately account for the elevated contamination levels.

222-S Laboratory: The Resident Inspector and two members of the Board’s staff observed an Incident Command Post limited exercise at the laboratory. The scenario simulated a fire and drum explosion in a mixed waste storage area that resulted in a breach of the exterior wall of the 222S laboratory. The drill revealed opportunities for improving internal and external communications, mitigation planning, and control of limited drill scenarios.

Building 324: A resident inspector visited Building 324 to check the status of work activities following recent weather-related closures. Snow removal activities have been completed to allow utility routing outside of the building to support core drilling and pilot hole activities in the basement of the facility. Operations personnel expect that core drilling will complete next week. The contractor has also modified the pilot hole work instructions to resolve Hazard Review Board comments (see 1/25/2019 report). It now allows repetition of tasks without interfering with hold points. The changes also improve control of the work by clarifying what radiological conditions fall outside of expected dose rates. Additionally, the resident inspector visited Pit 6 and the Building 324 mockup facility. Project support activities have also resumed at those locations.

The resident inspector observed the demonstration of a scabbler tool for texturing the concrete outer wall of the B-Cell. Scabbling will improve shear transfer between the micropile foundation and the cell wall. Building 324 personnel and the contractor demonstrating the scabbler discussed potential tool modifications to reduce physical strain on the operator.