

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending April 10, 2020

Hanford Site: Hanford site DOE and contractor management continue to follow federal and state guidance to reduce the transmission of the novel coronavirus disease (COVID-19) (see 4/3/2020 report). The Richland Operations/Office of River Protection manager has extended the current essential mission critical operations posture through next week. Although there is no defined end-date for the current operational posture, DOE and contractor managers are working to define plans for resuming work.

Tank Side Cesium Removal (TSCR): The ORP Senior Review Board (SRB) met to consider two TSCR hazard control changes. The first change modifies the safety classification of the seismic restraints that are used when the TSCR ion exchange (IX) columns are installed inside the process enclosure. Currently, the two upper sets and the lower set of seismic restraints are classified safety-significant (SS). The upper restraints prevent toppling and the lower restraints prevent sliding of the IX column during a seismic event. However, after reevaluating the seismic hazard using a ground motion spectra that was revised based on the latest Probabilistic Seismic Hazard Analysis, the contractor determined that the IX columns will not topple even if the upper restraints are not present. Consequently, they proposed retaining the SS designation of the lower restraint, but removing one set of the upper restraints that is difficult to operate and introduces other hazards. The second set of upper restraints is retained, but the safety classification is reduced to general service. The second hazard control change proposes modification of the controls that protect TSCR IX columns and process equipment from vehicle impacts. The existing strategy uses vehicle barriers to protect the equipment. The contractor determined that restricting access and controlling vehicle speeds in areas surrounding the TSCR IX column storage pad and process areas is a more effective approach. The proposed change retains the vehicle barriers, but reduces their safety classification from SS to defense-in-depth. The SRB determined that there is reasonable assurance that the changes are approvable, but are not substantial enough to warrant a change to the Preliminary Documented Safety Analysis. Instead, they will be addressed during approval of the Documented Safety Analysis (DSA) amendment, which the contractor is developing to add the TSCR information into the Tank Farm DSA.

Building 324: Contractor management approved the Building 324 Resumption Team's root cause analysis and corrective action plan that addresses radiological control events at the facility (see 3/6/2020 report). The corrective action plan provides a phased approach for returning to high hazard radiological work at the facility when the site exits its minimum essential work posture.

Plutonium Finishing Plant: Contractor personnel have begun reconfiguring their support buildings to facilitate social distancing during pre-job meetings and other necessary work gatherings. Next week, project personnel intend to perform sampling, radiological boundary surveys, and fixative application in the high contamination area of the project to minimize the potential for radiological contamination spread.