

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 23, 2018

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending November 23, 2018

DNFSB Staff Activity: A resident inspector observed briefings to the New Mexico State Legislature's Interim Committee on Radioactive and Hazardous Materials. The briefings included the New Mexico Environment Department's update on the Waste Isolation Pilot Plant and the new LANL Director's overview of the Triad transition.

Plutonium Facility–Criticality Safety: Last Thursday, Plutonium Facility personnel discovered an unexpected condition with a plutonium and uranium item taken from the vault for surveillance. The item had oxidized significantly and was arranged in a configuration with a sample staged inside of it similar to a previous instance (see 3/9/2018 report). Neither condition was compliant with the criticality safety posting for the glovebox where the item was introduced and unpackaged. Fact-finding participants noted that the work team responded appropriately and called in a potential process deviation when they discovered the oxide. Upon review, criticality safety personnel determined the situation was safe and stable. A similar item with unknown deterioration will be taken from the vault in the near future to undergo the same surveillance. Facility personnel plan to pre-stage a response team to address any potential deviations with this item.

During an annual fissionable material operational review conducted last Friday, a reviewer discovered an error in the criticality safety evaluation for a safe adjacent to a floor storage location. Specifically, the general location description in the evaluation for the safe did not acknowledge the presence of the adjacent floor storage location. Criticality safety personnel subsequently determined that interaction was not a controlled parameter in the evaluation and plan to address the error in the description.

Confinement Vessel Disposition Project: Project personnel recently completed debris removal from vessel 8. Earlier this month, engineering personnel completed a prompt operability determination that concluded that the safety-significant Enclosure Ventilation System is operable but in a degraded condition as only one of two trains is functional (see 10/26/2018 report). This configuration meets all safety basis requirements. Facility personnel plan on restoring the second train to service to improve safety of the operation. Project personnel expect to begin cleanout of vessel 9 early next calendar year.

Weapons Engineering Tritium Facility–Safety Basis: NNSA Field Office personnel are completing their review of a safety basis addendum intended to facilitate venting of the three Flanged Tritium Waste Containers (FTWC) with the potential for explosive headspaces mixtures of oxygen and hydrogen isotopes (see 9/14/2018 report). In parallel, NNSA and EM Field Office personnel and their contractors continue to evaluate options for the four FTWCs with similar concerns currently located at Area G.