

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 16, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending March 16, 2018

Transuranic Waste Facility (TWF): On Wednesday, TWF management transmitted an evaluation of the safety of the situation (ESS) on the questions concerning the waste acceptance criteria (WAC) for the Waste Isolation Pilot Plant (WIPP) used to implement the TWF safety basis (see 3/9/2018 report). The ESS concludes that the current inventory of 28 drums is safe based on a review by subject matter experts. The ESS also proposes resuming operations under redefined language for the shipping and receiving safety management program. The proposed language notes that TWF can only receive transuranic waste that is generated by trained and qualified personnel and has an active waste stream profile that is included in an approved acceptable knowledge report. This language replaces previous language linked to the current WIPP WAC. The NNSA Field Office is currently reviewing the ESS.

Plutonium Facility–Process Improvement: Heat source plutonium operations generate liquid waste, which is accumulated in plastic carboys until it is processed. Currently, Plutonium Facility personnel use a rotary tool to size reduce these plastic containers in order to improve their packing efficiency in pipe overpack containers for disposal. On Wednesday, Plutonium Facility personnel demonstrated a new oscillating tool as part of an effort to reduce the potential for sharps injuries during this size reduction activity. They demonstrated that the oscillating tool was incapable of cutting the protective over gloves proposed for the activity. Longer term, management has notions to eliminate the use of the carboys by establishing a glovebox with the appropriate fixed vessels for the waste processing activity. Facility personnel are also establishing the means to more readily use standard waste boxes, which might provide a viable avenue for direct disposal of the carboys without size reduction.

Plutonium Facility–Safety Basis: On Thursday, the NNSA Field Office approved the second revision of the ESS for seismic interaction concerns with the fire suppression system (see 9/29/2017 report). The ESS will remain in place until August 31, 2019, which is the schedule associated with implementing a safety basis revision that includes the content of this ESS. To compensate for the seismic vulnerability, the ESS continues to include lower material-at-risk limits.

Plutonium Facility–Nuclear Criticality Safety: Last week, a restroom faucet malfunctioned, which overflowed into an area on the first floor near the aqueous processing rooms. A few gallons of water subsequently leaked into the basement in an area used to store transuranic waste drums. NNSA Field Office personnel are examining whether this result challenges assumptions related to spills of fissile solutions from the first floor and into the basement where large volume geometries are currently uncontrolled.

Waste Characterization Reduction and Repackaging Facility: On Tuesday, facility personnel completed processing the 27th and last unremediated nitrate salt drum. The next day, they processed two additional miscellaneous drums. The facility entered a maintenance outage ahead of the next planned mission to clean residues out of unremediated nitrate salt parent drums. On Wednesday, the NNSA Field office approved the safety basis revision supporting this mission.