

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 9, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue and D. Gutowski
SUBJECT: Los Alamos Activity Report for Week Ending March 9, 2018

Transuranic Waste Facility (TWF). On Wednesday, TWF management declared a potential inadequacy of the safety analysis (PISA) regarding the version of the waste acceptance criteria (WAC) for the Waste Isolation Pilot Plant (WIPP) used to implement the TWF safety basis. The TWF safety basis requires that all incoming waste meet the current version of the WIPP WAC. The WIPP WAC was last updated in July 2016 to include corrective actions from the radiological release event; however, LANL did not incorporate this revision until August 2017 and had not fully implemented it in the procedures used to package waste for TWF. During the fact-finding, participants noted that questions regarding the WAC were prevalent during the safety basis development phase of the project and re-emerged after the first waste receipt last October (see 10/27/17 report) leading to two entries into the New Information process (see 2/16/2018 report) prior to declaration of this PISA. Participants concluded that the current inventory of 28 drums is safe due to their belief in the rigor of existing waste management practices. TWF management suspended further waste receipts and structured a path forward to develop an Evaluation of the Safety of the Situation/Justification for Continued Operations that decouples the TWF safety basis from the WIPP WAC, but preserves the technical criteria necessary to ensure that energetic events and runaway reactions are appropriately prevented.

Plutonium Facility–Conduct of Operations. Programmatic operations personnel completed their first run of the new electrorefining line (see 2/23/2018 report). Their oversight team noted no conduct of operations issues, though the run was unsuccessful due to a crucible failure. On Friday, Plutonium Facility management issued their first monthly report on conduct of operations. The report summarizes adverse trends, highlights noteworthy practices, provides a conops culture scorecard, and lists focus areas for next month’s management observations.

Plutonium Facility–Criticality Safety. Last Thursday, a manager performing routine oversight questioned a work team regarding several samples that were placed within a hemishell. The Criticality Safety Posting for this operation prohibits staging of fissile material within hemishells. The team exited the room until criticality safety personnel concluded the configuration was safe and placed the box out of service. At the fact-finding, it became clear that this was another situation where facility personnel were caught in the error trap of the differing definitions of “staging” and “storage” (see 3/2/2018 weekly).

Waste Characterization Reduction and Repackaging Facility. Last week, facility personnel discovered contamination associated with degrading caulking on the underside of the glovebox. They concluded that while the caulk was a discrepant condition, it did not serve a confinement function, which was instead provided by a seal weld within the glovebox. Personnel performed a visual in-service inspection of this weld and concluded it was adequate. However, direct observation of this particular location is challenging and further hindered by residue that obscured the weld. Facility personnel have increased their radiological survey frequency of this location as an additional measure to verify confinement.