

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending February 17, 2017

Transuranic Waste Management: Earlier this month, LANL issued the 2017 update to their *Enduring Mission Waste Management Plan* (see 2/26/16 weekly). The plan indicates that LANL expects to be prepared to resume shipments to the Waste Isolation Pilot Plant by September 2017. Accomplishment of this goal will require LANL personnel to complete several waste compliance reviews, as well as complete the formal readiness review process for the startup of a new nuclear operation to support the loading and shipping function. Given the status of necessary structural repairs and a required rewrite of the safety basis for the RANT Shipping Facility, shipping activities will likely need to utilize mobile loading units at either Area G or the Technical Area 55 yard.

Area G–Safety Basis: On Friday, the NNSA Field Office approved the safety basis annual update submitted last August. The update, which took the form of a letter, fulfills the regulatory requirement for an annual update contained in 10 CFR 830. However, the update does not resolve the multiple Potential Inadequacies of the Safety Analysis that have been open for many months.

Nuclear Criticality Safety: In addition to the Department of Energy’s annual report on nuclear criticality safety metrics submitted to the Board on February 1, 2017, LANL produces its own program performance metrics. LANL’s most recent report, for the period through the end of January 2017, ranked the program as “Needs Improvement,” which is defined as on a positive trajectory but only improving minimally through time towards a stable and compliant status. The report notes that no new infractions occurred in January and that the Institutional Nuclear Criticality Safety Committee completed four field observations. It also highlights concerns with procedures and postings created by the program operations staff requiring rework, as well as noting that although deemed to be safe by NNSA, three quarters of the open infractions have existed without resolution for longer than a year. The report notes total permanent analyst staffing at 19 with 10 fully qualified, including one senior qualified. These staffing levels remain well short of the need—a recent management self-assessment team identified the need for an additional 17 personnel to meet routine mission requirements.

Plutonium Facility–Infrastructure: On Tuesday, Plutonium Facility personnel entered Mode 2–Standby when maintenance personnel were unable to repair the diesel firewater pump within the applicable Technical Safety Requirement Limiting Condition for Operation completion time (see 2/10/17 weekly). On Thursday, facility personnel successfully completed repairs and post maintenance testing of the pump and returned the facility to Mode 1–Operations.

Transuranic Liquid Waste (TLW) Treatment Facility Project–Safety Basis: On Thursday, LANL submitted to the NNSA Field Office for review and approval, the Preliminary Documented Safety Analysis (PDSA) for the TLW Treatment Facility. The TLW Treatment Facility is a Hazard Category 3 facility that will replace the portion of the existing Radioactive Liquid Waste Treatment Facility dedicated to TLW treatment. The submittal letter notes that all directed actions from the Preliminary Safety Validation Report, as well as the NNSA Field Office comments on the 80% PDSA have been addressed. Further, the submittal notes that the NNSA Field Office and LANL have agreed that the PDSA is subject to a 60 working day Safety Evaluation Report approval cycle.