

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 18, 2020

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending September 18, 2020

COVID-19 Pandemic: On Monday, both field offices and N3B transitioned to Phase 2. Triad also transitioned to normal operations with maximized telework. Moving forward, the NNSA Field Office is evaluating the appropriate level of field presence for facility representatives and safety system oversight personnel. The EM Field Office has had a facility representative largely on site prior to Phase 2 and will be adding personnel in the coming weeks.

Onsite Transportation: The uranium-233 metal turnings that underwent a pyrophoric reaction at the Chemistry and Metallurgy Research building last month (see 8/28/2020 report) had been transferred from the Plutonium Facility under Triad's transportation safety document (TSD). At the fact-finding for that event, safety basis personnel questioned whether the actual physical form of a metal turning (as opposed to the assumed solid metal) was compliant with the TSD. This Monday, Triad declared a potential inadequacy of the safety analysis (PISA) for the TSD, since the analysis does not consider pyrophoric materials. In this case, Triad personnel did not enter their new information process, consistent with procedural guidance, when the issue was first raised on August 25, 2020. Instead, they entered the process after the PISA declaration in order to document their findings. In a letter dated July 10, 2020, the Board noted similar concerns with implementation of the PISA process around the complex.

Area G—Safety Basis: Last Thursday, N3B management sent a letter to the EM Field Office communicating their intention to develop a safety basis that complies with DOE-STD-3009-2014 to replace the existing document developed in 2012. N3B indicated they would provide a detailed safety basis strategy and schedule by October 30, 2020. The EM Field Office first acknowledged the need to develop a modern safety basis in 2015. Since then, various initiatives—including using an outside contractor to develop an entirely new safety basis—have not succeeded (see 7/5/2019, 10/18/2019 and 11/22/2019 reports).

Legacy Facilities: Last Thursday, N3B management submitted to the EM Field Office for approval the evaluation of the safety of the situation (ESS) concerning the exceedance of the hazard category 3 nuclear facility threshold for the TA-21-257 radioactive liquid waste facility and the adjacent underground industrial waste lines (see 8/14/2020 report). The ESS notes that the operational restrictions ensure that both structures remain in a safe condition, but that the effects of natural phenomena hazards are unanalyzed. The ESS further asserts that the current state of the systems and physical forms of the radiological contamination would result in a minimal release should the systems be disturbed. The ESS notes they intend to submit a justification for continued operations within six months to support additional sampling and characterization activities.

Area G—Fire Protection: Last Thursday, EM Headquarters approved a June 2018 request from N3B's predecessor regarding a suite of permanent exemptions for fire protection systems. The approval notes that the code of record for most of Area G remains largely dependent on DOE directives issued in the early 1990's, but also that any new structures will fall under DOE Order 420.1C, *Facility Safety*.