

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 19, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending February 19, 2021

Area G–Safety Basis: On Tuesday, the EM Field Office rejected the evaluation of the safety of the situation (ESS) concerning pipe overpack containers with greater than 80 plutonium-239 equivalent curies (see 7/17/2020 report). The field office noted that N3B has identified additional inadequacies with the accident scenario as part of its ongoing extent-of-condition review that occurred after the ESS was submitted in October 2020. Consequently, the field office could not approve the ESS without additional evaluation and discussion of the impacts of these inadequacies.

This week, N3B personnel conducted fact-findings for two additional potential inadequacies of the safety analysis (PISA) resulting from their ongoing extent-of-condition review. The first PISA involved postulated single container deflagrations and identified that the controls are irrelevant to the accident scenario. The second PISA involved postulated dropped transuranic waste payloads during TRUPACT II mobile loading operations and identified discrepancies with the assumed material-at-risk and credited controls. N3B management identified compensatory measures to be implemented through shift orders and eventually integrated into a revision of the standing order consolidating controls from many ESSs.

Plutonium Facility–Conduct of Operations: Last Thursday, workers in the Plutonium Facility discovered a non-compliance in a dropbox while completing checks prior to performing a movement of nuclear material. They found an item had been moved into the box the previous day that exceeded the mass limit on the criticality safety posting for the location. Criticality safety personnel determined that the condition is bounded by the analysis in the criticality safety evaluation document for this operation. As a corrective action, the group that performed the movement of the item will use a more rigorous section of the material movement procedure. They also plan to hold a safety day to brief personnel on this event and how to avoid similar events in the future.

Plutonium Facility–Work Control: Last Tuesday, Plutonium Facility personnel performed activities without the knowledge of operations center personnel. At the time, the laboratory room in question was in Standby mode per the Technical Safety Requirements following an earlier material-at-risk discrepancy (see 2/5/2021 report). The work being performed would have been allowed in this operations mode as it did not involve special nuclear material, and personnel believed they had received permission to perform the activity through a series of informal communications that lacked precision. Triad personnel have an ongoing effort to improve scheduling and work release processes.

Weather Impacts: Snowfall impacted onsite operations at the laboratory resulting in closure on Tuesday and a delayed start on Thursday.