

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 26, 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 March 26, 2021

**Area G–Safety Basis:** On Tuesday, N3B transmitted to the EM Field Office a consolidated evaluation of the safety of the situation (ESS) covering 18 of the potential inadequacies of the safety analysis (PISA) that were discovered between January 2020 and February 2021. These PISAs all resulted in positive unreviewed safety questions. The consolidated ESS summarizes the existing immediate compensatory measures for the 18 PISAs which were consolidated into a single standing order last month. This standing order in conjunction with the further restriction of operations enacted two weeks ago is intended to provide assurance that the facility is in a safe condition.

Also on Tuesday, N3B declared a new PISA related to the treatment of rotary wing aircraft crashes in the Area G safety basis. The calculation supporting the Area G safety basis does not include rotary wing aircraft impacts because of standoff distances imposed by a Triad site procedure. However, the standoff distances for local helicopter flights mandated by the Triad procedure are insufficient to preclude the possibility of a helicopter impacting facilities within Area G based on the glide path distances in DOE-STD-3014-96, *Accident Analysis for Aircraft Crash into Hazardous Facilities*. N3B personnel are revising their aircraft crash calculation and have notified their Triad counterparts.

On Wednesday, N3B personnel determined that an additional 10 waste containers should be treated as containing high fissile gram equivalents (see 3/6/2020 report). Facility operations staff have paused container movements, restricted access to the containers, and are working through a recovery process. Based on discussions at a fact-finding held on Thursday, these containers were re-assayed last year and the procedure used for reviewing the data had not been revised to reflect the changed approach of including measurement uncertainty for compliance with criticality safety limits.

**Area G–Federal Oversight:** Last summer, the DOE Office of Environmental Management’s Chief of Nuclear Safety completed the first phase of its assessment on nuclear safety functions at the EM Field Office (see 7/16/2020 report). The assessment identified significant weaknesses in the federal nuclear safety function as indicated by five management challenges (defined as a systematic problem) and five findings (defined as a violation of a requirement). Representative examples of each of these include: the field office has not ensured timeliness expectations are met for safety basis submittal and approvals; there is no demonstrated ownership of the field office safety basis documents; and the draft safety basis review procedure is non-compliant with DOE requirements. The field office accepted the team’s conclusions on July 30, 2020. As of this week, the EM Field Office reports about half of the corrective actions are complete and have begun working with EM Headquarters personnel to ensure the actions are adequate. As a compensatory measure for this continued situation, EM Headquarters continues to retain all nuclear safety approval authorities.

**Transuranic Waste Management:** Triad personnel continued the investigation into the titanium welding fume condensates that readily ignited during a waste drum-out (see 3/19/2021 report). This week’s activities largely consisted of interviews. The team’s charter requests a final report by April 23, 2021. Additional waste related developments include the discovery about a month ago of two containers with corroded filters similar to those that were replaced last summer (see 6/12/2020 report) and a facility-wide pause on liquid waste absorption activities due to questions from nuclear criticality safety.