

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 2, 2022

TO: Katherine R. Herrera, Acting Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending December 2, 2022

Staff Activity: Staff members W. Dumayas and R. Jackson were at the University of Nevada, Reno to observe testing of cast iron fittings. These fittings are expected to be the most vulnerable components of the Plutonium Facility's fire protection system during seismic loads. Additional analysis will help determine their expected performance during a seismic event and whether any upgrades are needed.

Los Alamos Neutron Science Center (LANSCE)–Emergency Response: On Monday morning, a fire broke out in a computer numerical control (CNC) machine at a non-radiological LANSCE machine shop. A machine shop employee extinguished the fire, the equipment was shut down and the building was evacuated. The Los Alamos fire department responded to the scene and released the facility soon thereafter. The following morning, facility personnel held a fact-finding meeting to discuss the incident. Meeting participants noted that the CNC machine had likely sent a spark into accumulated aluminum shavings, acrylic shavings, and possibly lubricating oils. The operator's account of the incident identified that they first attempted to extinguish the flames with a pressurized air hose, followed by use of liquid coolant, and finally, successfully extinguished the flames with a nearby dry chemical fire extinguisher. Meeting participants noted that fire was not a hazard identified in the controlling work documents and questioned housekeeping practices as large amounts of excess machined shavings had been allowed to accumulate in the assembly. The resident inspectors visited the machine shop and noted that the CNC machine where the fire occurred had a substantial quantity of thin shavings inside its enclosure, in addition to two large combustible containers filled with shavings adjacent to where the fire occurred. Facility management noted that a more stringent cleaning regimen is under evaluation.

Plutonium Facility–Conduct of Operations: Two weeks ago, a construction worker found a damaged locking device for lockout/tagout with an intact lock in a toolbox in the basement. The worker turned it in to the facility's operations center. There is no obvious damage to the system the lock had been installed on. This week, facility personnel held a fact-finding meeting to evaluate the event. The worker who placed the lock has not been with the laboratory since early 2022, and there is no conclusive determination of when and how the locking device was intentionally removed without authorization. This is the second recent instance of unauthorized removal and damage of locking devices at the Plutonium Facility (see 9/23/2022 report). Lockout/tagout training has been ramping up with additional in-person training to support the growing workforce, to return to normal practices following the reduction of in-person classes during the pandemic, and as a corrective action from the September incident.

Plutonium Facility–Safety Basis: On Thursday, Triad submitted the revised temporary modification to the Plutonium Facility's safety basis to support the upgrade of the Facility Control System. The revision addresses the NNSA Field Office's directed change to clarify the applicability of the temporary modification from their approval of the previous revision (see 10/28/2022 report).

Area G–Stop Work: Electrical and lockout/tagout work are now released to be performed at Area G (see 11/18/2022 report). Said work must be performed under the oversight of a senior supervisory watch. N3B's senior management review process remains in place for any emergent work activities that have not been reviewed and released yet.