

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 28, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending October 28, 2022

DNFSB Staff Activity: Staff member R. Jackson was onsite to attend a workshop on the Plutonium Facility Seismic Performance Reassessment Project. Staff member Y. Li attended remotely.

Plutonium Facility–Fire Protection: The resident inspectors accompanied facility management on their weekly management observation verification walk-through and suggested evaluating fire barrier features as part of the walk-through. During this activity, a resident inspector identified an unsealed penetration through a credited fire barrier between one of the laboratories and the basement. The hole had been drilled as part of a construction activity; however, the required firestop seal was not promptly installed. Facility engineering personnel had previously identified this penetration and submitted a service request to have a temporary three-hour fireproof seal installed. Facility management is following up on why this temporary seal has not been installed and whether the permanent seal can be installed expeditiously.

Plutonium Facility–Infrastructure: Last week, Triad submitted the revised Preliminary Documented Safety Analysis for the Los Alamos Plutonium Pit Production Project (LAP4) to the NNSA Field Office for approval. This revision is intended to address previous comments from the Field Office and to incorporate details from the final design (see 7/8/2022 report). This week, the NNSA Field Office approved Revision 4 of the Safety Design Strategy for LAP4 which has no major changes.

Last week, the NNSA Field Office approved a temporary modification to the Plutonium Facility's safety basis to support the upgrade of the Facility Control System (FCS). The FCS is a safety-significant system that supports operation of the facility's ventilation system. It also supports other facility systems such as the criticality alarm system and fire suppression system, but these functions are not credited safety functions. The current FCS was installed in 1996 and obtaining obsolescent parts is becoming a challenge. The first three phases of the FCS upgrade could be performed while the facility was in a limited operations mode. The final two phases, which involve commissioning, testing, and surveillances of the new system, will be performed in operations mode under the new temporary modification. The modification revises the limiting condition of operation for ventilation system operability to allow additional flexibility in operating the facility without a fully functional FCS during the transition. The approval included one directed change to clarify that the temporary modification only applies during phases four and five of the upgrade following the completion of phase three, in which the new FCS is connected.

Emergency Management: On Tuesday, there was an emergency preparedness training drill at the Chemistry and Metallurgy Research Building. The scenario involved a worker who was manipulating a pallet of transuranic waste drums falling off a loading dock with the drums. The worker received a compound fracture while a drum lost its lid and spilled some of its contents. The injured worker and one other were contaminated. Drill participants noted many potential improvements during their hotwash following the conclusion of the activity. Field drills at nuclear facilities were infrequent during the pestilence (see 7/16/2021 report). Meanwhile there has been tremendous staffing growth and turnover such that many personnel have never participated in emergency preparedness drills or are in new roles with different responsibilities during emergency events.