

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for the Week Ending January 12, 2024

Staff Activity: Staff members P. Migliorini, S. Seprish, and S. Sircar were on site this week providing resident inspector augmentation and gaining perspective on plutonium operations to support design reviews of the Savannah River Plutonium Processing Facility. A. Boussof was on site Wednesday to support their visit.

Plutonium Facility–Radiological Protection: There were two skin contamination events in the Plutonium Facility last week. In one, an individual alarmed hand monitoring equipment while exiting a laboratory room. Follow-up surveys of this room discovered the likely source, a contaminated telephone. The other event involved a hot particle from a heat source room. Follow-up surveys of that room did not discover any contamination. Both individuals were successfully decontaminated. These events along with earlier lower magnitude contamination events are being looked at together to improve processes with the intent of reducing contamination events. Actions in progress include: additional surveys of items, such as telephones, that can be touched without gloves in radiological buffer areas; focused observations in the field by radiological control personnel to observe worker compliance with the facility radiation protection program; evaluating changes to that program especially for personal protective equipment requirements based on observations; and a common cause analysis for recent contamination events.

Plutonium Facility–Safety Basis: The resident inspector and a staff member joined two NNSA facility representatives to walk down the laboratory rooms that will be used for receipt and repackaging of large quantities of heat source plutonium (see 9/8/2023 report). The primary purpose was to provide the NNSA personnel with perspective and background on the safety improvement suggestions included in the Board's letter of August 11, 2022.

Plutonium Facility–Decontamination and Decommissioning (D&D): As part of the Los Alamos Plutonium Pit Production Project D&D efforts, Triad is draining and removing pencil tanks from the facility (see 12/9/2022 report). In December 2023, after installing a hot tap on a pencil tank, operations personnel noticed a small leak on the laboratory room floor. Operators adjusted the hot tap valve and installed a one gallon catch bag over the valve to prevent contamination spread. Criticality safety personnel were alerted and observed that the bag did not contain liquid, but the size exceeded the requirements in what they believed to be the criticality safety posting for the tank. Further investigation of this event determined that the hot tap installation noted above was performed on a tank that did not have an active criticality safety posting. This week, facility personnel held a fact-finding meeting to evaluate these events. Proposed corrective actions include performing fissile material operations reviews for all operations associated with tank removals and better contingency planning for hot tap leaks.

Area G–Operations: On Tuesday, N3B personnel identified that a corrugated metal pipe (CMP) evolution had been completed last week under an expired critical lift plan. Management paused CMP excavation. Workers must check this plan and other command media are valid before performing operations. In this instance, that check did not identify that the plan was expired. N3B plans to perform an extent of condition evaluation on lift plans and other documents to review expiration dates, revise their policy on developing critical lift plans, and evaluate whether this event has overlap with a previous critical lift plan issue (see 12/1/2023 report).