

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 4, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: D. Gutowski and J. Plaue, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending February 4, 2022

DNFSB Staff Activity: Members of the DNFSB staff held a closeout teleconference with personnel from both field offices and DOE headquarters to discuss the results of the staff's complex-wide review of the process to update and implement DOE directives in contracts.

Plutonium Facility–Glovebox Safety: This week, the Accident Investigation Board covering the January 7, 2022, radioactive material intake event continued interviews with Triad and NNSA Field Office personnel.

On Tuesday, facility personnel conducted fact-findings concerning two recent potential glovebox glove breaches. In one event, a worker was lapping small pieces of plutonium metal and upon exiting the glovebox, identified contamination on his personal protective equipment glove. Glove specialists were unable to identify a breach in the glovebox glove or a potential source of the breach in the operation. In the other event, a worker supporting pyrochemical processing operations similarly detected contamination on his personal protective equipment glove upon exiting the glovebox. Unlike the other event, responding radiological control technicians identified contamination on the worker's face. They were able to successfully decontaminate the worker and there were no indications of an intake. In this case, the work crew and glove specialists identified a likely pinching mechanism associated with manually moving an automatic transfer device that was inoperable. Management took an action to expedite repair of this transfer device. More broadly, workers in both cases indicated compliance weaknesses with the required techniques for exiting gloves. Facility management implemented this technique in August 2020 as a corrective action from the June 2020 glove breach and intake event involving heat-source plutonium. Facility management took an action to include continuing training on the technique, which maximizes confinement in the event of a breach. Also of note, attendees discussed the need to accelerate plans to re-establish capabilities to better examine potentially failed gloves.

Plutonium Facility–Operations: This week, Triad management commenced operations in the facility 24 hours a day, seven days a week. In the near-term, night shift activity will be similar type and tempo as to what was previously performed on the backshift. Longer term, they expect night shift activity to significantly ramp-up in tempo and complexity.

Area G–Safety Basis: Last Friday, N3B submitted for approval a revised Unreviewed Safety Question (USQ) procedure to the Environmental Management Field Office. The field office rejected N3B's previous major revision to the current procedure in 2020 and requested clarification of the procedure's applicability to less than hazard category 3 facilities that may have been miscategorized and the process for requesting extensions. The new procedure provides time limits of three working days from discovering new information to making a determination of a potential inadequacy of the safety analysis and a subsequent limit of five working days to make a USQ determination—a substantial improvement in timeliness requirements from the current procedure.