

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 14, 2023

TO: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for the Week Ending April 14, 2023

Staff Activity: On Tuesday, a headquarters staff team held a call with Triad and NNSA Field Office personnel to continue interactions supporting their review of the enhanced chemical compatibility evaluation process for transuranic waste (see 2/24/2023 report). On Thursday, a different headquarters team held a call with Triad and NNSA Field Office personnel to start a review of glovebox glove integrity processes. And, on Friday, a third staff team held a remote interaction with Triad and NNSA Field Office personnel as part of a review of decontamination and decommissioning activities at the Plutonium Facility (see 12/9/2022 report).

Criticality Safety: On Wednesday, the NNSA Field Office formally transmitted to Triad the final report from the Criticality Safety Support Group's (CSSG) assist visit in January (see 1/13/2023 report). The letter acknowledges that Triad has already been acting on the CSSG's recommendations. Consequently, the letter requests that Triad formally transmit documentation from its issues management system regarding the status of those actions. Major changes already in progress include a reorganization of the Nuclear Criticality Safety division, which includes new leadership, a structure intended to better align with programmatic needs, and more senior technical positions including a chief engineer.

Plutonium Facility–Glovebox Safety: There have been three glovebox glove breaches in the past few weeks. In all cases, there was no skin contamination or evidence of an uptake, and the involved workers discovered the breaches immediately following contamination surveys upon exiting glovebox gloves. This week, facility personnel held a fact-finding meeting to discuss these breaches, evaluate whether there were any commonalities between the events, and develop actions to prevent recurrence. One event involved repetitive motion using a hand pump. Workers believed that caused undue wear on the glove, and efforts are in progress to replace the manual operation with an automated system. This is a relatively new activity, so personnel are also evaluating appropriate glove replacement timing as more data is gathered. Another event involved vigorous wire brushing of a part which is an infrequent activity. Evaluation of increased overglove usage and reinforcement of using tabs when taping items are potential corrective actions related to that breach.

Waste Characterization, Reduction, and Repackaging Facility (WCRRF): On Thursday, the NNSA Field Office unconditionally approved the latest Safety Design Strategy (SDS) for restarting WCRRF as a hazard category 3 nuclear facility. This revision addressed NNSA's directed changes from the previous version (see 12/23/2022 report). WCRRF was last operated as a hazard category 2 nuclear facility and will be restarted to support decontamination and size reduction of large items such as gloveboxes. The SDS proposes a strategy relying largely on limits on material at risk and does not expect credited engineered controls will be necessary. While efforts to develop a new safety basis for restart are in progress, the facility remains in cold standby under its existing hazard category 2 safety basis, which is an antiquated Basis for Interim Operations with an addendum to support addressing a drum of unknown contents currently in the WCRRF Glovebox Enclosure.