

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for the Week Ending December 22, 2023

Waste Characterization, Reduction, and Repackaging Facility (WCRRF)–Emergency

Preparedness: On Tuesday, Emergency Operations Center and WCRRF personnel performed an emergency preparedness drill. As WCRRF is undergoing preparations to restart as a hazard category 3 nuclear facility, the drill used the new emergency planning documents that are still under review by the NNSA Field Office as those reflect the hazards of the facility for its future mission. The scenario was a fire in a storage container adjacent to WCRRF. This event was then complicated by a personal medical condition at a shelter-in-place location and a contaminated individual.

Plutonium Facility–Emergency Response: Last Tuesday, a hazardous material (HAZMAT) team responded to the Plutonium Facility due to a low oxygen alarm. A portable oxygen meter was being used in a laboratory room to support functional testing of a newly installed glovebox. The glovebox is not yet fully connected to radiologically contaminated systems including ventilation and other gloveboxes. The glovebox contains an engineered fluid and a nitrogen powered pump. While the crew was working with the nitrogen system, the oxygen monitor alarmed. The crew exited the area and informed the Operations Center. HAZMAT personnel responded and measured unexpectedly high levels of volatile organic compounds and backed out. After replanning their entry to account for this additional hazard, the HAZMAT personnel reentered and closed all engineered fluid containers in the box. Work in the impacted wing of the facility was placed in a safe configuration, and personnel exited that wing until additional monitoring determined it was safe to return. The impacted box is currently cordoned off while recovery plans are in progress. Facility personnel are planning on improving communication regarding the location of portable monitoring equipment and revising the work document for functional testing of this glovebox to improve industrial hygiene controls.

Plutonium Facility–Emergency Preparedness: On Thursday, the NNSA Field Office conditionally approved a revised addendum to the Plutonium Facility Emergency Planning Hazards Assessment. This document supports the receipt and repackaging of large quantities of heat source plutonium. The addendum accounts for additional material at risk and this revision resolves a discrepancy in allowable material at risk values identified during readiness reviews (see 6/30/2023 report). The safety basis addendum revision supporting this larger material at risk limit is currently under review by a team led by NNSA Headquarters (see 9/8/2023 report).

Legacy Facilities–Safety Basis: On Monday, N3B resubmitted the safety basis for Technical Area 21 to the Environmental Management Field Office for approval. N3B withdrew its previous submittal (see 9/29/2023 report) to improve the documents. The revised submittal does not change the limited scope of work or the two specific administrative controls proposed in the original document.