

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 1, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director

FROM: J.W. Plaue and D. Gutowski, Resident Inspectors

SUBJECT: Los Alamos Activity Report for Week Ending January 1, 2021

The Year on a Page: A summary of the key developments of 2020.

- Triad and N3B implemented a control set and an onsite testing program to allow some programmatic and construction activities to continue during the COVID-19 pandemic.
- Triad personnel completed contractor and federal readiness assessments of the planned activity to vent and relocate the four Flanged Tritium Waste Containers stored in Area G. In 2016, safety basis personnel determined that these containers have the potential for flammable headspace mixtures. Triad plans to execute the venting activity in 2021.
- In June, Plutonium Facility personnel experienced a glovebox glove breach involving heat-source plutonium that resulted in personnel intakes and room contamination. Triad's investigation revealed the need to strengthen the glovebox glove integrity program and execute many other corrective actions.
- Plutonium Facility personnel completed the final upgrades needed to credit the new electric firewater pumps to safety class status. They continue efforts to ensure in-facility piping meets seismic demands and eliminate fragile facilities from the water supply loop.
- Triad completed its column capital testing program in support of the ongoing studies of the seismic performance of the Plutonium Facility. The test results found that the facility's column capitals will perform as designed during an earthquake. This result provides a necessary input to the nonlinear dynamic analysis, which should provide a final answer on the structure's performance and is expected to be completed in 2022.
- Triad completed 36 shipments of transuranic waste to the Waste Isolation Pilot Plant, including 34 that used the RANT Shipping Facility. N3B completed 17 shipments of transuranic waste. Six of these shipments went through the RANT Shipping Facility per a new agreement allowing legacy waste shipments to use the NNSA facility. In total, more than 1500 containers were shipped offsite in 2020.
- Triad and N3B each declared potential inadequacies of the safety analysis in response to DNFSB/TECH-46, *Potential Energetic Chemical Reactions Involving Transuranic Waste at LANL*. They will continue executing their respective processes to remedy the impacted safety bases and implement additional controls, as determined to be necessary.
- Triad received approval for the safety basis to upgrade the Radiological Laboratory Utility Office Building from a radiological facility to a hazard category 3 facility to be termed Plutonium Facility, Building 400. They continue a multi-year effort to resolve fire protection deficiencies in parallel with commencing the readiness review process.
- The EM and NNSA Field Offices gained new managers, continued to acquire needed staff, and underwent assessments from their headquarters organizations revealing the need to strengthen some key aspects of their federal oversight.