DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 29, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending December 29, 2017

The Year on a Page: A summary of the key developments of 2017.

- Area G and Waste Characterization, Reduction, and Repackaging Facility personnel successfully completed their campaign to treat the inappropriately remediated nitrate salt wastes thereby eliminating a significant hazard. They have also commenced the follow-on campaign to treat the unremediated nitrate salt wastes and are on track for completion before the end of the bridge contract with DOE-EM.

- The NNSA Field Office Manager and LANL Director both announced retirements in advance of the upcoming transition of the management and operations contract. Both organizations also initiated accompanying changes in personnel and reporting structures.

- The Transuranic Waste Facility achieved operational status as a new hazard category 2 nuclear facility and began execution of their startup plan with the receipt of two, four-drum shipments. Facility personnel continue efforts to replace the seismic switches, upgrade the fire suppression system, and convert the dry pipe system from nitrogen to air.

- Plutonium Facility personnel completed readiness activities for aqueous chloride processing and americium oxide production, mobile loading of transuranic waste, and electrorefining. The pace of startups continues next year with planned readiness assessments for the new high-voltage electron beam welder, uranium part decontamination, and aqueous nitrate processing.

- Plutonium Facility management issued a new plan to improve and sustain the conduct of operations in the facility after an overmass in the casting room and two significant radiological contamination events. The NNSA Field Office is developing a companion plan.

- Plutonium Facility personnel continued to improve the safety posture of the facility, notably completing the effort to wrap 27 roof girders with carbon fiber reinforcement and increasing by 350 since March 2015 the number of certified containers in use on the first floor to better protect nuclear material. They also continue to refine their understanding of the seismic fragility and interactions issues with fire suppression system raised in the Board's letter dated May 12, 2016.

- Weapons Engineering Tritium Facility (WETF) personnel successfully shipped four tritium items to the Savannah River Site and are nearing completion of the system upgrades necessary to begin risk reduction activities associated with the bulk removal of tritium gas.

- WETF and Area G personnel continue to improve their understanding of the safety of the situation associated with the Flanged Tritium Waste Containers. In August 2016, LANL personnel determined some of these containers may be pressurized with an explosive mixture of oxygen and hydrogen isotopes. They are finalizing the process to vent the containers currently located at WETF following completion of safety basis changes and readiness.