

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2017

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending October 6, 2017

**Federal Oversight:** On Thursday, Steve Goodrum became the Manager of the NNSA Field Office.

**Plutonium Facility–Operations:** With the start of the fiscal year, the Associate Director for Plutonium Science and Manufacturing implemented a re-organization that melds personnel from the previous engineering and operations divisions into three new organizations associated with pit technologies, actinide processing, and strategic science and engineering. Consequently, the roles and responsibilities that were learned and assessed during the restart reviews have changed.

**Plutonium Facility–Restart Activities:** Last Thursday, the contractor readiness assessment team briefed the results of their review of the electrorefining process (see 9/22/2017 weekly). They identified two prestart issues: (1) the criticality safety evaluation document has not demonstrated that all credible abnormal conditions associated with the potential for fissile material overmass will remain sub-critical and (2) the hazards with the movement of materials and use of gloves in the primary staging glovebox, which is a unique carousel design, were not defined in the procedure and were not appropriately demonstrated or communicated during the operation. In response to the first finding, management has paused all pyrochemistry operations.

**Transuranic Waste Facility (TWF):** Last week, NNSA Headquarters approved the phased startup of nuclear operations and Critical Decision-4, *Project Completion*. This accomplishment comes after several weeks of intense efforts to complete and verify corrective actions. In particular, TWF and NNSA Field Office personnel expended efforts closing the fire penetration seal issues (see 9/15/2017 weekly), which ultimately required rework for 127 of 228 seals, including some that required additional rework. TWF personnel hope to receive their first shipment of waste containers next week. In the first phase of the approved startup plan, TWF personnel may receive no more than four waste containers at one time. Progression to the subsequent phases requires TWF management to assert, and NNSA Field Office to concur, that performance supports increased throughput. Other efforts to complete the functionality for the TWF continue with: the recent submittal of a safety basis revision that supports the use a 10 % damage ratio for pipe overpack containers stored in certain locations; installation of the characterization trailers; upgrades to the fire suppression system; redesign of the seismic-shutoff switches; and transition of the workforce to a new management reporting structure.

**Inappropriately Remediated Nitrate Salt (RNS) Waste–Treatment Activities:** On Thursday, Waste Characterization, Reduction, and Repackaging Facility (WCRRF) workers completed treatment of the 45<sup>th</sup> RNS container out of 60. With the recent progress, LANL management is now projecting completion of the RNS campaign in early November. Last Thursday, the NNSA Field Office unconditionally approved a revision to the WCRRF safety basis necessary to support the treatment of the unremediated nitrate salt (UNS) wastes. While WCRRF workers will utilize a similar treatment process for the UNS, these materials do not exhibit the reactivity hazards associated with the RNS. As such, the related controls on pressure and temperature will no longer be necessary.