DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 28, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director **FROM:** R.K. Verhaagen and J.W. Plaue

SUBJECT: Los Alamos Report for Week Ending April 28, 2017

Waste Characterization, Reduction, and Repackaging Facility (WCRRF)-Readiness:

LANL continues to make progress toward startup of WCRRF to enable processing of the inappropriately remediated nitrate salt (RNS) wastes currently stored in Area G. On Thursday, the Associate Director for Nuclear and High Hazard Operations (ADNHHO) submitted to the Startup Authorization Authority for review and approval a request to commence WCRRF operations in a two-phased approach. Included in the request was the causal analysis and final corrective action plan for the WCRRF federal readiness assessment (FRA), as well as the objective evidence files for the closure of FRA pre-start findings. The ADNHHO request notes that one pre-start finding remains open—the process for treating the RNS waste has not been approved by the National TRU Program and Environmental Management Headquarters as required. The ADNHHO proposes phase 1 of the WCRRF startup would allow processing of surrogate materials in the Waste Characterization Glovebox with the facility in OPERATIONS MODE. Phase 2 of the startup would allow receipt of the RNS waste from Area G and would allow processing of the waste following approval of the treatment process.

WCRRF-Electrical Distribution System (EDS): LANL engineering personnel have identified additional issues with the WCRRF EDS following the adjustments made to the automatic transfer switch last week (see 4/24/17 weekly). Most recently, the WCRRF operations center, which is in an adjacent building to the main processing area, lost power unexpectedly. Notable loads that were lost include the waste management tracking database and the video monitors installed in WCRRF to observe RNS treatment activities. Engineering personnel conducted troubleshooting that revealed the transformer feeding the operations center building was not bonded, the building's power panel had a loose connection on the main neutral, and the breaker for one phase of the main feed was not making proper contact. These issues were all addressed and the system returned to service. Of note, the automatic transfer switch data loggers indicated discrepancies with the phase feeding the operations center building that had occurred prior to the repairs being made. Engineering personnel will continue to monitor the data loggers into next week to see if the repairs have successfully eliminated the anomalies prior to completing the system operability determination.

Plutonium Facility–Infrastructure: On Tuesday, facility personnel were performing the weekly surveillance on the west pump house diesel firewater pump when the diesel unexpectedly shut down. Operations personnel entered the appropriate Technical Safety Requirement Limiting Condition for Operations and have commenced troubleshooting activities.

Transuranic Waste Facility (TWF)–Readiness Activities: Last Friday, a management self-assessment team briefed the results of their assessment of TWF readiness to begin operations. During the brief, the team identified 24 pre-start and 9 post-start findings as well as 5 noteworthy practices. The team also commended the workers' professionalism and willingness to pause or stop work when the unexpected occurs.