DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 19, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending May 19, 2017

Inappropriately Remediated Nitrate Salt (RNS) Waste–Treatment Activities: This week, after more than three years of investigation and testing, process and safety basis development, and readiness activities, LANL workers successfully treated the first RNS waste drum to remove its ignitability characteristics. Last Friday, the EM Deputy Assistant Secretary for Safety, Security, and Quality Assurance approved a request from the EM Field Office Manager to close the last two judgements of need from the LANL corrective action plan for the February 2014 radiological release event at the Waste Isolation Pilot Plant. On Wednesday, LANL personnel transferred three RNS containers from the refrigerator in the Dome 375 Permacon to the refrigerator at the Waste Characterization Reduction and Repackaging Facility (WCRRF). On Thursday, WCRRF operators successfully treated the contents of one RNS drum, and on Friday they removed from the glovebox used for treatment one drum of treated RNS, one drum of debris, and the empty parent drum that originally contained the RNS waste. LANL personnel will leverage some lessons learned during the processing of this first drum to gain efficiencies and improve the treatment procedures. WCRRF personnel are scheduled to commence treatment of the second RNS drum next Monday. LANL's current schedule predicts completion of the RNS campaign in early August.

WCRRF–Safety Basis: On Tuesday, LANL submitted to the NNSA Field Office for review and approval, a revision to the WCRRF Basis for Interim Operation and Technical Safety Requirements to support processing the 29 unremediated nitrate salt (UNS) waste containers currently stored in Area G. LANL plans to commence treatment of the UNS waste immediately following the RNS campaign with a goal of completing all remediation before Area G contract turnover scheduled for the end of this fiscal year.

Transuranic Liquid Waste (TLW) Treatment Facility Project: On Thursday, the NNSA Field Office approved LANL's submittal of a revised Safety Design Strategy for the TLW treatment facility. In the approval letter, NNSA directed LANL to: 1) design and construct the TLW active confinement ventilation system using the American Society of Mechanical Engineers Code on Nuclear Air and Gas Treatment, and 2) perform a cost benefit analysis between using the most current version of DOE Standard 3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analyses,* and its predecessor version issued in 1994 which is currently in the code of record. Of note, the NNSA Field Office and LANL management incorporated the 2014 version of the standard into the contract as part of modification 359, which was jointly approved on August 11, 2016.

Plutonium Facility–Confinement: On Thursday, an NNSA Facility Representative identified two conduits penetrating the facilities confinement boundary to be loose. Facility personnel entered the appropriate Limiting Condition for Operations (LCO) and subsequently sealed the penetrations. Also on Thursday, facility personnel identified a broken hinge pin on a facility confinement door latch to be broken. Facility personnel again entered the appropriate LCO and have commenced repair work.