

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory (LLNL) Report for August 2019

Defense Nuclear Facilities Safety Board Staff On-Site Activity: On August 5–8, 2019, Board’s staff members D.B. Bullen and A.R. Powers were on site at LLNL to walk down the Super Block Facilities and Waste Storage Facilities (WSF), to complete discussions with Livermore Field Office (LFO) and Lawrence Livermore National Security, LLC (LLNS), managers and technical staff, and to complete required LLNL site-access training. On August 26–29, 2019, Board Member J.L. Connery, accompanied by Board’s staff members D.B. Bullen, M.V. Helfrich, and A.M. Hutain, observed the 2019 Full-Participation Exercise, walked down the WSF and Super Block facilities, and had discussions with LLNS and LFO managers and staff.

LLNL Criticality Safety Program Description Document: On July 29, 2019, the LFO approved the LLNL Criticality Safety Program Description Document, which had been submitted for approval on November, 18, 2018. LLNL made minor changes to the document updating references to current American Nuclear Society 8-Series standards and incorporated new requirements for criticality safety control review per the requirements of Department of Energy (DOE) Standard 3007-2017, *Preparing Criticality Safety Evaluations at Department of Energy Nonreactor Facilities* and DOE Standard 3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*.

Transuranic Package Transporter Model 2 (TRUPACT-II) Safety Basis Amendment: On August 12, 2019, the LFO issued a Safety Evaluation Report (SER) documenting their review of the safety basis amendment for TRUPACT-II loading at the WSF. The LFO approved this safety basis amendment noting that the shipment of transuranic (TRU) waste containers currently stored at the WSF will increase available storage space and reduce the overall inventory of TRU waste at risk. The LFO directed LLNS to incorporate the SER and its appendices into the WSF safety basis immediately.

Fiscal Year 2019 Fourth Quarter Startup Notification Report (SNR): On August 12, 2019, the LFO approved the SNR for the fourth quarter of fiscal year 2019. The SNR included the Building 332 Hydrogen Gas System with a projected restart date of March 16, 2020. The LFO noted that another restart activity, TRUPACT-II loading, has the contractor readiness assessment and the Federal readiness assessment currently scheduled in September 2019 and October 2019, respectively, with restart scheduled for December 18, 2019. In their approval letter for the SNR, the LFO stated that it took no action on the Building 332 Recovery Glovebox Line startup, which has a projected startup date within six to twelve months.

LLNL Fiscal Year 2019 Full-Participation Exercise: On August 28, 2019, LLNL completed its fiscal year 2019 full-participation exercise as required by DOE Order 151.1D, *Comprehensive Emergency Management System*. The exercise scenario, a simulated mass casualty and security event with a hostage situation, integrated elements of the Emergency Programs Organization’s annual exercise with the Security Organization’s Validation Force on Force exercise and Integrated Limited-Scope Performance Test. LLNL emergency management staff members completed their critique of the exercise on August 29, 2019, and will issue an after-action report within 45 days of the exercise.