

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2017

TO: Steven A. Stokes, Technical Director

FROM: Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer

SUBJECT: Lawrence Livermore National Laboratory (LLNL) Report for September 2017

Defense Nuclear Facilities Safety Board (Board) Staff Activity: Board's staff members D.B. Bullen and D.L. Burnfield were on site at LLNL on September 25–28, 2017, to conduct quarterly oversight duties. They met with the Livermore Field Office (LFO) Acting Site Office Manager, the LLNL Associate Director of Nuclear Operations, the Board's LLNL and LFO liaisons, the Superblock manager and staff, and LFO Assistant Managers for Operations, Programs, and Environment, Safety and Health. The topics discussed in these meetings included current operational issues in the Superblock and waste handling facilities, challenges associated with the current inability to ship transuranic waste to the Waste Isolation Pilot Plant, and the results of LLNL's most recent Safety Performance Objectives Measures and Commitments (SPOMC) effort. LLNL's 2017 SPOMC focused on Nuclear Operations System Engineering. The Board's staff members also observed operations in the waste storage facilities (Buildings 625, 693 and 696) and the plutonium facility (Building 332).

Building 332: On September 15, 2017, a portion of an annual surveillance on the safety class emergency power system for Building 332 could not be successfully completed. Completion of the remaining portions of the surveillance and retest of the failed portions indicated that there was an intermittent problem with an automatic switch which would not consistently transfer to a second, backup emergency generator. All other components of the emergency power system (the remaining generator and the automatic transfer switches) met their portions of the surveillance. The facility was confirmed to be in a safe state and troubleshooting of the system was initiated. The affected portion of the system was repaired and successfully tested on September 18, 2017. The entire annual surveillance on the safety class emergency power system was repeated on September 19, 2017. This surveillance was successfully completed and the system was declared operable.

Building 334: In a September 29, 2017, letter to LFO, LLNL requested a 60-day extension to submit the Review Comment Record resolutions and provide the page changes for the Hardened Engineering Test Building (Building 334), Documented Safety Analyses and Technical Safety Requirements 2017 Annual Update to LFO. This extension, which will allow for appropriate review of the proposed LLNL RCR resolutions by LFO, extends the due date for these revised documents to November 17, 2017.

Conduct of Operations: On September 13, 2017, LFO sent a letter to LLNL summarizing its review of the Conduct of Operations Matrices for the Nuclear Materials Technology Program facilities. This letter included comments identifying some potential issues with the matrices. LFO requested resolution of these comments and requested a copy of the revised Conduct of Operations Matrices within 45 days.