

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 3, 2018

**TO:** Christopher J. Roscetti, Technical Director

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

**SUBJECT:** Lawrence Livermore National Laboratory (LLNL) Report for July 2018

**Defense Nuclear Facilities Safety Board (Board) Staff Activity:** There were no onsite Board staff reviews or oversight visits at LLNL in July 2018.

**Building 239 Safety Basis Documents Annual Update Approved:** On July 10, 2018, the Livermore Field Office (LFO) approved the 2017 Annual Update to the Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) for the Radiography Facility – Building 239. LFO noted that the Building 239 DSA and TSR documents “are appropriate to serve as the basis for the safe operation of the (Building 239) Radiography Facility at an acceptable risk level to the workers, public, and the environment.” In addition, LFO required that LLNL implement the updated DSA and TSRs within 90 days.

**Building 332 Transition to New Motor Control Center:** On July 13, 2018, LLNL submitted a request to LFO for four one-time deviations from the Building 332 TSRs to allow the facility to transition to two new motor control centers (MCC). LLNL stated that these new MCCs are described as a planned safety enhancement in the Building 332 DSA and will remove a single-point failure vulnerability in the Emergency Power System (EPS) by transferring equipment loads from one MCC in Increment 3 to two new MCCs. LLNL is completing this upgrade as part of its response to prior Board correspondence (in 1999 and 2002) on the operability of vital safety systems in Building 332. LLNL stated that the project consists of three phases:

- Transition Increment 3 Room Ventilation System fans, Increment 3 Glovebox Exhaust System fans, and Room Continuous Air Monitoring (CAM) system air turbines to the new MCCs.
- Transition applicable transformers that support Increment 3 Room CAMs, the Fire Detection and Alarm System MXL panel, Increment 3 Argon and Nitrogen Supply System solenoid valves, and other small loads.
- Transition the remaining power connections to one of the new MCCs and transition power connections for the existing MCC. Upon completion of this phase, all EPS surveillance requirements (SR) and ventilation system SRs will be conducted to verify restoration of the EPS.

LLNL stated that prior to commencing work, affected areas of the facility will be placed in Maintenance Mode. At the conclusion of each phase, LLNL will notify the LFO that the cutover work is finished, and that performance of applicable SRs confirmed the involved safety structures, systems, and components are operable.