

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 6, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer  
**SUBJECT:** Lawrence Livermore National Laboratory (LLNL) Report for November 2024

**First Quarter Fiscal Year (FY) 2025 Startup Notification Report (SNR):** On November 5, 2024, the Livermore Field Office (LFO) approved the First Quarter FY 2025 SNR, which was submitted by Lawrence Livermore National Security, LLC (LLNS) on October 16, 2024. The SNR included the restart of one activity, the Hazard Category 3 Workstation 2111 Ion Exchange Column Restart. LFO approved the report with no changes from the FY 2024 Fourth Quarter SNR submission.

**Building 239 – Radiography Facility Documented Safety Analyses (DSA) and Technical Safety Requirements (TSRs) Annual Update:** On November 6, 2024, LFO acknowledged receipt of an information submittal documenting no changes to the Annual Update of the Building 239 – Radiography Facility DSA and TSRs. LFO noted that per Title 10 of the Code of Federal Regulations, Part 830.202(c)(2), if LLNS submits the latest copy of the safety basis documents or a letter that there have been no changes since the prior submittal, DOE approval is not required. LFO reviewed the submission and applicable Unreviewed Safety Question Determinations (USQD) and did not identify any changes that affect the approved Building 239 safety envelope. LFO agreed that there were no significant changes to the Building 239 Safety Basis and declared it acceptable for continued use. LFO required LLNS to add the approval letter to the Building 239 Safety Basis documents immediately.

**Institutional Manual – Unreviewed Safety Question (USQ) Procedure:** On November 12, 2024, LFO provided Review Comment Record (RCR) comments on the LLNS USQ procedure, *Unreviewed Safety Question (USQ) Procedure*, (Institutional Manual, MAN-2384 Rev 0). A number of LFO's comments cited guidance from Department of Energy (DOE) Guide 424.1-1C, *Implementation Guide for Use in Addressing Unreviewed Safety Question Requirements*, including; adding information that may help individuals identify activities needed to enter the USQ Process; providing examples of procedures that would allow individuals to clearly identify activities that might need to enter the USQ process; and identifying the potential methods for making facility changes such as planned modifications, correction of non-conformances, or maintenance activities. LFO requested that LLNS resubmit any revised USQ Procedure page changes incorporating resolutions to the RCR comments no later than December 20, 2024.

**Building 332 – Seismic Evaluation and Retrofit – Quarterly Update:** On November 21, 2024, LLNS provided a quarterly update to LFO on the seismic evaluation and retrofit project for Building 332. LLNS hired Constantino & Associates to complete seismic analyses including assessing the sensitivity of ground response to the presence of soil fill under Increment 1 of Building 332, developing design response spectra and soil properties for use in soil-structure interaction analyses, and developing appropriate foundation input response spectra for the project. LLNS provided updated analyses for Increment 1 of Building 332 and the plenum equipment building (PEB). LLNS noted that the results of the analysis for the PEB roof suggest that roof replacement may not be necessary – saving about \$2.7M. LLNS has completed 30% of the conceptual design of the retrofits required to address the seismic issues in Building 332 and noted that retrofit work will begin in FY 2028, depending on funding.