

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 6, 2022

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer  
**SUBJECT:** Lawrence Livermore National Laboratory Report for April 2022 Laboratory (LLNL)

**Building 332 - Centralized Waste Processing Line (CWPL) Restart:** On March 31, 2022, Lawrence Livermore National Security, LLC, (LLNS) approved the Implementation Plan for the Contractor Readiness Assessment (CRA) for the restart of operations in the CWPL. Operations in CWPL include handling transuranic waste (TRU) containers, bagging waste into and out of the glovebox, visually examining, sorting, and segregating waste, repackaging TRU waste, and standard glovebox maintenance (e.g., surveillances, housekeeping, glove changes). The CWPL is specifically designed to process TRU waste from other areas in Building 332 to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria. The glovebox was first installed and underwent a readiness review in 2015. The CRA team will assess the readiness of the CWPL glovebox, CWPL operators, and the authorizing work documents to conduct glovebox operations safely and in compliance with the Building 332 safety basis, as well as Department of Energy (DOE) and LLNL requirements. The CWPL CRA is currently scheduled for May 2022.

**Building 332 – Recovery Glovebox Line (RGL) Operations Approved:** On April 1, 2022, LLNS certified that the RGL was ready for startup based on the results of the Federal Readiness Assessment (FRA) and subsequent actions taken by the Building 332 facility and Nuclear Material program managers to resolve the only pre-start finding identified in the *Final Report for the Federal Readiness Assessment Recovery Glovebox Lines*. The pre-start finding stated, “As written, the RGL Startup Plan does not provide sufficient detail to start up all in-scope operations.” LLNS resolved the prestart finding by providing the necessary details in the most recent version of the *Recovery Glovebox Lines Startup Plan*. Based on these actions, the Livermore Field Office (LFO) approved the startup of the RGL on April 13, 2022.

**2021 Annual Unreviewed Safety Question Determination (USQD) Summaries:** On April 7, 2022, LLNS submitted summaries of USQD activity at the LLNL nuclear facilities (Buildings 239, 331, 332, 334 and Waste Storage Facilities) for the period January 1, 2021, through December 31, 2021, as required by 10 CFR 830.203(f), *Unreviewed Safety Question Process*. LLNS also included USQDs started in 2020 that were not completed until 2021. LLNS will incorporate the changes resulting from these activities into the appropriate documented safety analyses for the respective facilities in the next annual update(s).

**Building 332 - Interim Seismic Assessment and Mitigation Report:** On April 26, 2022, LFO approved the *Building 332 Interim Natural Phenomena Hazard (NPH) Assessment and Mitigation Report* submitted by LLNS on January 7, 2022. DOE Order 420.1C, *Facility Safety*, Attachment 2, Chapter IV, Section 3, Change 3, requires that if a new assessment of NPH indicates deficiencies in the design of existing systems, structures, or components, a plan for upgrades must be developed and implemented on a prioritized schedule, based on the safety significance of the upgrades, time or funding constraints, and mission requirements. LFO reviewed the assessment and mitigation plan and conditionally approved the report based upon it being an interim report and based on the mitigation schedule being subject to funding. LFO emphasized the importance of conducting the Building 332, Increment 1 foundation reanalysis and required quarterly updates on the progress toward meeting the preliminary activities in the 10-year schedule provided in the report.