

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 1, 2022

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

Building 332 – Request to Terminate Justification for Continued Operation (JCO) and Associated Compensatory Measure: On February 28, 2022, Lawrence Livermore National Security, LLC, (LLNS) submitted a request to terminate the Building 332 JCO and associated compensatory measure established to address a potential increase in the likelihood of degradation of the Building 332 facility structure in a Seismic Design Category 3 Design Basis Earthquake. The compensatory measure reduced the material inventory limit in the Building 332 vaults. LLNS hired an engineering consultant to complete a building structure seismic condition assessment. Based on the results of this assessment, LLNS concluded that the presumed hazard no longer exists, and the JCO and its associated compensatory measure are no longer needed. LLNS also noted that the assessment identified several separate areas of noncompliance for the Building 332 structure. LLNS proposed potential strategies, priorities, and timetables for the mitigation of these noncompliant areas.

Building 331 – Approval of the 2021 Building 331 Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) Annual Update: On March 3, 2022, the Livermore Field Office (LFO) approved the Building 331 (Tritium Facility) DSA and TSR Annual Update. LFO noted that aside from minor and editorial revisions, there were no major changes to the DSA and TSR. Based on the information provided by LLNS and the resolution of review team comments, LFO agreed that the Annual Update is sufficient and appropriate to serve as the basis for the safe operation of Building 331. LFO documented the basis for their review in a Safety Evaluation Report (SER). LFO directed LLNS to enter the Annual Update and SER into the Building 331 safety basis effective immediately and implement the updated DSA and TSR within 90 calendar days.

Building 332 – Annual Update to the Plutonium Facility DSA and TSR: On March 15, 2022, LFO provided Review Comment Record (RCR) comments to LLNS on the 2021 Annual Update of the Building 332 (Plutonium Facility) DSA and TSR. LFO provided comments on a range of items including hazard analyses scenarios, combustible loading limits, and specific administrative controls. LFO requested resubmittal of a revised DSA and TSR incorporating resolutions to the RCR comments within 120 calendar days.

Second Quarter Fiscal Year 2022 Startup Notification Report (SNR): On March 15, 2022, LFO approved portions of the Second Quarter Fiscal Year 2022 SNR submitted by LLNS on February 3, 2022. LFO approved the startup/restart activity and schedule for the Hazard Category (HC) 2 Centralized Waste Processing Line (CWPL). LFO took no action on the pre-decisional HC 2 Hydrogen Gas System activity since LLNS changed the status of this startup effort to pre-decisional to reevaluate the project schedule. In addition, LFO determined that a Federal Readiness Assessment for CWPL was required prior to the restart in accordance with the requirements of Department of Energy Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*.

New LLNL Emergency Operations Center (EOC) Now Operational: On March 25, 2022, the new LLNL EOC began operations. The new EOC was designed to consolidate emergency management, communications, and response support into one facility. During emergencies, the facility provides self-sustainability for up to 72 hours without support from external utilities.