

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 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 October 2022

**Transportation Safety Document (TSD) - 2022 Resubmittal:** On September 29, 2022, Lawrence Livermore National Security, LLC (LLNS) resubmitted the 2022 TSD resolving Review Comment Record (RCR) items previously identified by Livermore Field Office (LFO) staff. LLNS noted that the purpose of the TSD is to demonstrate compliance with Subpart B of Title 10 of the Code of Federal Regulations, Part 830 (10 CFR 830), *Nuclear Safety Management*. The TSD covers transfers of nuclear materials by the Radioactive and Hazardous Waste Management Program and Materials Management Vaults and Transportation Group transfer vehicles on the LLNL site. The TSD documents the safety analysis of the activities related to the onsite transfer of nuclear materials, identifies the hazards associated with these activities, analyzes potential accidents, and derives the controls necessary to protect workers, the public, and the environment. LFO will review and approve the revised TSD, as appropriate.

**Building 332 – Nitrogen Supply System Pressure Drop:** On October 5, 2022, the Building 332 facility manager was informed that the safety significant glovebox nitrogen supply system was unable to provide a minimum of 60-psig nitrogen gas to Building 332 gloveboxes, as measured in the Building 332 loft. When the pressure briefly dropped below 60-psig, the facility entered a limiting condition for operation (LCO). Building 332 staff identified an issue with the scheduled nitrogen storage tank fill that caused the pressure to drop and immediately corrected the issue at the storage tank, restoring the glovebox nitrogen supply system pressure to normal. The facility exited the LCO within 15 minutes with the successful completion of a surveillance test.

**Waste Storage Facilities (WSF) Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) Annual Update Resubmittal:** On October 7, 2022, LLNS resubmitted the annual update to the WSF DSA and TSR. In December 2021, LLNS submitted the annual update of the WSF DSA and TSR, and on July 11, 2022, LFO provided the RCRs and directed LLNS to resubmit the DSA and TSR incorporating the resolved RCRs no later than October 9, 2022. The updated safety basis documents conclude that the overall risk to workers, the public, and the environment from operations in the WSF have been adequately analyzed and appropriate controls developed. The safety analyses show that the mitigated risk to workers and the public for all facility operations is low or negligible.

**Building 332 – Degraded Door in the Radioactive Materials Area (RMA):** On October 7, 2022, Building 332 staff notified the facility manager that one of three safety class Increment 3 stairwell RMA exit doors would not latch during an annual surveillance. The facility entered an LCO while Building 332 staff conducted corrective maintenance on the door. Building 332 staff completed the corrective maintenance, conducted the surveillance, and the facility exited the LCO.

**Building 239 - DSA and TSR Annual Update:** On October 17, 2022, LFO acknowledged receipt of the annual update of the Building 239 (Radiography Facility) DSA and TSR. The revised 10 CFR 830 allows submitting the latest DSA and TSR or a letter documenting that there have been no changes since the prior submittal, for which DOE approval is not required. LFO reviewed the DSA and TSR and the applicable Unreviewed Safety Question Determinations and did not identify any changes that affect the approved Building 239 safety envelope. LFO agreed that there were no significant changes and directed LLNS to add the LFO correspondence to the updated Building 239 safety basis.