

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 6, 2026

TO: Technical Director
FROM: Lawrence Livermore National Laboratory (LLNL) Cognizant Engineer
SUBJECT: LLNL Report for February 2026

Defense Nuclear Facilities Safety Board Staff Interactions: During the week of February 9, 2026, a DNFSB staff team traveled to LLNL to conduct part of a review of the safety of subcritical experiments at the Nevada National Security Site. The team's review includes dynamic criticality safety and device response methodologies developed by LLNL personnel. The team also walked down several locations in the Plutonium Facility.

First and Second Quarter Fiscal Year 2026 Startup Notification Report (SNR): On January 14, 2026, Lawrence Livermore National Security (LLNS) submitted a combined SNR for the first and second quarters of fiscal year 2026, which was approved by the Livermore Field Office (LFO) on February 3, 2026. The SNR covers startup of the new Tritium Delivery System (TDS) in Building 331 (Tritium Facility). LFO had previously approved the revised Building 331 documented safety analysis (DSA) and technical safety requirements (TSR), which incorporated TDS-related changes. The major components of the TDS include two new gloveboxes with fume hoods and a standalone fume hood, along with various other supporting systems, such as a scrubbing system. While the new processes are similar to the existing Tritium Processing Station in Building 331, the TDS is a new hazard category 3 activity, requiring a readiness assessment per DOE Order 425.1E, *Verification of Readiness to Startup or Restart Nuclear Facilities*. The LFO-approved SNR selected a contractor checklist readiness assessment and a contractor associate deputy director as the startup authorization authority. LLNS plans to conduct the readiness assessment in August 2026 with startup scheduled for February 2027.

Building 332 (Plutonium Facility) – Indeterminate Quality Assurance: On September 24, 2025, LLNS submitted revisions to the DSA and TSRs for Building 332 and requested removal of the Room Ventilation System and Final HEPA Filter Stages from the justification for continued operations (JCO) for indeterminate quality assurance issues for affected safety systems (see [LLNL Monthly Report for May 2025](#)). These revisions incorporate compensatory measures from the JCO and the interim seismic assessment and mitigation report for safety class systems by lowering the seismic acceleration threshold for triggering mandatory inspections and tests. This is meant to reduce the probability of undetected damage to these systems after an earthquake smaller than an evaluation basis earthquake. On December 9, 2025, LLNS submitted a revised nonconformance report and supplemental technical evaluation to support the JCO change, which concluded there is acceptable and reasonable assurance that those safety systems are operable. LFO's evaluation included review of the technical evaluation, procedures, operability determination procedure, occurrence reports since 2010, and the safety basis changes. LFO agreed with LLNS's conclusions and approved the changes to the DSA and TSRs and removal of the systems from the JCO on December 19, 2025.