

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 1, 2025

TO: Technical Director
FROM: Lawrence Livermore National Laboratory (LLNL) Cognizant Engineer
SUBJECT: LLNL Report for July 2025

Defense Nuclear Facilities Safety Board (Board) Staff Interactions: On July 22, 2025, members of a Board review team conducted a teleconference with Lawrence Livermore National Security, LLC, (LLNS) and Livermore Field Office (LFO) managers and staff to discuss lines-of-inquiry for a review of the adequacy and effectiveness of existing lightning protection systems at LLNL. The Board's staff conducted no onsite activities in July 2025.

Second Extension Request for the Justification for Continued Operations (JCO) for the Building 332 Air Conditioning Unit-08 (ACU-08) Motor Failure: On July 1, 2025, LFO approved the second extension request for the JCO for the Building 332 ACU-08 motor failure. LLNS requested a second extension of the JCO due to resources needed to address the JCO being focused on higher-priority projects. LLNS proposed a path forward to develop an evaluation to address the physical credibility and risk associated with the failure of the Increment 3 ACU-08 supply motor with a simultaneous release of radiological material. LFO approved the extension of the JCO with the two current compensatory measures remaining in place until the JCO is resolved. In addition, LFO required LLNS to provide a plan with information on how the new JCO deadline of December 2, 2025, will be met. In their correspondence, LFO also approved two actions completed by LLNS to close out the Evaluation of the Safety of the Situation (ESS) and JCO for the new failure mode for the Building 332, Increment 3 room ventilation system involving the ACU-08 split pin linkage. The LLNS actions included Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) page changes, as well as incorporating and implementing changes to two Surveillance Requirements Procedures (SRP) prior to the submittal of the next Building 332 DSA annual update. Once the SRPs and the DSA page changes are implemented, LFO will allow LLNS to exit the compensatory measure and close the JCO.

ESS for the Plutonium Facility Emergency Diesel Generator Fuel Tanks: On July 10, 2025, LFO approved the ESS related to a Potential Inadequacy of the Safety Analysis (PISA) for the Plutonium Facility emergency diesel generator fuel tanks (See LLNL Monthly Report for [March 2025](#)). On October 1, 2024, the Plutonium Facility manager declared a PISA associated with the emergency diesel generator fuel tanks for generators GDE04 and GDE07. Based on preliminary results from generator runtime calculations, LLNS proposed several corrective actions in the JCO to close the PISA and the ESS. LFO reviewed the ESS and the proposed corrective actions from the JCO and agreed with the intent of the actions proposed. LFO provided a Condition of Approval (COA) that included incorporating generator runtime calculations and changing the frequency of surveillances in the TSR. In addition, LFO included another COA requiring page changes in the Building 332 DSA to designate a diesel tank gauge as defense-in-depth/equipment important to safety, and to include an evaluation of how long the diesel generators need to operate upon loss of power in the next annual update of the DSA. LFO required LLNS to continue operating under the compensatory measure proposed in the ESS until the COAs are completed and the amended TSR are approved by LFO and implemented by LLNS.