

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 2, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer  
**SUBJECT:** Lawrence Livermore National Laboratory (LLNL) Report for June 2021

**LLNL COVID Update:** On June 21, 2021, LLNL began lifting COVID-related occupancy limits in common spaces, such as shared offices and labs, and the requirement for social distancing. LLNL announced that the current Laboratory mask guidance will remain in place for all personnel, vaccinated or not. This guidance requires face coverings in indoor shared spaces and outdoors when in proximity to others. LLNL set a target date of July 12, 2021, for a new posture in which face coverings will be optional in all interior and exterior spaces for fully vaccinated personnel.

**Building 332 – Centralized Waste Processing Line (CWPL) Contractor Readiness Assessment (CRA) Plan of Action:** On June 8, 2021, the Livermore Field Office (LFO) approved the Plan of Action for the CWPL CRA in accordance with Department of Energy (DOE) Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*. Operations in the CWPL include handling transuranic (TRU) waste containers, bagging waste into and out of the glove box, visually examining, sorting and segregating waste, and repackaging TRU waste, along with standard glove box maintenance (e.g., surveillances, housekeeping, glove changes). The CRA will assess the readiness of the CWPL glove box, CWPL operators, and the authorizing work documents to conduct glove box operations safely and in compliance with the Building 332 safety basis, as well as DOE and LLNL requirements. LFO determined the Plan of Action has the appropriate breadth, criteria, and prerequisites, and is sufficient to assess the readiness of CWPL operations to be conducted safely. The CWPL CRA is currently scheduled for August 2021.

**Building 332 – Potential Inadequacy in the Safety Analysis (PISA) Due to Excess Coolant in Induction Furnace Heating Coils:** On May 5, 2021, the Building 332 Facility Manager declared a PISA due to a discrepant as-found condition relating to an induction furnace. Lawrence Livermore National Security, LLC (LLNS) workers found that the closed loop cooling system for the induction furnace heating coils contained more than four liters of water, which exceeded the limits of the criticality safety evaluation. While changing out the coolant, the LLNS workers drained roughly five liters from the system. The workers immediately identified the discrepancy, paused work, and notified their supervisor. On June 16, 2021, the Building 332 Facility Manager submitted an Evaluation of the Safety of the Situation to LFO concluding that the increase in the water volume from four liters to five liters does not change the hazard analysis scenarios' probabilities or consequences. On June 22, 2021, LLNS staff completed a negative Unreviewed Safety Question Determination concluding that the as-found condition does not increase the probability of occurrence of an accident previously evaluated in the facility's safety basis. In addition, LLNS staff noted that this condition does not increase the consequences (to workers or the public) of accidents previously evaluated in the facility's safety basis.

**Building 332 – Recovery Laboratory Federal Readiness Assessment (FRA) Plan of Action:** On June 11, 2021, the LFO Manager approved the Plan of Action for the Recovery Laboratory FRA. The Recovery Laboratory includes three recovery glovebox lines that are designed to recover and purify plutonium from residues using aqueous processing. LLNS completed the Management Self-Assessment for the Recovery Laboratory in late June 2021. The FRA is tentatively scheduled for October 2021.