

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 8, 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 September 2021

**Defense Nuclear Facilities Safety Board (Board) Staff Interactions at LLNL:** On September 13–17, 2021, the Board’s cognizant engineer for LLNL completed the first on-site nuclear safety oversight at LLNL since the start of the COVID-19 pandemic. The cognizant engineer conducted walk downs of numerous defense nuclear facilities, had meetings with Livermore Field Office (LFO) and Lawrence Livermore National Security, LLC, (LLNS) managers including; the LFO Senior Technical Safety Advisor, the LFO Deputy Manager, the LFO Manager, the LLNS Weapons and Complex Integration (WCI) Institutional Conduct of Operations Manager, the WCI Principal Deputy Associate Director for Operations, and the LLNL Laboratory Director. The Board’s cognizant engineer also completed periodic retraining required to maintain access to nuclear facilities at LLNL.

**Building 332 - Recovery Glovebox Line (RGL) Management Self-Assessment (MSA) - Final Report:** On September 13, 2021, the Board’s staff received the Final Report from the MSA for the RGL, which was conducted from May 20, 2021, to June 16, 2021. LLNS conducted the MSA to ensure the project is fully ready for a contractor Readiness Assessment (CRA) and to assist line management in the decision to proceed with the CRA. The DOE-approved RGL Plan of Action identified 11 Core Requirements from DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, applicable to the scope of the RGL CRA. These Core Requirements included:

1. Safety management programs
2. Training and qualification programs
3. Level of knowledge (managers, operations, and operations support personnel)
4. Public and worker safety and health and environmental protection requirements
5. Facility safety documentation
6. Condition and operability of vital safety systems
7. Facility systems and procedures consistent in the safety documentation
8. Procedures and safety limits for operating the process systems and utility systems
9. Operational drill program and emergency management drill and exercise program
10. Startup or restart program
11. Formality and discipline of operations to conduct work safely

The MSA team evaluated twenty-two criteria; thirteen of which were met, eight of which were partially met, and one was not met. In addition, the MSA team evaluated eighteen CRA prerequisites; twelve of which were completed and six of which were not completed. LLNS identified corrective actions that will be addressed prior to starting the CRA.

**Building 331 - Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) 2021 Annual Update:** On September 2, 2021, LLNS submitted the 2021 Annual Update of the LLNL Tritium Facility, Building 331, DSA and TSR to LFO for review, comment, and approval. The submittal included unreviewed safety question determinations from July 1, 2019, through April 1, 2021.