

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 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 March 2021

COVID-19 Safety Pause: During the week of March 8–12, 2021, Lawrence Livermore National Security, LLC (LLNS) and Livermore Field Office (LFO) staff participated in a COVID-19 Safety Pause as directed by the Department of Energy (DOE). To introduce the Safety Pause, the LLNS Laboratory Director prepared a short video covering the revised DOE Safety Plan. About 93% of LLNS staff participated in a series of WebEx meetings that included discussions of vaccinations, work controls, travel, communication, employee well-being, telecommuting, and return to work. LLNS management is currently working to complete their plan for phased on-site restart by the end of April. LFO staff completed similar meetings and discussions of the DOE Safety Plan as part of the Safety Pause. LLNS and LFO remain in Phase 2 of their “Phased Recovery and Re-entry Plan” with most of the workforce teleworking.

Contractor Readiness Assessment (CRA) Plan of Action (POA) for the Recovery Laboratory Startup: On March 2, 2021, LFO approved the POA for the startup of three new glovebox lines in the Recovery Laboratory. The Recovery Laboratory is designed to recover and purify plutonium from residues using aqueous processing. The chemical processing performed in the Recovery Laboratory is similar to operations performed in other laboratories in the Plutonium Building. LLNS amended the Building 332 Documented Safety Analysis and Technical Safety Requirements to address the new Recovery Laboratory operations. In addition, LLNS has already implemented controls associated with material limits, criticality controls, combustible loading, ventilation system differential pressure, and glovebox integrity throughout the Plutonium Building Radioactive Materials Area. In their approval, LFO stated that the POA has the appropriate breadth, criteria, and prerequisites and is sufficient to assess the readiness of facility personnel, programs, and equipment to safely operate the Recovery Laboratory. The CRA is scheduled to be completed in July 2021. A Federal Readiness Assessment is scheduled for August 2021. The LFO Manager is the Startup Authorization Authority for this laboratory.

Lockout/Tagout (LOTO) Program Update: On March 8, 2021, LLNL Environment, Safety and Health (ES&H) issued an update to their LOTO program. LLNL uses LOTO controls to protect workers from unexpected energization or startup, unintended movement or unexpected release of energy while they are performing service or maintenance activities on systems, machines or equipment. Energy sources that may cause harm to workers when uncontrolled can include, but are not limited to, electrical, mechanical, hydraulic, pneumatic, thermal and chemical or hazardous materials contained within systems, machines or equipment. LLNL revised the program to provide clarification on the LOTO process based on inputs from an appointed stakeholder advisory group with representatives from each LLNL directorate. The revisions clarified definitions of simple LOTO and complex LOTO; clarified definition and roles and responsibilities of an energy owner; added a requirement to LOTO all energy sources with an identified isolation point prior to performing work; updated the LOTO process flow diagram; and aligned requirements of simple and complex LOTO. LLNL placed these revised documents on the ES&H Worker Safety and Health web page and required all LOTO workers to complete training to ensure understanding of the changes prior to April 1, 2021.