

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2017

TO: Steven A. Stokes, Technical Director
FROM: Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory (LLNL) Report for August 2017

Building 331 - Tritium Grinder System (TGS): On August 1, 2017, LLNL submitted the Plan of Action (POA) for the Contractor Readiness Assessment (CRA) of the TGS in Building 331. The POA was developed in accordance with Department of Energy (DOE) Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*. The TGS, which has not operated since November 2011, was modified to incorporate a manual valve to replace an air-actuated debris bag-out valve that had vacuum leaks caused by debris on the sealing surface. Additional modifications include new process piping installed in the gas collection system to allow for real-time tritium recovery. The CRA will assess the readiness of the TGS to safely operate in compliance with the Building 331 safety basis.

Building 332 - Glovebox Nitrogen Supply System (GNSS): The Livermore Field Office (LFO) approved LLNL's request for 60-day relief from the application of Limiting Conditions for Operations (LCO) to the Building 332 GNSS on August 16, 2017. The LFO review concluded that the GNSS will continue to provide support through a temporary nitrogen tank to Building 332 while the safety-significant nitrogen supply is refurbished. With the exception of seismic qualification, for which compensatory controls will be in place, the GNSS will continue to meet the function, controls, and applicable requirements of the Building 332 Documented Safety Analyses and Technical Safety Requirements while in the temporary configuration.

Building 239 – Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) Update: On August 22, 2017, LFO approved the page changes for the Building 239 DSA and TSR documents to update the combustible loading controls for this facility. The LFO approval included a Safety Evaluation Report (SER) documenting LFO's review and basis for approval. The SER will be added to the Building 239 safety basis and LLNL will have 90 days to complete implementation of the safety basis changes to replace the compensatory measures previously approved by LFO.

Superblock and Radioactive and Hazardous Waste Management (RHWM) Training Implementation Matrices (TIMs): LLNL re-submitted the revised TIMs for the Superblock and RHWM facilities to LFO on August 29, 2017. The TIMs for the Superblock and RHWM Facilities describe the selection, qualification, certification, and training requirements for the Superblock and RHWM nuclear facilities. The TIMs describe or reference implementation of DOE Order 426.2, Chg. 2, *Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities*. The LLNL submittal included Review Comment Records matrices for each facility that documented the resolution of comments from LFO on training implementation.

Waste Storage Facilities (WSF) DSA and TSR Annual Updates: On August 30, 2017, LLNL transmitted the WSF DSA and TSR annual updates to LFO. These updates incorporate the Unreviewed Safety Question Determinations for WSF from August 2016 to August 2017.