

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 6, 2018

**TO:** Steven A. Stokes, Technical Director

**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer

**SUBJECT:** Lawrence Livermore National Laboratory (LLNL) Report for March 2018

**Defense Nuclear Facilities Safety Board (Board) Staff Activity:** The Board's staff provided zero person-weeks of on-site oversight at LLNL during March 2018.

**Plutonium Facility Building 332 Glovebox Nitrogen Supply System (GNSS):** On March 5, 2018, the National Nuclear Security Administration (NNSA) Livermore Field Office (LFO) approved a request by LLNL for an additional extension to remain in operation with the Building 332 GNSS in an alternate configuration. LFO received the request for an additional 60-day relief (for a total of 180 days) from the application of Limiting Condition for Operations 3.0.3 to the Building 332 GNSS. LFO noted that although the GNSS refurbishment tasks have been completed, an additional 60 days is needed to resolve seal and leak issues in the newly installed liquid nitrogen piping. Furthermore, additional time is needed to conduct analysis and develop a proposal for long-term operation of the GNSS, including further investigation of the possibility of a leak from the inner tank into the vacuum boundary between the inner and outer shells of the GNSS tank. LLNL will continue apply the approved compensatory measures during the extension period. LLNL completed Safety Evaluation Reports to provide the basis for LFO approval. LFO concluded that with the compensatory measures in place, Building 332 can be expected to operate safely for another 60 days. LFO also stated that if an additional extension is needed, the request for such an extension shall include a detailed plan for restoration and long-term operation of the GNSS and an updated operability determination for the GNSS.

**Annual Update to the Waste Storage Facilities Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR):** On March 14, 2018, LFO provided its comments on the annual update to the Waste Storage Facilities DSA and TSR. LFO requested that LLNL resubmit any revised DSA and TSR page changes incorporating resolutions to the Review Comment Record comments within 60 days.

**Annual Update to the Plutonium Facility Building 332 DSA and TSR:** On March 16, 2018, LLNL provided to LFO the Revised May 2017 Update to the Plutonium Facility Building 332 Documented Safety Analysis and Technical Safety Requirements incorporating the Review Comment Record. LLNL requested that this 2017 DSA and TSR resubmittal be considered as meeting the requirements of an annual update. The Plutonium Facility is currently operating under the 2016 DSA and TSR, which were approved on June 1, 2017. Therefore, the due date of the next DSA and TSR annual update is June 1, 2018. LLNL requested that LFO notify LLNL prior to April 20, 2018, as to whether the 2017 DSA and TSR resubmittal is acceptable as an annual update.