

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 4, 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 April 2018

**Defense Nuclear Facilities Safety Board (Board) Staff Activity:** The Board's staff provided three person-weeks of on-site oversight in April 2018. During the week of April 9–13, 2018, the Board's cognizant engineer and Board's staff members D. Grover and D. Andersen completed a review of the confinement ventilation system in Building 332. In addition, the Board's cognizant engineer met with the Manager of the Livermore Field Office (LFO) and the LLNL Acting Associate Director for Nuclear Operations to discuss routine nuclear safety oversight items.

**Building 239:** On April 3, 2018, LFO transmitted review comments on the Building 239 Radiography Facility Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) Annual Update to Lawrence Livermore National Security, LLC, and requested revised DSA and TSR page changes within 45 days from the issuance of the letter.

**Building 332:** On April 10–12, 2018, members of the Board's technical staff completed a review of the Plutonium Facility (Building 332) confinement ventilation system. The Board's staff team evaluated the following:

- The capability of the safety class and safety significant confinement ventilation system for Building 332 at LLNL to meet their credited safety functions.
- The site-wide high efficiency particulate air (HEPA) filter program to evaluate the proper inspection, storage, and testing to support the safety functions of the credited confinement ventilation systems.
- The implementation of the cognizant system engineer program to maintain the configuration and condition of the credited confinement ventilation systems.
- The implementation of the Federal Safety System Oversight Program to evaluate the site's programs to ensure the confinement ventilation systems perform their credited safety functions.

The Board's staff team completed walk-downs of Building 332 ventilation system components and observed the LLNL Nuclear Materials and Technology Program receipt inspection for HEPA filters, which is the most robust inspection program of the five sites evaluated by the Board's technical staff to date. The Board's staff team concluded that the confinement ventilation systems for Building 332 are in satisfactory condition and are properly maintained to reliably perform their safety function.

**Building 332 DSA and TSR Annual Update:** On April 16, 2018, LFO provided correspondence to LLNL noting their ongoing review of changes to Chapter Three of the Building 332 DSA to address issues identified in prior legacy reviews of the facility and to revise the DSA to more closely align with the methodology specified in DOE Standard-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*. Since all other significant changes to the Building 332 Safety Basis have been addressed through LFO approval of separate safety basis amendments, LFO's intent is to have this version serve as the 2018 Annual Update to the Building 332 DSA and TSRs.