

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 1, 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 May 2018

Building 239: LLNL transmitted the Revised 2017 Update of the Documented Safety Analyses (DSA) and Technical Safety Requirements (TSR) for the Radiography Facility – Building 239 to the National Nuclear Security Administration (NNSA) Livermore Field Office (LFO) on May 18, 2018. The DSA and TSR documents incorporated the items identified by LFO in the Review Comment Record transmitted on April 3, 2018.

Start-Up Notification Report: On May 4, 2018, LLNL submitted the third quarter fiscal year 2018 Lawrence Livermore National Laboratory Startup/Restart Notification report to LFO for approval. This submittal is required by Department of Energy Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*. (See LLNL Monthly Report for January 2018.) The startup notification report included restart of transuranic (TRU) waste characterization activities, which will include non-destructive examination of waste containers. These activities will support a fiscal year 2019 campaign to ship TRU waste containers to the Waste Isolation Pilot Plant (WIPP) for disposal. The startup notification report also included the Building 332 Recovery Glovebox Line and the Building 332 Hydrogen Gas Control System, which are both projected to start up within the next six to twelve months. All of these startup activities will include a contractor readiness assessment and a Federal readiness assessment. On May 24, 2018, LFO approved this startup notification report.

Waste Storage Facility (WSF): On May 11, 2018, LLNL transmitted the resubmittal of the Waste Storage Facility DSA and TSR documents incorporating the LLNL resolution of LFO review comments provided on March 14, 2018. On May 15, 2018, LLNL submitted a 14-point amendment and associated proposed page changes to the WSF DSA to support characterization activities required by WIPP prior to shipment of TRU waste containers for disposal. The proposed changes describe the use of equipment and certified sealed sources necessary for the characterization of TRU waste containers. The proposed changes only address the characterization activities and do not address the loading and shipment of TRU waste containers to WIPP.

Building 331: LLNL plans to replace the two exhaust fans in the Room Ventilation System (RVS) in Increment 1 of Building 331 (Tritium Facility). These fans are normally operated in a lead-lag configuration and are designated as Equipment Important to Safety (EITS). On May 4, 2018, LLNL requested authorization to allow active operations in Increment 1 with only one RVS exhaust fan in service, while each exhaust fan is replaced. The RVS exhaust fans are not credited in the DSA to reduce either the consequence or frequency of incidents, and RVS failure does not initiate a material release. During the replacement process, active operations will be halted if the operational exhaust fan fails, as required by the DSA stipulation regarding out-of-service support systems. The replacement process is expected to take about 6 months during which time there may be brief periods when no exhaust fans are available, the RVS is out of service, and active operations are halted in Increment 1. LFO is reviewing this request.