

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 2, 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 January 2018

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

Building 331: Tritium Grinder System (TGS) Contractor Readiness Assessment (CRA) Report Issued. LLNL issued the "Lawrence Livermore National Laboratory Tritium Grinder Restart" report that provided the results of the recently completed CRA. This CRA was limited to the integrated operations of the TGS, with a focus on the operation of the newly installed debris bag out valve, getter, residual gas analyzer (RGA), and molecular sieves. The CRA evaluated the operability of the grinder, the gas collection system and supporting structures, systems and components. The CRA identified five pre-start Findings and one post-start Finding. The Findings addressed issues with the debris removal activity, calibration of the RGA, tritium inventory Technical Safety Requirement (TSR) limits, procedure improvements, and the approval of the formal Startup Plan. LLNL is currently working to resolve these Findings.

Periodic Issue Report (PIR): On January 8, 2018, the Livermore Field Office (LFO) transmitted the PIR to LLNL. This report summarizes the strengths, deficiencies, and observations identified during assessments conducted by LFO. Two issues (one deficiency and one observation) were identified for Building 332, the plutonium facility. The deficiency noted a number of operational safety plan (OSP) checklists were missing signatures for verification of the correct Standard Criticality Control Condition placard, as required by the OSP Development and Implementation Guide. The PIR noted that this deficiency had no actual or potential consequences. The observation noted that an incorrect version of the Department of Energy Unreviewed Safety Question Determination (USQD) Guide was cited in a number of Building 332 USQDs. The observation was noted as a minor deviation from established protocols or procedures with the potential for minor or negligible impact on nuclear safety. LLNL entered these issues into the LLNL Issues Tracking System (ITS).

Start-Up Notification Report: On January 9, 2018, LLNL submitted the second 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 October 2017). The startup notification report included the Building 332 Recovery Glovebox Line and the Building 332 Hydrogen Gas Control System, which are both projected to startup in July 2018. Each of these startup activities will include a contractor readiness assessment and a Federal readiness assessment.