DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 3, 2017

TO: Steven A. Stokes, Technical Director
FROM: Matthew P. Duncan, Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory Report for January 2017

DNFSB Activity: Dr. Daniel Bullen has been selected to become the Defense Nuclear Facilities Safety Board's new cognizant engineer for Lawrence Livermore National Laboratory.

Board member Mr. Daniel Santos had a teleconference and a videoconference with personnel from the Livermore Field Office to discuss unattended off-hours furnace operations in Building 332, the Plutonium Facility. Further details on this change to the documented safety analysis and technical safety requirements are available in the May, June, and December 2016 reports.

Radiography Facility: The Livermore Field Office approved the changes to the documented safety analysis and technical safety requirements for the Radiography Facility discussed in last month's report. There was one condition of approval: "[p]lutonium within the B239 Radiography Facility shall only be transported with electric vehicles, manually driven carts, or hand-carried as appropriate." This control is similar to one found in the Transportation Safety Document's technical safety requirements. The field office believed that this control was appropriate from a human factors perspective.

Startup and Restart: There are no readiness reviews planned for the next twelve months at Lawrence Livermore National Laboratory. The anticipated readiness assessment for the modified Tritium Grinder System in the Tritium Facility is no longer scheduled for next month.

Performance Evaluation and Measurement Plan: The National Nuclear Security Administration made the Fiscal Year 2017 Strategic Performance Evaluation and Measurement Plan available at https://nnsa.energy.gov/aboutus/ouroperations/apm/perfevals/llnlperfevals. Most nuclear safety-related objectives and key outcomes are listed under the Operations and Infrastructure Goal. Notable aspects of the key outcomes include:

- The new institutional work planning and control process will be implemented this fiscal year, with the exception of operations controlled by the Nuclear Materials Technology Program this fiscal year. (The Nuclear Materials Technology Program performs most of the nuclear activities of interest to the Board.)

- The laboratory will improve nuclear safety by upgrading the nitrogen gas supply system for the Plutonium Facility. Though it will not be finished this fiscal year, completion of the motor control center replacement project will remove a single-point failure mode in the safety-class emergency power system.

- The laboratory will package 150 transuranic waste drums.

- The laboratory will improve emergency preparedness and response core capabilities and demonstrate site-specific actions to increase overall readiness and performance.