

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 7, 2017

TO: Steven A. Stokes, Technical Director
FROM: Daniel B. Bullen, Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory Report for March 2017

DNFSB Activity: Board Chairman Sullivan and Vice Chairman Hamilton visited Lawrence Livermore National Laboratory on March 9, 2017. The Board members walked down LLNL defense nuclear facilities and observed operations. They were accompanied by staff members D. Bullen, D. Burnfield, and M. Duncan, who had completed additional walk downs and discussions earlier in the week. On March 6-9, 2017, staff members J. Anderson, R. Arnold, and C. Berg were on site to review the weapons response technical basis for the W80. On March 27-30, 2017, staff members C. Beaty, C. Scheider, K. Amundson, D. Burnfield, and D. Bullen were on site to observe the LLNL annual emergency exercise.

Annual Emergency Exercise: LLNL completed its Fiscal Year 2017 Annual Full-Scale Exercise on March 29, 2017. The exercise scenario involved a simulated fire engulfing four 55-gallon drums containing lithium hydride material on a pallet jack near a rollup door in the high bay of Building 131. This exercise employed real-time meteorological data to calculate the movement of the simulated smoke and simulated contamination plume. The exercise did not include a radiological component as part of the incident. The emergency response included a limited evacuation of Building 131, the subsequent relocation of the evacuees from their designated assembly point outside the building to a Relocation Area elsewhere on the LLNL site, and a site-wide shelter-in-place protective action.

Organizations external to LLNL that participated in the exercise included:

- Alameda County Fire Department (Full Participant)
- Alameda County Office of Emergency Services (Simulated Participant)
- Alameda County Regional Emergency Communications Center (Limited Participant)
- Alameda County Sheriff's Office (Simulated Participant)
- Department of Energy Headquarters Watch Office (Full Participant)
- Department of Energy-Livermore Field Office (Full Participant)

LLNL personnel are currently evaluating input from all parties involved in the exercise, including players, controllers, and evaluators. LLNL expects to release the after action report for this exercise in mid-May. Board's staff members C. Beaty, C. Scheider, K. Amundson, D. Burnfield, and D. Bullen observed the exercise.

LLNL Nuclear Maintenance Management Program: LLNL submitted a revised Nuclear Maintenance Management Program (NMMP) description document, ES&H 52.1, *LLNL Maintenance Management Program for Non-Reactor Nuclear Facilities*, to the Livermore Field Office (LFO) for review and approval.

Building 239: LLNL has requested authorization to conduct limited radiography operations in Building 239. The request includes additional compensatory measures to ensure separation of the items being radiographed from potential combustible loading materials.