

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2013

MEMORANDUM FOR: Steven Stokes, Acting Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending June 21, 2013

DNFSB Staff Activity: On Tuesday, the staff conducted a teleconference with Livermore Field Office (LFO) and laboratory contractor personnel to discuss the status of the geotechnical analysis associated with the required 10-year update for natural phenomena hazards (see weekly report dated March 15, 2013). On Thursday, the staff conducted a teleconference with LFO personnel to discuss oversight of nuclear facility training.

Training: At the end of this month, LFO will lose to retirement their subject matter expert for oversight of the contractor's nuclear facility training program. The expert has been responsible for driving significant improvements in the training program. The expert also performed a critical role in reinforcing to LFO and contractor management the integral role of training to ensuring the safe, secure, and efficient accomplishment of the mission. LFO does not have a staffing allotment to obtain a replacement full-time training expert and is currently studying options to continue this oversight function through other means. The Site Representative notes that the history at LLNL indicates that non-resident personnel cannot effectively perform training oversight. Furthermore, continued strong oversight is likely necessary in the near-term to maintain the improvement actions currently underway by the contractor.

Hardened Engineering Test Building: Recently, contractor personnel began efforts to install a refurbished Shaker apparatus in the facility. The approved safety basis provides for Shaker operations with up to 5 kg of fuels grade equivalent plutonium. The contractor believes that the ability to perform this operation should be retained in the safety basis and determined that the refurbished model should be installed to support potential future operations. A readiness assessment is planned for December 2013.

Emergency Management: On June 18, 2013, LFO transmitted to Headquarters the after-action report from the Emergency Planning Hazards Assessment exercise performed at the Waste Storage Facilities (see weekly report dated May 3, 2013). Overall, the contractor graded the exercise performance as "Very Good;" however, due to issues with exercise design and control 24 of 104 objectives were either not observed or not applicable. The contractor noted a single deficiency and 11 improvement items, which may be tracked separately from the Institutional Tracking System. Improvement items of note include the following:

- Radiation detection equipment needed by responders was inconveniently located
- A disconnect between Environment, Safety & Health personnel and Incident Command hampered decision-making in the field
- Responding security units did not have the proper protective equipment
- Exercise control and response personnel were unaware that the lab-wide paging system, which is used for notifications, became inoperable the night before the exercise
- Decontamination and transfer of a contaminated patient was performed incorrectly
- The number of controller/evaluators was insufficient and they failed to provide critical injects of scenario information to players