

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 9, 2013

MEMORANDUM FOR: Steven Stokes, Acting Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending August 9, 2013

Emergency Management: In a letter to the laboratory contractor dated August 7, 2013, the Livermore Field Office (LFO) noted a decline in the conduct and degree of rigor associated with drills and exercises at the laboratory. LFO noted that this decline did not support the intended validation of the effectiveness of facility-level and institutional emergency response organizations as required. Specifically, LFO noted expectations with regard to: (1) scenario development and execution to ensure realism and suitable degree of difficulty, (2) sufficient personnel with appropriate skills, knowledge, and abilities to control and evaluate exercises, and (3) scenarios that are systematically developed and tested using postulated events from facility-specific hazard assessments. LFO requested a response within 30 days.

Training: Alameda County Fire Department (ACFD) personnel are expected to be proficient in the response to an emergency involving the release of radioactive materials at the laboratory. As a result of recent observations that call into question this proficiency, the Site Representative reviewed the applicable supplemental training provided by the laboratory contractor. The following observations are notable:

- A systematic training needs analysis is not documented to identify any additional qualifications required to respond to the unique hazards present at the laboratory
- In addition to state-certified Hazardous Materials Technician training, the contractor requires ACFD personnel to take a 3 hour web-based training on radiation safety for emergencies on a 2 year periodicity—there is no hands-on component provided by the contractor
- The contractor conducts familiarity tours of the nuclear facilities for ACFD on an annual basis; however, the tours do not include any practical component (e.g., meter use, contaminated patient handling, decontamination, etc.)
- ACFD personnel receive some training from the Department of Energy's Radiological Assistance Program, but this training is not formally mandated or tracked by the contractor
- Applicable LFO subject matter experts have not formally observed or otherwise assessed any of this training or the emergency response actions performed by ACFD during drills and exercises

Startup and Restart: On July 31, 2013, the contractor submitted to LFO a startup notification report. The report notes the addition of a restart for the Shaker with a readiness assessment planned for November 2013 and continued evaluation of the need for readiness associated with new processing activities involving plutonium-238. The contractor continues to experience difficulty estimating schedules—the projected schedules for all listed readiness activities were delayed again. For example, since it was first projected, the schedule for the West Wing of the Tritium Science Station has slipped at least 30 months and the General Purpose Tritium Glovebox at least 13 months. In general, since the new contractor began, the average delay between the first projection and the actual completion of readiness activities is about 6 months (excluding activities that have not started or were removed after numerous delays). In the Site Representative's opinion, these delays suggest underlying weaknesses in the conduct of engineering and project management, and indicate the need to strengthen program direction and priority.