

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 26, 2013

MEMORANDUM FOR: Steven Stokes, Acting Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending July 26, 2013

Plutonium Facility: On Thursday, the laboratory contractor completed refurbishment of the safety significant liquid argon tank and returned it to service (see weekly report dated May 31, 2013). The contractor expects to begin work on the nitrogen system next week.

Continuous Improvement: The contractor initiated a two-week period of interviews and work observations associated with their self-assessment of a Safety Conscious Work Environment. The process includes the use of several experts from corporate partners, shadow participation by staff from the Livermore Field Office (LFO), and oversight from the Office of Health, Safety and Security (HSS). At the request of the contractor, the LFO and HSS participants are limiting their observations to interviews with management. The scheduled work observations include eight different meetings.

Quality Assurance: On July 22, 2013, the HSS Office of Enforcement issued a letter indicating the desire to monitor closely software quality assurance (SQA) at the laboratory. The letter cites examples of SQA deficiencies identified in the Board's letter dated December 13, 2011. The examples concerned the Hydrogen Gas Control System (HGCS) and the site-wide evacuation voice/alarm (EVA). HSS noted the positive actions of LFO's follow-up assessment on SQA and the contractor's subsequent corrective action plan (see weekly report dated November 23, 2012). The Site Representative notes that the contractor has taken action on HGCS, but has not yet taken action on the EVA.

Emergency Management: On July 19, 2013, HSS issued a report on their oversight of the laboratory's preparedness for severe natural phenomena events. HSS identified six findings and 22 opportunities for improvement (OFI). Selected conclusions include the following:

- The generator serving the dispatch center cannot provide power for 24 hours and is not tested appropriately, as required by National Fire Protection Association Standard 72, *National Fire Alarm and Signaling Code* [F-2].
- The contractor cannot ensure site workers receive prompt initial emergency notifications because of reliability and coverage issues associated with the EVA [F-3]. Additionally, the contractor should increase the effectiveness of EVA testing by conducting the test while workers are normally present in buildings and publicizing the purpose of the test [OFI-6].
- The contractor has not applied a coordinated program of training and drills to all emergency response personnel and organizations expected to respond to an emergency [F-4]. Additionally, the contractor should utilize a scheduling matrix to assist in planning and ensure all elements are tested and validated over a five-year period [OFI-12].
- Plutonium Facility management should consider developing formal procedures for installing the mobile generator and conducting periodic inventories of emergency response equipment [OFI-8].
- The contractor's emergency plans and procedures do not adequately establish the concept of operations required for operational emergencies [F-5].