

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 3, 2013

**MEMORANDUM FOR:** Steven Stokes, Acting Technical Director  
**FROM:** Jonathan Plaue, DNFSB Site Representative  
**SUBJECT:** LLNL Activity Report for Week Ending May 3, 2013

**Plutonium Facility:** In a letter to the laboratory contractor dated April 26, 2013, the Livermore Field Office (LFO) observed that the Safety Class ventilation system in the loft included several components that appeared not to meet the Technical Safety Requirements (TSR) (see weekly report dated April 19, 2013). Specifically, these components (constructed of wood, rubbers, and thinner than documented gauge metal) are required to maintain their confinement function during a number of postulated accidents, since loss of confinement could result in an unfiltered release of radioactive material into the environment. As a result, LFO requested that the laboratory contractor enter into the appropriate Limiting Condition for Operations (LCO) and provide a status briefing by Tuesday.

On Tuesday, the contractor filed a second Potential Inadequacy of the Safety Analysis concerning these components and briefed LFO. The Facility Manager noted that a LCO action was entered resulting in the suspension of programmatic operations and a reduction in the material-at-risk in the three impacted rooms. Subsequent to the briefing, LFO determined that the LCO action taken was not supported by the actual condition and recommended entry into a generic LCO. Specifically, the approved TSR did not contain an entry condition that precisely matched the inoperable condition. As a result, the Facility Manager directed the removal of all material-at-risk from the impacted rooms in anticipation of the need to enter REPAIR mode by Monday, as required by the generic LCO. In parallel, LFO and contractor personnel are attempting to develop and approve a TSR change to address the situation and permit operations under reduced limits for material-at-risk.

**Emergency Management:** On Tuesday, the contractor conducted the annual Emergency Planning Hazards Assessment exercise for the Waste Storage Facilities (WSF). This year's scenario involved a postulated fire with a forklift transporting a transuranic waste drum resulting in the release of contamination beyond the facility boundary and affecting several individuals. In the Site Representative's opinion, exercise play at the primary WSF site was significantly constrained by weaknesses in the scenario and the exercise control process. As a result, it was unclear whether all of the exercise objectives were evaluated. For example, Alameda County Fire Department (ACFD) personnel were unable to perform decontamination activities, demonstrate hot line operations, or re-enter the contaminated zone. Discussions with ACFD personnel indicated that improvements could be made in their role with the development of exercise scenarios. Further, ACFD expressed interest in conducting more limited scope drills to practice aspects of their response on a more frequent basis. In general, the Site Representative believes that the entire emergency management organization would benefit from drilling smaller aspects of responses rather than relying heavily on one of the four annual exercises to ensure readiness.