

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 20, 2012

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending July 20, 2012

Tritium Facility: On Thursday, a worker made an unauthorized entry into an equipment room with a potentially oxygen deficient atmosphere. In entering the room to plug in an extension cord, the worker disregarded a yellow caution tape marked "Warning Restricted Area" and failed to observe a caution sign indicating the inoperable status of the refrigerant monitor. The door was significantly ajar to facilitate temporary hoses. The worker's approach from the open side apparently contributed to his failure to observe the sign and he believed the yellow tape was associated with the hose. The incident was discovered as a result of questioning by the Facility Representative on the presence of the extension cord. Subsequent to questioning, facility management appropriately paused the work and promptly convened a critique.

During the critique, personnel identified a number of issues related to the content, format, and placement of signs and barriers, awareness of abnormal facility conditions using work control processes and morning briefings, and expectations for worker response to barriers and signs. Management discussed the event during today's feedback and improvement meeting with the Superblock workforce and additional corrective actions are in development. Of note, the workers believed that it was appropriate to pass a yellow barrier (not a red barrier) if the hazards were known, which appears to be a common misperception around the lab. Also during the critique, personnel discussed the fact that the refrigerant monitor was out of service for six months and required increased priority.

Emergency Management: On Wednesday, the annual nuclear criticality drill was conducted in Superblock. This year's scenario involved a worker over-massing a storage location and disassembling the material following the criticality. The overall response from the management team was good. The scenario was simple and consisted of the following:

- Workers pre-staged in the corridors
- No significant injuries, personnel contamination, unaccounted workers, incomplete information, or equipment failures
- Simulated play from dispatch, the emergency operations center, and an ambulance crew
- Postulated the fire department as unavailable due to higher priorities
- Excluded security personnel from play

The Site Representative notes that the drill and exercise schedule for this fiscal year does not indicate a single event where the fire department will respond into Superblock. Furthermore, LSO and contractor management's acknowledgement of the need to increase the challenge and sophistication of scenarios has yet to yield improvements in these areas.

Plutonium Facility: On Monday, after evaluating additional information, the contractor revised their conclusion and re-categorized the event where workers rendered a safety class fire door inoperable as a violation of the Technical Safety Requirements (see weekly report dated July 13, 2012). LSO and the contractor have also agreed on the need to formalize guidance in this area.