

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 8, 2011

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending July 8, 2011

The laboratory re-opened on Wednesday after being shut down for more than a week due to the Las Conchas wildland fire. Last weekend, the Facility Operations Directors (FODs) conducted walkdowns to assess the status and habitability of LANL facilities. No significant issues were identified during these walkdowns. On Tuesday, a larger group of management and programmatic personnel conducted more detailed walkdowns of programmatic equipment and activities in advance of re-opening the laboratory. Other LANL personnel were onsite to restore key site services and support functions.

For the LANL nuclear facilities, restart of programmatic activities began on Wednesday following an all-hands briefing that emphasized safe, methodical resumption of work. As of Friday, there were no significant issues with nuclear facility restart activities.

**Weapons Engineering Tritium Facility (WETF):** This week, WETF personnel held a critique to discuss a situation involving the safety class Lightning Protection System (LPS) that was discovered before the Las Conchas fire. In March, craft personnel were performing maintenance work on the WETF roof. The Integrated Work Document (IWD) governing this activity allowed workers to remove certain kinds of roof hardware as part of this work. The IWD did not discuss removing roof-mounted air terminals associated with the safety class LPS and the negative Unreviewed Safety Question documentation for the IWD stated that the LPS would not be impacted.

During the course of the roof work, craft personnel realized that some air terminals would need to be removed in order to accomplish the task. The workers removed two air terminals, considering this to be work incidental to their maintenance task. On March 31<sup>st</sup>, this roof maintenance activity was paused to address an unrelated industrial hygiene question. When work was paused, the air terminals remained in the uninstalled configuration.

On June 18<sup>th</sup>, a WETF Duty Officer was on the roof to inspect ventilation equipment and noticed the uninstalled air terminals. Upon discovery of this condition, the LPS was declared inoperable. Subsequent evaluation by the Cognizant System Engineer and an LPS subject matter expert determined the system met National Fire Protection Association Standard 780 requirements, as credited in the TSR. Based on this evaluation, the LPS was declared operable, but impaired.

After the WETF Duty Officer noticed the air terminal modification, craft workers reinstalled the two affected air terminals. No new work control documentation was prepared to support this reinstallation evolution. WETF personnel are currently evaluating whether appropriate and pedigreed adhesive materials were used to perform this modification to the safety class LPS.

WETF management personnel are developing corrective actions to address the work control and work authorization issues evidenced by these events.