

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 9, 2012

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending November 9, 2012

Board member S. Sullivan and Board staff member R. Tontodonato visited the Los Alamos National Laboratory to discuss current operations and to walkdown select defense nuclear facilities.

Weapons Engineering Tritium Facility (WETF) – Disciplined Operations: WETF continues to experience issues with formality of operations as restart preparations move forward. Over the past few weeks a number of engineering and safety basis issues have been discovered by both facility personnel and the NNSA Facility Representative (FR) assigned to oversee WETF operations, including:

- Facility engineering personnel discovered two new pressure safety Technical Safety Requirement (TSR) noncompliances.
- A TSR violation was declared when the FR identified approximately 20 WETF procedures that had been approved and issued without having been evaluated through the Unreviewed Safety Question process against the currently implemented Documented Safety Analysis.
- The FR identified that a Limiting Condition for Operation action statement had not been entered within the required timeframe.

This week, in response to this continuing trend of poor formality of operations, the site office communicated concerns with disciplined operations at WETF to LANL management. The site office noted that disciplined facility operations continue to be undermined with configuration management, pressure safety, safety basis implementation and operational readiness issues. The correspondence included an outline of significant events that have occurred over the past two years. Although the site office commended WETF operations for being transparent in their identification and reporting of these issues, they noted that the number and repetitive nature of the events indicate that extent of condition reviews and corrective actions have been less than adequate.

In an effort to improve disciplined operations at WETF, the site office directed LANL to provide a briefing that outlines the continued programmatic need for WETF operations, additional resources needed to successfully resume facility operations, and steps needed to bring WETF into compliance with its safety basis. The corrective action plan is expected to establish commitments that will ensure appropriate resources are applied to resolve technical issues, achieve readiness, and enable safe and sustainable operations in a timely, effective, and efficient manner.

Plutonium Facility – Safety Basis: LANL submitted three Evaluations of the Safety of the Situation to the site office for approval to address recent Potential Inadequacies of the Safety Analysis associated with the following: 1) non-conservative leak path factor associated with the seismic/fire accident scenario; 2) post-seismic fire in the basement; and 3) vault room shelving seismic requirements. The first two issues were identified by the Board's staff during a review of the Documented Safety Analysis earlier this year and communicated to NNSA by Board letter on June 18, 2012. For the leak path factor issue, an immediate action remains in effect to limit the material at risk for heat source plutonium in two rooms close to the exit doors. LANL is also implementing upgrades to the vault room shelving in question (planned for this month) to meet performance category 3 seismic requirements. LANL concluded that the post-seismic fire in the basement does not represent an Unreviewed Safety Question.