

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 22, 2008

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending August 22, 2008

Contaminated Puncture Wound: The Deputy Laboratory Director has formally chartered a team to investigate the glovebox glove puncture event that occurred last Wednesday and resulted in a contaminated wound. The scope of the investigation, which began this week, is to collect relevant facts and determine the causes of the glove puncture. The charter also specifically tasks the team to evaluate the following: • adequacy of activity hazard analysis and control identification for glovebox operations, • work controls and procedures relevant to the associated activity, and • training and qualification of the involved workers on relevant work controls and procedures. A causal analysis and accompanying report are due to the Deputy Director by September 25th and corrective actions to address the causal factors are due by October 24th (site rep weekly 8/15/08).

Plutonium Facility: In response to the puncture event, Plutonium Facility management suspended all metal cutting and machining operations. The facility has developed a review and release process to ensure controlled resumption of suspended operations. For a given operation, the process evaluates the types of metals involved, the potential for sharp pieces or turnings to be produced, and the extent to which cut pieces or turnings need to be handled. Operations that pose a puncture risk based on these factors are subjected to more rigorous review requirements, including a process walkdown involving appropriate safety subject matter experts. Multiple levels of management approval are required to release an operation once it has been reviewed and controls have been verified as adequate. Few of the roughly 80 suspended metal cutting and machining operations have been released to date.

Formality of Operations: This week, the NNSA site office approved revised Formality of Operations implementation schedules based on previously approved criteria that define 'core' and 'mature' levels of implementation. The approval memo emphasizes that the objective for FY09 is to substantially achieve core implementation for conduct of operations, engineering, and maintenance in LANL nuclear facilities. Most of the newly approved implementation dates support this objective. For those that do not, (e.g. conduct of engineering at the Plutonium Facility and the Weapons Engineering Tritium Facility) the site office directed LANL to provide, for separate concurrence, further definition of what specific elements will not be implemented by the end of FY09.

Implementation dates for conduct of training generally lag those for other functional areas and in many cases stretch into FY10. For FY09, the site office identifies an expectation for LANL to establish qualification cards for key positions, cross-walk personnel training and experience against the qualification cards, and identify and implement compensatory measures, as needed.

In the approval memo, NNSA acknowledges that there is residual risk associated with the current state of incomplete Formality of Operations implementation, but contends that substantial progress has occurred and risk has decreased over time. The site office asserts that further efforts to analyze gaps and characterize residual risk would only detract from on-going implementation efforts. Based on the above, NNSA formally accepts the residual risk and states its belief that attention should remain focused on implementation (site rep weeklies 5/30/08, 8/10/07, 6/15/07, 3/28/07, 2/2/07).