

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 5, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending June 5, 2009

This week, the staff held a conference call with LANL and site office personnel to discuss safety basis changes and resumption of tritium processing operations at the Weapons Engineering Tritium Facility.

Federal Oversight: The NNSA Chief of Defense Nuclear Safety began their two week biennial review of LANL safety programs this week. In addition to evaluating corrective actions for issues that were identified in 2007, the team is focusing on safety system and startup/restart oversight.

Transuranic Waste Operations: This week, LANL began their implementation assessment for conduct of operations and maintenance following facility declaration of implementation at the WCRR repackaging facility and the RANT shipping facility. The LANL team expects to complete their review and provide a recommendation in the next two weeks.

Weapons Engineering Tritium Facility (WETF): Resumption of processing operations at WETF is needed to support disposition of legacy tritium-bearing components that have built up sufficient pressure to challenge their containment. To support a return to operations, LANL had planned to perform a Management Self Assessment (MSA) that would address hardware, procedure and personnel changes, implementation verification review for safety basis changes and independent management observation verifications for conduct of operations chapters that have been implemented. This week, these plans were reviewed by the Joint Evaluation Team (JET), which determines the LANL recommendation for level of startup review. The JET concluded that the planned approach for performing a MSA was appropriate.

Plutonium Facility: In October 2008, LANL declared a Potential Inadequacy of the Safety Analysis (PISA) based on hazards associated with hydrogen generation for weapons-grade plutonium aqueous processing operations. LANL subsequently concluded that an unreviewed safety question existed based on this issue and submitted an evaluation of the safety of the situation (ESS) in February. An active purge for appropriate process vessels was established as a compensatory measure. This week, the site office directed LANL to incorporate appropriate description and analysis for this hazard in the next annual update of the documented safety analysis, which is due in December 2009.

In March, LANL declared a PISA based on the presence of an unvented transuranic waste container that could pose hazards not analyzed in the safety analysis. This issue was subsequently declared an unreviewed safety question and an ESS was submitted to the site office; however, a justification for continued operation or safety basis revision has not been requested. This week, the site office directed LANL to determine a method to resolve this issue and submit appropriate safety basis revisions for approval within the next four weeks.

Formality of Operations: This week, the site office approved a revision to the implementation criteria for Conduct of Engineering. Notably, the revised criteria do not require completion of assessments for all vital safety systems prior to declaring implementation. Instead, the lines of inquiry focus on adequate implementation of the processes.