

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 11, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending September 11, 2009

Weapons Engineering Tritium Facility (WETF): Physical modifications and other prerequisite activities continue in anticipation of resuming hot operations at WETF. During a recent work package closeout review for a maintenance activity to replace a valve, facility personnel discovered that a required approval signature was missing from work control documentation. In the course of critiquing this work control issue, a significant conduct of operations concern was identified. During the performance of the maintenance evolution, personnel recognized that executing the work instruction as written would have the unwanted effect of rendering the credited tritium waste treatment system inoperable. To avoid impacting the tritium waste treatment system, personnel made a series of field changes to the work instruction that altered valve alignments and changed which components would be locked and tagged out of service to provide hazardous energy control. These field changes to the work instruction did not receive required reviews prior to being executed.

A number of LANL nuclear facilities, including WETF, have recently declared 'core' implementation of conduct of operations. This declaration is meant to correspond to being demonstrably compliant with the basic requirements of DOE Order 5480.19, *Conduct of Operations Requirements for DOE Facilities*. Despite the significant efforts to achieve basic compliance with the conduct of operations manual, this event underscores the challenges that remain in effectively implementing the critically important expectation to pause work if a procedure cannot be performed as written, or if unexpected conditions are encountered.

Radioactive Liquid Waste Treatment Facility Replacement (RLWTF-R) Project: This week, the site office approved the Preliminary Documented Safety Analysis based on the project 60% design without conditions of approval. The safety basis review team concluded that the maturity and technical content of the safety basis associated with the 60% design package were sufficient to support Critical Decision-2 (CD-2), Approval of Performance Baseline. A Technical Independent Project Review is currently scheduled for October with CD-2 approval targeted for May 2010.

Transuranic Waste Operations: Based on the previously anticipated plans for use of the RANT shipping facility, LANL intended to submit an updated Basis for Interim Operation (BIO) in accordance with DOE-STD-3011 for limited life facilities in March 2010. Recent planning discussions for maintaining an enduring transuranic waste capability at LANL have included the potential for extended use of RANT; however, a final decision has not been made. This week, LANL recommended continuing on the current path for a BIO submittal in March regardless of this decision. LANL would then submit a DOE-STD-3009 compliant Documented Safety Analysis at the next annual update should a decision be made to utilize RANT as part of the enduring waste mission.

Fire Protection: The laboratory has made impressive progress on a program of training courses and facility tours designed to improve the knowledge and familiarity of Los Alamos County Fire Department personnel with LANL facilities, their unique hazards, and the fire fighting techniques and tactics most effective in a nuclear environment.