

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2013

**MEMORANDUM FOR:** S.A. Stokes, Acting Technical Director  
**FROM:** R.T. Davis and R.K. Verhaagen  
**SUBJECT:** Los Alamos Report for Week Ending June 21, 2013

On Wednesday, the staff conducted a teleconference with NNSA and LANL personnel to follow-up on Plutonium Facility criticality safety topics.

**Criticality Safety:** This week, LANL responded to the recent field office request to evaluate and provide a path forward on the following items: 1) summary of DNFSB staff issues identified during the May 2013 review; 2) final report from Criticality Safety Support Group March 2013 assessment; and 3) the ongoing extent of condition reviews at the Plutonium Facility. In addition to the action plan communicated last week, LANL plans to develop a criticality safety roadmap by October 2013 that integrates improvement actions into a comprehensive “get well” plan. The roadmap will include actions to address criticality safety compliance issues identified by past self-assessments and independent assessments, including the DNFSB staff review.

On Thursday, the chairman on the site Nuclear Criticality Safety Committee (NCSC) held a special meeting to discuss plans for conduct of a criticality safety program assessment, which is scheduled to be complete by the end of July, and NCSC membership. Based on discussion during the meeting, the criticality safety group will evaluate the current subjective status in each of the assessment areas identified in DOE Standard 1158, *Self-Assessment Standard for DOE Contractor Criticality Safety Programs*, to determine the most effective areas to focus this assessment. The committee is also moving forward to select internal and external candidates for membership on the NCSC. Based on questions and discussion during the staff visit in May, the NCSC is putting together a study group to determine the LANL institutional positions on inclusion of criticality safety controls into procedures, container labeling, and improvements to the annual fissile material operation walkdowns.

**Plutonium Facility – Criticality Safety:** LANL paused operations in a facility glovebox based on concerns identified by the field office criticality safety subject matter expert. The current location of tape demarking a pass through lane in the glovebox would not allow compliance with criticality safety limit approval controls. Because the pass through lane has not been used recently, no criticality safety infraction was declared. Plutonium Facility personnel are pursuing a path forward to correct the situation and resume operations, and are developing a lesson learned package.

**Weapons Engineering Tritium Facility (WETF):** This week, LANL submitted its schedule to resolve field office comments on proposed changes to the WETF Documented Safety Analysis and Technical Safety Requirements (see 5/3/13 weekly). The submission also included a description of a draft project execution plan to dispose of legacy tritium items currently being stored in WETF. These items include: 1) legacy items from closure of various sites that retain no programmatic interest; 2) bulk tritium gas with no programmatic use; and 3) tritium recovered during operation of the Tritium Waste Treatment System. The disposition of this legacy tritium is important as it constitutes nearly half of the tritium inventory in the facility and has been the source of tritium leaks in the past. The execution plan will identify funding sources and facility systems necessary to process the legacy tritium for disposition. LANL intends to use the Integrated Nuclear Planning process to determine whether a partial facility restart aimed solely at legacy tritium disposition is appropriate versus a full facility restart that would also allow resumption of programmatic operations.