

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 30, 2013

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending August 30, 2013

Plutonium Facility – Criticality Safety: In the August 15, 2013, letter to the Board from the Acting Administrator, NNSA committed to complete a causal analysis for recent criticality safety infractions. This week, a LANL causal analysis team held its kickoff meeting. The team consists of laboratory personnel from outside of the Plutonium Facility and is led by the Deputy Associate Director for Chemistry, Life, and Earth Sciences. During the meeting, the team concluded that its first course of action will be to clearly develop the scope of the assessment. The team plans to conduct document reviews, walkdowns of all areas where criticality infractions have occurred, and personnel interviews. The team expects to have the final report completed and briefed to the Laboratory Director by October 4, 2013. NNSA has committed to report the outcome of the causal analysis to the Board in a subsequent status report.

Plutonium Facility – Resumption Status: The Laboratory Director’s pause of fissile material operations at the Plutonium Facility remains in effect. Last week, in accordance with the Associate Director for Plutonium Science and Manufacturing memorandum on resuming operations during the pause, the Laboratory Director was briefed on and approved the release of an integrated work document for preparing small quantity fissile material samples to be tested at Sandia National Laboratory. The work on the sample preparations commenced this week. This activity represents the first programmatic operation (other than activities to achieve and maintain safe and stable facility status) at the Plutonium Facility since the June 27, 2013, pause.

The current highest priority for resumption is to revise, and have the Director approve, 29 Plutonium Facility support processes. These processes control the movement, measurement, disposition, receipt, and shipment of nuclear materials. Although the Director had previously approved limited resumption of heat source Plutonium operations (see 7/19/13 weekly), operations have yet to be performed because these support processes have not yet been approved. The LANL resumption approval process also now requires verification of the seven criteria identified in the NNSA letter to the Board dated August 15, 2013.

Conduct of Operations: LANL recently issued a Conduct of Operations Maturity Plan to improve implementation of DOE Order 422.1, *Conduct of Operations*, at both the facility and institutional level. The plan addresses specific gaps between the order and institutional/facility implementation. In addition, the plan identifies other upgrades and improvements in part based on a review of recent events that involved issues with conduct of operations including: criticality safety implementation at the Plutonium Facility; spread of contamination events at the Los Alamos Neutron Science Center and at the Area G High Energy Real Time Radiography unit; and material control issues at TA-35 Building 27. The plan identifies several focus areas including the following: 1) facility level improvements that can be completed in less than one year; 2) clarification of institutional procedure requirements; 3) improvements in procedure quality; 4) baseline and continuing training; and 5) conduct of operations seminars. As part of this effort, LANL will also be using a new self-assessment tool, “Find-it and Fix-it”, that will support specific evaluation of conduct of operations elements at the facility level.