

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 23, 2015

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending October 23, 2015

**Plutonium Facility–Safety Basis:** On Monday, the NNSA Field Office manager signed a Safety Evaluation Report (SER) approving the Plutonium Facility’s 2015 Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR). The SER also approved revisions to the currently implemented 2011 DSA and TSRs. Some of the more significant changes were made to: (1) evaluate unmanned aircraft system use, (2) update a specific administrative control for intentional confinement penetrations, (3) evaluate a new outdoor above-ground fuel tank for a diesel fire pump, and (4) update the TSRs for storage of certain plutonium-238 heat sources.

**Waste Characterization Reduction and Repackaging Facility (WCRRF):** The NNSA Field Office approved LANL’s submittal of the Evaluation of the Safety of the Situation (ESS) for the Potential Inadequacy of the Safety Analysis (PISA) declared for degradation of the facility roof resulting from flooding (see 7/17/15 weekly). WCRRF structural integrity is credited in the safety basis as a safety significant design feature to provide a confinement barrier. Facility personnel declared the structural integrity to be inoperable when damage to the roof was discovered. In the ESS, LANL states that the facility will remain in COLD STANDBY mode until the roof can be repaired.

**Nuclear Criticality Safety:** LANL management recently transmitted a number of documents to the NNSA Field Office aimed at improving the Nuclear Criticality Safety Program (NCSP) and its implementation site-wide. These documents include:

- The final report of an independent assessment of the NCSP and its implementation at the Plutonium Facility performed in accordance with DOE-STD-1158-2010, *Self-Assessment Standard for DOE Contractor Criticality Safety Programs* (see 9/4/15 weekly). Notable conclusions from the assessment included: (1) improved formalization of criticality safety program implementation, (2) improved coordination between operations and criticality safety personnel, (3) identification of some necessary improvements to procedure development, and (4) criticality resources for Plutonium Facility restart are consuming resources from other LANL facilities.
- An independent assessment of 179 previously closed NCSP corrective action items to determine the effectiveness of closure actions taken. Three closed items were determined to require additional actions and were reopened: (1) ensure application of upper subcritical limits are supported by the criticality safety evaluation’s validation report, (2) evaluate facility specific criticality directives for compliance with the site-wide directive, and (3) address emergency response deficiencies identified during an extent of condition review.
- An assessment of NCSP metrics for the third quarter of fiscal year 2015. The recently revamped Nuclear Criticality Safety Committee met this week to discuss the findings and to identify potential improvements actions.

**Weapons Engineering Tritium Facility–Safety Basis:** The NNSA Field Office approved LANL’s request to close the ESS and associated PISA declared when a safety significant oxygen monitoring appliance was discovered to be connected to the wrong power supply (see 7/17/15 weekly). The correct power source has been restored to the appliance and the oxygen monitoring system has since been declared operable.