

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 1, 2016

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending April 1, 2016

**DNFSB Staff Activity:** C.T. Beaty observed the annual emergency exercise at the Plutonium Facility, observed an emergency drill at Area G, and conducted discussions with operators and emergency management personnel. She conducted these activities in preparation for an upcoming review of emergency preparedness and response.

**Area G–Operations:** On Monday, Area G personnel completed their corrective actions for a finding identified during the previous week’s Implementation Verification Review of the phase 1 controls for revision 5 of the Evaluation of the Safety of the Situation (ESS) concerning the inappropriately remediated nitrate salt (RNS) wastes (see 3/25/16 weekly). The finding concerned the level of knowledge of the operations center personnel regarding the procedures and processes in place that implemented the ESS. On Wednesday, following completion of the corrective actions, Area G management commenced a Management Assessment of the readiness of Area G personnel to perform phase 1 operations. In this phase, operators will remove the lids from the standard waste boxes housing the RNS waste. A Management Assessment is a tool for LANL managers to systematically observe work and evaluate performance of management systems, but is not directly tied to the LANL readiness program. The Management Assessment included interviews with key personnel, a demonstration of the operational evolution, and a discussion-type emergency drill.

**Area G–RNS Wastes:** On Tuesday, LANL management issued a resource-loaded schedule for completing phase 2 of ESS revision 5, pertaining to the installation of pressure relief devices and higher capacity venting for the RNS wastes contained in 48 waste drums. The schedule indicates completion of this effort by May 13, 2016. This schedule assumes that they receive NNSA and EM approval of phase 2 by April 11, 2016. In addition to the pressure relief devices, phase 2 will result in several additional controls including a formal Specific Administrative Control for response to a continuous air monitor and implementation of elements of Conduct of Engineering and Maintenance for the ventilation and fire suppression systems. LANL management intends to submit the plan for the balance of the RNS waste contained in 12 pipe overpack containers as part of ESS revision 6, which is due by April 22, 2016.

On Wednesday, most of Area G, including the Dome 375 Permacon that houses the RNS wastes, experienced a planned electrical power outage lasting about 5 hours. The outage occurred to replace a power pole that experienced wind damage on Tuesday. Notably, provisions do not currently exist for backup electrical power to many of the systems contributing to safety at the Permacon, such as the ventilation system, the air coolers, and the supplemental chiller. Area G management continues to explore options to address this situation.

**Plutonium Facility–Emergency Management:** On Wednesday, Plutonium Facility personnel conducted their annual Emergency Planning Hazards Analysis exercise. This year’s scenario involved a postulated release of chlorine gas on the exterior of the facility, which injured two workers and drove shelter-in-place actions for a large area. At the critique, evaluators preliminarily identified about 18 significant issues, many largely associated with shelter-in-place related difficulties.