

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 26, 2014

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaué  
**SUBJECT:** Los Alamos Report for Week Ending September 26, 2014

**Federal Oversight:** On Thursday, the Secretary of Energy requested a plan by November 14, 2014, to transition management of the contract for the legacy environmental cleanup work at LANL from NNSA to the Office of Environment Management.

**Plutonium Facility–Safety Systems:** Last month, a team from the DOE Office of Enterprise Assessments (EA) completed a review of the ventilation system and facility control system. During the review, the EA team questioned whether the facility surveillance procedure that implements the ventilation system functional test fully meets the technical safety requirement surveillance. Specifically the EA team challenged whether the system functional test procedure ensured “The injection of a simulated or actual signal as close to the sensor as practicable to VERIFY OPERABILITY, including required alarms, INTERLOCK(s), trip functions, and failure trips” as specified in the functional requirements of the documented safety analysis. Last week, following a series of discussions on the subject between the field office, LANL, and the EA team, the field office transmitted a letter to LANL requesting additional information. The field office directed LANL to (1) prove that the performance of the implementing procedure(s) meet the surveillance requirement and (2) provide evidence that the implementing procedure(s) demonstrate how performance of the surveillance requirement ensures that the functional requirements specified in the safety basis for the ventilation system and facility control system are being met. The field office requested this evidence, including any necessary revisions to the implementing procedure(s) and safety basis by September 29, 2014.

**Plutonium Facility–Criticality Safety:** Last month, one of the program groups completed a pilot demonstration to assist operators in complying with criticality safety requirements by posting printouts from the LANMAS database at the workstation. The current practice requires operators to obtain inventory information from a LANMAS workstation that is not necessarily in proximity to the workstation. This pilot was based on a perceived best practice from the Lawrence Livermore National Laboratory, where operators have successfully used printouts at the workstation for many years. The group leader noted that the use of the printouts served as a quick verification that the fissile material within a location complied with applicable limit. Nonetheless, the group did not recommend proceeding with the use of printouts, primarily citing concerns that operators may forget to update the printouts creating “audit traps.” Producing a printout would require one additional action in the already mandated procedure for LANMAS transactions.

**Emergency Management:** Last week, LANL issued their after action report from an August 2014 tabletop exercise involving response to contaminated patients. The report notes that all exercise objectives were satisfactorily met, but provides the following opportunities for improvement: (1) only a single LANL medical provider is authorized to perform hands-on assistance at the local hospital, (2) thresholds for respiratory protection and vehicle decontamination have not been established, (3) a memorandum of understanding (MOU) is not in place to ensure helicopter transport of contaminated patients to regional care centers with advanced trauma capabilities, (4) a MOU is not in place with Sandia National Laboratories to facilitate radiological control technicians for patients that may need hospital treatment in Albuquerque, and (5) wider participation should be considered for the DOE provided Radiation Emergency Assistance Center/Training Site. LANL personnel are evaluating the need for corrective actions.