

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 10, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending August 10, 2007

Keilers was offsite at DNFSB headquarters in Washington, DC, this week.

Federal Oversight: Field activities for the Chief of Defense Nuclear Safety biennial review of the NNSA site office were largely completed this week. Oversight objectives were deemed to be met in 4 functional areas (quality assurance, criticality safety, radiation protection, and packaging and transportation). The balance of roughly 10 functional areas did not meet objectives. The review team noted significant issues associated with site office oversight of contractor training and qualification, maintenance, and safety system engineering. Other concerns identified during the review were weaknesses in site office training and qualification and inconsistent oversight of compensatory measures and corrective actions stemming from contractor gap analyses against DOE requirements.

Plutonium Facility (TA-55): A recent contractor gap analysis concluded that TA-55 fissionable material handlers and their immediate supervisors were not being certified in accordance with DOE Order 5480.20A. The LANL program lacks written examinations, oral examinations, and qualified on-the-job training instructors, all of which are required per the Order. NNSA has approved an action plan that will allow LANL to provisionally certify handlers and supervisors who are demonstrably qualified and proficient. A list of provisionally certified personnel must be submitted for site office approval by August 15th. Personnel who cannot be provisionally certified by this date must be placed on restricted duty. Provisional certifications will expire on November 15th, at which time NNSA expects an Order-compliant certification process to be developed and implemented.

This week, TA-55 also discovered several issues related to the surveillance and effectiveness of credited engineered controls. First, several monthly surveillance requirements for two safety-class confinement doors in the TA-55 basement were found to be absent from the implementing procedure. As a result, these monthly surveillances had not been performed since January 2006. This discovery resulted in a TSR violation. Additionally, during the development of a system design description, TA-55 personnel identified the existence of a pressure relief valve on the isotopic fuels impact test (IFIT) launcher whose design and installed configuration could not perform the credited safety function. The design of the existing valve and its installed set-point could not limit the launcher breach pressure to less than 550 psig, as required. These events share commonalities with issues raised during the 2005 DOE-OA review, TA-55 Director's Assessment, and recent DNFSB staff review conducted July 24-26 (see site rep weeklies 7/27/07, 6/22/07, 1/27/06, 12/9/05).

Institutional Support: LANL has recognized areas of fundamental non-compliance with DOE requirements and has begun to implement important corrective action initiatives including the Formality of Operations effort and the Safety Basis Improvement Plan. The persistence of issues such as those discussed above underscore the need for continued management attention and resource prioritization for these critical improvement initiatives. The certified fissionable material handler issue also serves to highlight that some deficiencies are significant enough to warrant near-term compensatory measures to ensure adequate protection and cannot be allowed to linger until multi-year compliance initiatives have matured enough to correct the underlying problems.