

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 5, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director

FROM: C. H. Keilers, Jr.

SUBJECT: Los Alamos Report for Week Ending May 5, 2006

Contract Transition: Twenty-six days remain under the UC contract. While LANS's top-level management and the basic operations structure are evident, it is less clear what are the key mid-level positions, who will be the key occupants, what are their qualifications, and how will LANS ensure confidence in its overall ability to control nuclear operations on and immediately following June 1st. LANS has observed LANL operations; however, LANS has not yet demonstrated readiness to analyze and control operations on a daily basis. One perspective is that DOE frequently and safely changes contracts across the complex; also, the LANS management team has extensive experience from other sites. However, DOE has not changed this contract since inception; this is probably DOE's most complex site; and few LANS senior managers have direct experience controlling LANL operations.

Much of LANS's mid-level management structure seems fluid until at least May 15th, when employee responses to offer letters are due. During that week, LANS management intends to internally review the closure of transition activities, including adaptation or modification of institutional procedures, status of outstanding issues and pre-existing conditions, and internal certification of closure of each contractually required transition area. The following week, LANS reports on closure status to NNSA and to its Board of Governors. On May 30th, NNSA reviews closure validation.

Radiological Facilities: Radiological facilities have lower source-terms and receive significantly less federal and contractor oversight than the Hazard Category (HC) 2 or HC-3 nuclear facilities, even though radiological facilities have been more prone to mishaps in the last two years (site rep weekly 2/3/06). This week, LANL reported that TA-54 Area L – a radiological facility – has received from off-site about 20 metric tons of depleted uranium (DU), which exceeds the HC-3 lower threshold (13 metric tons). LANL is de-inventorying Area L to below the HC-3 threshold and is conducting an extent-of-condition review focused on inventory tracking.

Aircraft Overflights: In 2003, LANL declared an unreviewed safety question (USQ) involving flights through LANL's restricted airspace. NNSA and LANL then implemented a compensatory measure involving explicit analysis and approval of each overflight. Over time, the fidelity of this compensatory measure has decreased. LANL recently submitted to NNSA a standalone safety basis and control set for overflights. LANL asserts that the probability of an accidental aircraft crash into a nuclear facility is small, assuming overflight activity remains about the same as during the last decade and that helicopter flight-paths are controlled. NNSA action is forthcoming.

Plutonium Facility (TA-55): NNSA has approved a process hazard analysis for assembling radiation test objects (RTOs) at unspecified locations in PF-4. Conditions of approval include: a limitation of one fissile item per activity, which will be a STD-3013 container if the item is oxide; a criticality safety evaluation for each configuration and location; a dedicated transient combustible inspection; a fire watch; and a readiness verification. RTO assemblies were previously conducted at TA-18, and the operational lessons learned from TA-18's last RTO operation should be helpful. That said, the potential for interaction with other PF-4 operations appears high and conducting a meaningful readiness verification appears difficult without a permanent assigned location. These activities appear challenging and important enough to warrant a dedicated location and a thorough readiness review.