DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 24, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending August 24, 2007

Radioactive Liquid Waste Treatment Facility (RLWTF): RLWTF has shrinking storage capacity and no operating treatment capability for transuranic liquid waste transferred from TA-55 (site rep weekly 7/13/07). Acidic waste transfers have resumed and, as of Aug 22th, the acid receipt tank was 61 % full. RLWTF is reluctant to exceed 85 % full (100 % indicated) due to potential for overflow into the underground vault (WM-66); an overflow would be contained but would be difficult to clean up.

RLWTF's efforts to reduce transuranic sludge inventory and to restore treatment capability have been hampered by decreased operational supervision and engineering support. Basically, RLWTF draws upon the same limited pool of people and resources as Area G, the RANT shipping facility, and the WCRR repackaging facility; WCRR restart has drawn resources from the other facilities. Operations management has found configuration management and conduct of operations issues that are impacting progress; this includes an instance when operators continued a procedure that could not be completed as written. These issues were perhaps avoidable if the engineering and supervisory functions were fully staffed. This impacts RLWTF directly and could impact TA-55 indirectly within a few months.

Plutonium Facility (TA-55): In a step toward updating the decade-old TA-55 safety basis, NNSA has approved the laboratory's overarching TA-55 safety basis strategy and a white paper describing the proposed methodology for deriving facility leak path factors (site rep weekly 7/13/07). The LANL strategy establishes a Sept 28th target date for submitting a new safety basis. In its approval, NNSA called for control selection to be based on ICRP-30 dose conversion factors. NNSA also expressed concern with the effectiveness of parallel rather than series internal and external quality reviews, which LANL has proposed to support the aggressive schedule. Overall, the prospect of submitting a safety basis that satisfies all existing commitments by Sept 28th appears increasingly challenging.

In approving the leak path factor approach, NNSA acknowledged that the upcoming safety basis submittal will continue to rely on passive confinement. However, NNSA did reinforce the expectation that LANL conduct further investigation of additional safety class controls that could provide significant, cost effective risk reduction. NNSA directed the laboratory to identify potential upgrades to the confinement ventilation system and other systems and programs that could enhance the confinement posture of the facility as planned improvements in the forthcoming safety basis submittal.

Operationally, TA-55 resumed pit manufacturing activities last Friday. On Tuesday, an operator moved an item into a transfer (i.e., drop) box that was posted out-of-service. The posting had a hand-written annotation that it was a MASS location that was not in-service. The facility constructively critiqued the event and identified possible improvements, including: more formal processes for posting equipment out-of-service; better lab-room door posting; clearly defined room controller instructions; and, increased emphasis on pre-job walk-downs and addressing abnormal conditions.

Chemistry and Metallurgy Research Building (CMR): CMR declared a TSR violation this week upon discovering that 31 of about 600 rooms had been omitted from a surveillance procedure to inspect fire sprinkler heads. The surveillance was then performed in the 31 rooms and sprinkler heads were found to be operable. This surveillance went through CMR's procedure review and validation process and passed an independent verification review without the deficiencies being identified.