DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 8, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 8, 2005

Plutonium Facility (TA-55): The NNSA Site Office believes that preparation of the new safeguarded trailer pad needs to be further along and that another readiness review cycle is needed before startup; this appears appropriate. While the NNSA operational readiness review (ORR) discussed last week was thorough, the facility was clearly not ready, and the nature and number of pre-start findings for what ought to be a straight-forward activity are a major concern.

For example, the NNSA team observed that program drivers and schedule pressure completely dominated safety oversight; NNSA operational oversight was particularly not evident; criticality safety issues exist, such as lack of justification for not having criticality alarms; emergency response personnel left a mock injured person unattended in a mock contamination area for 25 minutes while responding to a simulated spill; and construction and installation of additional trailers was incomplete at the time of the ORR and represents an unanalyzed hazard outside the safety envelope. By any standard, these findings constitute an unacceptable condition for starting operations and possible indicators of other undiscovered significant issues. NNSA and LANL appear to have rushed to declare readiness and push through the verification process. It's clear that the readiness verification process was used as an assist in getting ready, which is counter to applicable DOE requirements. There were indicators of this evolving condition (site rep weekly 6/17/05).

Readiness Assessments (RA): The TA-55 pad ORR is not the only recent case where programmatic pressure has been allowed to compromise the effectiveness of the readiness verification process. The recent LANL RA on the new TA-55 Pu-238 scrap recovery line also identified a large number of findings and observations (i.e., 72, including 29 pre-starts); this is unexpected from an operation that has had previous RAs and has been preparing for startup for years. For both the pad and the new line, management prematurely declared readiness to proceed. This trend ought to be reversed.

Integrated Safety Management (ISM): There continue to be indicators that the LANL Integrated Work Management (IWM) initiative may need tuning and is neither fully nor consistently implemented (site rep weekly 6/3/05). Also, in April, NNSA completed a verification that pre-start findings from the LANL resumption reviews were either closed or have adequate compensatory measures in place (site rep weekly 4/29/05). The largest category of the roughly 400 pre-starts involve ISM (32 %). The site reps observe: (1) it's vital that LANL follow up on the transition of compensatory measures to final closure – based on discussions, LANL management understands this; (2) LANL did not present nor did NNSA review closure of the ISM-related pre-starts against consistent criteria. As a result, the state of IWM implementation may have been accepted for some organizations when a similar state was rejected for others, resulting in a misleading impression of the state and consistency of implementation.

The site reps believe that LANL could tighten up feedback and thereby ensure continuous improvement, as well as full and consistent implementation of the IWM process; this might include increasing senior management involvement, further empowering the Integrated Work Management Committee (IWMC), and increasing the frequency of floor-level assessments of implementation – both locally and by the institution – to ensure performance matches institutional expectations.

Chemistry and Metallurgy Research Building (CMR): In May, the site reps reported on a contamination event involving four workers in CMR (site rep weekly 5/20/05). Bioassay results indicate that the exposures were less than 1 % of the federal annual limit for rad workers (5 Rem).