

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 9, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending February 9, 2007

NNSA, LANL, and the staff held a video-teleconference on the CMRR Project on Wednesday.

Federal Management: A temporary NNSA site office manager, technical deputy manager, and senior safety advisor arrived this week and are expected to be on-station for 4 to 6 months until permanent assignments are made. These are key federal positions that strongly influence LANL nuclear safety.

Transuranic (TRU) Waste Operations: The quantity of material-at-risk (MAR) is a key assumption in accident analyses and is usually a key control for ensuring that a facility's operating state is within the bounds assumed in the analyses. LANL TRU waste facilities control MAR based on the waste generator's data, which is the best data available but often has large measurement uncertainties. In a recent case, the WCRR repackaging facility removed a WIPP-prohibited item from a drum that was initially believed to contain 48 % of the WCRR MAR limit (56 Ci), based on generator data, but later determined to exceed the WCRR MAR limit by 12 %, based on WIPP certification data – an increase by a factor of 2.3. LANL analysis of ~6,500 drums shows that the WIPP certification data averages about 30 % higher than the generator data and can be much greater for individual cases. NNSA and LANL are considering the implications on accident analyses and control selection.

Plutonium Facility (TA-55): The Plutonium Facility has resumed more than 90% of glovebox operations after standing down in mid-January in response to a contaminated injury that punctuated a string of less-severe glove breaches (see site rep weekly 1/19/07). TA-55 management took actions to identify and address worker safety issues associated with glovebox work and instituted a deliberate process for resuming operations. These actions included mandatory use of more puncture-resistant inner gloves; execution of formal walkdowns to identify and eliminate or otherwise better control hazards; temporary use of an independent safety observer for certain operations with a higher potential of injury; and plans for periodic walkdowns for certain operations deemed to have high potential risk.

Radioactive Liquid Waste Treatment Facility (RLWTF) Replacement Project: LANL plans to replace the existing RLWTF with a new facility by 2011. NNSA approved proceeding with a single Hazard Category 2 nuclear facility in June 2006, as part of Critical Decision 1. Based on expected life cycle cost savings, LANL subsequently proposed a new multiple-facility approach, in which TRU operations would be housed in a dedicated processing facility and an influent vault, as nuclear facilities, and low level waste operations would be conducted in a separate radiological facility.

NNSA asserts that the best course is to proceed with the original single-facility concept. The NNSA position is that the potential life cycle cost savings are not compelling enough to justify the programmatic risks unless certain actions are taken to mitigate these risks. NNSA is allowing LANL to pursue the multiple-facility concept, provided LANL meets several conditions, including planning on reducing the TA-55 liquid TRU waste stream and factoring this into the new RLWTF design. A LANL response detailing their path forward is due by Feb 15th.