

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 14, 2008

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** B. Broderick and C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending March 14, 2008

The staff held a teleconference with LANL and NNSA to discuss Integrated Work Management.

**Federal Oversight:** The NNSA site office has issued a Revitalization Plan that analyzes issues and obstacles hindering performance and identifies actions designed to address these issues. The plan includes actions to augment staffing, address training deficiencies, and ensure more reasonable management span of control by creating a new assistant manager position that would oversee facility representatives (FR) and safety system oversight (SSO) engineers. Additionally, the site office recently hired two experienced individuals to serve as an FR and SSO engineer, respectively, and full qualifications have been achieved or are imminent for the site office criticality safety engineer, emergency management program manager, and two current FRs (site rep weekly 8/10/07).

**Integrated Nuclear Planning (INP):** This week, LANL, the NNSA site office, and NNSA headquarters held an INP workshop focused on projects for new waste facilities including the Radioactive Liquid Waste Treatment Facility Replacement (RLWTF-R), the new solid transuranic waste facility (New TRU), and the Waste Management Risk Mitigation project (Tank Farm). The workshop was productive, but highlighted a number of significant challenges facing these projects.

The TA-50 Tank Farm project was halted in April 2007 at about 75% construction due to project management and quality assurance issues. Additional evaluation of the severity and cost to disposition roughly 50 open non-conformance reports is required before a decision can be made to complete the partially constructed facility or pursue a new facility. The decision on how to proceed with this project will affect the RLWTF-R, which currently relies on the Tank Farm for low-level liquid waste influent storage. If this capability cannot be performed by the Tank Farm, then additional influent tankage must be added to the scope of the RLWTF-R project, requiring redesign work and likely prolonging reliance on the problematic existing facility. Finally, the baseline capabilities to be provided by the New TRU facility are being re-evaluated. Marginal existing facilities such as WCRR and RANT could be called upon to perform a longer-term mission than originally envisioned if certain capabilities such as repackaging or shipping are dropped from the New TRU project scope. Also, due to schedule delays in this project, a gap exists between when Area G must cease receipt of newly generated waste and when the New TRU facility will become operational. The strategy for dealing with newly generated waste during this gap is not yet clear (site rep weeklies 2/22/08, 4/13/07).

**Plutonium Facility:** The programmatic mission to use TA-55 aqueous processing capabilities to produce 330 kg of polished plutonium oxide by 2012 for use in the Mixed Oxide Fuel Fabrication Facility has been terminated. This provides an opportunity to use this newly available aqueous processing capacity to expedite other ongoing efforts, such as chemical stabilization of legacy materials (Rec 94-1/00-1). Current plans call for legacy residues to be repackaged into more robust storage containers by late-2010, but subsequent handling of these materials would still be required for ultimate processing and stabilization. Although it requires more up-front funding, accelerating legacy material stabilization would reduce worker exposure and risk by eliminating the need to handle these items multiple times. This approach could also increase operational flexibility by freeing up highly constrained vault space currently being consumed by these items.