

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 24, 2008

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending October 24, 2008

Bamdad and Plaue were onsite this week reviewing Plutonium Facility safety basis and safety system upgrade efforts. Andersen, Hadjian, Kimball, and Rizzo were also onsite reviewing sitewide seismic issues and the structural design of the Chemistry and Metallurgy Research Building Replacement.

Contractor Assurance: The LANL Deputy Director has approved a change to the laboratory's Integrated Assessment Schedule for FY09 to include a 'facility-centered' Director's Assessment of the Chemistry and Metallurgy Research Building and select waste facilities. The resumption of facility-centered Director's Assessments, which haven't been performed since FY07, is positive and should help strengthen the overall effectiveness of LANL's Contractor Assurance (site rep weekly 10/17/08).

Plutonium Facility: The TA-55 Reinvestment Project (TRP) is a 3 phased effort to improve and upgrade safety systems and overall facility infrastructure. Phase 2, which is nearing critical decision-2, includes several important safety improvements (e.g., glovebox stand upgrades, uninterruptable power supply replacement, confinement door replacement and vault water bath storage tank replacement). Completion of these projects, along with implementation of a safety class active confinement ventilation system, is crucial to the overall LANL effort to significantly improve the confinement strategy and overall safety posture of the Plutonium Facility over the next 3 to 5 years. Recently, facility management requested a significant acceleration of Phase 2 of the TRP. This request is based on the high priority nature of the replacement and upgrade projects in Phase 2 and recognition that recent program decisions have reduced the anticipated operational tempo of the facility near-term, opening a window of opportunity to accelerate work on critical infrastructure.

Transuranic Waste Operations: LANL recently exercised the new remote venting capability at Area G to address the last 11 unvented drums associated with the High Activity Drum campaign. Once vented, the flammable gas concentration inside of a drum must fall below a specified limit before it can be handled as a normal vented drum at Area G or be shipped to the WCRR repackaging facility for any additional processing that may be required prior to final disposition. Five of the newly-vented high activity drums retained steady-state hydrogen concentrations above the existing administrative limit of 1%.

This week, LANL requested and received NNSA approval to increase the allowable hydrogen concentration limit to 4%, based on analysis and guidance contained in DOE Standard 5506, *Preparation of Safety Basis Documents for Transuranic Waste Facilities*. In its approval memo, NNSA stipulated that this TSR change is only applicable to the five remaining high activity drums and the limit will revert to 1% after these drums are dispositioned. All remaining drums associated with the High Activity Drum campaign have now been transferred to WCRR for final processing.

Training: Development of compliant and approvable Training Implementation Matrices (TIM) for LANL nuclear facilities has been a persistent challenge. However, LANL recently submitted TIMs for all nuclear facilities. These TIMs describe selection, qualification, certification and training requirements, per DOE orders. This is an important step in the overall implementation of conduct of training, which continues to lag behind other elements of the Formality of Operations initiative.