

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 28, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending August 28, 2009

Transuranic Waste Operations: Last week, a transuranic waste drum with a small hole in the bottom was transferred from Area G to the WCRR repackaging facility. A required drum integrity inspection at Area G failed to identify the hole, which was ultimately discovered during a more thorough receipt inspection at WCRR. Onsite shipment of a degraded waste drum resulted in a Transportation Safety Document (TSD) TSR violation. Upon discovery of the hole, separate TSD and WCRR TSR controls prohibited the drum from either being shipped back to Area G or being introduced into WCRR (which was still undergoing decontamination from a prior event). As a result, a LANL HAZMAT team was called in to overpack the degraded drum in the WCRR parking lot.

This week at Area G, an NNSA facility representative identified a pallet of transuranic waste drums that did not have any required banding to stabilize and restrain drums stacked on the third tier of a waste array. A key element of a TSR-level safety management program requires each four-drum pallet to be stabilized with two circumferential metal bands. Steps to install and verify drum banding are formalized in multiple Area G procedures.

These two events are the latest in a series of recent TSR violations and other problematic occurrences involving transuranic waste operations. LANL management has recognized this negative trending and is taking action to reinforce the importance of procedural compliance and attention to detail, as well as, initiating efforts to identify and address other common root causes shared by the recent events. Ensuring effective corrective action seems imperative given that the recent string of events is concurrent with a significant ramp-up in the transuranic waste operational tempo driven by aggressive inventory reduction milestones associated with LANL's Consent Order agreement with the state of New Mexico. LANL has recently begun making five waste shipments to WIPP in a typical week, up from 3 shipments in a typical week last year. Establishing and maintaining disciplined operations, including deliberate compliance with effective procedures will be critical to ensuring safety as the pace continues to increase and then must be sustained for years to come (site rep weekly 8/21/09).

Plutonium Facility: As part of the Documented Safety Analysis approved in December 2008, LANL committed to a series of engineered and administrative control upgrades to improve the safety posture of the facility. A near-term cornerstone of site plans to reduce the consequences of challenging accident scenarios, such as a post-seismic fire, is to seismically upgrade glovebox stands, as part of the line item TA-55 Reinvestment Project. The site office SER included a Condition of Approval to accelerate seismic upgrades for select, high-priority gloveboxes to be completed by the end of FY11. However, during this week's Integrated Nuclear Planning workshop, it was reported that these priority upgrades would be delayed rather than accelerated due to line item funding issues. With regard to implementing a safety class confinement ventilation system, a recent site office position paper concluded that a decision on pursuing PC-3 seismic upgrades to the system would not be made until mid-FY11. The site office asserted that completion of several key activities is required prior to making this decision, including: 1) completion of ventilation and ventilation support system backfit analyses 2) evaluation of systems and components against the updated Probabilistic Safety Hazard Analysis via the SAFER project and 3) comparison of system capacity versus seismic demand.