

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 26, 2010

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 26, 2010

Transuranic Waste Operations: Facility management declared a TSR violation at the WCRR repackaging facility this week. During an emergency exercise involving the Los Alamos County Fire Department (LAFD), emergency responders opened the WCRR vehicle access system barriers to gain entry to the scene of a simulated event. Opening the vehicle access system barriers while material-at-risk was present inside the WCRR facility perimeter violated a Specific Administrative Control. LAFD personnel never received any indication that opening access barriers presented a problem for the facility; they were acting in accordance with their pre-incident plan and alerted the WCRR operations center that they were opening barriers. On the facility side, a number of opportunities to identify and prevent the safety basis impact from this exercise were missed, including participation in exercise planning and the final exercise plan being subjected to the unreviewed safety question process.

In response to this event, facility management will now require all final exercise plans for transuranic waste facilities to require approval by the Facility Operations Director. Conducting exercises at nuclear facilities across the site are an important part of continuing to improve the coordination between LANL and LAFD. Since proper planning and control of these on-going exercises are critical to ensuring that nuclear safety hazards are not inadvertently introduced and safety basis controls are not compromised, broadening the corrective action requiring FOD approval of exercise plans to apply to all nuclear facilities may warrant consideration.

Sitewide Seismic Hazards: This week, the site office approved removal of a number of facilities, or facility segments (Chemistry and Metallurgy Research Building - Vault and Storage Wells, TA-55 Interim Radiography Tunnel, Radioactive Liquid Waste Treatment Facility, Weapons Engineering Tritium Facility, WCRR repackaging facility and the RANT shipping facility) from the Seismic Analysis of Facilities and Evaluation of Risk (SAFER) Justification for Continued Operation (JCO). LANL evaluated safety systems that are required to perform a seismic safety function for each of these facilities against the updated probabilistic seismic hazards analysis and concluded that system performance during a seismic event is consistent with that credited in facility safety bases. The seismic evaluation basis for each of these facilities and systems was reviewed by an external peer review team. Although the SAFER JCO for the Plutonium Facility is currently scheduled to expire at the end of May 2010, it is likely that LANL will request an extension to complete the evaluation.

Plutonium Facility – Safety Basis Implementation: LANL has completed the 3rd phase of the 2008 DSA implementation effort at the Plutonium Facility including completion of Implementation Verification Reviews. In February, the site office approved extending the implementation period for this DSA from the end of March to the end of May. In the 4th and final phase of implementation, LANL will complete actions to achieve a safety class fire suppression system for non-seismic fire scenarios. The final phase also includes implementation of controls on material-at-risk and transient combustible loading, as well as, several safety management programs (e.g., fire protection and glovebox transient combustible programs) and safety design features (e.g., glovebox support stands). The site office continues review of the Plutonium Facility's 2009 DSA annual update submittal.