

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 23, 2010

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending April 23, 2010

**Weapons Engineering Tritium Facility (WETF):** LANL continues actions to restart tritium gas transfer and handling operations to support current plans to unload tritium containment vessels that may exceed their maximum allowable working pressure and to support tritium material-at-risk reduction efforts. WETF restart plans now include performance of both a Contractor Operational Readiness Review and an NNSA Operational Readiness Review, currently planned for late-May and late-June, respectively. WETF personnel also plan to perform several function test activities to support an important programmatic need this summer. Restart of the tritium function test system was planned to occur after the initial restart that will be covered by the readiness reviews. To ensure support for this programmatic deliverable should the current restart schedule slip, WETF personnel are evaluating options that will allow safe and timely restart of the function test system as a priority.

**Transuranic Waste Operations:** This week, the Facility Operations Director declared a potential inadequacy of the safety analysis (PISA) at the WCRR repackaging facility. The PISA resulted from a discovery that the safety significant WCRR drum lift fixture was not anchored to the floor slab and therefore could not perform its credited safety function of preventing a transuranic waste drum drop during a seismic event. A 2007 seismic analysis of the drum lift fixture that included a Seismic Qualification User Group (SQUG) walkdown and another analysis performed in 2009 to support the SAFER project both concluded that this system could perform its seismic safety function based on an incorrect assumption that the drum lift fixture was securely anchored to the floor. As a result of the PISA, facility management has prohibited the introduction of material-at-risk into the WCRR facility until a Justification for Continued Operations is approved by the NNSA site office.

**Glovebox Safety:** The WCRR repackaging facility has had six glove breaches associated with its Waste Characterization Glovebox in the past two months, including several that resulted in personnel contamination and one that resulted in positive nasal smears. Prior to this series of events, glove breaches had been infrequent at WCRR. In response to this adverse trend, facility personnel engaged subject matter experts from the lab's Institutional Glovebox Safety Committee. Based on recommendations from the committee, WCRR will begin using longer cut and puncture resistant gloves over glovebox gloves to provide greater protection against objects that could cause breaches. The committee also recommended that protective over-gloves be worn whenever operators have their hands in the Waste Characterization Glovebox. Current WCRR procedures require the use of these over-gloves when active waste sorting and processing operations are being conducted, but do not require use of protective over-gloves during subsequent glovebox clean-out and wipe-down activities where latent hazards that could challenge unprotected glovebox gloves may exist.

WCRR personnel have also strengthened their glovebox glove receipt inspection protocols. Using the new more stringent inspections, facility personnel have rejected high percentages of gloves received from the Plutonium Facility's quality component warehouse. Typical rejection rates have been around 10-15%, but one recent lot approached 90% rejection. Based on this and other data, institutional quality assurance receipt inspections for glovebox gloves from the affected manufacturer have recently been increased from 20% sampling to 100% inspection.