

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 10, 2011

**MEMORANDUM FOR:** Timothy Dwyer, Technical Director  
**FROM:** Jonathan Plaue, DNFSB Site Representative  
**SUBJECT:** LLNL Activity Report for Week Ending June 10, 2011

**Plutonium Facility:** On June 3, 2011, the facility manager declared the 2010 annual update to the safety basis implemented. The implementation process included the update of 27 surveillance procedures and development of engineering change notices to accompany the affected system design descriptions. In addition, facility management utilized this opportunity to update an additional 27 surveillance procedures to ensure consistency and improve quality.

As part of implementation, the contractor performed an Independent Verification Review (IVR). The IVR was executed in two phases in order to verify the existing control set that did not change with the annual update, as well as the controls that changed. The five person IVR team identified one deficiency regarding the consistency of the language between an approved specific administrative control for high wind control and its implementing procedure. The procedure was revised. The team also identified five observations and four strengths. One observation of note identified that an operator and witness executing a surveillance procedure had not completed all of the required training. One strength of note indicated that the Glovebox Glove Integrity Program under the Quality Assurance Program provided additional formality and proactive behavior.

A fissile material handler bumped a glovebox window and cracked it while attempting to bag-out metal stubs from DOE-STD-3013 inner containers. The window was not breached and external radiological contamination was not detected; however, programmatic operations were suspended. After review, facility personnel appropriately filed an occurrence report noting the degraded condition (LLNL-2011-0031). Program personnel presented a work permit to replace the existing safety glass window with plastic. The work permit also supported continued use of the glovebox in its degraded condition under compensatory measures to support urgent programmatic work. This glovebox is needed to complete four DOE-STD-3013 containers to support deinventory efforts. The compensatory measures include taping the window, barricading and restricting use of the glovebox near the damaged window, and limiting operations in the glovebox to a single individual.

**Nuclear Material Packaging:** On June 7, 2011, fissile material handlers repackaged and returned to the vault the plutonium-238 containing material that had been introduced into a glovebox in response to packaging concerns (see weekly report dated December 3, 2010). To support this effort, the contractor developed a technical basis and associated new controls that limit wattage and specify container configurations for higher wattage materials. Facility personnel captured these controls in a recent update to the Facility Safety Plan. Program personnel performed an extent of condition review of the remainder of the inventory and believe all existing packages meet the new controls.

**Waste Storage Facilities:** On June 3, 2011, the contractor submitted to the Livermore Site Office (LSO) the annual update to the safety basis. This annual update incorporated DOE-STD-5506, *Preparation of Safety Basis Documents for Transuranic Waste Facilities*. LSO's review plan targets completion of review by the end of July and overall approval by December 2011.