

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 27, 2012

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending April 27, 2012

**Transuranic Waste Operations:** Last week, Area G management discovered that criticality safety controls had not been implemented for Fiberglass Reinforced Plywood (FRP) boxes, as required by the Area G Criticality Safety Program. A Criticality Safety Limit Approval (CSLA) for transuranic waste receipt and staging required FRP boxes with greater than 325 Fissile Gram Equivalents (FGE) to be specially controlled. Area G personnel identified five above-ground FRP boxes and one other oversized container that each held greater than 325 FGE, but did not comply with applicable criticality safety controls. In response, Area G management declared a level 3 criticality safety infraction (indicating a total loss of the safety parameter for mass control) and restricted access to areas where the high FGE containers were staged.

To address this discovery, LANL criticality safety personnel analyzed the existing configurations of the over-massed containers and concluded that no special action was necessary to segregate or isolate the affected containers. Area G management removed access restrictions based on this criticality safety analysis. Also as part of the response to this discovery, laboratory personnel found that the CSLA for FRP box processing operations in Building 412 did not evaluate the potential for FRP boxes to have FGE inventories in excess of 1000 g, which is a known condition for the bounding FRP box. The discovery of this CSLA deficiency prompted facility management to declare a Potential Inadequacy of the Safety Analysis (PISA).

**Weapons Engineering Tritium Facility (WETF):** This week, LANL identified concerns with the performance of a semi-annual TSR surveillance for the safety significant Halon fire suppression system at WETF. As part of this surveillance, WETF personnel verify that the squib actuator valves have not exceeded their service life (five years). Recent performance of this surveillance indicated that the squib valve had potentially exceeded five years and that the previous surveillance recorded the incorrect manufacturer qualification date, which is the basis for evaluating the service life. Although subsequent information indicated that the squib valve was not beyond its service life, the issue highlighted concerns with the conduct of this surveillance. WETF management is developing corrective actions to improve the procedural performance of this TSR surveillance.

WETF recently transitioned from warm standby to operations mode to support the disposition of four tritium containers (Standard Tubs) that may exceed their maximum allowable working pressure under accident conditions. These containers are being overpacked into Flanged Tritium Waste Containers (FTWCs) that will be transferred to Area G for disposal. Currently one FTWC has been loaded and successfully leaked checked to support transfer to Area G.