

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 17, 2012

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending August 17, 2012

Livermore Site Office (LSO): Last week, LSO participants in the Human Reliability Program (HRP), which includes the Facility Representatives and Safety System Oversight engineers, were notified by email that they were to be removed from the program effective October 1, 2012. Department of Energy (DOE) requirements for HRP certification correspond to access to Security Category I nuclear materials, which are on schedule to be removed from the laboratory by this date. The laboratory contractor has not reached a conclusion on whether to terminate HRP certification for their program and facility personnel without responsibilities at other Security Category I sites (e.g., Pantex and Los Alamos). Federal oversight personnel will need to be escorted by contractor personnel for any potential future campaigns involving Security Category I material.

Hardened Engineering Testing Building: On August 10, 2012, LSO approved without conditions the safety basis amendment to allow as resident items Conflat/Bolt cans containing up to 25 g of fuels-grade equivalent plutonium oxide. This approval completes one of the recent safety basis amendments submitted for this facility (see weekly report dated July 13, 2012). LSO personnel suspended their review of the submittal concerning storage of shipping containers containing tritium after issues were raised regarding the required scope of work and compliance with the National Environmental Policy Act.

On Tuesday, handlers discovered unexpected low levels of contamination while opening a recently transferred item containing plutonium oxide. The item was packaged (from innermost layer) in the following: Bolt can / Conflat / Hagan container / paint can / slip-lid egg can / shipping container. The contamination was found on the inside of the egg can. The event was critiqued on Wednesday at the direction of facility management.

Quality Assurance: On August 15, 2012, the contractor submitted their evaluation of the safety of the situation related to the Potential Inadequacy of the Safety Analysis (PISA) declared on the Radiography Facility on July 27, 2012. The PISA involved the use in the safety basis of version 6.0.1.0 of the *Consolidated Model of Fire and Smoke Transport* (CFAST) software. This version of CFAST post-dated version 5.1.1 listed in the approved DOE Safety Software Quality Assurance Central Registry and had not otherwise been properly handled through the contractor's software quality assurance process. The contractor recalculated the fire analysis with version 5.1.1 and determined that the existing results were bounding.

The Site Representative notes that DOE does not update versions of software listed in the central registry. There is a common misconception that the central registry is updated as new software versions are released. For example, the National Institute of Standards released the current version of CFAST 6.2.0 on November 1, 2011. The central registry version 5.1.1 was released on May 1, 2004.