

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2011

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending November 4, 2011

Work Planning and Control: Last month, nuclear facility personnel began using new software for development and approval of work permits. One of the improvements realized with this software is the ability to capture and mine feedback and improvement actions from prior work activities. This improvement responds to one of the staff's observations included in the Board letter dated June 14, 2010. The new system also fully integrates work planning processes between Superblock and the Waste Storage Facilities.

Tritium Facility: Last week, the facility manager declared the increment fire barrier door to be operable. The increment fire barrier, including the door, is credited as a safety significant control with a safety function of isolating fire in one increment from the other increment. The door is required to provide a 1.5 hour fire resistance rating and the walls a 2 hour rating. This control is key to the approved exemption to Department of Energy (DOE) Standard 1027 that allows the facility to operate as a Hazard Category 3 facility with a total of 35 g of tritium. The fire door and frame were completely replaced in order to ensure proper latching. With the door operable, facility management was able to lift the restriction on the tritium inventory from the Hazard Category 2 facility threshold of 30 g.

Fire Protection: The nuclear facilities at LLNL do not have formally credited building sprinkler systems and instead rely exclusively on the Fire Protection Program to ensure that the systems are designed, maintained, and tested in a manner consistent with National Fire Protection Association (NFPA) code. In last month's Periodic Issues Report, the Livermore Site Office (LSO) transmitted a weakness to the laboratory contractor indicating that the contractor's self-assessment did not comprehensively address all aspects of the Fire Protection Program, as required by DOE Order 420.1B, *Facility Safety*. LSO provided a number of observations in support of this conclusion. For example, LSO noted that the self-assessment did not address fire protection aspects of configuration management, Inspection Testing and Maintenance, training and qualification, or implementation and tracking of fire protection administrative controls.

The contractor is expected to initiate an improved self-assessment this year utilizing personnel from Los Alamos National Laboratory for assistance. During the interim, LSO believes sufficient evidence exists to demonstrate adequate function of the fire protection program, despite a few issues observed in the Superblock during the past several months. However, LSO intends to perform a detailed assessment of NFPA compliance in the Tritium Facility in March 2012.

Integrated Safety Management: In a letter dated October 19, the contractor submitted to LSO the proposed Safety Performance Objectives, Measures, and Commitments (SPOMC) for fiscal year 2012. Of note, the SPOMC contains a commitment to update institutional procedures and guidance related to Equipment Important to Safety (EITS). In recent reviews, LSO had noted inconsistent definitions and expectations regarding EITS. The SPOMC also contains several items regarding work control and occupational safety topics (injury prevention, electrical safety, beryllium safety, radiation protection, etc.).