

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 23, 2012

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 23, 2012

Staff members F. Bamdad, T. Chapman, C. March, J. Pasko and R. Verhaagen were onsite this week to review the 2011 update of the Plutonium Facility Documented Safety Analysis (DSA) and Technical Safety Requirements (TSRs).

Federal Management: Recently, NNSA announced the selection of Juan Griego as the LASO Deputy Site Office Manager. Mr. Griego has been acting in this role since August 2011 and was previously the Assistant Manager for National Security Missions.

Plutonium Facility – Safety Basis: LANL continues activities to implement the 2011 DSA and TSRs, which are currently scheduled to be complete by May 25, 2012. The laboratory has also submitted two minor revisions (revision 1.1 and 1.1a) to this safety basis to clarify and correct the DSA and TSRs and to resolve site office comments. In addition, the facility is operating under the Justification for Continued Operations (JCO) for seismic-structural vulnerabilities that will expire on May 11th. LANL has requested site office approval to extend the JCO expiration date to align with the DSA and TSR implementation schedule. All physical upgrades identified in the JCO have been completed and controls on Mezzanine loading and cement silo level are included in the new safety basis. The site office is reviewing the minor safety basis changes and JCO extension request. LANL and subcontractor personnel are also completing a static non-linear analysis of the facility to determine if additional facility upgrades are required.

Weapons Engineering Tritium Facility (WETF): In November 2008, LANL identified a Potential Inadequacy of the Safety Analysis (PISA) because certain tritium containment vessels may exceed their maximum allowable working pressure (MAWP) under accident conditions (i.e. fire). A number of 1980s-vintage tritium-bearing components are stored for surveillance at WETF in credited containment vessels known as Standard Tubs. As a credited containment vessel, the MAWP of Standard Tubs is required to be defined and protected. Since 2008, the WETF facility has been operating under a JCO associated with these containment vessels.

WETF personnel now plan to disposition these vessels by packaging them in Flanged Tritium Waste Containers (FTWCs) and shipping them to Area G for disposal. Earlier this month, LANL requested an extension to the JCO for the Standard Tubs to April 20th to allow completion of the overpacking activity. The activity will include loading, closure, leak checking and over-packing the FTWCs for transport to Area G for disposal. WETF personnel have procured the required equipment, developed procedures and trained operators. A management self assessment was recently completed and WETF personnel plan to begin a contractor readiness assessment on Monday. In addition, the laboratory has completed a system adequacy analysis of the FTWC and requested a safety basis change to use these containers to package existing tritium containment vessels with vulnerabilities (including the Standard Tubs).

To support shipment and disposition of the tritium-bearing Standard Tubs inside FTWCs at Area G, LANL has also completed waste disposal reports and a risk analysis.