

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending April 10, 2009

Chemistry and Metallurgy Research Building (CMR): LANL recently completed the CMR Actinide Disposition Strategic Plan that details the initiative to disposition excess (i.e., no defined programmatic use) materials currently stored in multiple locations at CMR (including the floor well storage locations in Wing 9). The plan details a disposition strategy, including processing, packaging, shipping and final destination details, for 41 different material types to be completed by October 2010. The more difficult materials that will require some processing and repackaging include neptunium-237, curium-244, americium-241/243 and uranium-233. To support the disposition strategy for most of these materials, restart of alpha box operations in the Wing 9 hot cells will be required. LANL is performing an engineering evaluation to determine the scope of maintenance and design changes (including safety basis requirements) needed for startup of the alpha box (scheduled for December).

Plutonium Facility: The plutonium facility fire suppression system is being upgraded from safety significant to safety class as a part of the on-going safety basis implementation. In accordance with a site office Safety Evaluation Report condition of approval, LANL recently submitted a gap analysis for this system against National Fire Protection Association standards 13, 25 and 72. LANL notes that despite identified non-compliant conditions, the fire suppression system is able to meet its credited safety function. This submittal also provides a proposed path forward on recommendations identified during the backfit analysis that was completed in February. A new hydraulic analysis is being performed to address several of the recommended evaluations and upgrades. LANL is developing a project plan to address the issues identified in the gap analysis and will provide this to the site office by May 31, 2009.

The site office condition of approval also requested that LANL identify Technical Safety Requirement (TSR) action statements should a sprinkler system be declared inoperable consistent with the requirements in the LANL Fire Protection Criterion 733, *Fire Protection System Impairment Control Program*. The LANL submittal recommends development of an impairment control procedure (implemented under the fire protection program) that would be used by operations center personnel to identify compensatory measures. The site office is currently evaluating this recommendation.

Radioactive Liquid Waste Treatment Facility (RLWTF): This week, LANL management presented their strategy to resume transuranic liquid waste processing at RLWTF, which has been down since 2006. A previous attempt to startup a portion of this system in November 2008 was not successful due to issues identified during the laboratory readiness assessment. The strategy now includes startup of the drum tumbler along with other transuranic liquid processing equipment. Along with the additional scope, LANL plans to implement conduct of operations (including personnel training and revising procedures) prior to startup. Based on this additional scope, the schedule for completing the management self assessment, readiness assessment and restart is now October 2009. In the interim, LANL has concluded that additional solution storage space is available in the RLWTF influent storage tanks (both acid and caustic tanks) based on ultrasonic testing. This space will allow limited aqueous chloride recovery and aqueous nitrate operations in the plutonium facility to resume.