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## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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May 16, 2008

The Honorable Thomas P. D'Agostino  
Administrator  
National Nuclear Security Administration  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0701

Dear Mr. D'Agostino:

The Defense Nuclear Facilities Safety Board (Board) remains concerned about the National Nuclear Security Administration's (NNSA) ability to ensure safe operations at the Chemistry and Metallurgy (CMR) facility at Los Alamos National Laboratory (LANL), which may be essential to fulfilling NNSA's national security mission. In its letter dated October 23, 2007, the Board requested a report and briefing from NNSA that provides a safety rationale for the continued operation of CMR beyond 2010. In response to this reporting requirement, the Board acknowledges receipt of your letter dated March 25, 2008, and its accompanying briefing to the Board on April 10, 2008. In your letter, it states that NNSA's rationale for continued operation of the CMR building will be described in the new Documented Safety Analysis (DSA) currently planned to be submitted to the Los Alamos Site Office (LASO) in February 2009. This schedule leaves little time for NNSA to complete any necessary upgrades to safety systems or identify alternative strategies for meeting national security priorities before the current planned facility closure date of 2010. Moreover, deferring the implementation of an effective safety strategy until the DSA is submitted may inhibit an objective assessment of programmatic alternatives in lieu of rationalizing continued operations at CMR with minimal change.

The Board's reporting requirement was intended to (1) elicit an assessment that would inform decision makers about the risks of continued operations in CMR, and (2) identify upgrades needed to reduce these risks to acceptable levels for the uncertain period of time until the CMR Replacement facility is built and becomes operational. Given the facility's age and seismic fragility, some upgrades may be cost-prohibitive or impractical. As a result, it is equally imperative for NNSA to define alternative strategies for accomplishing the essential national security work currently performed in CMR. These alternative strategies will hopefully lessen NNSA's reliance on CMR with its known structural vulnerabilities. The Board notes that alternative strategies will be discussed in a May 2008 planning workshop hosted by LASO and LANL.

In advance of this workshop, the Board wishes to emphasize the need for a detailed definition of the scope of work proposed to continue in CMR, along with the material-at-risk associated with each work activity. It is essential that NNSA thoroughly understand the programmatic need for future activities in CMR. For example, NNSA has not identified a programmatic need to manufacture war reserve pits beyond the current campaign scheduled for completion in about 2010.

The Board feels strongly that a safety rationale for CMR must address its significant seismic vulnerabilities, i.e., 1 in 50 chance of seismic collapse during a 10-year time frame as estimated by LANL. These vulnerabilities have been known for many years and were previously resolved by committing to cease operations in CMR by 2010. More recently, the laboratory has emphasized consolidating work into a subset of the building's wings. NNSA has taken actions to protect its workers in other seismically unsound facilities, in particular recognizing that a new administration building at LANL was needed in part because of unacceptable seismic risk. Decisions regarding the future use of CMR must reflect similar consideration of the need to provide adequate protection of the public and facility workers from seismic hazards.

Your reply to the October 23, 2007, Board letter commits to providing a final response to the Board's letter by September 1, 2008. It would be advantageous to articulate the safety rationale for continued use of CMR sooner, but including such a rationale in your final response would be a significant improvement over allowing it to be deferred to next year's DSA submittal. Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests that NNSA's upcoming report be accompanied by a briefing within 30 days of its issuance, and that the report and briefing provide the safety rationale for future use of CMR. Consistent with the above discussion, this rationale should at a minimum include the following elements:

1. A detailed discussion of programmatic needs and safety risks associated with performing each of the required activities in CMR;
2. An evaluation of means by which these safety risks can be reduced, including alternatives for satisfying the identified programmatic needs; and
3. An explanation of how the unique seismic hazards posed by CMR's structural design will be addressed to ensure adequate protection of the public and facility workers during any extension of the facility's operations beyond 2010.

Sincerely,



A. J. Eggenberger  
Chairman

c: Mr. Donald L. Winchell, Jr.  
Mr. Mark B. Whitaker, Jr.  
Mr. Robert J. McMorland