

Peter S. Winokur, Chairman  
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**DEFENSE NUCLEAR FACILITIES  
SAFETY BOARD**

Washington, DC 20004-2901



February 8, 2011

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) is aware that the National Nuclear Security Administration (NNSA) is contemplating several changes to the safety strategy and design for the Chemistry and Metallurgy Research Replacement (CMRR) Project Nuclear Facility (Los Alamos National Laboratory letter to the NNSA Deputy Administrator for Defense Programs and the manager of the Los Alamos Site Office dated December 20, 2010). These changes may include reductions in the allowable material-at-risk, modifications to the safety strategy including elimination of one or more safety-related systems, revisions to the seismic design requirements for certain systems, and changes to the facility elevation. The technical basis behind these potential changes was not provided with the December 20, 2010, letter.

As noted in our September 4, 2009, certification report to Congress on the design of the CMRR Project, the Board worked with NNSA to identify the Board's concerns and the actions necessary to resolve them. As part of the certification process, NNSA agreed to revise the CMRR Preliminary Documented Safety Analysis, preliminary design, and design processes to address the Board's concerns, and to implement detailed designs during the final design consistent with specific design requirements agreed to as part of the certification review. Clearly the Board's certification relied upon the future full implementation of these final design commitments by NNSA.

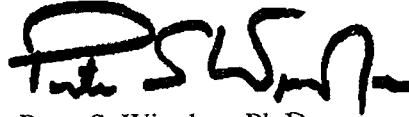
Based on the above observations and information, it is essential that the Board understand NNSA's decision process, timing, and bases for CMRR changes related to Board concerns resolved under the certification process. Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests a briefing within 30 days of receipt of this letter outlining actions taken or planned by

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NNSA to change the CMRR Nuclear Facility safety strategy and design. Specific questions related to these potential changes are provided in the enclosure to this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter S. Winokur". The signature is stylized and cursive.

Peter S. Winokur, Ph.D.  
Chairman

Enclosure

c: Mrs. Mari-Jo Campagnone

## **Enclosure**

### **Questions Related to Potential Changes to the Chemistry and Metallurgy Research Replacement Project Nuclear Facility Working Estimate**

1. What studies or technical basis supports the potential elimination of fire suppression in the long-term vault and day vault?
2. What studies or technical basis supports the potential elimination of fire suppression in non-inert gloveboxes and open-front hoods?
3. What studies or technical basis supports revising the safety-class laboratory fire suppression system to safety-significant?
4. What studies or technical basis supports revising the safety-significant ventilation system from seismic design Performance Category 3 to Performance Category 2?
5. What studies or technical basis support lowering the laboratory material-at-risk? Does this reduction represent a change in the laboratory mission requirements?
6. Has the accident analysis in the Preliminary Documented Safety Analysis been revised to account for changes to the facility material-at-risk within the laboratory portion of the facility?
7. How will potential changes to the facility elevation impact the ongoing structural and seismic analysis for the facility?