National Nuclear Security Administration

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

October 1, 2008

The Honorable A. J. Eggenberger
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004-2901

Dear Mr. Chairman:

In my March 25, 2008, letter to you, I stated that the National Nuclear Security Administration (NNSA) would provide by September 1, 2008, a long-term schedule of actions related to the continued operation of the Chemistry and Metallurgy Research (CMR) Facility at Los Alamos National Laboratory (LANL). On May 16, 2008, the Defense Nuclear Facilities Safety Board (DNFSB) issued a letter to NNSA which requested that the NNSA response provide the safety rationale for continued use of the CMR Facility.

NNSA and LANL have made progress in consolidating capabilities within the CMR Facility and relocating capabilities to other facilities. For example, Actinide Analytical Chemistry operations have been consolidated into Wings 5 and 7 and Materials Characterization operations have been relocated to the Plutonium Facility.

LANL has prepared a CMR Facility Consolidation and Risk Mitigation Program Execution Plan (PEP) that defines an integrated management structure to meet the following primary objectives:

- Minimize the material at risk (MAR) in the facility by closing wings to programs (Wings 2, 3, and 4), removing equipment and materials, and preparing for decontamination and decommissioning (D&D);
- Maintain or upgrade key safety systems in select wings (Wings 5 and 7) and improve key management systems (e.g., conducting Vital Safety System Assessments) to ensure safety and reliability;
- Maintain necessary analytical chemistry capability in the CMR Facility during the transition to the CMR Replacement (CMRR) Project facilities;
- Complete critical NNSA missions in Wing 9 (e.g., the Confinement Vessel Disposition Project) and study options for maintaining hot cell capabilities; and
- Submit for NNSA approval in January 2009 the 10CFR830, Subpart B – compliant Documented Safety Analysis and Technical Safety Requirements that will evaluate programmatic activities in the CMR Facility beyond 2010.

Enclosure 1 includes the PEP and the associated NNSA Los Alamos Site Office (LASO) memorandum that provided the PEP to NNSA Headquarters. The PEP provides a discussion of current CMR Facility programmatic requirements and capabilities for the period between 2010 and the start of operations of the CMRR Facility. The PEP also provides a high level plan for the reduction of material at risk and defines a CMR Facility Consolidation/Risk Mitigation Program, including a schedule of associated actions. An Alternatives Study was also completed for Actinide Analytical Chemistry requirements for the period between 2013 and when the CMRR Facility becomes operational. The decisions from the September 2008 Integrated Nuclear Planning (INP) Workshop will be incorporated into the plan at a future date.

In order to address the unique seismic hazards posed by the CMR Facility's structural design and to ensure adequate protection of the public and facility workers during the extension of the facility's operations beyond 2010, the following specific actions were highlighted by LASO that are consistent with the program of record as described in the CMR PEP:

- Completing Vital Safety System assessments for safety class systems, including the CMR Facility Structure, to verify that no structural modifications degrade performance;
- Continuous reduction of MAR;
- Termination of programmatic operations in operational wings as soon as practical (Wings 2/3/4 completed) and initiation of cleanup activities, including D&D;
- Maintaining or upgrading key safety systems to mitigate risk in remaining operational wings to support necessary analytical chemistry capability in the CMR Facility during the transition to the CMR Replacement (CMRR) Project facilities; and
- Relocating resident personnel as soon as practical and preparing for D&D.

LANL, LASO, and NNSA are maintaining a fragile Hazard Category 2 nuclear facility in the CMR Facility. The Laboratory is attempting to reduce the risk to the public and workers from seismic events during continued operation of the CMR Facility while still meeting programmatic requirements. The two primary contributors to this risk are 1) radiological risk to workers and the public and 2) risk to personnel in the CMR Facility due to structural failure. Given the inability to cost-effectively improve the ability of the CMR Facility to withstand significant seismic accidents, the life of the CMR Facility is being extended by reducing the risk of operation, which means MAR reduction for the first contributor and relocation of building residents for the second contributor.

Subsequent to the development of the PEP, the Deputy Administrator for Defense Programs directed the NNSA LASO Manager to submit a CMR Facility Exit Plan in December 2008 (Enclosure 2). The Exit Plan will document the transition of all program activities out of the CMR Facility as soon as practicable, including providing estimates for all direct and indirect costs for exiting the facility.

As requested in your May 16, 2008 letter, a briefing on the issues associated with the continued operation of the CMR Facility will be scheduled as soon as possible. If you have any questions, please contact me or Mr. Donald L. Winchell, Jr., the NNSA Los Alamos Revitalization Manager, at (505) 667-5105.

Sincerely,

Thomas P. D'Agostino
Administrator

Enclosures

cc: M. Whitaker, Jr., HS-1.1