

A.J. Eggenberger, Chairman  
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# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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August 15, 2006

The Honorable Samuel W. Bodman  
Secretary of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-1000

Dear Secretary Bodman:

The Department of Energy (DOE) submitted an Implementation Plan for the Defense Nuclear Facilities Safety Board's (Board) Recommendation 2004-2, *Active Confinement Systems*, on August 22, 2005. The Board accepted this plan on September 19, 2005. Your recent letter of July 12, 2006, revised the Implementation Plan, requesting "administrative changes" to the deliverables and proposing a phased-in schedule. The proposed revised plan contains significant modifications far beyond the administrative changes described in the cover letter—it alters the process agreed to by the Board for implementing the Recommendation. Specifically, it eliminates the actions in the Implementation Plan addressing the Board's expectation that "mechanisms established in response to Recommendation 2004-1 [*Oversight of Complex, High-Hazard Nuclear Operations*] would likewise ensure consistent, conservative implementation of the confinement requirements." Recommendation 2004-1 was issued, in part, to establish a centralized and technically competent oversight authority and central control of technical safety requirements and waivers for departure from those requirements. This Implementation Plan revision moves away from that purpose.

The Board accepts the administrative changes proposed in the revised Implementation Plan, with the expectation that these changes will result in better assessment of the facilities and more comprehensive implementation of the Ventilation System Evaluation Guidance document issued by DOE on February 2, 2006. However, the success of this effort, as envisioned by the Board and provided for in the approved DOE Implementation Plan, depends on a fundamental understanding of the embedded technical issues, the development of appropriate approaches for review of confinement ventilation systems, high-quality system evaluations, and a demanding DOE oversight and independent review of these evaluations to ensure that appropriate actions are taken to address identified deficiencies.

To achieve success, competent, robust, and centralized oversight of this effort was envisioned to strengthen the accountability of line management. Lessons learned from the Columbia Space Shuttle disaster and the discovery of the deep corrosion in the reactor vessel head at the Davis-Besse Nuclear Power Plant point to this need. According to Recommendation 2004-1 and the accepted DOE Implementation Plan, this oversight function is to be performed by the Central Technical Authority (CTA). Such oversight is a foundation for excellence in performance assurance for an effort such as this and was an important element of our acceptance of the August 22, 2005, Implementation Plan. Therefore, the Board does not accept the changes made to the Implementation Plan that remove the CTA from the review and concurrence process and eliminate the CTA's responsibility for ensuring the technical adequacy, from an overall DOE and NNSA point of view, of the evaluation reports prepared at the sites, as these changes do not meet the intent of the Recommendation.

Additionally, the proposed revised Implementation Plan removes the Program Secretarial Officer (PSO) from the review and approval process for exceptions to the facilities for any recommended improvements that will not be implemented by the sites, and allows the site manager to make those decisions—the same situation that existed before Recommendation 2004-2 was issued. In order to provide consistency and the appropriate perspective for these decisions, the Board believes the PSO must be the central control for accepting departures from recommended improvements and this responsibility should not be delegated to the site managers. Therefore the Board does not accept the changes made to the Implementation Plan that remove the PSO from review and approval of exceptions.

The Board also notes that the Ventilation System Evaluation Guidance document issued by DOE as Deliverable 8.5.4 identified the need for an Independent Review Panel (IRP) to enhance the technical quality of the sites' evaluation reports submitted to the CTA for review and approval. As described in this guidance document, the IRP reviewed the data collected by the sites for consistency, specified the set of requirements to be used to perform ventilation system evaluations, made recommendations for potential changes, and determined if additional reviews were warranted. The proposed revised Implementation Plan reduces the IRP's responsibilities and authority to an "assist and consult" role that could lead to a less effective review process. The Board endorses the process as originally described in the guidance document, and does not accept the changes made to the Implementation Plan that reduce the role of the IRP.

In summary, the changes in the proposed revised Implementation Plan raise concerns about DOE's success in executing the actions necessary to consistently evaluate confinement ventilation systems and develop appropriate modifications to enhance nuclear safety. Your letter of July 12, 2006, did not provide an explanation for these changes, or for DOE's belief that the proposed plan is superior or equal to the approved Implementation Plan.

Therefore, the Board requests that the Implementation Plan of July 12, 2006, be revised and resubmitted within 30 days of receipt of this letter for the Board's approval. The Board requests that the resubmitted plan change the deliverables and use the proposed phased-in schedule, but retain the items discussed above per the original Implementation Plan accepted by the Board on September 19, 2005. If you maintain that the proposed changes must be made nonetheless, please provide a detailed assessment and justification for each such change in terms of its safety impact.

Sincerely,

A handwritten signature in black ink, appearing to read "A. J. Eggenberger". The signature is written in a cursive style with a large, stylized initial "A".

A. J. Eggenberger  
Chairman

c: Mr. C. Russell H. Shearer  
Mr. Richard L. Black  
Mr. Mark B. Whitaker, Jr.