

A.J. Eggenberger, Vice Chairman  
Joseph F. Bader  
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## **DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

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June 22, 2005

The Honorable J. Clay Sell  
Deputy Secretary of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-1000

Dear Mr. Sell:

The Defense Nuclear Facilities Safety Board (Board) has reviewed the Department of Energy's (DOE) Second Annual Nuclear Criticality Safety Program (NCSP) Report. The Board is pleased to see that DOE has committed to a relatively stable level of funding for this very important safety program, and that contractors have almost fully staffed their nuclear criticality safety engineer requirements. The Board is also pleased to note that Dr. J. McKamy has been appointed as the Technical Program Manager for the NCSP by the National Nuclear Security Administration (NNSA)—a position that will allow him to apply his extensive criticality expertise and leadership to the NCSP.

The Board would also note, however, that there are still several key areas that require senior management attention. The Board continues to be concerned with the limited number of NCSP reviews being performed at the individual sites by the Criticality Safety Support Group. Ensuring this core body of experts provides their insights to the sites on a reasonable periodicity is vital to the continued improvement of each site's NCSP.

In addition, while progress has been made toward ensuring that nuclear criticality safety experts spend more time in their facilities with operations personnel, the Board and its staff continue to notice instances where criticality safety controls are complex, confusing, and highly susceptible to human error. The nuclear criticality safety community must increase their efforts to make the nexus between operations and nuclear criticality safety control technology less susceptible to human error. The Board believes that improving the implementation aspects of criticality safety control presents the greatest opportunity for reducing the likelihood of criticality violations.

The Board discussed these concerns with Dr. David H. Crandall, Assistant Deputy Administrator for Research, Development, and Simulation, during his last briefing to the Board. He committed to work with DOE's and NNSA's new Central Technical Authorities to provide a plan by July 2005 to address these weaknesses. The Board looks forward to working with DOE as you continue to improve nuclear criticality safety across the DOE complex.

Sincerely,

A handwritten signature in black ink, appearing to read "A. J. Eggenberger". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

A. J. Eggenberger  
Acting Chairman

c: Honorable David K. Garman  
Mr. Jerald S. Paul  
Dr. David H. Crandall  
Mr. Mark B. Whitaker, Jr.