

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

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July 15, 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 staff of the Defense Nuclear Facilities Safety Board (Board) recently performed a review of the Preliminary Documented Safety Analysis (PDSA) for the Waste Solidification Building (WSB) to be constructed at the Savannah River Site. The Board's staff identified several issues that warrant your attention. These issues have been communicated to personnel from the National Nuclear Security Administration site office and the design contractor. The contractor has already begun to address some of these issues through revisions to the PDSA. Remaining significant issues include the following:

- The design criterion used to analyze hydrogen explosion scenarios in unvented pipes and vessels appears to be consistent with that used to evaluate the operational safety of the Defense Waste Processing Facility—an existing facility. The Board believes that the design of a new facility should be based on a more stringent criterion that preserves the confinement integrity of the primary boundary during a potential accident, similar to the Department of Energy's (DOE) expectations for the new Waste Treatment Plant at the Hanford Site.
- DOE Standard 1189, *Integration of Safety into the Design Process*, has not yet been applied to the WSB. Its application may have an impact on the identification and classification of safety-related systems.

The enclosed report details the issues identified by the Board's staff. Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests a briefing on the resolution of these issues prior to approval of the Critical Decision 2/3 milestone.

Sincerely,

A handwritten signature in black ink, appearing to read "A. J. Eggenberger".

A. J. Eggenberger  
Chairman

c: Mr. R. Kevin Hall  
Mr. Mark B. Whitaker, Jr.  
Mr. Robert J. McMorland

Enclosure