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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 28, 2005

The Honorable Linton Brooks
Administrator
National Nuclear Security Administration
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0701

Dear Ambassador Brooks:

In a letter dated November 3, 2004, the Defense Nuclear Facilities Safety Board (Board) requested a report on the actions to be taken to identify and correct deficiencies in the Device Assembly Facility (DAF) at the Nevada Test Site. The Board's request resulted primarily from observations by the Board's staff of significant deficiencies at that facility, combined with the Department of Energy's plans to increase both the scope and tempo of the facility's nuclear operations.

The Board was pleased to receive the response of the National Nuclear Security Administration (NNSA), dated February 8, 2005. That response outlines a strategy consisting of four elements: (1) DAF management's commitment to safety; (2) planned improvements in NNSA's oversight activities; (3) conduct of Operational Readiness Reviews prior to the startup of new activities; and (4) a Safety Basis Implementation Plan (SBIP).

The Board acknowledges the commitment of NNSA and DAF management to safety, and also encourages an increased level of federal oversight. Given the unique situation at DAF, the Board believes additional focused review and assessment activities are necessary to ensure that the facility will be ready to carry out new high-hazard activities safely. However, the federal oversight assessment program of the Nevada Site Office has not developed as indicated in NNSA's response. It appears there is no plan to conduct broad-scope, detailed, and specific reviews of the adequacy and reliability of the important safety management programs and vital safety systems required to support long-term safe operation of DAF.

The SBIP appears to be a valuable resource in identifying and tracking certain elements of the implementation of the safety basis. The SBIP appears to identify those programs that are required to be implemented prior to new activity startup and to establish a requirements crosswalk between the required programs and the applicable standards. However, the process embodied in the plan, in itself, would not accomplish broad-based, comprehensive programmatic reviews of vital safety management programs. Further, as noted in the Board's letter of November 3, 2004, the Operational Readiness Review process is generally focused on verifying,

through a sampling review, the operational attributes of the activity being performed. Consequently, the readiness review process alone would not provide the scope and depth of review warranted at DAF before the facility is declared ready to perform new operations.

The inadequacy of the strategy of relying on the SBIP and the readiness review process is illustrated by the following examples. Prior to NNSA's September 2004 review of the training and qualification program, which was conducted at the Board's request, the SBIP indicated that the program had been implemented as of May 2004 for glovebox operations and would be implemented "as required" for other activities. However, as noted in NNSA's assessment, the training and qualification program exhibited significant deficiencies not previously identified by the SBIP and other oversight processes. Similarly, a review of the safety basis conducted by the Board's staff in July 2004 identified issues related to the reliability of the fire suppression system not identified previously. More recently, as noted in the Board's letter of March 18, 2005, the Board's staff identified that the extent and safety impact of cracks and water infiltration in the DAF structure required further assessment. The SBIP does not specifically address these and other issues.

The Board believes NNSA needs to reconsider the current strategy and adopt a more proactive and comprehensive approach to the review and assessment of important safety management programs and vital safety systems at DAF. Although the current scope of work at the facility does not include activities related to interim criticality experiments, the Criticality Experiments Facility is relocating to DAF, and other activities have been considered for inclusion in the overall DAF mission. Assurance of a robust suite of safety management programs and a reliable infrastructure of safety systems is necessary to support DAF's safe and efficient operation, regardless of the specific operations and activities to be performed at the facility. The Board will continue to closely follow NNSA's efforts toward ensuring that DAF can fulfill its important national security mission safely.

Pursuant to 42 U.S.C. § 2286b(d), the Board requests that NNSA provide a report and briefing within 60 days of receipt of this letter addressing what additional actions will be taken to address the issues outlined above.

Sincerely,



A. J. Eggenberger
Chairman

c: Mr. Thomas P. D'Agostino
Ms. Kathleen A. Carlson
Mr. Mark B. Whitaker, Jr.