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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 3, 2004

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 recent months, the National Nuclear Security Administration (NNSA) has indicated plans and proposals for a significant increase in the scope and operational tempo of activities at the Device Assembly Facility (DAF) at the Nevada Test Site. These plans and proposals include the receipt and storage of special nuclear material, the installation and operation of equipment to perform criticality experiments formerly conducted at the Technical Area (TA)-18 facility at Los Alamos National Laboratory, the conduct of nuclear explosive operations for weapon dismantlement, transition to an 18-month readiness to support underground nuclear testing, and support of the Radiological/Nuclear Counterterrorism Technology Evaluation Complex. The DAF is also expected to continue to contribute to the ongoing subcritical experiments program and the JASPER (Joint Actinide Shock Physics Experimental Research) project. Further, NNSA's current planning indicates that a number of these important activities may be conducted in a simultaneous operational environment. In general, the Defense Nuclear Facilities Safety Board (Board) supports NNSA's decision to utilize the capabilities at the DAF more fully.

However, most of these proposed activities would not only utilize the capabilities of DAF more fully, but would introduce activities not considered in the design of the facility. Introducing activities that were not considered in the design of the facility merits a comprehensive review. In addition, the DAF was designed and constructed in the early 1990s. The design and construction of the facility predate some modern nuclear safety requirements and may not be consistent with current expectations of the Department of Energy (DOE).

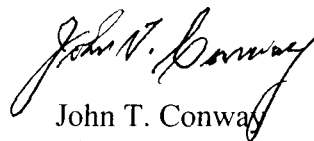
In recent reviews of the DAF the Board's staff has observed a number of significant deficiencies indicating that NNSA may not have devoted sufficient resources to the facility's critical safety management programs and the facility's physical infrastructure. For example, the staff has noted issues with respect to the scope of the safety basis of the facility, the reliability of the safety-class fire suppression system, the adequacy of the activity-level work planning and control process and the quality assurance program. In particular, a recent NNSA review of the DAF training program determined that it did not meet 6 of the 8 basic program requirements.

Other programs critical to safety in nuclear facilities, such as configuration management, maintenance, and radiation protection, may also require attention. These deficiencies need to be identified and corrected prior to significantly increasing the pace of operations and adding new missions.

The Board believes that, because of the dramatic increase in scope and operational tempo of high-hazard and vitally important national security missions at the DAF, additional focus is necessary to ensure that safety management programs are being implemented with a sufficient degree of rigor and that required safety systems are being maintained in a state of high reliability. Although there may be a tendency to rely on the Operational Readiness Review (ORR) process to provide this assurance, DOE's requirements associated with ORRs are generally focused on verifying, through a sampling review, the operational attributes of the activity being reviewed. The ORR process does not provide a comprehensive assessment of those programs and may not identify deficiencies in the reliability of safety systems.

Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests that NNSA provide a report to the Board within 90 days of receipt of this letter on the actions that will be taken to identify and correct any deficiencies in the DAF facility, its equipment, or safety management programs to ensure the safety of ongoing and planned mission activities.

Sincerely,

A handwritten signature in cursive script, appearing to read "John T. Conway".

John T. Conway
Chairman

c: The Honorable Everet H. Beckner
Ms. Kathleen A. Carlson
Mr. Mark B. Whitaker, Jr.