

John T. Conway, Chairman  
A.J. Eggenberger, Vice Chairman  
John E. Mansfield

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 13, 2002

The Honorable Everet H. Beckner  
Deputy Administrator for Defense Programs  
National Nuclear Security Administration  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0104

Dear Dr. Beckner:

In 1994, the Defense Nuclear Facilities Safety Board (Board) issued Recommendation 94-4, *Deficiencies in Criticality Safety at the Oak Ridge Y-12 Plant*. The infractions leading to the recommendation caused the management of the Y-12 National Security Complex (Y-12) to halt operations until the underlying problems could be remedied. Since 1994, Y-12 management has restarted many enriched uranium operations after upgrading criticality controls and other safety controls.

The Board has continued to monitor closely the criticality safety practices at Y-12. The recent criticality safety violations in Building 9212 have again given the Board cause for concern, and point to a general neglect of criticality controls in the storage and handling of fissile material at Y-12. It is notable that the most recent criticality safety violations were self-identified by the contractor, but the recurring nature of these violations clearly indicates that the contractor's corrective actions to date are inadequate.

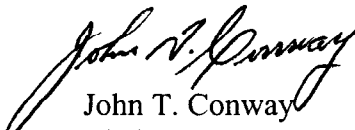
The Board is particularly concerned that line management at Y-12 is not placing sufficient emphasis on simplifying and standardizing all fissile material handling operations in order to build a criticality safety program structured to assure success. This is especially important given that significant amounts of fissile materials will be stored in Building 9212 and other locations on site for an extended period of time. Therefore, storage conditions should be standardized to foster operator understanding and compliance. Such standardization should extend to requirements, postings, and containers. Previous actions intended to simplify and standardize, such as the Y-12 container replacement program, have not been implemented aggressively.

The Board has also observed that other factors which may have contributed to this degradation in criticality safety are not being addressed adequately. Y-12 line management should ensure that the causes of the recent series of occurrences are identified fully. Potential contributors to the recent occurrences include the following:

- Improper or incomplete safety-related reviews and documentation as a result of inappropriate pressure to meet production goals;
- Mismatches between procedures and the hazard analyses; and
- Operation of numerous separate and distinct storage and processing areas in Building 9212 with inconsistent and confusing criticality safety requirements.

Based on recent observations, it appears that criticality safety at Y-12 is regressing, and may soon be in a deficient condition. Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests a response by the U.S. Department of Energy's National Nuclear Security Administration's Office of Defense Programs and the Y-12 contractor within 60 days of receipt of this letter, addressing criticality safety for operations in Building 9212, and actions taken at Building 9212 and across the site to ensure the continued adequacy of the Y-12 criticality safety program.

Sincerely,

  
John T. Conway  
Chairman

c: Mr. David E. Beck  
Mr. William J. Brumley  
Mr. Mark B. Whitaker, Jr.