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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 22, 1999

Brigadier General Thomas F. Gioconda
Acting Assistant Secretary
for Defense Programs
Department of Energy
1000 Independence Avenue, SW
Washington, DC 20285-0104

Dear General Gioconda:

The Defense Nuclear Facilities Safety Board (Board) has been increasingly concerned regarding two problems that threaten the schedule for stockpile stewardship. The first affects operations at the Pantex Plant, and the second affects operations at the Y-12 Plant at Oak Ridge.

For a number of years the Department of Energy (DOE) has required the conduct of certain safety reviews prior to operations with nuclear explosives, most of which take place at the Pantex Plant. These studies have been performed by Nuclear Explosive Safety Study Review Groups (NESSGs) appointed by the Manager of the Albuquerque Operations Office, presently in accordance with DOE Order 452.2A and the Standard DOE-STD-3015.

The Board and its staff have maintained an interest in the schedule for such safety reviews of operations at the Pantex Plant, in part to ensure that it is compatible with the schedule for planned operations. More than a year ago, it began to be clear that the schedule for safety reviews during the next few years could not be met because of conflicts in demands for separate reviews and a general shortage of DOE and contractor technical personnel familiar with the nuclear explosive systems and skilled in safety practices. The Board concluded that a large part of the problem was attributable to the complexity of the process used. Furthermore, the delays caused by this cumbersome and time-consuming process resulted in deferment of safety improvements and a prolonged reliance on less reliable or less robust safety controls and processes. These conclusions prompted the Board to issue on September 30, 1998, Recommendation 98-2, *Integrated Safety Management at the Pantex Plant*, in which DOE was urged to simplify its safety review process as a means to accelerate it. The Board specifically and purposefully avoided prescriptive proposals for changes that might result, leaving the details up to DOE and its contractor. It was thought that as much discretion as possible would benefit the improvement process. Some accompanying suggestions were aimed at helping to alleviate the demands on personnel.

In 1994, the 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

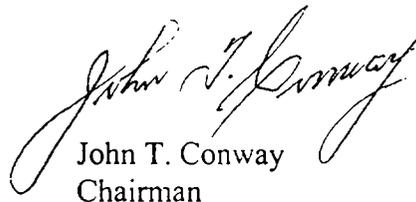
of the Y-12 Plant to halt operations until the problems could be remedied. Since 1994, DOE has restarted most enriched uranium operations after upgrading criticality controls and other safety controls. However, the most complex and potentially hazardous operations, which involve aqueous processing of enriched uranium, are only now going through the process of improvement prior to restart. For these, the Board has been attempting to assist DOE in identifying persistent safety issues requiring remediation before the operations can be resumed. Success has been minimal; long-standing issues with the quality of engineering, maintenance, quality assurance, and formality of operations remain. The staff at Y-12 have not been successful in demonstrating readiness to restart operations.

The Board is fully aware of the importance to national security of maintaining the schedule of operations at the Pantex Plant and of resuming the complete agenda of operations at the Y-12 Plant. From its inception, the Board has assured every Secretary of Energy that it wished to operate in such a way as not to impede DOE's defense mission, while at the same time ensuring adequate safety of operations attached to that mission. That intent is repeated here. The Board desires to discharge its responsibilities in such a way that DOE can still meet its obligations to national defense while at the same time conducting the mutually agreed actions to ensure safety of the operations.

We wish to assure you that the Board is prepared to assist in any way possible to help in safely meeting defense-based schedules at Pantex and in safe restart of full operations at Y-12.

If you have any questions on this matter, please do not hesitate to call me.

Sincerely,



John T. Conway
Chairman

c: Ms. Gertrude Leah Dever
Mr. Richard E. Glass
Mr. Daniel E. Glenn
Mr. Mark B. Whitaker, Jr.