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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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June 15, 1995

The Honorable Hazel R. O'Leary
Secretary of Energy
Washington, D.C. 20585

Dear Secretary O'Leary:

The Defense Nuclear Facilities Safety Board (Board) recently completed a two-year review of the design, construction, maintenance and operation of ventilation systems in the Department of Energy's (DOE's) plutonium processing facilities. The Board issued a summary report of this review entitled, *Overview of Ventilation Systems at Selected DOE Plutonium Processing and Handling Facilities (DNFSB/TECH-3)*.

The confinement, ventilation, and filtration functions performed by ventilation systems in plutonium processing facilities are vital to the protection of the worker, the public, and the environment. In the above report, the Board's staff notes that a number of deficiencies exist in the ventilation systems installed at the sites reviewed. Deficiencies were noted in the ability of systems to: meet a "single failure" design criteria, operate under a loss of electrical power, provide adequate protection for control room personnel, and withstand design basis accidents. The nature and scope of these deficiencies could call into question DOE's methods for analysis, maintenance, and configuration management of important safety systems in these facilities.

DOE Order 5480.21, *Unreviewed Safety Questions*, or USQs, requires that a safety evaluation be prepared when an analytical error, omission, or inadequacy is found in a safety system that has been identified as important to safety in the applicable safety analysis report (SAR). The deficiencies identified in the report prepared by the Board's staff present a number of potential USQs. In addition, a systematic review of the ventilation systems at DOE's plutonium processing and handling facilities may disclose additional deficiencies.

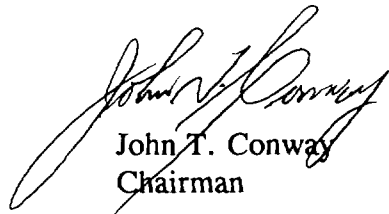
Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests that DOE provide the following:

- a report that evaluates the design, construction, operation, and maintenance of ventilation safety systems at DOE's plutonium processing and handling facilities in terms of applicable DOE and consensus standards; and

- subsequent to the above review, a plan that details any corrective actions deemed necessary by DOE, and the results of USQ review where this is found to be appropriate.

The Board requests that the above report be submitted within 180 days of receiving this letter. If you need any further information in this connection, please let me know.

Sincerely,



John T. Conway
Chairman

c: The Honorable Tara O'Toole
The Honorable Thomas P. Grumbly
The Honorable Victor Reis
Mr. Mark Whitaker