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# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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November 3, 2004

The Honorable Spencer Abraham  
Secretary of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-1000

Dear Secretary Abraham:

In Recommendation 2000-2, *Configuration Management, Vital Safety Systems*, the Defense Nuclear Facilities Safety Board (Board) recommended a number of measures necessary to ensure the reliable performance of safety systems. Many of these measures could be considered part of the configuration management program for safety systems recognized by the Department of Energy (DOE) as being essential to the safety of its nuclear facilities. Title 10, U.S. Code of Federal Regulations, Part 830.122 (10 CFR 830.122), *Nuclear Safety Management, Quality Assurance Criteria*, and several DOE orders specifically require various aspects of a configuration management program to ensure the continued reliable performance of safety systems.

As part of its response to Recommendation 2000-2, DOE committed to having Lawrence Livermore National Laboratory (LLNL) perform an assessment of its configuration management program for vital safety systems. This assessment was completed in May 2003. According to the assessment report, however, "as the estimated implementation dates for the directorate [configuration management] programs are about 15 months to almost 6 and one-half years away, a rigorous assessment to measure effectiveness was premature." The report provides a cursory assessment of the Nuclear Materials Technology Program (NMTP), the LLNL organization responsible for the operation of the Plutonium Facility. The report states, "Because of the detailed NMTP gap analyses, and since the NMTP [configuration management] plan and procedures have not yet been written or revised to reflect the [Configuration Management Program Description] requirements, the preparation of numerous detailed Opportunities for Improvement was not warranted."

It is not clear how the National Nuclear Security Administration's (NNSA) Livermore Site Office (LSO) has reconciled the absence of an implemented configuration management program with specific requirements such as those in 10 CFR 830.122; DOE Order 420.1A, *Facility Safety*; and DOE Order 433.1, *Maintenance Management Program for Nuclear Facilities*. Seven months after receiving the assessment report from LLNL, LSO responded by issuing a letter noting that LSO was "extremely concerned about the health of the configuration management program at LLNL...." LSO noted that the assessment report was "not as candid as it could be." Two months after receiving LSO's letter, LLNL responded by making changes to the program description and identifying further slips in the implementation of a configuration management program for LLNL's defense nuclear facilities.

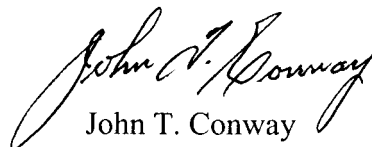
The Board is concerned about the apparent lack of an adequate configuration management program for the highest-hazard nuclear facilities at LLNL. During the past few months, LLNL has reported several occurrences involving the inadequate condition of safety systems. These include inadequate covers (tape) for safety-class ventilation duct penetrations, potential cracking in safety-significant ventilation duct welds, and inadequate seismic restraints for safety-significant gloveboxes. The failure to implement an adequate configuration management program would appear to increase the likelihood of future occurrences involving the operation of safety systems.

The apparent lack of urgency on the part of both LLNL and LSO in addressing this issue concerns the Board. Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests a report from DOE within 60 days of receipt of this letter that addresses:

- NNSA's assessment of the configuration management program as it now exists for vital safety systems at LLNL's defense nuclear facilities.
- A resource-loaded schedule for implementing a configuration management program for vital safety systems at LLNL's defense nuclear facilities.

In addition, the Board would discourage DOE from proposing closure of Recommendation 2000-2 until DOE can demonstrate that adequate configuration management programs exist for vital safety systems at all of its defense nuclear facilities.

Sincerely,



John T. Conway  
Chairman

c: The Honorable Linton Brooks  
The Honorable Everet H. Beckner  
Mr. John Shaw  
Mrs. Camille Yuan-Soo Hoo  
Mr. Mark B. Whitaker, Jr.