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# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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94-0002671



May 20, 1994

The Honorable Victor H. Reis  
Assistant Secretary for  
Defense Programs  
Department of Energy  
Washington, D.C. 20585

Dear Dr. Reis:

Since its public meeting in March 1994, the Defense Nuclear Facilities Safety Board (Board) has continued to follow the activities at the Los Alamos National Laboratory (LANL) facility at Technical Area 55 (TA-55). The Board has reviewed the actions of the Department of Energy Los Alamos Area Office (DOE-LAAO) and LANL personnel regarding the recent termination of normal operations at TA-55. The Board understands that this action was prompted by the inoperability of the facility's diesel-driven fire pumps. The Board believes the decision to terminate normal operations at TA-55 pending full review of the extent of this problem was prudent and demonstrated DOE's and LANL's commitments to safety.

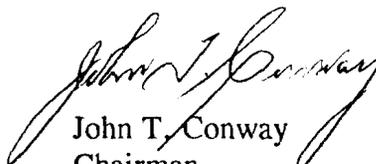
The time delay between determination of the fire pumps' inoperability and notification of the facility management constituted a failure of the particular Surveillance Process that verifies that Operational Safety Requirements (OSRs) are met at TA-55. A more recent failure of an OSR surveillance regarding safe shutdown of the facility further supports this conclusion. However, the Board believes the broader issue is that the site-wide Surveillance Process to assure that OSRs are met, not only at TA-55, but throughout LANL is inadequate.

The Board is concerned with the deficiencies in the conduct of operations regarding the surveillance of the fire pumps. These deficiencies were noted by Board staff and representatives of the DOE Office of Environment, Safety, and Health during a recent review at TA-55. The deficiencies, which were the inadequacy of the surveillance procedure, the failure of a technician to perform the surveillance adequately, and the lack of notification of the facility management of the failure to meet surveillance acceptance criteria, among others, are included in the enclosed summary of findings from the staff review.

Through discussions with DOE and LANL management, the Board staff has learned that corrective actions include a review of the TA-55 OSRs and Surveillance Process prior to resumption of operations. A site-wide review of these programs is also planned to determine the full extent of the problem. The Board considers these actions responsive and commensurate with the safety implications of the noted deficiencies. The Board considers such deficiencies significant impediments to verification of operation within the facility safety envelope and looks to see them addressed in LANL's report of completed corrective action as part of its readiness assessment for resumption of normal operations at TA-55.

If you need any further information in this connection, please let me know.

Sincerely,



John T. Conway  
Chairman

c: The Honorable Tara O'Toole, EH-1  
Mr. Mark Whitaker, Acting EH-6

Enclosure

## Summary of Findings from a DNFSB Staff Review at the Los Alamos National Laboratory - TA-55

1. The performance of a surveillance in support of Operational Safety Requirements revealed deficiencies in the verification that operations are conducted within the safety envelope.
  - a. Several operating parameters found out-of-specification were not reported as such.
  - b. The applicable procedures were not used. A checklist provided with a procedure was not filled out as required.
  - c. The procedures were not written such that verbatim compliance was possible.
2. Review of the LANL TA-55 Order Compliance Self-Assessment revealed inadequacies in documentation of objective evidence of compliance.
  - a. Requirements of the DOE training Order (5480.20) were assessed as compliant based on the existence of a procedure with which the facility has not yet complied. This action delays consideration of corrective or compensatory measures for known non-compliances.
  - b. Compliance with some of the industry nuclear criticality standards required by the DOE Order on criticality safety (5480.24) was based on previous assessments that actually indicated areas of non-compliance.
3. Observation of a Cassini Line operation revealed deficiencies in the facility conduct of operations.
  - a. The Work Instruction used to change parts of the procedure appears to circumvent the normal review and approval process for procedure changes.
  - b. Critical steps requiring independent verification by a Quality Assurance Representative were signed off by the technician performing the step.
4. Review of the status and plans of the TA-55 training and qualification program revealed the need for several improvements, including the addition of fundamentals and systems training, in order to become compliant with DOE Order 5480.20. Many of the improvements have already been planned by LANL and will correct deficiencies noted in the Board staff trip report forwarded to DOE in January 1994.