

October 5, 1999

Brigadier General Thomas F. Gioconda  
Acting Assistant Secretary  
for Defense Programs  
Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0104

Dear General Gioconda:

The Defense Nuclear Facilities Safety Board (Board) and its staff have been tracking the Department of Energy's (DOE) progress towards implementing integrated safety management (ISM) throughout the defense nuclear complex. The Board is aware that the Secretary of Energy has committed to full implementation of ISM within DOE by the end of fiscal year 2000. A report prepared by the Board's staff on an issue related to the progress of ISM implementation at the Nevada Test Site (NTS) is enclosed for your information and use.

NTS is a unique resource for DOE, and effective implementation of ISM at that site is essential to the continued support of DOE's stockpile stewardship program. There are real challenges associated with developing a consolidated ISM system that can govern the operations of both the contractor and the weapons laboratories. It appears that additional urgency may need to be communicated to the DOE Nevada Operations Office and the weapons laboratories regarding the need to apply sufficient support and coordination to ensure that ISM will be implemented in a timely manner for the NTS mission.

If you have any questions on this matter, please call me.

Sincerely,

John T. Conway  
Chairman

c: Ms. Kathleen Carlson  
Mr. Richard E. Glass  
Dr. James M. Turner  
Dr. John C. Browne  
Dr. C. Bruce Tarter  
Mr. Mark B. Whitaker, Jr.

Enclosure

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

## Staff Issue Report

August 26, 1999

**MEMORANDUM FOR:** G. W. Cunningham, Technical Director  
J. K. Fortenberry, Deputy Technical Director

**COPIES:** Board Members

**FROM:** J. Preston

**SUBJECT:** Progress on Implementation of Integrated Safety Management  
at Nevada Test Site

This report documents an issue reviewed by members of the staff of the Defense Nuclear Facilities Safety Board (Board) J. Preston and W. White, related to the current status of implementation of integrated safety management (ISM) at the Nevada Test Site (NTS). This issue was evaluated on several occasions during the past year, most recently on August 23, 1999.

**Summary.** The Department of Energy (DOE) and the primary NTS contractor, Bechtel, have made progress toward establishing contractual environment, safety, and health requirements and implementing procedures for ISM. However, the lack of progress in developing an ISM to govern operations conducted by weapons laboratory personnel significantly jeopardizes DOE's ability to certify full ISM implementation by the Secretary's deadline of October 1, 2000.

**Discussion.** NTS presents unique challenges for ISM implementation. DOE, in effect, acts as the integrating contractor for hands-on work performed by personnel from the nuclear weapons laboratories and Bechtel. (Note that the security contractor, Wackenhut, is not discussed in this report.)

DOE has established an "umbrella" ISM Description for NTS work, with the understanding that Bechtel and each of the three laboratories will develop and implement underlying descriptions and associated ISM systems to govern their work:

- In response, Bechtel has developed a Work Smart Standards (WSS) set of contractual requirements to govern its work. Bechtel is also committed (and has incentives) to developing various hazard analysis-based "execution plans" for its various work packages. However, the schedule for developing and implementing these plans in time to support a projected July/August 2000 ISM Phase II verification at NTS may be difficult to achieve.
- Sandia National Laboratories (SNL) has indicated its intent to conduct hands-on work

at NTS under its corporate-level contractual requirements and associated ISM system, which has already been verified. No tailoring of this corporate ISM system is intended. It is not clear, however, whether SNL considered the scope of work at NTS in developing either the contractual requirement set or its ISM implementing procedures.

- Lawrence Livermore National Laboratory (LLNL) has examined the Bechtel WSS set and does not believe it is appropriate for the laboratory's scope of hands-on work. However, DOE personnel in Nevada have observed little effort to date on tailoring the existing LLNL WSS set or ISM implementing procedures to properly address the hazards of NTS work.
- While Los Alamos National Laboratory (LANL) has nominally addressed off-site work in its draft ISM Description, neither its WSS set nor its ISM implementing procedures appear to have been developed with the hazards of NTS operations (particularly nuclear explosive work) in mind.

Conversations with cognizant DOE personnel in Nevada confirm that they share the concern that the weapons laboratories are not on track to provide evidence of an ISM system to support the NTS schedule for Phase II verification next summer. Since LLNL and LANL are putting significant effort into developing, implementing, and verifying ISM at their home locations within the next 13 months, it is likely that the lack of attention to NTS is an oversight. However, it appears advisable to bring this matter to the attention of the cognizant DOE offices (Albuquerque and Oakland) and to all three weapons laboratory directors expeditiously so that the necessary resources can be applied to address this concern in a timely manner. As a minimum, the senior ISM personnel at all three laboratories need to meet with DOE and Bechtel personnel to establish a strategy and firm commitments to ensure that a consolidated ISM system can be successfully verified at NTS by the end of fiscal year 2000.