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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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December 16, 2008



The Honorable Thomas P. D'Agostino
Administrator
National Nuclear Security Administration
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0701

Dear Mr. D'Agostino:

The Defense Nuclear Facilities Safety Board (Board) has received your letter of September 30, 2008, requesting closure of Recommendation 98-2, *Safety Management at the Pantex Plant*. The Board recognizes the sustained effort put forth by the National Nuclear Security Administration (NNSA) to meet the commitments made by the Implementation Plan for Recommendation 98-2, and the many improvements in nuclear explosive safety (NES) that have been accomplished at Pantex during the past decade. Therefore, the Board closes Recommendation 98-2.

However, the Board is concerned that shortcomings remain in the current process for ensuring NES. Improved implementation in the areas specified later in our letter is necessary to ensure continuous improvement in safety programs at Pantex.

In particular, the Board and its staff will continue to evaluate corrective actions addressing findings, weaknesses, and opportunities for improvement identified in the *Headquarters Biennial Review of Site Nuclear Safety Performance Final Report* for the Office of Defense Programs (NA-10) and the specific findings within the *Assessment Report for Design Agency Implementation of DOE-NA-STD-3016-2006: Hazard Analysis Reports for Nuclear Explosive Operations*, both transmitted to the Board on February 4, 2008. The latter report highlights issues that require correction in order to ensure the technical accuracy and quality assurance of weapon response data generated by the design agencies. The design agencies did modify their internal procedures to address concerns identified in NNSA's assessment, but it remains to be proven that the new procedures will consistently yield weapon response information that is technically accurate, properly peer-reviewed, and adequately documented.

The Board and its staff continue to follow closely the conduct of NES Studies that independently evaluate the NNSA's planned nuclear explosive operations. Although significant strides have been made in improving the NES program, issues of particular concern to the Board arose during two NES Studies that were completed and approved during the past year: the NES Study of W87 In-Situ Mechanical Safe Arming Device Operations (ISMO), completed in May 2008 and the Onsite Transportation and Staging (OTS) Master Study, completed in March 2008.

The enclosed reports detail the issues noted by the Board's staff regarding the ISMO NES Study and the OTS Master Study. The following observations call into question NNSA line management's appreciation of the role and the value of the independent NES Study Groups (NESSGs):

- One of the deliberation topics voted on by the NESSG for the ISMO NES Study was whether the NES Study could effectively be completed following a conference call in which NNSA management personnel attempted to influence NESSG lightning hazards deliberations.
- Following the OTS Master Study, the Pantex Site Office formally challenged the majority of the Master Study's pre-start findings in input provided to the NNSA Assistant Deputy Administrator for Science, Engineering and Production Programs (NA-12). (This is allowed per Department of Energy (DOE) Standard 3015-2004, *Nuclear Explosive Safety Evaluation Process*, which states that the site office manager may add additional information to the resolution plan that must be submitted for the pre-start and post-start findings of a NES Study.) NA-12 subsequently downgraded four of the five pre-start findings. Two became post-start findings, and two were reduced to deliberation topics, which require no formal resolution.

The Board is concerned about the divergence of opinions between NNSA management and the NES community, as illustrated by the above observations. NNSA management intervention during a NES Study, or NNSA management downgrading four out of five pre-start findings from a NES Study suggests a decline in management support of the NES function.

Therefore, pursuant to 42 U.S.C. § 2286b(d), the Board requests that NNSA provide within 60 days of receipt of this letter a report evaluating the disposition of findings resulting from NES Studies, NES Change Evaluations (NCEs), and Operational Safety Reviews (OSRs) during 2003 through 2008. In particular, the report is to detail the disposition of pre-start and post-start findings in NNSA's approval of each NES Study, NCE, and OSR report issued during that period, and evaluate whether there are trends in the acceptance and resolution of findings that provide insight into the present stature and effectiveness of the NES function within NNSA.

Sincerely,



A. J. Eggenberger
Chairman

Enclosures

c: Mr. Mark B. Whitaker, Jr.