

Peter S. Winokur, Chairman
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**DEFENSE NUCLEAR FACILITIES
SAFETY BOARD**

Washington, DC 20004-2901



March 2, 2012

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) is concerned about the effectiveness of the nuclear explosive safety (NES) program at the Pantex Plant (Pantex). During a recent 4-month period, Babcock & Wilcox Pantex (B&W) conducted nuclear explosive operations that exceeded the boundaries approved in the associated NES study despite objections expressed by NES personnel from Los Alamos National Laboratory (LANL) and B&W. These events have raised a serious issue regarding the independence and authority of the B&W NES organization and the effectiveness of NES change control at Pantex. Maintaining the independence and authority of the NES organization is at the heart of nuclear safety at Pantex. The Board believes this issue warrants a thorough, independent evaluation by the National Nuclear Security Administration (NNSA).

On September 8, 2011, NNSA personnel convened a NES evaluation of a recovery operation for a nuclear explosive with a detonator cable assembly (DCA) that could not be removed using the approved process because of excessive amounts of adhesive on and around the DCA. During the evaluation, a member of the NES evaluation group expressed concern that B&W technicians had gouged and removed high explosive (HE) material from the unit beyond what was allowed in the associated NES authorization. Upon review of the issue, B&W NES personnel agreed that the DCA removal operation was not being performed consistent with the current NES authorization. The B&W NES personnel and a LANL NES representative then attempted to prevent excessive HE removal from recurring by informally raising this issue with managers at B&W and NNSA. Neither organization took action at that time in response to this issue.

Subsequent to the NES evaluation, B&W NES personnel discovered that excessive HE removal had occurred on two additional nuclear explosives. B&W NES personnel did not exercise stop-work authority at this time. However, in an attempt to prevent further recurrence, the B&W NES organization formally and clearly documented this issue in a November 9, 2011, memorandum to B&W line management. The memorandum recommended actions that could be taken to address the issue, but B&W line management took no action in response to the

memorandum. The Pantex Site Office (PXSO) eventually addressed the issue, but not until the NNSA NES group formally brought it to the attention of PXSO in a January 19, 2012, memorandum documenting the results of a follow-on NES evaluation.

Based on the preceding timeline of events, the Board believes the failure of B&W management to address the issue raised by the B&W NES organization in a formal manner calls into question the independence and authority of the NES organization. The Board also believes that these events indicate the need to improve NES change control. The November 9, 2011, memorandum indicated that those responsible for NES change control had not envisioned the operational differences (i.e., extent of HE removal) that could result due to variations in the amount of adhesive on and around the DCA from one unit to the next. Thus, the actual process performed in the plant on some units was not approved or evaluated by B&W NES personnel. Such an occurrence indicates the need for additional clarity in the way the B&W NES organization defines and maintains NES authorizations.

PXSO managers have taken some action to address the above issues; they sent a memorandum to B&W dated February 1, 2012, requesting B&W to evaluate the NES change control process and the independence of the NES department. Given the nature of these issues, pursuant to 42 U.S.C. § 2286b(d), the Board requests a report within 30 days of receipt of this letter describing the actions being taken by NNSA to address the issues raised in this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "P. S. Winokur". The signature is stylized and somewhat cursive.

Peter S. Winokur, Ph.D.
Chairman

c: Mrs. Mari-Jo Campagnone