Department of Energy
Washington, DC 20585

January 7, 2013

Mr. John D. Woolery
General Manager
B&W Pantex, LLC
P.O. Box 30020
Amarillo, Texas 79120-0020

NEL-2013-01

Dear Mr. Woolery:

The Office of Health, Safety and Security's Office of Enforcement and Oversight has evaluated the facts and circumstances surrounding the conduct of nuclear explosive operations at Pantex Plant, during the period August 2011 - January 2012, that exceeded the boundaries approved in the current nuclear explosive safety study (NESS). This issue was documented in Noncompliance Tracking System (NTS) report NTS--PXSO-B&WP-2012-0002.

In August 2011, B&W Pantex encountered a difficult-to-remove component. To aid in removal of the component, the nuclear explosive operating procedures (NEOP) were modified to allow for the removal of additional high explosive (HE). However, even after removal of additional HE, the component could not be removed and was declared stuck. On September 8, 2011, a nuclear explosive safety change evaluation (NCE) session was convened to address the stuck component. During the NCE session, some of the nuclear explosive safety study group (NESSG) members, from Los Alamos National Laboratory (LANL), expressed concern that the B&W Pantex technicians had gouged and removed HE material from the unit beyond what was allowed in the NESS. The opinion expressed by the LANL NESSG members was known by most managers within the B&W Pantex Engineering Division. Numerous meetings held between September 8, 2011, and January 26, 2012, led to a formal position memorandum from the B&W Pantex Nuclear and Explosive Surety Department (NESD) to the Engineering Division, but B&W Pantex did not resolve the issue. During this four-month period, two additional units were processed, with the intentional removal of HE in accordance with the modified NEOPs, and still outside the boundaries established in the NESS. On January 26, 2012, the NEOPs were returned to their original wording, eliminating the practice of removing additional HE to facilitate removal of stuck components.

The Office of Enforcement and Oversight's review of supporting documentation points to functional weaknesses in Engineering Division's interface with the NESD and the NESSG. Specifically:

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- Although a nuclear explosive safety concern had been known since September 8, 2011, none of the personnel involved invoked their stop-work authority. During interviews, personnel indicated that they would stop work if they felt that an imminent danger existed, but there was no apparent concern about operating outside of the NESS.

- The NESD is organizationally located within the Engineering Division, where NESD personnel felt that they were not highly valued and at some point, a nuclear explosive safety decision that might negatively impact the production side of B&W Pantex operations could limit their careers. This lack of trust (real or perceived) may have contributed to NESD's failure to stop further processing of units beyond the NESS boundaries.

- Even though the Engineering Division was informed of the operations outside of the NESS boundaries on September 8, 2011, they did not bring operations back into compliance until January 26, 2012. The Engineering Division justified this decision by stating that if the NESD had wanted to stop the process, they would have to execute stop-work authority or change the procedure themselves.

- As stated in the B&W Pantex investigation report, "production schedule pressure is clear and is real." The Engineering Division has a rigid schedule, and the pressure to meet stated production goals may have influenced Engineering Division management's decision to continue processing units despite concerns raised by the NESSG and NESD.

- The NES change control process is insufficiently rigorous, as evidenced by the failure to review and complete LIST-0099, which is used to evaluate proposed changes to nuclear explosive operations and to determine if the change can be approved by the contractor. This failure represents a missed opportunity to formally document NESD review of the proposed change to the NEOP; to reconstruct the bases for their approval determination; and to determine whether such a change can legitimately be approved by the contractor.

Based on a review of this documentation, the Office of Enforcement and Oversight identified potential noncompliances with 10 C.F.R. Part 830, *Nuclear Safety Management*. These include: (1) failure to identify, control, and correct items, services, and processes that do not meet established requirements; and (2) failure to perform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contractual requirements, using approved instructions, procedures, or other appropriate means.

When senior B&W Pantex management became aware of the deficiencies underlying this issue, prompt compensatory and longer-term corrective actions were taken. Some of the more significant changes included organizational restructuring to increase NESD's independence and personnel changes to enhance the effectiveness of both the NESD and the Engineering Division. Further, upon identification of potential nuclear safety noncompliances, B&W Pantex promptly submitted an NTS report, and senior managers

proactively engaged in open and candid conversation with the Office of Enforcement and Oversight regarding the safety significance of the issue and the factors that contributed to the problem. Accordingly, the Office of Enforcement and Oversight has elected to exercise its enforcement discretion and not pursue further enforcement activity against B&W Pantex at this time.

The Office of Enforcement and Oversight considers matters related to nuclear explosive safety to be of the highest nuclear safety significance. While the actual safety significance of the issue under consideration is low (due to the nature of the material involved), under different circumstances the nuclear safety significance could have been much higher. B&W Pantex should have no tolerance for nuclear explosive operations outside of established boundaries. Therefore, the Office of Enforcement and Oversight, in conjunction with the National Nuclear Security Administration, will continue to closely monitor nuclear explosive safety operations at the Pantex Plant.

No response to this letter is required. If you have questions, please contact me at (301) 903-2178, or your staff may contact Mr. Steven Simonson, Deputy Director for Enforcement, Office of Enforcement and Oversight, at (301) 903-7707.

Sincerely,

John S. Boulden III
Director
Office of Enforcement and Oversight
Office of Health, Safety and Security

cc: Steven Erhart, NPO
Richard Haynes, NPO
Kathy Brack, B&W Pantex
David Jonas, DNFSB