

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 26, 2013

MEMO TO: Steven Stokes, Acting Technical Director  
FROM: Thomas Spatz, Pantex Site Representative  
SUBJECT: Pantex Plant Report for Week Ending April 26, 2013

**Unanalyzed Hazards for Linear Accelerator (LINAC) Facilities:** NNSA Production Office (NPO) approved a revision to the Evaluation of the Safety of the Situation (ESS) report from B&W Pantex, and issued a Safety Evaluation Report (SER) to allow additional operations to resume in the LINAC facilities. (See reports for 3/15/13 and 3/29/13.) Operations were halted when B&W Pantex declared a positive Unreviewed Safety Question (USQ) for unanalyzed impact and electro-static discharge hazards for the LINAC facilities. NPO had previously approved continuing operations only for specific weapon configurations that do not result in adverse weapon responses. After receiving weapon response information for additional weapon configurations from the Design Agency, B&W issued a revision to the ESS. In response, this week NPO issued a SER to approve additional operations in the LINAC facilities. NPO has not imposed compensatory measures for any of the configurations approved to date because of the screened weapon responses and existing controls. There is still a small subset of weapon configurations that have not been approved and will remain paused.

The Site Representative reviewed the ESS and observed that B&W authorization basis analysts are still using, and NPO is still approving, human impact energies based on the weight of the 95<sup>th</sup>-percentile production technician. This non-bounding impact energy was identified as an issue in a Board letter, *Review of Hazard Analysis Reports, Pantex Plant*, July 6, 2010. In January 2013, B&W Pantex briefed the Board that they expect completion of a follow-on study to establish the force profile for the falling man on tooling by May 31, 2013.

**Anomalous Unit:** This week, the NNSA project team for an anomalous unit decided to radiograph the unit before determining how to proceed in the disassembly process. Operations on this unit have been paused since the anomaly occurred on February 22, 2013 (See report for 4/19/13). In order to radiograph the unit, B&W plans to modify a cover, perform hazard analysis task team walkdowns, obtain weapon response, and perform a Nuclear Explosive Change Evaluation to get to a configuration that can be approved for on-site transportation to the radiography facility. The NNSA project team and B&W Pantex anticipate this to take several months. The NNSA project team will remain intact until the results of the radiographs are known and the approach for disassembly is established.

**Press Tooling Failure:** This week, B&W production technicians (PTs) paused operations in one facility when they could not complete a step in the Nuclear Explosive Operating Procedure (NEOP) as written. The step in the NEOP instructed the PTs to release the load on a press. When the PTs released the load, the gage on the press indicated that a load still remained. The PTs paused operations and made the appropriate notifications. B&W process engineering, nuclear explosive safety, and authorization basis personnel determined that the unit was in a safe and stable configuration. B&W tooling engineers determined that there was a defect with the press fixture that caused it to lock up before completely removing the load on the unit. B&W Pantex is planning to develop an engineering evaluation and write a nuclear explosive engineering procedure to free the press fixture and return the facility to normal operations.