

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 6 April 2007
SUBJECT: Pantex Plant Weekly Report

Blast Door Interlock (BDI) System: Bay BDI systems are considered a defense-in-depth engineered control that support a specific administrative control, which requires at least one blast door per corridor to be closed. The BDI system includes a series of lights that indicate whether each of the four blast doors (two personnel, two equipment) are opened or closed. This week, a BWXT facility representative noticed that the lights for a bay BDI were not functioning properly and requested maintenance personnel to adjust the BDI system. As maintenance personnel were fixing the inner personnel door, the outer personnel door was opened resulting in both the inner and outer door being open simultaneously. During the maintenance activities, the facility was in an operational mode and the BDI was required to be operable. It appears that BWXT does not have a well developed set of criteria to determine whether or not a proposed maintenance activity involving a safety related system could effect the system's operability.

W76-1 Nuclear Explosive Safety Study (NESS): The first phase (disassembly and inspection) of the W76-1 NESS was recently completed with no deficiencies identified. The second phase of the NESS, which will review assembly and satellite operations, is scheduled to start next week. In an effort to support the first production unit schedule of September 2007, NA-10 has approved the NESS to begin with a submitted, but unapproved, safety basis.

Fire Protection System: Similar trouble signals have been generated at the 12-84 East fire alarm control panel (FACP) seven times since January. The recurring problem has been traced to the battery charger. The technical safety requirement associated with the deluge fire suppression system requires the charger and batteries—which constitute the back-up power supply—to be operable. Once alerted to the aforementioned trouble signals, BWXT has taken appropriate actions per the applicable Limiting Condition for Operation. BWXT has had difficulty pinpointing the specific cause of the trouble signals because the alarms restore themselves quickly and only register the problems as general trouble signals. To minimize the impact on production, BWXT is planning to perform troubleshooting and repairs in mid-April while operations are suspended in 12-84 East for other maintenance work.

B61 Nuclear Explosive Safety Study (NESS) Validation: The B61 NESS was approved by NA-12 in May 2006. The purpose of the NESS validation was to observe actual nuclear explosive operations to determine if there is consistency with the simulated operations demonstrated during the NESS, as well as evaluate other process changes made subsequent to the study. The B61 operations observed were consistent with key aspects of the operations presented at the NESS. Also of note, the NESSG was satisfied with implementation of stage 3 multi-unit operations (two crews operating on two units simultaneously).

SS-21 Implementation Assessment: Last month, personnel representing NA-12, CDNS, and LANS were at Pantex to assess whether or not the processes, procedures, and practices at Pantex meet the intent of the original SS-21 principles. The review team concluded that the safety criteria from Technical Business Practice 901, *Integrated Safety Process for Nuclear Weapons Operations and Facilities*, are institutionalized into policies and procedures at Pantex. To date, no formal commitment has been established for BWXT and the design agencies to periodically re-assess weapon program processes for potential SS-21 improvements.