

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending April 16, 2010

DNFSB activity: J. Anderson, B. Laake, J. MacSleyne, R. Raabe, R. Verhaagen, and outside expert D. Volgenau were at Pantex to assess the implementation of Integrated Safety Management in the planning and control of activity-level work and verify that technical procedures and maintenance work packages include appropriate controls for worker protection.

Special Tooling: Technicians were raising a W76 unit using the 1230 assembly cart in preparation to rotate the unit from a horizontal to a vertical configuration when they observed that an anti-rotation pin failed to engage as designed (see 4/9/10 report for other work suspensions related to the 1230 cart). The anti-rotation pin is part of an interlock that ensures technicians cannot rotate the unit at a height that would cause the unit to impact the bottom of the 1230 cart. Technicians immediately suspended the operation. The process engineer developed a recovery procedure that directed the technicians to hoist the unit to a replacement 1230 cart and continue the operation. Technicians successfully executed the recovery procedure the following day. The tooling engineer has not completed a formal evaluation of this particular tooling malfunction; however, a similar malfunction of the 1230 cart occurred in January and the engineering evaluation of that malfunction concluded it was caused by a burr in the retracting pin. In that instance, the tooling engineer determined no other actions (aside from repairing the cart) were necessary because this interlock is functionally tested by tooling production support personnel before they release the 1230 cart for use.

Technical Safety Requirement (TSR) Assessments: During FY09, B&W began the process of formally evaluating 20 percent of the TSRs each year. The authorization basis department recently completed a management self-assessment (MSA) of the effectiveness of this TSR assessment program. After reviewing aspects of 108 TSR assessments (e.g., training, issues identification and resolution), the MSA team concluded that the TSR assessment program is effective at identifying, tracking, and resolving issues related to the implementation of TSRs. The lone finding from the MSA captured the fact that the team lead for a TSR assessment had not completed all required training. The MSA also noted that B&W's performance assurance department, through their experience in performing independent evaluations of the TSR assessments, developed new criteria, review, and approach documents that should enhance the thoroughness of the TSR assessments by requiring control owners to understand how the control was derived in the documented safety analysis before they evaluate whether it was properly implemented.

B61 Operations: During an operation in a non-nuclear bay to dismantle a portion of the bomb case that contains the spin rocket motor, a technician inadvertently dropped a subassembly while preparing to transfer it from a work stand to a table. The process step is relatively awkward due to the design of the work stand and the subassembly's center of gravity. The subassembly's tooling sustained minor damage from the impact. While it was on the floor and without bonding himself using wrist straps, the technician lifted it up and determined that the shorting plug was still in place. He picked the subassembly up and placed it on the table then notified his supervisor. B&W plans to meet next week to discuss whether the technician responded appropriately and to discuss potential changes to the tooling and procedures.