

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 19 June 2009
SUBJECT: Pantex Plant Weekly Report

Special Tooling: A component removal step during a specific nuclear explosive operation (NE) requires production technicians to use tooling that includes a threaded ring, a reaction ring, and jackscrews. The jackscrews are issued with the reaction ring as a single tool with a unique tooling number, despite the fact that the jackscrews mate with the threaded ring. The design of both rings was updated several years ago to increase the diameter of the jackscrews and the threads. At that time, only a few copies of these tools were physically modified to the newer revisions. Process engineering preserved the approval of the older revisions in the procedure to ensure a sufficient number of working copies were available. The procedure was not revised to specify that different revisions of the tools were incompatible.

Last week, this operation was suspended when the threads on the threaded ring became too worn to complete the step. An older revision of the replacement threaded ring was issued to the facility, but the jackscrews already being used were too large to mate with that revision. Production tooling support provided the facility with a set of smaller diameter jackscrews—without providing the rest of the reaction ring—and a second operational restart was attempted. Before the step was completed, the production supervisor recognized the fact that smaller diameter jackscrews from an older revision of the reaction ring were being inappropriately mixed with a later revision of the reaction ring that was designed with larger diameter jackscrews. A procedure backout was performed to obtain the proper match of tool revisions and removable pieces and the step was eventually completed. All copies of these tools are now being modified to the latest revision and the procedure is being revised accordingly.

Nuclear Safety Officer (NSO) Oral Board: The NSO organization is an independent entity within the manufacturing division that primarily provides safety oversight and coaching for NE operations. This week, an NSO candidate was given an oral board as the final step in his certification process. Some weaknesses were identified, but overall the candidate displayed adequate knowledge of the documented safety analysis (DSA), conduct of operations, and the readiness process. However, following the oral board, the PXSO facility representative (FR) attending the oral board made manufacturing management aware of the fact that the board took place without the range of board member organizations required by internal procedure. As a result of this oversight, the candidate's certification has not been approved and the board will be retaken. The PXSO FR also noted the preparation by the interviewers needs to be improved to ensure that questions are appropriately tailored to the candidate's prospective position.

Technical Safety Requirement (TSR) Awareness: To enhance awareness of TSRs and stress the importance of compliance with these requirements, B&W Pantex declared this week "TSR Awareness Week." Among several activities, employees were encouraged to watch an informational video and review several TSR-specific presentations. Enhancing TSR awareness is one of the major focus areas in the initiative to reduce the number of TSR violations at Pantex.

Lightning Detection and Warning System (LDWS): B&W Pantex is proposing a DSA change that eliminates the LDWS Limiting Condition of Operation (LCO) and creates separate LCOs for the Lightning Location and Protection System sensors (while raising the number of sensors from four to eight), the NEXRAD system, and the Static Potential Monitoring System. The change also adds a specific administrative control that defines when lightning warnings must be declared, given the minimum operability requirements of the aforementioned systems.