

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 25 July 2008
SUBJECT: Pantex Plant Weekly Report

DNFSB Staff Activity: Outside Expert D. Boyd was onsite to perform a review of technical procedure adequacy and implementation.

Documented Safety Analysis (DSA) Planned Improvements: The most recent update to the list of planned design and operational safety improvements in PXSO-approved DSAs identifies 106 improvements; 88 of which have either been completed or are scheduled to be completed by October. Examples of remaining planned improvements include the installation of hoists and emergency lights that comply with performance category 3 (PC-3) seismic criteria and seismic evaluations of Zone 4 magazines. In the absence of the planned improvement, the applicable DSA contains a description—typically in the form of a probabilistic argument—of why it is acceptable to continue to operate. For example, the hoists that do not meet PC-3 criteria are judged acceptable based on the low probability of a seismic event during a weapon hoist. Lightning protection concerns such as concrete spalling and indirect effects had been listed as planned improvements to the DSA. B&W Pantex will remove these issues from the list of planned improvements since they are being addressed by the Lightning Protection Project Plan.

W80 Nuclear Explosive Safety Change Evaluation (NCE): An NCE group recently approved a change to the allowable number and configuration of W80 units staged in a bay during code management system operations. Following completion of the study, one of the NCE members documented concerns with the lack of second standard controls for the proposed operations (i.e., given an accident, there must be controls to minimize the possibility of high consequence events). The NCE chair forwarded the memo to PXSO but reiterated that the conclusions of the NCE remain valid. B&W Pantex will enter these concerns into the new information process.

Nuclear Material Transportation: A technical safety requirement violation was declared when the operations center was not notified prior to the initiation of an offsite move of tritium reservoirs. This notification is required to ensure that restrictions are in place regarding the simultaneous movement of hazardous materials. There have been 11 incidents involving nuclear material moves since January. B&W Pantex will perform a causal factors analysis to determine corrective actions. In the meantime, the primary compensatory measure involves independent verification of key move authorization steps. Prompted by the recent increase in material move errors, PXSO will also perform an assessment of the material move process in August.

Pit Repackaging: Recent equipment and tooling problems in the repackaging bays have created a backlog of pits awaiting packaging into sealed insert containers. About 500 pits are being stored temporarily in AL-R8 containers while B&W Pantex resolves issues with the imaging stations. Special Nuclear Material Division management has expressed concerns with the current situation and is developing a path forward to reduce the backlog which continues to grow in parallel with the rate of dismantlements.

Technical Procedures: The staff evaluated the quality and usability of several W80 dismantlement procedures as the technicians were exercising them in the nuclear explosive facilities. Although the procedures were generally satisfactory, a number of examples were identified where clarity and consistency could be improved and these were communicated to B&W Pantex process engineering for consideration. The staff also began a validation of W87 program procedures which will be completed in the coming weeks.