

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Timothy Hunt and Dave Kupferer, Pantex Site Representatives  
**DATE:** 2 February 2007  
**SUBJECT:** Pantex Plant Weekly Report

**Indirect Lightning Hazards:** In late 2003, representatives of NNSA, Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), Sandia National Laboratories (SNL), and BWXT-Pantex approved a project plan to investigate the potential effects indirect hazards of lightning strikes could have on nuclear explosive operations at Pantex. In early 2004, SNL used bounding assumptions for both the configuration of Pantex facilities and the design basis lightning strike to derive theoretical peak electrical and magnetic fields and develop equivalent circuits for known weapon component configurations. BWXT submitted SNL's analysis to both LLNL and LANL and requested that the laboratories develop weapons response probabilities for weapon components that could be affected by the proposed lightning scenarios. This week, LLNL responded to BWXT's request. LLNL's response states that the SNL analysis may be unnecessarily conservative and that the resulting weapon response probabilities are unrealistically high. BWXT is evaluating this new information. It appears that very little, if any, communication occurred between LLNL and either BWXT or PXSO prior to LLNL formally issuing this new information to Pantex. LANL has not yet responded to BWXT's 2004 request.

**W88 Operations:** This week, BWXT began disassembly operations on the second unit that is within the scope of the W88 Cell Operations Restart Project. In response to the difficulties that the production technicians encountered while disassembling the first unit, BWXT made minor changes to the operating procedure.

**Recovery Procedures:** Two weeks ago, production technicians performed a leak test on an installed vacuum lifting fixture prior to using the fixture to help separate and disassemble a nuclear explosive assembly. The fixture failed the leak test. BWXT subsequently developed a recovery procedure to troubleshoot the vacuum leakage problem. The recovery procedure directed the production technicians to lower the unit away from the lifting fixture to facilitate the technician's ability to clean the fixture. However, the procedure omitted a step to vent the vacuum that was actively restraining the nuclear explosive assembly to the lifting fixture. Therefore, as the production technicians lowered the assembly, the assembly separated unexpectedly. It appears that an inattention to detail during development and use of the recovery procedure prevented several opportunities for both the engineering and manufacturing personnel involved to identify the procedure omission.

**Senior Management Team:** Last week, senior management representing NNSA, LANL, LLNL, SNL, BWXT Y-12 and BWXT-Pantex approved a charter to form a Senior Management Team (SMT). The SMT is expected to meet quarterly to discuss complex-wide issues and develop complex-wide initiatives to improve productivity, throughput, and teamwork.

**PXSO Management:** Dan Glenn, the PXSO Manager, will report to Los Alamos next week to begin a temporary assignment as the acting Los Alamos Site Office Manager. During Mr. Glenn's absence, Steve Erhart will be the acting PXSO Manager and Karl Waltzer will be PXSO's acting Senior Scientific Technical Advisor.