

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 23, 2004

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** W. White, Pantex Site Representative  
**SUBJECT:** Pantex Plant Activity Report for Week Ending January 23, 2004

**DNFSB Activity Summary:** W. White was on site all week. R. West was on site Monday through Friday to review the NNSA readiness assessment of the seamless safety tooling for the W78 program.

**W78 NNSA Readiness Assessment:** The W78 NNSA readiness assessment (RA) continued for a third week. Operational demonstrations completed on Thursday afternoon, about two days behind schedule. This has pushed the completion of the review and out-brief until next week. The team has tentatively identified approximately 15 pre-start findings. Cell operations this week were not conducted with the same proficiency as bay operations. Issues are being evaluated concerning possible unsafe practices, unsatisfactory performance of safety-related steps and overall procedural adherence. In addition, the cell procedures do not appear to have been as well written as those used for bay operations.

The review of implementation of the authorization basis has completed, but was not as comprehensive as planned because of the lack of experience of two reviewers and the limited availability of the third. This occurred while the current transition status of the authorization basis creates unique problems in understanding the approximately 200 controls for this weapon process. Despite this, a number of issues are being assessed concerning the implementation of safety controls. Some of these problems appear to be caused by the tight schedule employed to accomplish the readiness verification and BWXT RA and begin the NNSA RA. Additionally, the NNSA RA has noted problems with the contractor's corrective action process and the completeness of closure packages for the findings from the BWXT RA.

One cause of delay in completing the RA was problems with tooling. The RA team is considering an observation of multiple problems with tooling and a finding that one cart in the cell could not be mated to an assembly stand as required. These appear to be a continuation of issues raised by the BWXT RA. Also, the status of the tool assembly verification action plan was reviewed. It was found that many planned actions are overdue, some significantly. [I, P3, W4, W5, M2]

**W78 Nuclear Explosive Safety Study:** The W78 nuclear explosive safety study (NESS) concluded its review of the W78 seamless safety process last week. The final report from the study is not yet complete. The study tentatively identified 4 pre-start findings and approximately 20 post-start findings.

These included two pre-start findings related to inadequate controls for electrostatic discharge. The findings concerned potential electrostatic discharge scenarios involving the high explosive cart, the enhanced transportation cart (ETC II), and the Sylgard pump system. The post-start findings covered a variety of subjects, including additional electrostatic discharge scenarios, the absence of specific criteria from the design agency defining high explosive damage that requires special treatment, and the absence of specific procedure steps on response to identified fractures, chips or flaking of high explosives. [I, W3]