

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 9, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending May 9, 2003

DNFSB Activity Summary: W. White was on site all week. The Board and several staff were on site Wednesday to discuss seamless safety programs, training, procedural adherence, design agency support, and software quality assurance. The Board also observed operations and tooling for several weapon programs.

Pit Repackaging: On Thursday, a production technician performing a standard swipe of a pit being repackaged measured the swipe at 9 counts per minute (cpm), slightly higher than allowed (5 cpm). In accordance with procedures, the technician notified radiation safety personnel who performed additional swipes and verified the swipe taken by the technician. The swipes taken by radiation safety personnel were within acceptable ranges, and the verification of the swipe taken by the technician showed 4 cpm. Pit repackaging operations were allowed to resume in the facility.

Continuing with the operating procedure, the technician performed another swipe, this time measuring 66 cpm. As required for measurements this high, the technicians evacuated the facility and notified radiation safety personnel. Subsequent swipes taken for the container and the facility have shown no spread of contamination. Nasal swipes of personnel in the facility were also negative; these personnel have been given the option of continuing with a voluntary bioassay sequence to verify the absence of any plutonium intake.

BWXT performed additional laboratory tests on the single swipe that measured 66 cpm; these additional tests on the single swipe indicated plutonium contamination. The pit in question has been double bagged and placed in a sealed insert (the lid for the insert is not bolted down). The repackaging line in this facility is currently shut down, pending development of a path forward to handle the pit. The immediate planned action is to evaluate the history of this pit. Based on that information, the design agency will make a recommendation for a path forward. The repackaging line in a nearby facility remains operational. [II.A]

Quality Assurance Survey: Last week, an audit team from NNSA Headquarters conducted a quality assurance survey at the Pantex Plant. The team was comprised of 11 personnel who evaluated three separate lines of inquiry. In several areas, particularly training and software quality assurance, the results of the review as discussed during an out brief to BWXT do not appear to be consistent with DNFSB observations.

In particular, the team found no issues related to software quality assurance, despite well-documented correspondence between PXSO and BWXT related to software quality assurance deficiencies. The team noted that "BWXT follows IEEE guidance and standards for [software quality assurance]" and had no findings against the QC-1 requirements for software quality.

In addition, the highest rating from the review was given to the training program. Concerns with the training program, particularly with respect to continuing training and assessment of training programs by BWXT and NNSA, were the subject of a Board letter dated April 4, 2003. BWXT briefings to the Board early this week identified several initiatives planned by BWXT to address these concerns. [II.A]