

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 27, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending June 27, 2003

DNFSB Activity Summary: W. White was on site all week.

Preventive Maintenance of Transportation Carts: While conducting a readiness verification for implementation of the new enhanced transportation carts on the W87 program, BWXT personnel noted the brakes on an existing, non-enhanced transportation cart were not functioning properly. A technician was able to reposition the cart without unlocking the brakes. The technician noted this was not an unexpected occurrence for this cart. In response, BWXT began an investigation of other carts with similar casters and brakes. In a preliminary, hands-on evaluation, BWXT was able to move five of twelve carts tested without unlocking the brakes. In response to the apparent, wide-spread problem, BWXT ceased all transportation operations. BWXT subsequently developed specific force criteria (based on maximum likely unintentional force that would be applied to the carts) and found that only two of the carts (neither of which were in use for nuclear operations) failed this criteria. BWXT also identified that none of the carts in question had safety functions in an authorization basis that would require the brakes to be functional. As a result, BWXT lifted its restriction on transportation.

Last year, a different brand of caster and brake was found to be problematic. Concerns with that caster had been addressed by implementing a preventive maintenance program for that brand of caster and brake. BWXT intended at the time to implement a similar preventive maintenance program for other brands of casters and brakes. A preventive maintenance procedure for the brand of caster and brake which failed in the recent incident was developed, but never implemented. The brakes which failed the force-specific test discussed above passed the test after they were put through the preventive maintenance procedure. BWXT now plans to implement the preventive maintenance procedure for this brand of caster and brake. In the future, BWXT intends to develop and apply preventive maintenance procedures to the remaining brands of casters and brakes used at the Pantex Plant.

Inadequate preventive maintenance was also a factor in the recent failure of a hoist in a mass properties facility. As a result of this incident, BWXT initiated a review of the required preventive maintenance for all vital safety systems. BWXT does not plan, however, to review the preventive maintenance in place for other process tooling and equipment as a result of this incident. [II.A]

Special Nuclear Material Component Requalification Facility (SNMCRF): The site representative met with PXSO personnel this week to discuss the status of the ongoing SNMCRF project. The project will convert an existing non-nuclear facility to a category 2 nuclear facility. The facility, as currently planned, will involve plutonium operations in a glovebox. NNSA approved critical decision 1 in September 2002. The preliminary project execution plan approved by NNSA at the time claimed the preliminary hazard analysis for the SNMCRF (a prerequisite for the critical decision) had been completed and that it identified the required controls, safety functions, and performance requirements for the facility and equipment design. The project completed preliminary design in April 2003, identifying few safety controls. In May 2003, PXSO sent BWXT comments on the preliminary hazard analysis, noting the document does not support the design or modification of the facility, does not identify some of the most important process hazards, and does not identify potential controls for many scenarios. The site representative will meet with BWXT personnel next week to discuss the application of integrated safety management during the design phase of the project. [II.A]