

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 25, 2003

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: W. White, Pantex Site Representative
SUBJECT: Pantex Plant Activity Report for Week Ending April 25, 2003

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

Mass Properties Seismic Concerns: Last week, PXSO approved a change to a justification for continued operations that will allow operations with conventional high explosives to resume in the mass properties facilities. A seismic evaluation of the mass properties facilities, completed in March 2003, concluded that the interlocks for these facilities were not qualified for a PC-4 seismic event. In the absence of additional information, BWXT assumed that the interlocks would not meet PC-3 criteria either. The *Technical Safety Requirements for Pantex Facilities* mandate that the facility structures for the mass properties facilities be designed to withstand the forces from a PC-3 seismic event without resulting in facility damage or facility component damage that could progress to an accident scenario.

After BWXT identified the concern, nuclear and explosive operations in the facilities were suspended. An initial justification for continued operations allowed resumption of operations involving items with insensitive high explosives based on weapon response data previously supplied by the design agencies. A change to this justification for continued operations was submitted that addresses the processing of items with conventional high explosives. BWXT performed calculations to analyze the impact of an interlock failure on items being transported in an enhanced transportation container. The BWXT analysis found that items in an enhanced transportation container would not be impacted by the identified failure mode of the interlock during a seismic event.

Based on this analysis, BWXT proposed resuming operations involving items with conventional high explosives that are transported through the interlocks in an enhanced transportation container. PXSO approved this request provided the justification for continued operations is revised to capture as a compensatory measure the requirement that nuclear explosives and nuclear-explosive-like assemblies with conventional high explosives are allowed in the mass properties interlocks only if they are being transported in an enhanced transportation container. [II.A]

Training Assessments: Earlier this week, PXSO sent a letter requesting that the Albuquerque Service Center perform an assessment of the BWXT training program at the Pantex Plant. The letter notes that DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*, requires an assessment of the contractor's training program every three years. As noted in the Board's recent reporting requirement (April 4, 2003) concerning training issues at the Pantex Plant, no assessment of the depth and scope required by the order has been performed in the past three years. The PXSO letter also requests that the assessment by the service center specifically evaluate the other training issues raised in the Board's reporting requirement. [II.A]

Radiation Monitoring Improvements: BWXT briefed PXSO this week on improvements to the radiation monitoring program being implemented as a result of the recent occurrence involving the release of weapon parts that were contaminated. The corrective actions result from a thorough examination of the causes of the recent occurrence. The actions will include numerous steps intended to develop a statistically based, robust process for property release. These steps will address the radiation monitoring equipment used, the technical basis for use of the equipment, and the characterization process for weapon components. [II.A]