

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 11, 2005

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
SUBJECT: Pantex Plant Activity Report for Week Ending March 11, 2005

DNFSB Staff Activity. R. Rosen observed the second week of the B83 nuclear explosive safety study.

Technical Safety Requirement (TSR) Violation. Last week, BWXT reported that several nuclear explosive units were allowed to enter a staging bay while it was in the maintenance mode and the fire suppression system was impaired. When the water delivery system is inoperable in the subject facility, a Technical Safety Requirement (TSR) action is to place all nuclear material in a safe and stable configuration. The definition of safe and stable includes "at rest." The facility was in the operational mode when the move was authorized by the Move Right System (MRS). The MRS is programmed to check the destination facility mode only prior to permitting electronic dispatch. Subsequent to the move approval, the BWXT Facility Representative, unaware of the approved move, modified the facility status to the maintenance mode. BWXT is in the process of upgrading the Move Right software to prohibit changes in facility mode while a nuclear material move involving the facility is in progress. Compensatory measures are in place until the software quality assurance review is complete.

Cracked High Explosive. BWXT, with Los Alamos National Laboratory in an advisory role, is continuing its deliberate approach to recover from the recent unexpected cracking of a high explosive main charge during disassembly. A Nuclear Explosive Safety Change Evaluation (NCE) was performed this week that assessed and approved taping the crack, removing the vacuum hose, sampling the crack for radiological analysis, and installing the aft charge bowl. The NES team expressed concern that proposed actions may limit options for future disassembly. Another NCE will be performed when the path forward on HE separation is finalized.

Unauthorized Material Movement. A small quantity of high explosives was transferred on-site this week without the proper planning and authorization paperwork. The unauthorized movement was the result of poor communication between the dispatcher and driver that allowed the transfer to take place without the Move Right System dispatching or taking custody of the material. The material movement form is normally issued for any radiological or explosive move, but the expectations for completion of the form are not proceduralized.

Seismic Project. The approved 10 CFR 830 compliant sitewide and facility-specific Safety Analysis Reports (SARs) contain updated seismic criteria and controls. There are 43 controls in the Technical Safety Requirements Integrated Implementation Plan that are required to satisfy some level of seismic criteria. Of these, 20 will require facility or equipment modification to meet requirements in the new SARs. BWXT has initiated a seismic project to evaluate the seismic qualifications of buildings and process equipment and to make any necessary repairs and modifications. The project consists of three phases: concept development, detailed design, and construction. In addition, BWXT intends to submit SAR change requests to PXSO that will separately define appurtenance and facility structure attributes and requirements.