DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 7 March 2008
SUBJECT: Pantex Plant Weekly Report

High Explosive Transfer Cart (HETC): Utilization of the HETC for transportation of high explosives (HE) in the material access area (MAA) is being achieved in two phases. Phase I has been implemented and replaces the use of open pallets for transporting main charge conventional HE on the W76-0 and W78 programs. Phase II will address transportation of other conventional HE charges, followed by insensitive HE. The eventual goal—presented recently to the Onsite Transportation and Staging Nuclear Explosive Safety Master Study—is to eliminate the HE move window control to allow simultaneous movement in the MAA of HE and nuclear explosives.

Zone 4 Replacement Project: PXSO is moving aggressively to get CD-0 approval in the near-term and CD-1 approval by October 2008 for design of a new underground nuclear material and weapon storage facility. Safety benefits from siting the facility closer to Zone 12 South would be reducing transportation distances and exposures. The project will be managed in accordance with DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets,* but ways to reduce the total project cost—including, requesting exemptions to some DOE requirements or building the bunker to military specifications—are under consideration.

Potential Inadequacy of the Documented Safety Analysis (PISA): B&W Pantex declared a PISA last week affecting the Transportation Safety Analysis Report (SAR). The SAR currently does not describe risks associated with the handling or transportation of up to 1290 lbs of conventional HE—or insensitive HE with detonators—on roads and approaches of the Zone 4 HE storage area at the same time as nuclear explosives or material are being transported, loaded, or unloaded in the adjacent Zone 4 nuclear explosive (NE) and nuclear material (NM) storage area. The compensatory measures include restrictions on transportation of HE on certain roads during Zone 4 NE and NM operations.

High Explosive Pressing Facility (HEPF): Construction of a new HE pressing facility in Zone 11 is expected to commence this summer. The HEPF will replace pressing, machining, radiography, and storage operations currently performed in several Zone 12 South buildings. The proposed 45,000 square feet facility will be located about 2000 feet from the nearest on-site transportation routes and almost 3000 feet from the closest nuclear explosive facility. The blast design loads were evaluated against the *DOE Explosives Safety Manual*, DOE M 440.1-1A. The Corps of Engineers will provide construction management services with startup authorization planned for 2013.

B53 SS-21 Process: In January, PXSO requested that B&W Pantex justify performing dismantlement work in a bay if a particular accident scenario remains credible after a new weapon response and controls are developed. The project team is currently awaiting weapon response from the design agency while evaluating the proposed process and tooling and expects to present its risk assessment to PXSO by mid-April.

W80 Dismantlement: Two-shift operations resumed this week on the W80 after being shut down for a couple weeks to resolve a workstand issue. In a relatively short turnaround, a part on the workstand that facilitates rotation of the unit was redesigned, fabricated, and installed. Observation of graveyard shift activities showed the W80 production technicians to be organized and the work performed with an adequate level of formality.