

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending November 19, 2010

DNFSB Staff Activity: B. Laake was at Pantex to augment the site rep office.

Electrostatic Discharge (ESD) Controls: In a repeat of an event on August 23 involving the new ESD footwear checker (see 4/2/10 and 8/27/10 reports), technicians discovered that the barrier plate of the checker had been bent away from the badge reader to allow an individual to use the reader without performing the intended electrical resistance measurement. A patrolling security police officer (SPO) had tampered with this interlock to allow swiping a badge to log onto the security system and confirm the nuclear explosive facility was secure. As a corrective action from the previous event, the protective force had modified their procedure for verifying that this particular facility was secure. When encountering this new ESD footwear checker, SPOs are now expected to call a central facility that can remotely verify that the facility is secure in lieu of logging into the system locally. An ongoing investigation revealed that not all SPOs have been briefed on this change, and it appears that this particular SPO had never been briefed. Regardless, all Pantex personnel should be aware that tampering with any safety or security system is prohibited.

Chemical Control Program: The chemical control program is a specific administrative control listed in the technical safety requirements document. It contains 14 specific requirements, ranging from training on the program to the establishment of a chemical control committee. One requirement is that “coordination of transfer and transportation routes shall be required for chemicals with the potential to create a toxic inhalation hazard (TIH).” Another requirement is that “onsite transfers of chemicals with the potential to create a TIH shall be evaluated to ensure nuclear operations cannot be impacted.” Neither requirement was met when several containers of perchloric acid (labeled as a potential TIH) were shipped across the plant without the knowledge of the driver, the plant shift superintendent, and the receiving facility. This appears to have been a technical safety requirement violation, yet B&W and PXSO decided it did not meet the threshold to externally report it using DOE’s occurrence reporting system.

B83 Tooling Upgrade Project: As previously reported, completion of the B83 tooling upgrade project has been delayed. During a hazard analysis task team review of the new process and tooling, representatives from the design agency (DA) had identified a concern that there may be a non-screened hazard scenario if there were significant cracks in a high explosive component. In an attempt to eliminate the hazard, engineers modified the process and tooling. This week, B&W demonstrated these changes to DA personnel. B&W expects that the DA will provide updated weapon response information for the new process by February 2011.

High Explosive Operations: While performing automated digital radiography operations in a non-nuclear facility, a hemisphere of pressed conventional high explosives fell out of a fixture onto a padded table, a distance of approximately 4 inches. There was no reaction and the technicians responded appropriately. B&W suspended operations and began evaluating the tooling and the component to determine the cause of the event.