

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**MEMO TO:** Timothy Dwyer, Technical Director  
**FROM:** Rory Rauch, Pantex Site Representative  
**SUBJECT:** Pantex Plant Report for Week Ending May 25, 2012

**DNFSB Staff Activity:** B. Laake was at Pantex to augment Site Rep coverage.

**Hoist Configuration:** On Monday, production technicians reported that the muffler on a Herculink (NUM-1B) hoist had come loose during a nuclear explosive lift operation. The muffler weighs approximately 3 lbs. and is partially enclosed in a sound tube weighing approximately 8 lbs. The entire assembly is located on the hoist body near the chain, approximately 15 ft. above the floor. Crafts personnel found that that muffler was loose, but captured inside the sound tube such that it could not fall. System engineering investigated and found that the sound tube has straight threads and is designed to be screwed on until the sound tube is flush with the coupling plate, but will not tighten. The sound tube and muffler were originally installed by the manufacturer.

B&W paused operations in all 35 facilities with these hoists because of the possibility that vibrations during operations could cause the sound tube and muffler to become detached and present a hazard to impact-sensitive weapon configurations. System engineering performed inspections on 14 hoists and found that no other muffler was loose and none of the sound tubes had moved since installation (up to three years ago). Given the findings, B&W concluded that the muffler that was originally identified had been incorrectly installed by the manufacturer and the sound tube had prevented it from falling. B&W determined that this scenario had no potential to impact the safety basis, closed the issue using its new information process, and resumed operations Wednesday.

**Operations Performed with Inoperable Fire Suppression System:** On Saturday, the operations center (OC) received a trouble signal from the Det-Tronics fire protection panel from a nuclear explosive facility, indicating that the fire suppression system was inoperable. The B&W facility representative (FR) responded and observed the panel indicated a fault in the system. However, the FR misinterpreted the instructions in an operator aid and believed that the fault should be ignored. The FR instructed the fire department to silence the alarm and informed the OC that no further action was required. The FR did not contact fire protection engineering for consultation, as expected by management but not required by procedure. Subsequently, a technical safety requirement violation occurred when operations were conducted in the facility on both Saturday and Sunday with the inoperable safety class system. The FR responsible is not normally assigned to nuclear explosive facilities, but was filling in on the off-shift. On Monday, the regular FR observed the fault, notified fire protection engineering and the OC, put the facility in a safe and stable configuration, and entered the appropriate limiting condition of operation.

**Inadvertent Deluge System Activation:** This week, impairment and restoration (I&R) personnel inadvertently activated the deluge fire suppression system in a nuclear explosive facility. Two days earlier, crafts personnel had performed the annual preventive maintenance on the system. Following the PM, the crafts personnel left the drain valve in an open position, an atypical state in which to leave the system prior to restoration activities. Subsequently, I&R personnel, who are not required to verify position of the drain valve before restoring the system, restored the system to operation and water flowed through the drain line, dumping approximately three gallons per head into the facility.