

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 18, 2015

MEMO TO: Steven Stokes, Technical Director
FROM: Zachery Beauvais, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending December 18, 2015

DNFSB Staff Activity: J. Andersen was onsite to observe the ongoing W87 Nuclear Explosive Safety (NES) Study. R. Eul and B. Sharpless observed quality assurance related activities.

Emergency Drill: On December 16, 2015, Consolidated Nuclear Security, LLC (CNS), conducted an emergency drill requiring all plant personnel to exercise their protective actions for a hazardous material release. The drill illuminated many issues with the plant population's ability to respond to such an event. The protective actions for this event require personnel to shelter in interior rooms, turn off air handling units, and close and seal exterior windows and doors. CNS relies heavily upon designated building wardens to implement these protective actions. The drill demonstrated that several facilities do not have designated wardens to ensure these actions are completed. Additionally, multiple facilities did not receive the public address announcement identifying the need for plant personnel to take protective actions.

Tooling Issues: This week, production technicians (PT) identified concerns with special tooling on two separate programs. While performing a procedural step that requires rotating a unit to a vertical position, PTs noticed that the stop pin on the workstand did not engage as expected. PTs performed the steps that immediately followed, none of which required a unit rotation, and reached an approved stopping point in the procedure. A separate copy of the same workstand experienced an unrestrained rotation during joint test assembly operations last week. During evaluation of the workstand involved in this event, CNS identified elongation of holes used to implement positive stops during rotation. Based on this information, CNS production personnel decided to pause certain operations with all copies of this workstand.

On a different weapon program, PTs noted that one knob on an in-use lifting and rotating fixture was noticeably harder to turn than usual. A separate copy of the same tool had recently exhibited similar behavior during training bay operations. The section manager decided to pause operations on this unit. Personnel from Tooling and Machine Design, Safety Analysis Engineering, and Nuclear and Explosive Safety directed PTs to rotate the unit and install an additional component to achieve a safe and stable configuration. CNS Product and Manufacturing Engineering subsequently developed a Nuclear Explosive Engineering Procedure to hoist the unit into a replacement fixture, installed on a separate assembly cart. A NES Study Group convened to perform a NES Change Evaluation on the proposed operation and determined the NES standards are met.

Fire Suppression System Maintenance: While performing a five-year preventive maintenance on a deluge fire suppression system in a nuclear explosive bay on December 11, Special Mechanic Inspectors (SMI) failed to completely close the deluge outside stem and yolk valve as specified in the procedure. While performing a subsequent step to open the main drain valve, the system inadvertently flowed a small amount of water (less than 2 gallons) into the facility. The SMIs paused the remainder of the preventive maintenance activity. The facility was in a maintenance turn-around and no hazardous material was present in the facility. The water wetted tooling, a work bench, and the facility floor.