

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2013

MEMO To: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending June 21, 2013

Board Staff Activities: This week, R. Arnold was at the Pantex Plant to observe Nuclear Explosive Safety evaluation activities.

Technical Safety Requirement (TSR) Violation for Inoperable Fire Alarm Control Panel:

This week, the Pantex Plant experienced a severe thunderstorm event with numerous lightning strikes. During the storm, a fire alarm control panel (FACP) became inoperable. Babcock & Wilcox Pantex (B&W) did not enter the appropriate Limiting Conditions for Operation (LCO) for several hours after the emergency service dispatch center received the signal from the FACP, resulting in a TSR violation. B&W categorized this event as a violation or noncompliance of a Category 2 nuclear facility's TSR to be able to deliver sufficient water for two hours. The LCO for this TSR requires B&W to manually verify the water tank level immediately, or after personnel safety conditions or severe weather warnings are lifted, and during every shift until the system is restored.

Personnel safety conditions and severe weather warnings were in effect at the time the emergency service dispatch center received the signal that the FACP had lost power. Shortly after receiving the signal, B&W maintenance special mechanic inspectors verified that the electric fire pump was still running, and the Fire Department verified that the FACP had power and that the FACP front panel indicated it had a power failure. The facility representative, who is responsible to initiate the LCO, was not notified until several hours later when the B&W fire protection engineer reviewed the signal log. After entering the LCO, B&W fire system technicians measured the water level in the tank, and continued to manually measure the level for several shifts after the original measurement. B&W has replaced the central processing unit and the power module in this FACP.

Loss of Power in Several Facilities: During the storm mentioned above, B&W lost electrical power to nine nuclear explosive facilities. The facility representative initiated two LCOs; one for inoperable blast door interlocks, and one for an inoperable deluge fire suppression system. B&W fire protection engineers entered the facilities to perform LCO compensatory measures to verify an eight-foot combustibles standoff from all thermally sensitive components, and verify that the deluge and ultra-violet fire detection systems were running on battery back-up. Power has been restored to these facilities.

High Pressure Fire Loop (HPFL) Leak: This week, B&W discovered a leaking valve in the HPFL leading to one facility. The emergency service dispatch center reported a low water level alarm in one of the water supply tanks to the facility representative. The facility representative entered the appropriate LCO, discovered the leaking valve, and had it isolated from the HPFL. Per the LCO, a B&W fire system technician measured the water level in the tank. The water level was restored after isolating the leak and the alarm cleared. The isolation of this one facility also resulted in the loss of a second water supply leg to four other nuclear facilities, resulting in a single flow path of water supply to these four facilities.