

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2014

MEMO TO: Steven Stokes, Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending May 30, 2014

High Pressure Fire Loop (HPFL) Update: B&W has overcome several technical issues related to the HPFL and the new pump houses.

- Shortly after the construction project was completed for the two new pump houses and tanks, B&W experienced an unexpected stop of one of the new diesel pumps. (See report for 3/28/2014.) B&W and their subcontractor were not able to reproduce the event and could not find the cause of the pump stopping. B&W reran the six-hour commissioning test with the pump in automatic mode, and everything passed.
- One of the new jockey pumps experienced several electrical breaker trips during the initial startup of the pump. (See report for 4/11/2014.) B&W installed a power quality meter on the pump circuit to monitor what was causing the breaker to trip. They could not find anything wrong with the power going to the pump. B&W changed out the circuit breaker and the pump has not tripped the new breaker.
- B&W experienced a failure of a pressure reducing valve on one of the existing safety-class diesel pumps while performing a weekly pump test. (See report for 5/16/2014.) B&W has replaced the pressure reducing valve and the pump is back online.

All pumps and tanks in the HPFL are now operating nominally and passing the surveillance requirements. B&W has increased the capacity and reliability of the HPFL by adding three new soon-to-be safety class diesel pumps and two new water tanks. B&W still only credits the two existing safety-class diesel pumps in the safety basis.

Emergency Response Drill: B&W performed a large-scale drill this week which simulated an explosion in a ramp that resulted in off-site consequences. The Site Representative observed the drill from the Emergency Operations Center. The purpose of the drill was to prepare for a full-participation exercise later this year. The discussion at the hot wash immediately after the drill primarily focused on communication between participants and the availability of timely information.

Emergency Lighting Limiting Conditions for Operation (LCO): Babcock & Wilcox Technical Services Pantex, LLC (B&W) had one nuclear explosive facility in the LCO for inoperable emergency lights for approximately ten days. The LCO states that there must be at least seven emergency light fixtures illuminated, a 30 minute battery backup power source, and an automatic transfer capability from normal facility power to battery backup power. Actions are required when two of the emergency light fixtures are found to be inoperable. These actions are to immediately limit the nuclear material and explosives in the facility to the current unit, and to return the emergency lights to operable prior to introducing a new unit in the facility. B&W has removed all material from the facility and the facility is in maintenance mode.

New Deluge Valve: B&W had approximately three gallons of water leak into a facility during acceptance testing of a newly installed deluge valve. B&W discovered that the outside stem and yoke valve had not fully closed. The torque specifications to fully close the valve are not given in the procedure and are higher than B&W expected. No damage to equipment in the facility was reported.