

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy Dwyer, Technical Director
FROM: Tom Spatz, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending June 29, 2012

DNFSB Staff Activities: Rory Rauch has completed his service as a Pantex Site Representative and is transitioning to a new assignment as a Y-12 Site Representative.

Conduct of Maintenance: On June 23 the Impairment and Restoration Group (I&R) performed the five-year Technical Surveillance Requirement (TSR) high-pressure fire loop (HPFL) flow test, but did not perform two steps of the procedure. Omission of these steps caused a diesel-powered pump to activate, resulting in higher than anticipated flow and pressure in the HPFL and invalidation of the flow test data.

The omitted steps were to isolate a specific pump facility, which housed both electric and diesel pumps. Because the test was being performed during a Zone-wide power outage, I&R personnel performing the test assumed that all pumps in the facility would already be isolated and intentionally skipped the steps. The incident critique was held on June 25, and a Corrective Action Mistake Proofing was started on June 27. All HPFL flow testing is suspended until corrective actions have been implemented. There are 29 site-wide HPFL flow loop tests total. The test in question is one of nine loop tests still to be performed as part of the TSR. The HPFL is under an existing Justification for Continued Operations due to delays in performing the flow test caused by replacement of HPFL piping.

Anomalous Unit: Technicians suspended a nuclear explosive operation this week after observing an unanticipated crack in a high explosive charge. Using the definitions provided in the interim guidance on anomalous units recently issued by NNSA (see 4/20/12 report), a B&W nuclear explosive safety (NES), B&W process engineering, and DA representative collectively determined that the unit met the definition of anomalous. This is the second anomalous unit since the interim guidance had been issued. (For further details see 4/27/12, and 6/1/12 reports.)

W84 Error Code Units (ECUs): On June 8, the NES study for the W84 ECU operations were suspended because the required number of STAs had not been assigned to the study group (see 6/8/12 report). The NES study has now been tentatively rescheduled to the first quarter of fiscal year 2013. In the interim, B&W is transitioning the facility for use by another weapon program.

Dry Deposition Velocity: On June 15, the NNSA Production Office (NPO) directed B&W to identify the planned actions and schedule for determining the impact on the bounding dispersion consequences using either; (1) the dry deposition velocity of 0.1 cm/s for unfiltered releases and 0.01 for filtered releases, or (2) an accepted site-specific dry deposition velocity. This direction is to support issues from the DOE-Headquarters meeting on MACCS2 Deposition Velocity held June 5. In May, B&W performed a scoping study with one dispersion analysis calculation. The preliminary results showed negligible increase in the dose consequence at the site boundary for dry deposition velocities between 1 and 0.1 cm/s. There are 18 dispersion analysis calculations in the Pantex safety basis, including the one used in the scoping study.