

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Timothy Hunt and Rory Rauch, Pantex Site Representatives
DATE: 29 August 2008
SUBJECT: Pantex Plant Weekly Report

Technical Procedure Changes: DOE Order 5480.19, *Conduct of Operations Requirements for DOE Facilities*, states that “procedure revisions should be initiated when a change has been outstanding for greater than six months or when a procedure has been affected by [more than five] changes.” A review this week of 40 nuclear explosive operating procedures (NEOPs) currently in use to support dismantlement, assembly, and disassembly shows 45 percent have more than five changes (e.g., pen and ink, annotated, supplemental procedure) pending formal incorporation via a revision or disposition. In addition, eight percent of the procedures have unincorporated change requests that have been extant for greater than six months.

W76-1 First Production Unit (FPU): Last week, the FPU assembly was suspended following damage to a component by another component held by a lifting fixture. This week, an engineering procedure was executed that removed the fixture for inspection (no problems found) and allowed the process to recommence with new charges, reuse of the same tool, and a procedure change that added additional alignment checks. Enhancements to the subject tooling were underway based on a similar alignment issue experienced during the first prototype build earlier this year but were delayed when the electrostatic discharge concerns arose in May.

Tracking and Trending: B&W Pantex generated its first monthly report regarding the analysis of precursor data mined from its internal problem tracking system. The events and assessment findings were binned into five major categories: safety systems, procedures and training, operational safety, industrial safety, and management concerns. A general observation made in the report was that the majority of safety system issues were related to blast door interlocks and lightning protection systems. In addition, the number of events associated with technical procedure adherence and material control are higher than the number of assessment findings, which may indicate a need to increase attention on those areas.

Technical Safety Requirement (TSR) Violations: B&W Pantex has had 11 TSR violations this calendar year (CY), seven in the second quarter. Three of the violations are related to nuclear material moves. A compensatory measure for material moves has been implemented and a causal factors analysis (CFA) is nearing completion. B&W Pantex is conducting a separate CFA of the other eight TSR violations reported in CY08. Five TSR violations were reported in CY07.

Lightning Detection and Warning System: Wednesday morning, the plant shift superintendent’s console indicated that all four lightning location sensors were non-operational. The Operations Center announced lightning warnings were in effect and the appropriate limiting condition of operation was entered. The four lightning detection sensors lost communication with the site for about two hours. System operability was restored following replacement of a network timing distribution module by AT&T, the commercial phone lines system owner.

W76-0 Disassembly Operations: While rotating a physics package 180 degrees, the workstand mechanism failed to function properly. One production technician (PT) was turning the handle on the side of the workstand when the mechanism started to slip. A second PT, per procedure, was supporting and controlling the unit during the rotation and safely positioned it in a stable orientation pending further instruction. A supplemental procedure was developed to remove the unit from the stand and allow tooling engineering to perform an evaluation.

Conduct of Operations: During W80 dismantlement operations, PTs installed the incorrect tooling. The tooling installed was not required until three steps later in the procedure. A back-out procedure allowed the incorrect tooling to be removed and the correct tooling to be installed.