

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: Timothy J. Dwyer, Technical Director
FROM: Matthew Duncan and Rory Rauch, Pantex Site Representatives
SUBJECT: Pantex Plant Report for Week Ending March 19, 2010

Electrostatic Discharge (ESD) Control Program: This week, PXSO approved a documented safety analysis (DSA) change that added the ESD Control Program to the Sitewide safety analysis report. The ESD Control Program is not a safety management program in the conventional sense; rather, it conveniently consolidates the different methodologies used to characterize the mitigated and unmitigated ESD environments, identify the hazards, and establish the controls. The application of these methodologies to specific hazard scenarios and weapon response rules can still be found in the hazard analysis report (HAR) for a given weapon operation. PXSO did establish one condition of approval (COA) for this DSA change based on its judgment that the draft W84 HAR does not adequately describe the administrative actions necessary to support the use of static dissipative flooring as a design feature. As part of the COA, PXSO suggests one way to correct this shortcoming is to establish these actions as a programmatic administrative control in the new ESD Control Program.

In conjunction with incorporating the ESD Control Program into the DSA, the change also eliminated the static dissipative flooring buffer zone as a technical safety requirement (TSR). The static dissipative flooring buffer zone was established to isolate lightning sensitive components from the electrical current flowing through the facility wall following a design basis lightning strike. In the engineering evaluation that supports the elimination of this TSR, B&W concluded the buffer zone is not necessary because the hazard presented by lightning current flowing onto the static dissipative flooring is no different than the hazard presented by lightning current flowing onto the original facility flooring. The nuclear security enterprise electromagnetic committee is evaluating this hazard as a part of its efforts to disposition potentially multi-point grounded weapon configurations.

Re-classification of Administrative Controls: Last week, B&W submitted a request to remove the administrative control re-classification initiative, which requires B&W to evaluate all administrative controls for potential re-classification (e.g., as a specific or programmatic administrative control) or removal from the DSA, from the fiscal year (FY) 2010 performance evaluation plan. This initiative cannot be completed in FY10 because PXSO, which must approve any control re-classifications resulting from the evaluation, has committed its safety basis group to other, higher priority projects (e.g., review and approval of the W84 and B53 SS-21 HARs) for the remainder of the fiscal year. The administrative control re-classification effort is one of the focus areas of B&W's plan to reduce the number of TSR violations at Pantex.

Tester Upgrade: The PT-4030, an electrical resistance tester used on every currently operating weapon program, has been obsolete for several years. As a result of the consequent part shortage (maintenance personnel have been scavenging replacement parts from the excess inventory of PT-4030 testers), B&W recently began design of a replacement electrical resistance tester. The new tester is scheduled for a conceptual design review in April and qualification by the end of FY11. At that time, B&W will begin to implement the new tester on a program-by-program basis.