

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

MEMO TO: J. Kent Fortenberry, Technical Director
FROM: Timothy Hunt and Dave Kupferer, Pantex Site Representatives
DATE: 11 May 2007
SUBJECT: Pantex Plant Weekly Report

Configuration Management of the Documented Safety Analyses (DSAs): More than a year ago, PXSO directed BWXT to ensure that, prior to submitting a DSA, the associated procedures are approved, tooling designs are completed, and the controls are validated as implementable. Last week, PXSO sent a letter to BWXT in which PXSO reiterated its concern that BWXT has not placed sufficient emphasis on correcting the apparent loss of configuration management of the DSAs. In particular, PXSO is concerned that approximately 70 DSA changes have been approved that have not been posted to the "effective" DSAs. BWXT expects to submit a plan to PXSO that will outline specific actions to resolve PXSO's concerns.

Conduct of Operations Oversight: A review of logbooks in ten nuclear explosive (NE) facilities indicates that the BWXT nuclear safety officers (NSOs) are not providing adequate conduct of operations support. In the past, Manufacturing Division management has emphasized the importance of, and reliance on, NSOs to provide mentoring and oversight of technicians performing NE operations. A review of February through April logbook entries revealed 15 NSO facility visits during 566 available facility-days. All three NSOs have been assigned to support W88 and W76-1 startup activities.

Causal Factors Analysis Investigation: Six weeks ago, BWXT discovered that an approved change to a safety-related surveillance requirement had not been incorporated into the appropriate maintenance procedures. BWXT recently completed a causal factors analysis investigation of this event. Regarding the development and implementation of the relevant safety basis change packages, the investigation team concluded that associated reviews, configuration control, and involvement of project managers and control owners were inadequate. In addition, the investigation team noted the following: implementing procedures for surveillance requirements should be evaluated for accuracy, there was a failure to recognize and report a technical safety requirement violation despite adequate evidence being provided, and the safety basis is so complicated and expert-based that very few people have the expertise to develop or review changes. BWXT's engineering division is developing formal corrective actions to address the investigation team's recommendations.

Potential Inadequacy in the Safety Analysis (PISA): A few weeks ago BWXT declared a PISA based on weapon response information associated with a specific weapons program from Lawrence Livermore National Laboratory (LLNL). BWXT is preparing a technical response outlining why they believe the assumed environment leading to the response is unrealistic. Meanwhile, LLNL has indicated that the likelihood of the subject response will be reduced from anticipated to sufficiently unlikely. With additional information supplied by BWXT, the ultimate goal is to have the scenario screened. BWXT expects to close the PISA upon receipt of the final weapon response.

Disposition of Neutron Sources: This week, BWXT began an activity that will transfer eight californium (CF)-252 sealed sources (about 15 Ci) from the Neutron Radiography facility to Oak Ridge National Laboratory. The potentially high beta/gamma and neutron dose rates are being mitigated during the operation by the use of a shielded transfer cask and container, as well as most activities being performed remotely. It has been several years, and half lives, since the sources were last handled and an approved operating procedure with full time radiation safety department coverage is supporting the moves.