

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2013

MEMO To: Steven Stokes, Acting Technical Director
FROM: Thomas Spatz, Pantex Site Representative
SUBJECT: Pantex Plant Report for Week Ending September 6, 2013

Fire Penetration Seals: This week, Babcock & Wilcox Pantex (B&W) and their subcontractor completed repairs on eleven facilities with deficient newly-installed fire penetration seals. (See report for 8/30/13.) B&W's extent of condition review identified 42 penetration seals out of 2,344 total penetration seals that were recently installed, affecting a total of 25 nuclear facilities. The *Recovery Plan for Resolution of the Technical Safety Requirement Violation Declared on a Facility Structure Design Requirement (Fire Penetration Seals)* B&W sent to the NNSA Production Office (NPO) last week was reissued this week. The recovery plan identified a 5-foot combustible free zone from the non-compliant fire rated wall as the primary compensatory measure for both staging and processing facilities. B&W stated that the 5-foot zone provides a buffer area which would prevent a fire from progressing from one side of the wall to the other with the degraded penetration seals. The other compensatory measures include no additional material brought into staging facilities and a pause in operations in processing facilities. B&W Fire Protection Engineers (FPEs) established the compensatory measures, B&W Facility Representatives implemented the measures, and the B&W FPEs validated implementation. In the revised recovery plan, B&W added an inspection of the penetration seals 30 days after installation to validate compliance with the design requirements after the seal material has fully cured.

The Site Representative expressed concern to the NNSA Production Office (NPO) management that NPO has no approval responsibilities with respect to the acceptance of the compensatory measures, or restart of operations. Because the fire penetration seals are a passive design feature, there are no approved degraded conditions, such as Limiting Condition for Operation, in the NPO-approved safety basis. The NPO-approved safety basis does not contain measures to address the material at risk in facilities resulting from the discrepant as-found condition. The compensatory measures incorporated in the recovery plan, and the recovery plan itself, do not require NPO approval.

Common Control Note Linkage Error: This week, the Design Agency (DA) sent formal communication to B&W in the form of an Information Engineering Release (IER), that there were inconsistencies associated with the application of common control notes during the development of one weapon program weapon response summary document. (See report for 7/26/2013.) The DA defines the control notes as being intended to alert the Pantex plant to important information in identifying hazard scenarios, deriving appropriate controls, and facilitating characterization of unmitigated and mitigated risk. The IER identified specific electro-static discharge scenarios where the common control note was not applied. B&W has entered this IER into their new information process, and is still processing the Unreviewed Safety Question determination. Since this control linkage error was first identified, B&W has not operated on units with the specific electro-static discharge concern.