

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 13, 2000

**MEMORANDUM FOR:** J. K. Fortenberry, Technical Director  
**FROM:** H. Waugh and W. White, Pantex Site Representatives  
**SUBJECT:** Pantex Plant Activity Report for Week Ending October 13, 2000

**DNFSB Activity Summary:** The office closed on Monday for Columbus Day. H. Waugh was on site Tuesday through Friday. W. White was on site Tuesday, Thursday, and Friday.

**W88 Contractor Readiness Assessment:** MHC released the report for its contractor readiness assessment for the W88 New Authorization Basis Implementation. As discussed last week, the W88 program failed in four key areas: configuration management, maintenance, authorization basis flow down, and operations (procedures). In addition to the four failed areas, the report identified twenty-five specific pre-start findings, six post-start findings, and eleven observations. The following are among the more significant pre-start findings:

- The W88 authorization basis does not analyze multiple weapons operations.
- There are no procedures in place for maintaining tooling called out in the W88 Activity Based Controls Document.
- W88 Activity Based Controls Document requirements are not adequately flowed down to the shop floor.
- Problems with certain W88 procedures preclude accomplishment of the process as written.
- The ultraviolet-actuated deluge is not yet implemented for W88 facilities. This self-identified finding will be addressed in a separate readiness assessment.

The report also identified key lessons learned that will be vital to the success of future programs:

- The technical assist done by MHC failed to cover maintenance and flow down of the authorization basis and should not have been used to declare readiness.
- MHC should not have proceeded to a contractor readiness assessment with 'red-lined' procedures that had not had changes validated.
- Program managers failed to review lessons learned from previous readiness assessment reports. <sup>[II.A]</sup>

**Ultraviolet-Actuated Deluge:** MHC continues to have difficulty starting up the ultraviolet-actuated deluge fire suppression system for W88 facilities. On Thursday, DOE rejected the latest MHC TSR changes associated with the system, providing seven comments requiring resolution prior to TSR approval. In addition, in making changes to the system to enhance reliability in the W88 cell, MHC inadvertently procured and installed the wrong parts. Instead of installing a normally open switch for manual deluge activation, MHC procured and installed a normally closed switch. The switch apparently passed its initial acceptance testing, only to fail during later maintenance work. Had the deluge system not been blocked for ongoing maintenance, an inadvertent actuation of the deluge system would have occurred. If the latest maintenance activity had not identified this fault, the inadvertent deluge actuation might have occurred during W88 operations. MHC plans to cannibalize the correct parts from other facilities which are not operational. MHC has not yet identified corrective actions to prevent this occurrence for future procurement activities and system modifications for safety-related systems. <sup>[II.A]</sup>

**Thermal Characterization of Building 12-116:** The first portion of the Building 12-116 Test Plan has been completed. The test consisted of turning off the air conditioning and recording room temperature and pit surface temperature rate of rise over a period of eight days. The air temperature increased from six to eleven degrees Fahrenheit, while pit surface temperatures increased from five to nine degrees Fahrenheit. The rate of recovery of these temperatures following turning the air conditioning back on is currently being monitored. <sup>[II.A]</sup>