

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 8, 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 December 8, 2000

DNFSB Activity Summary: H. Waugh and W. White were on site all week. J. Deplitch was on site to observe the revalidation of the W88 Nuclear Explosive Safety Study (NESS). T. Dwyer was on site to observe the NESS for changes to W87 lightning protection controls.

Revalidation of the W88 NESS: The revalidation of the W88 NESS concluded this week. The quality of NESS reviews continues to improve, and the W88 NESS group appears to have developed an accurate set of issues which, when addressed, will enhance the safety of W88 operations. Pre-start findings addressed the compromise of lightning isolation by a chain hoist and the awkwardness of two-person hand lifts involving high explosive charges. Post-start findings included a recommendation to identify certain nuclear explosive safety rules as authorization basis controls and to delete unnecessary nuclear explosive safety rules.^[II.A]

DOE Readiness Assessment of the W88 process: DOE concluded its readiness assessment (RA) of the W88 process and briefed the findings to DOE line management and the project team. These findings did not differ significantly from those discussed last week. For several of the findings, however, the project team disagreed with the conclusions of the RA team and presented the rationale for their disagreement to DOE line management. According to the project team, several RA findings resulted from a lack of understanding by the RA team of either the information reviewed, the operations observed, or the requirements in place. Although most of the RA findings remain valid, a few will likely be removed or changed. Much of the disagreement appeared to result from a lack of communication between the project team and the RA team. As observed during past reviews, MHC has difficulty supporting the RA and NESS simultaneously. The review which suffers as a result is the RA.^[II.A]

W87 NESS for Revised Lightning Protection Controls: On Tuesday, DOE Albuquerque convened a NESS to review a proposed suite of changes to the lightning protection controls for the W87 LEP. These changes consisted of ten specific modifications or relaxations of existing lightning protection controls. Several of the changes involved reliance on internal weapon components as authorization basis controls. Both LLNL and SNL had documented specific objections applicable to these changes. The NESS group (including a senior NESS member) conducted a vigorous, thorough review. Deliberation and report writing on the issues raised will continue next week, but it appears that the NESS group will not concur with any of the proposed changes for which an internal weapon component is the primary authorization basis control. A revised interpretation of the SNL position on transportation of weapons during lightning warnings may allow the NESS group to concur with two of the proposed transportation changes. A decision by the NESS group not to concur with all of the changes would require DOE Albuquerque to resolve the differences between the proposed changes and those changes with which the NESS group concurred before forwarding the NESS report to DP-20 for approval.^[II.A]

Cell Personnel Doors and Interlocks: In 1995, measurement of leak path areas for certain cells led to the conclusion that the leak rate from those cells might allow a larger than expected offsite release of radioactive material during certain accident scenarios. To reduce the potential leak path from these cells, MHC made several modifications to the cells, cell doors and door interlock system. Those modifications necessary to prevent significant offsite release of radioactive material were captured in the site authorization basis. This week, MHC concluded its readiness assessment of the implementation of the modifications and associated controls. The three pre-starting findings identified should be easily addressed.^[II.A]