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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

625 Indiana Avenue, NW, Suite 700, Washington, D.C. 20004
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September 27, 1995

Mr. Mark Whitaker
Department of Energy
1000 Independence Avenue
Washington, DC 20585

Dear Mr. Whitaker:

Enclosed for your information and distribution are eight Defense Nuclear Facilities Safety Board staff reports. The reports have been placed in our Public Reading room.

Sincerely,

A handwritten signature in black ink, appearing to read "George W. Cunningham". The signature is written in a cursive style with a long, sweeping tail that extends downwards and to the right.

George W. Cunningham
Technical Director

Enclosures (8)

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 6, 1995

MEMORANDUM FOR: G.W. Cunningham, Technical Director**COPIES:** Board Members**FROM:** Matthew B. Moury**SUBJECT:** Trip Report - Pantex - Status of Recommendation 93-1
Implementation Plan Action Item Five.

1. **Purpose:** This report documents the results of a review by Defense Nuclear Facilities Safety Board (Board) staff members M. Moury, J. McConnell, and J. DeLoach to assess the status of order compliance by the Department of Energy (DOE) Amarillo Area Office (AAO), and Mason and Hanger - Silas Mason (M&H) at Pantex during the period May 24-26, 1995.
2. **Summary:** The AAO and M&H Order compliance programs continue to make progress; however, deficiencies continue to exist and progress is slow for both organizations. The following summarizes the major findings from the review:
 - a. The AAO has made good progress developing a process to link DOE Order requirements to their operating procedures; however, they still have not completed an accurate Phase 1 assessment and the Phase 2 assessments started in June.
 - b. M&H does not have an effective method to ensure that procedure changes will not alter the level of administrative compliance with DOE Order requirements. In addition, the Phase 2 compliance assessments are not linked to the Phase 1 program as required by the DOE guidance. Finally, the staff found that the facility-specific compliance efforts did not demonstrate the site, division, or facility-level document used to implement Order requirements in each facility.
3. **Background:** The 93-1 Recommendation Implementation Plan committed to addressing the deficiencies in a June 15, 1993, staff trip report on Order compliance at Pantex as a part of Action 5 to upgrade and expedite Order compliance efforts at Pantex. The staff has been following the efforts being made to develop an order compliance program that will function as an integral part of daily operations at Pantex.

4. Discussion:

Amarillo Area Office:

- a) After several ineffective attempts, the AAO Order compliance program has made steady progress over the last six months. Recognizing that few plans, policies, and procedures existed to implement Order requirements, the AAO has been intensively writing procedures for use by the AAO staff in their daily operations. The new procedures have incorporated a requirement commitment page that effectively traces Order requirements into specific sections of the procedure where the commitment is being met. Following completion of the procedures this month, the Phase 1 compliance effort will be repeated. When the procedures will be validated and fully implemented is still unknown, but it will most likely extend over a period of many months.
- b) AAO developed a draft procedure for conducting Phase 2 assessments. The first assessment was completed in June. The approach described to the staff appears to be a technically satisfactory method for assessing adherence to Order requirements.
- c) AAO's oversight of the contractor's program has been hampered by M&H's failure to provide quality Phase 1 and Phase 2 assessment packages; however, AAO has not elicited a commitment from M&H for completion of these activities. However, AAO has made Order compliance a requirement for startup of Building 12-104A scheduled for September 1995.

Mason & Hanger:

- a) Phase 1 - The M&H Phase 1 Requirements Self-Assessment Database (RSAD) was not maintained during a period of intense procedure updating prior to transitioning to the new Standards and Requirement Information Database (STRIDE). During recent efforts to validate their previously completed Phase 1 compliance work, M&H found that the objective evidence provided was inaccurate or did not meet the intent of DOE *Standards/Requirements Implementation Assessment Instruction*, September 1994. A major contributor to this problem is that M&H does not have an effective method to ensure that procedure changes will not alter the level of compliance. This lack of configuration management has led to many of their current Phase 1 difficulties and has resulted in the need to repeat much of the Phase 1 work previously completed. There is currently no schedule for when all the Phase 1 data will be verified and entered into STRIDE. Extensive vigilance by procedure writers and reviewers will be required if these difficulties are not to occur again.
- b) Facility Specific Phase 1 - M&H committed in the Recommendation 93-1 Implementation Plan to complete Phase 1 facility specific Order compliance in the

nuclear weapon assembly and disassembly bays and cells. The facility-specific effort reviewed by the staff had several fundamental flaws.

- 1) Determination of what requirements were facility-specific was made at the Order level instead of the requirement level. For example, if an Order was determined to require facility-specific implementation, then all the applicable requirements in the Order were assessed by the Facility Manager (FM). If the Order was not selected, no requirements from that Order were assessed. Therefore, facility-specific requirements in Orders not categorized as facility-specific may have been missed. Another drawback to this approach was that it forced the FMs to assess requirements implemented at the site level, effectively repeating the site level Phase 1 compliance effort.
 - 2) The effort did not establish for each facility the document used by the facility to implement a requirement, whether at the site, division, or facility level. The Orders were divided between the various facility managers, who performed the assessment for their facility. The results were shared with the other FMs but there was no attempt to have each FM assess the degree of compliance for all facility specific Order requirements in their own facility.
 - 3) Confusion continues to exist over the failure to designate assembly and disassembly facilities as nonreactor nuclear facilities. One FM said that his assembly and disassembly bay facility was not a nuclear facility and was therefore exempt from many nuclear facility Order requirements. This contradicts senior M&H and AAO managers who stated the nuclear safety Orders, although not required, were being adopted as "best business practices."
 - 4) M&H provided no plans to correct the problems with their facility-specific Order compliance program; instead they said they wanted to stop the effort and focus their resources on developing Standards/Requirements Identification Documents (S/RIDs.)
- c) Phase 2 - The Phase 2 Order compliance work is not based on the Phase 1 efforts as discussed in DOE's *Standards Requirements Implementation Assessment Instruction*, September 1994. Because of the Phase 1 problems described above, the Phase 2 assessment requirements were taken directly from the applicable Orders. Therefore, as discussed in the DOE guidance, the Phase 2 assessments are not providing "a continuing basis for confidence that conditions and activities at a site, facility, or activity adhere to the documents that implement the requirements . . ." [emphasis added]. Until the Phase 1 problems are corrected, M&H will not have the ability to link Phase 2 adherence assessments to Phase 1 assessments to ensure compliance with Order requirements.

5. **Future Staff Actions** - The staff will continue to follow the progress being made to implement an effective standards-based management program at Pantex.