

July 30, 1999

Dr. William A. Weinreich  
[ ]  
Mason & Hanger Corporation  
P.O. Box 30020  
Amarillo, TX 79120-0020

EA-1999-05

Subject: Preliminary Notice of Violation and Proposed Imposition of Civil Penalty  
\$82,500 (NTS-ALO-AO-MHSM-PANTEX-1999-0001)

Dear Dr. Weinreich:

This letter refers to the Department of Energy's (DOE) evaluation of an [chemical] fire in Building 12-044, Cell 3, on December 29, 1998, during cleaning operations on a weapon component. Inadequate controls to mitigate the fire hazard posed by the [chemical] were determined to be the root cause of the event. However, the failure to adhere to existing procedural controls was determined to be a significant contributing cause.

DOE's Office of Enforcement and Investigation reviewed the circumstances and potential consequences of this event during a site visit on February 24 and 25, 1999, and issued an Investigation Summary Report. This report was transmitted to you on June 2, 1999. An Enforcement Conference was held on June 29, 1999, at the Pantex Plant, with you and members of your staff. A Conference Summary Report is enclosed. Based on our evaluation of this event, DOE has concluded that violations of the Quality Assurance Rule (10 CFR 830.120) occurred. The violations are described in the enclosed Preliminary Notice of Violation (PNOV).

The enclosed PNOV describes inadequacies in the work controls and the procedural violations that contributed to the event. The hazard posed by [chemical] was identified in the facility fire hazards analysis issued September 6, 1996, and was based on a previous [chemical] fire that occurred at the Pantex Plant. Subsequent actions were not adequately implemented by management to either eliminate the hazard through substitution of an alternative cleaning agent, or to mitigate the potential for a fire through explicit administrative and procedural controls. No procedural controls were established to minimize the amount of [chemical] used, ensure adequate ventilation to preclude the accumulation of concentrated vapors or preclude electrostatic discharge as an ignition source. Multiple procedure noncompliances included (1) not performing the operation as a two-person step; (2) stamping-off as complete the procedural step for cleaning the component, when the cleaning operation had not been completed; (3) performing the procedural steps for the cleaning operation out of sequence; (4) using a tool that was

not authorized by the procedure; (5) not removing excess materials and combustibles from the cell prior to the disassembly operations; and (6) failing to read the procedural steps prior to commencing the work. All of these actions were specified in work procedures for performing the cleaning operation.

Thus, the violations described in the PNOV involve the failure to establish adequate work controls to mitigate the fire hazard and the failure to comply with existing procedures, all of which contributed to the event. Propagation of the fire in the cell could have resulted in [unanticipated event] of the [ ] material present and serious work injury. DOE notes the procedural controls in place would not have precluded ignition of [chemical] in close proximity to the [ ] material. DOE also notes that limitations placed on combustible materials would not preclude propagation of the fire, resulting in a heat flux that could impinge upon the [ ] material and lead to [unanticipated event]. Propagation of a fire involving transient combustibles is invariably unpredictable. Therefore, it is clear that any fire event in the circumstances addressed in this case must be considered a serious event.

In accordance with the "General Statement of Enforcement Policy," 10 CFR 820, Appendix A, the violations described in the enclosed PNOV involving work control issues have been classified as two Severity Level II violations with a Proposed Imposition of Civil Penalty of \$82,500. In determining the severity level of these violations, DOE considered the multiple violations involved and the potential consequences of a fire in Cell 3. The base civil penalty for each of the two Severity Level II violations is \$55,000. After considering the escalation and mitigation factors set forth in the Enforcement Policy, the proposed civil penalty for each violation has been reduced by 25% to \$41,250. In reducing the civil penalty, DOE considered the aggressive investigative actions undertaken by Mason & Hanger in uncovering the violations related to this event and the causes of the event. Further mitigation for these violations is not appropriate (1) since the event was self disclosing and the underlying problem was not identified by Mason & Hanger before the event, and (2) since the corrective action plan initially proposed by Mason & Hanger did not address the broader implications of the problems disclosed by this event and required DOE input to sufficiently address these areas.

DOE is also concerned with this event because the hazard was identified through a previous operational event at the Pantex Plant. Although DOE and MHC previously held discussions on an alternative cleaning agent, MHC management failed to proactively resolve the issue or implement adequate controls to prevent or mitigate the consequences of a fire. DOE's expectation, as reflected in its nuclear safety regulations and the Enforcement Policy, is for its contractors to take ownership of safety in their activities, and to identify and correct safety weaknesses.

You are required to respond to this letter and follow the instructions specified in the enclosed PNOV when preparing your response. Your response should document any additional specific actions taken to date. Corrective actions will be tracked in the Noncompliance Tracking System (NTS). You should enter into the NTS (1) any

additional actions you plan to prevent recurrence and (2) the target completion dates of such actions. After reviewing your response to the PNOV, including your proposed corrective actions entered into the NTS in addition to the results of future assessments or inspections, DOE will determine whether further enforcement action is necessary to ensure compliance with DOE nuclear safety requirements.

Sincerely,



David Michaels, PhD, MPH  
Assistant Secretary  
Environment, Safety and Health

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Enclosures:  
Preliminary Notice of Violation  
Enforcement Conference Summary

cc: R. Kiy, EH-1  
M. Zacchero, EH-1  
K. Christopher, EH-10  
H. Wilchins, EH-10  
S. Adamovitz, EH-10  
G. Podonsky, EH-2  
O. Pearson, EH-3  
J. Fitzgerald, EH-5  
V. Reis, DP-1  
D. Minnema, DP-311  
R. Glass, DOE-AL  
B. Eichorst, DOE-AL, PAAA Coordinator  
W.S. Goodrum, DOE-AAO  
J. Bernier, DOE-AAO, PAAA Coordinator  
R. French, SMS/AAO  
D. Turcotte, M&H PAAA Coordinator  
J. Lieberman, NRC  
R. Azzaro, DNFSB  
Docket Clerk, EH-10

**Preliminary Notice of Violation  
and  
Proposed Imposition of Civil Penalty**

Mason & Hanger Corporation  
Pantex Plant

EA-1999-05

As a result of a Department of Energy's (DOE) evaluation of the fire incident occurring on December 29, 1998, in Cell 3 in Building 12-044 at the Pantex Plant, violations of DOE nuclear safety requirements were identified. In accordance with the "General Statement of Enforcement Policy", 10 CFR 820, Appendix A, DOE proposes to impose a civil penalty pursuant to Section 234A of the Atomic Energy Act of 1954, as Amended, 42 U.S.C. 2282a, and 10 CFR 820. The particular violations and associated civil penalties are set forth below.

- I. 10 CFR 830.120(2)(c)(i) requires that "work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means."

Contrary to the above, work controls that were adequate to prevent or mitigate the consequence of a fire were not developed and implemented for work performed in the Round Room of Cell 3 in Building 12-044 on December 29, 1998. In particular, with respect to the 1996 Facility Fire Hazards Analysis, Mason & Hanger Corporation actions and work process controls did not adequately address [chemical] flammability concerns by eliminating the combustible environment associated with weapons work processes employing the [chemical]. In addition, work process controls for similar [chemical] flammability issues raised during the W78 weapons process Preliminary Hazards Analysis conducted in August 1997, were not adequately addressed or resolved.

This is a Severity Level II violation.  
Civil Penalty - \$41,250

- II. 10 CFR 830.120(2)(c)(i) requires that "work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means."

Contrary to the above, on December 29, 1998, work involving the component cleaning operation was not performed in accordance with established administrative controls using approved instructions, procedures or other appropriate means in place in the Round Room of Cell 3 in Building 12-044 in that-

A. Nuclear [Unanticipated Event] Operating Procedure, NEOP N78-9008, Issue F, dated 9/30/98, "Unanticipated Event] Subassembly Disassembly (LANL)-W78-(U)" required that-

1. The cleaning operation be performed as a two-person step. However, only one person performed the operation.
2. One wipe be used. However, the technician used two wipes.
3. The procedure step be stamped off as 'complete' after the step had been completed. However, the procedure step for cleaning the component was stamped as 'complete' when the cleaning operation had not been completed.
4. The cleaning operation be performed in a particular sequence. However, the steps were performed out of sequence.
5. Technicians use specific tools. However, the technician used a tool (wooden tongue depressor) that was not authorized by the procedure.
6. For a procedural step being performed by the technicians as a "reader work step", the technicians read the step or have the step read to him. However, the technician did not read the step, nor was the step read to him, prior to commencing the work.

B. Mason & Hanger Corporation Standing Order #96MFG-97 (Revision 2), dated December 29, 1997, required use of the Readiness Checklist (PX-3322) that specified all unneeded materials and combustibles be removed from the cell prior to disassembly operations. However, all unneeded Scotchbrite pads and [chemicals] were not removed from the cell prior to disassembly operations.

Collectively, these violations constitute a Severity Level II problem.  
Civil Penalty- \$41,250

Pursuant to the provisions of 10 CFR 820.24, Mason & Hanger Corporation is hereby required within 30 days of the date of this Preliminary Notice of Violation (and Proposed Imposition of Civil Penalty), to submit written statement or explanation to the Director, Office of Enforcement and Investigation, Attention: Office of the Docketing Clerk, P. O. Box 2225, Germantown, MD 20875-2225. Copies should also be sent to the Manager, DOE Albuquerque Operations Office, the Manager, DOE Amarillo Area Office, and to the DOE Cognizant Secretarial Office at Headquarters for the facility that is the subject of this notice. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following for each violation: (1) admission or denial of the alleged violations; (2) any facts set forth which are not correct and (3) the reasons for the violations if admitted, or if denied, the basis for denial. Corrective actions that have been or will be taken to avoid further violations will be delineated with target and completion dates in DOE's Noncompliance Tracking System. In the event the violations

set forth in this Preliminary Notice of Violation (PNOV) are admitted, this Notice will constitute a Final Notice of Violation in compliance with the requirements of 10 CFR 820.25.

Any request for remission or mitigation of the civil penalty must be accompanied by a substantive justification demonstrating extenuating circumstances or other reasons why the assessed penalty should not be paid in full. Within the 30 days after the issuance of this Notice and Civil Penalty, unless the violations are denied, or remission or mitigation is requested, Mason & Hanger Corporation shall pay the civil penalty of \$82,500 imposed under Section 234a of the Act by check, draft, or money order payable to the Treasurer of the United States (Account 891099) mailed to the Director, Office Enforcement and Investigation, Attention: Office of the Docketing Clerk at the above address. Should Mason & Hanger Corporation fail to answer within the time specified, the contractor will be issued an order imposing the civil penalty.

If requesting mitigation of the proposed civil penalty, Mason & Hanger Corporation should address the adjustment factors described in Section VIII of 10 CFR 820, Appendix A.

A handwritten signature in black ink, appearing to read 'D. Michaels', is positioned above the typed name and title.

David Michaels, PhD, MPH  
Assistant Secretary  
Environment, Safety and Health

Dated at Washington, D.C.  
this 30th day of July 1999

