

John T. Conway, Chairman  
A.J. Eggenberger, Vice Chairman  
John W. Crawford, Jr.  
Joseph J. DiNunno  
Herbert John Cecil Kouts

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

625 Indiana Avenue, NW, Suite 700, Washington, D.C. 20004  
(202) 208-6400



July 6, 1993

Dr. Everet H. Beckner  
Acting Assistant Secretary for Defense Programs  
U.S. Department of Energy  
Washington, D.C. 20585

Dear Dr. Beckner:

Defense Nuclear Facilities Safety Board (DNFSB) Staff members and Outside Experts visited the Pantex Plant March 9-11 and June 14-16, 1993. The status of training and qualification of DOE Amarillo Area Office (AAO) staff and Mason and Hanger (M&H) personnel was reviewed for compliance with the requirements of DOE Order 5480.20, *"Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities,"* and the guidance of DOE-STD-1056-93, *"Guide to Good Practices for Line and Training Manager Activities Related to Training."*

The Board notes that during the Staff's March 9-11, 1993 visit, the AAO personnel discussed the development of a staff training and qualification program, but that only the Facility Representative portion of the staff had a formalized and ongoing training and qualification program. The Board further notes that during the June 14-16, 1993 visit to review training and qualification, the AAO staff training effort had progressed, surveillance training for the staff was ongoing, and work was in progress on Individual Development Plans by individuals and their immediate supervisors. However, an outline of a formalized, comprehensive training and qualification program was still not presented. Early in the Staff's June visit, the Acting AAO Area Manager orally tasked the Operation Quality Management Branch Manager to take charge of AAO training. However, the OQMB Manager did not know if that responsibility included assessment of the contractor's compliance with DOE Order 5480.20. Detailed observations of the DNFSB Staff on the training and qualification program at AAO are provided in enclosure (1).

During the March 9-11 visit, the DNFSB Staff reviewed the M&H training and qualification programs of the Manufacturing Division and the support provided by the Training and Development Technology Department. It was noted that there had been significant improvement in the training and qualification of production technicians and supervisors since the Staff's review in July 1992. The Staff concentrated its June 14-16 visit on reviewing the training and qualification programs for divisions that provide maintenance and technical support to Manufacturing. In these divisions, involvement by line management was well below the level observed in Manufacturing. The divisional training and qualification programs reviewed lacked uniformity and their progress varied noticeably. Furthermore,

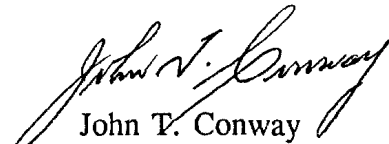
division managers had not committed adequate resources to planning and managing training and qualification. Two out of four training coordinators who briefed the Staff were not well versed in the training and qualification program plans for their divisions. It also was noted that the Training and Development Technology Department has not been as involved in the development of the training and qualification programs for the maintenance and technical support divisions as it had been in the early development of the Manufacturing Division training and qualification program. The DNFSB Staff's detailed observations of the M&H training programs reviewed are provided in enclosure (2).

The Board's Staff found that more proactive line management involvement is needed by AAO and M&H in the planning and execution of their training and qualification programs. Therefore, the Board considers it essential that DOE take action to analyze the training and qualification activities in progress and verify that they are effective. Pursuant to 42 U.S.C. § 2286b(d), the Board requests that DOE submit reports that provide:

- a. A detailed description of the AAO training and qualification program, a schedule for the training and qualification of the AAO technical staff, AAO staffing, and assignment of responsibilities to comply with DOE Order 5480.20 Section 8.e.
- b. M&H's plan to accelerate development of a consistent program and a cohesive plan for the training and qualification of the Facility Operations, Explosives Technology, Engineering and Design, and Environment, Safety and Health Divisions at Pantex, and a schedule for accomplishing earlier compliance with DOE Order 5480.20.

The Board requests the above reports be submitted within 45 days of receiving this letter. If you need any further information, please let me know.

Sincerely,



John T. Conway  
Chairman

c:  
M. Whitaker, DR-1  
T. O'Toole, EH-1

Enclosures

**Observations from Visits to Pantex  
to Evaluate Training and Qualification  
of the Amarillo Area Office Technical Staff**

1. Formal attention and direction regarding training and qualification of AAO technical personnel have been lacking at AAO, and have only recently been articulated orally. This situation is inconsistent with the requirements of DOE Order 5480.20 *"Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities"*, Section 8.e. and DNFSB Recommendations 92-7 and 93-3.
2. Prior to the visit by the Board's Staff June 14-16, 1993, no one had been designated as AAO Training Coordinator. During this visit, the Operations Quality Management Branch (OQMB) Manager was verbally tasked by the Acting AAO Area Manager to take charge of AAO training. However, the OQMB Manager did not know if that tasking included AAO responsibility in DOE Order 5480.20, Section 8.e. for assessment of the contractor's compliance with the Order.
3. Job analyses and needs analyses for the AAO technical staff are in progress. Individual Development Plans are being prepared, to be completed by November 1993.
4. A formal training and qualification plan with scheduled training courses has not been prepared for most of the AAO technical staff as recommended in the guidance contained in DOE-STD-1008-92, *"Guide to Good Practices for Training of Technical Staff and Managers."*
5. The Board staff is aware that the OQMB of the AAO had implemented a training and qualification program for Facility Representatives to meet the intent of DNFSB Recommendation 92-2.

**Detailed Observations from Visits to Pantex  
to Evaluate Training and Qualification  
Programs of Mason and Hanger**

1. The Board staff is aware that the Training Implementation Matrix (TIM) submitted by M&H is under review by DOE and should be approved in the near-term. It is aware also that in anticipation of the TIM approval, M&H is focusing its training and qualification efforts on the requirements of DOE Order 5480.20, *"Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities."*
2. M&H has not given the same attention to developing and executing a training and qualification program for personnel in the maintenance and technical support divisions as had been given to the development of the Manufacturing Division training and qualification programs. The principles contained in DNFSB Recommendation 92-7 and in DOE-STD-1056-93, *"Guide to Good Practices for Line and Training Manager Activities Related to Training"*, have not been applied uniformly by line managers in these divisions in the development process. The divisions making measurable progress were the ones in which line managers were proactive participants, as recommended in DOE-STD-1056-93.
3. Progress in developing training and qualification plans and programs in the non-production divisions of M&H varies considerably from division to division.
  - a. DOE Order 5480.20 provides specific requirements for the selection, training and qualification of personnel at all DOE nuclear facilities, including those parts of a site that are not considered to be Non-Reactor Nuclear Facilities. M&H has not identified which job positions within Facility Operations and the Technical Support Divisions will require qualification as required by Chapter I Section 5.a. of the Order.
  - b. Internal Operating Procedures (IOPs) that may define "job positions requiring qualifications" are in draft form or have yet to be prepared.
  - c. Continuing training programs to enhance proficiency of personnel who perform functions associated with safety-related systems, as required by DOE Order 5480.20, Chapter I, Section 7.d. and as recommended in DOE-STD-1060-93, *"Guide to Good Practices for Continuing Training"*, were not evident in the draft IOPs reviewed.
  - d. None of the four divisions reviewed has committed adequate resources to planning and management of training and qualification. In general, these programs will not be fully developed and implemented until mid-1995.
4. The path forward for M&H to achieve compliance with DOE Order 5480.20 has been hindered by the protracted time period required to obtain DOE Albuquerque Operations Office approval of the Training Implementation Matrix (TIM). This was

initially submitted by M&H in November 1991.

5. Training and qualification programs under development make extensive use of on-the-job training (OJT) as the instruction method, but many of the designated OJT instructors have not received training in OJT techniques as required by DOE Order 5480.20, Chapter I, Section 2. and as recommended in DOE-STD-0012-92, "*Guide to Good Practices for On-The-Job Training*", Section 3.3.5.
6. Qualification programs under development do not include a description of the examination process that will be used to evaluate operators and supervisors as required by DOE Order 5480.20, Chapter I, Section 8.
7. Training and qualification programs under development by the technical support divisions do not contain requirements in the area of technical fundamentals as required by DOE Order 5480.20, Chapter I, Section 7.h. and DOE-STD-1008-92.