

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



May 10, 1996

Mr. Mark B. Whitaker, Jr.  
Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0119

Dear Mr. Whitaker:

Enclosed for your information and distribution are three 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".

George W. Cunningham  
Technical Director

Enclosures (3)

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 1, 1994

**MEMORANDUM FOR:** G. W. Cunningham, Technical Director**COPIES:** Board Members**FROM:** Timothy J. Dwyer**SUBJECT:** Report on a Review of the Oak Ridge Site Facility Representatives Program

- 1. Purpose:** This report documents Defense Nuclear Facilities Safety Board (Board) staff observations from a review of the Department of Energy Oak Ridge Operations Office (DOE-ORO) Facility Representative Programs conducted on site during September 19-23, 1994, by Board staff member Timothy J. Dwyer.
- 2. Summary:** The DOE-ORO acting Y-12 Facility Representatives are very familiar with the equipment and technical processes under their purview. However, in separate incidents, the two individuals who were observed *failed to take prompt corrective action* in the face of clear procedural violations on the part of contractor operations personnel.

DOE-ORO does have an extended effort underway to upgrade the Oak Ridge Site Facility Representative Program. As currently outlined, DOE-ORO Program documentation meets or exceeds most of the requirements of DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*.

Program implementation, however, lags the documentation. Facility Representative manning levels are well below those required at Y-12. The DOE-ORO Environmental Restoration and Waste Management staff was uncertain about the number of Facility Representatives assigned/required to be assigned to their facilities. None of the acting Facility Representatives have been interim qualified and completion of qualification standard requirements in Facility Representative qualification cards is currently undocumented due to a failure to designate appropriate signature authorities. The DOE-ORO Facility Representative training and qualification progression is still being defined. Of note, subsequent to this review, and in response to Board Recommendation 94-4, DOE-ORO took action to authorize four additional Facility Representative billets at Y-12 and began an expedited, open-source recruitment effort.

- 3. Background:** Recommendation 92-2 was issued on May 28, 1992. This Recommendation followed several reviews by the Board and its staff of Facility Representative training, qualifications and performance across the complex. DOE submitted an Implementation Plan and, subsequently, an Action Plan, on April 26, 1993. Implementation of commitments in the Action Plan has varied across the complex. This Board staff review was conducted to examine Facility Representative Program status at DOE-ORO, largely at the working level. The DOE Y-12 Site

Office (DOE-YSO) Senior Nuclear Engineer, who is responsible for day-to-day technical supervision of DOE-YSO Facility Representatives, was interviewed. Two acting Facility Representatives (non-qualified incumbents) were observed in the performance of their duties.

4. **Discussion:** Observations from this review are provided in three categories: program documentation, program implementation, and program personnel.
  - a. Program Documentation. DOE-ORO has an extended effort underway to upgrade the documentation and formality of the program. This is particularly evident in the newly developed and approved *Oak Ridge Operations Office Facility Representative Program Manual* [July 1994], approved by the Operations Office Manager. This document is based, among other things, on DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*. The manual provides guidance on Facility Representative position standards, generic and facility-specific qualification program standards, written examinations, oral examination boards, and application of individual development plans (IDPs) to the Facility Representative qualification process. This manual was developed outside of the working group that developed the DOE Recommendation 93-3 Implementation Plan Facility Representative Qualification Standards, but it appears to present an acceptable level of detail. Only one minor noncompliance with the DOE standard was identified: the DOE-YSO program specifies a requalification interval (for low hazard facilities) of five years, whereas the standard allows a maximum of three years.
  - b. Program Implementation. Facility Representative staffing at DOE-ORO is divided among the three Assistant Manager Offices: Energy Research and Development (AMERD) -- six billets (not evaluated during this visit); Defense Programs (AMDP) -- two billets; Environmental Restoration and Waste Management (AMERWM) -- six billets.

The two AMDP Facility Representatives are assigned through DOE-YSO. DOE-YSO stated that requests for increased Facility Representative staffing allocations submitted last year were disapproved at the DOE-Headquarters level. (DOE-STD-1063-93 explicitly directs DOE Secretarial Officers to ensure adequate staff/resources are made available to provide adequate Facility Representative coverage.) Subsequent to this review, and in response to Board Recommendation 94-4, the DOE-ORO manager took action on his own to authorize four additional Facility Representative billets at Y-12 (reference: letter, J. LaGrone to V. H. Reis, dated October 18, 1994). An expedited, open-source recruitment effort has already been initiated to fill these billets.

AMERWM personnel exhibited significant confusion as to the number and duties of Facility Representatives assigned/to be assigned at AMERWM facilities. Ultimately, it was reported that six incumbents exist, but 19 billets are required. However, it was not clear that all of the individuals identified actually fill the role of Facility Representative as defined in DOE-STD-1063-93. The AMERWM program was acknowledged by DOE-ORO to be in its infancy.

Currently, Facility Representative Core Qualification involves mostly self-study and on-the-job training (OJT) performance requirements, with selected classroom training courses. Completion of Core Qualification does not involve a written or oral examination. Rather, the examinations at the conclusion of Facility-Specific Qualification will also invoke Core Qualification standards. Facility Representative Facility-Specific Qualification involves a generic qualification standard, customized to reflect expected areas of responsibility via negotiation between the DOE Facility Manager (at Y-12, represented by the Senior Nuclear Engineer), and the candidate. This qualification phase culminates in a written examination, facility walkthrough, and oral examination board.

Of note, at this stage of DOE-ORO program development, facility representative duties are assigned to individuals who have not completed any of their qualifications. Compensation for this shortcoming is discussed in the program documentation, but not invoked by DOE-ORO (see observation 4 below).

Technical assistance is available to *all* Facility Representatives, for specific areas of inquiry, from the DOE-ORO technical staff. It was not clear how such assistance was to be acquired, or that it had actually been used by any of the acting Facility Representatives.

Review of the implementation of the DOE-YSO Facility Representative Program revealed several deficiencies. For example:

1. Authority to sign for completion of Facility Representative Qualification Card requirements has not been determined. This includes self-study items, practical factor demonstrations, and course completions. None of the acting DOE-YSO Facility Representatives have signatures on their qualification cards.
2. The designation of courses that satisfy qualification standard requirements is incomplete. At present, only listings of available courses related in some way to the qualification standard requirement are provided. The disparity in courses listed ranged, in one case, from four to forty hours, and in another case, from sixteen to eighty hours of instruction for the same qualification requirement; several listed courses had no technical basis that would apply to the associated technical requirement.
3. Oral examination board guidelines/instructions are not yet available and the written examination bank is still in development.
4. Acting (incumbent) DOE-YSO Facility Representatives have not been designated as Interim Qualified Facility Representatives, as required by the DOE-ORO Program Manual. This is significant in that interim qualification documentation is required to specify what duties the Facility Representative is authorized to perform, under what levels of supervision, and when this interim qualification expires. Both incumbents expect to be fully-qualified by September 1995.

c. Program Personnel. The following summarizes observations of the acting Facility Representatives during the performance of their duties:

1. Neither acting Facility Representative is meeting the requirements for facility monitoring specified in the DOE-YSO Guidelines developed to meet DOE-ORO Program Manual and DOE-STD-1063-93 criteria. Specifically, the DOE-YSO *Y-12 Site Office Facility Representative Guidelines* [July 1993] specifies *daily* presence in at least one of a Facility Representative's assigned facilities, such that each assigned facility is visited at a minimum of once each week; and at least *bi-weekly* back-shift monitoring.
2. Both acting Facility Representatives were very familiar with the equipment and processes under their purview. However, monitoring of operator conduct of operations varied significantly between individuals. In one case, first hand observation of a clear violation of procedure compliance/maintenance retest requirements did *not* result in swift and definitive action on the part of the Facility Representative; and operator logs did not receive requisite attention. In another case, observation (and correct identification) of a criticality safety violation did *not* result in declaration of a "stop work" by the acting Facility Representative.

DOE-ORO management also discussed shortfalls in the use of Facility Representatives as a whole by DOE, and the lack of a coherent career path. These reasons were cited as the cause of the loss of an excellent [acting] Facility Representative from the DOE-ORO Program.

5. **Future Board Staff Actions:** In the near term, review DOE-ORO Facility Representative Program documentation as it becomes available. Specific Facility Representative qualifications will be reviewed on a facility-specific basis as DOE-ORO facility activity schedules dictate.