

REPORT: EM QUALITY ASSURANCE

September 25, 2008

Submitted by the EMAB Quality Assurance Subcommittee

Background:

In Fiscal Year (FY) 2008, the Environmental Management Advisory Board (EMAB) was tasked to dialogue with the Office of Quality Assurance (EM-60, QA) as it works to revitalize standards and institutionalize QA into Departmental and EM processes. In addition, EMAB was directed to dialogue with EM-60 on incorporating QA and engineering into the procurement process.

Board members reviewed and discussed the topics of QA and EM-60's functions during their public meeting on May 7, 2008, in Washington D.C. The EMAB QA Subcommittee comprised of Dr. Lawrence Papay, Mr. G. Brian Estes, and Mr. Tom Winston, continued to explore the issues presented in May and engaged in follow-up meetings and teleconferences with EM senior personnel.

Findings and Observations:

EMAB commends Assistant Secretary James Rispoli and Mr. Dae Chung, Deputy Assistant Secretary for Quality Assurance, for their leadership and achievements in revitalizing EM's QA practices.

As a follow-up to the Board's last public meeting, Mr. Chung and Ms. Sandra Waisley, Director for the Office of Standards and Quality Assurance, provided EMAB's Subcommittee with a briefing on the program's current QA issues and initiatives. Specifically, Mr. Chung explained that the QA function within EM was being "revitalized" in recognition of the changing nature of the program's projects. This evolution is reflected in the shift of the program's large contracts from traditional decontamination and decommissioning (D&D) work to the construction of major facilities. In order to better assure the outcomes of these projects, EM and its contractors must renew their commitment to the principles of QA and its practice. The major efforts recently completed or underway are detailed below.

1. National Academy of Public Administration (NAPA) Study

The NAPA recommendations, along with the Office of Engineering and Construction Management recommendations, form the basis for the ongoing efforts to "revitalize" QA within EM. The major NAPA recommendations deal with the creation of the Office of Standards and Quality Assurance; QA managers at field locations; the EM QA Corporate Board; the QA Academy; and the establishment of contractor performance metrics and work with the Energy Facilities Contractors Group (EFCOG) to disposition the top priority issues facing EM QA.

2. *Organization*

Mr. Chung reported on the standing up of the Office of Standards and Quality Assurance under Director Waisley in January 2008. With an authorized level of 12 professional positions, six have been filled and an additional four have been posted. However, since there is an industry-wide shortage of qualified people, there has been some difficulty in recruiting QA professionals. With the assistance of QA support contractors, there has been minimal impact on the EM staff activities, and with regard to field activities, sites have put in place QA managers. Lastly, to facilitate the value of newly recruited Headquarters and field QA personnel, the QA Training Academy has been established.

3. *DOE Order 414.1C*

As of June 30, 2008, Quality Assurance Program Plans (QAPPs) have been developed, at least in draft form, at all EM field sites. Phase One assist visits and audits (up to 20/yr) have been implemented.

4. *QA Corporate Board*

The QA Corporate Board has been formed and has held two meetings. In addition to an exchange of information and updates, its main focus has been on the major issues facing EM QA and its contractors. From a list of 20 important issues, the Corporate Board selected the top five for further investigation and asked EFCOG to establish a task group to focus on the following issues:

- Requirements Flow Down
- Adequate NQA-1 Suppliers
- Commercial Grade Item and Services Dedication, Implementation, and Nuclear Services
- Graded Approach to Quality Assurance
- Line Management Understanding of QA and Oversight

5. *Requirements Flow Down*

The important point here is the necessity to have QA requirements (direction, execution, communication and verification) “flow down” from DOE-Headquarters, through the field offices and site QA managers, to the prime contractors and their subcontractors. All parties must adhere to QA standards.

6. *Adequate NQA-1 Suppliers*

The nuclear industry as a whole is suffering from a decline in the number of certified NQA-1 Suppliers. In addition, contractors are duplicating supplier audits, thereby adding to overall project costs, and suppliers are not trained and qualified in terms of common criteria based on national standards. The need is to identify methods for expanding the number of willing and qualified suppliers for nuclear grade items and services within EM as well as to provide recommendations for promoting information sharing, resource sharing and standardization of efforts within EM.

7. Commercial Grade Item and Services Dedication, Implementation, and Nuclear Services

As mentioned above, suppliers with NQA-1 programs are limited and commercial grade items are more prevalent. The effort is to provide EM with a recommended baseline scope and approach for the application of Commercial Grade Item (CGI) Dedication and acceptance of nuclear services within EM consistent with code requirements (NQA-1, 2000).

8. Graded Approach to Quality Assurance

EM needs consistency in the application of the graded approach to QA, which should include a common understanding of grading, a standard process for how grading may be accomplished, and consistent definitions and examples of successful application from across the complex. The approach will be to provide EM with a model process for application of a graded approach for QA in both contractor and federal QA programs.

9. Line Management Understanding of QA and Oversight

To understand QA and instill a QA culture in the EM complex, all EM federal and contractor organizations must define the importance of Quality, emphasize line ownership and accountability in implementing a quality program, have management commitment and support to develop and implement a standardized EM QA Program, and exhibit the EM values needed to establish a quality culture and quality program throughout the complex. The approach will be to provide a QA management system, training, and assessment expectations for line management to instill “consistency” in application, awareness, and performance of QA principles for both federal workers and contractor staff.

10. Performance Metrics System

The degree of success in the revitalized QA program can only be determined if a system of performance-based metrics is put in place. A proposed set of metrics is being reviewed at the present time.

11. QA and Project Management

EM has decided to follow the Nuclear Regulatory Commission approach in separating project authority from the QA (regulatory) authority. This approach to independent reporting paths should strengthen QA oversight.

Recommendations

Recommendation 2008-24: Include leading indicators in the QA performance metrics that are currently under development.

Suggestions for Implementation:

- Through the QA Corporate Board, ask EFCOG to form another group charged with this task.

Recommendation 2008-25: Ensure continued commitment from top leadership for the QA initiatives underway.

Suggestions for Implementation:

- Ask DOE-Headquarters personnel, site managers, and contractors to annually commit to continuous improvement of the QA program.

Recommendation 2008-26: If staffing becomes a problem, look to other sources of qualified professionals.

Suggestions for Implementation:

Consider the short-term loan of qualified QA personnel from the DOE National Laboratories.