

# YANKEE ATOMIC ELECTRIC COMPANY

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March 1, 1982

United States Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation  
W. P. Haass, Chief, Quality Assurance Branch  
Division of Engineering

- References:
- (a) License No. DPR-3 (Docket No. 50-29)
  - (b) License No. DPR-28 (Docket No. 50-271)
  - (c) License No. DPR-36 (Docket No. 50-309)
  - (d) USNRC Letter, dated June 10, 1981, Mr. W. P. Haass to Mr. W. P. Johnson



Dear Sir:

Subject: Yankee Atomic Electric Company Operational Quality Assurance  
Program Topical Report, YOQAP-1-A, Revision 11.

The Haass/Johnson letter, referenced above, requested additional information necessary to update our Topical Report to meet the staff's current Quality Assurance requirements.

Enclosed are three copies of our response to your request.

Also enclosed are three copies of YOQAP-1-A, Revision 11, for your review and approval. This Revision reflects the effect of the subject additional information, and deletes all references made to Maine Yankee.

The YOQAP-1-A, Revision 11, will be implemented within 90 days following your approval of the Program.

If you have any questions in regard to this revision, please contact our Mr. David B. Pike of this office.

Very truly yours,  
Yankee Atomic Electric Company

*W. P. Johnson*  
W. P. Johnson  
Vice President

DBF/fsf

Enclosures

*Good  
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YANKEE ATOMIC ELECTRIC COMPANY

YOQAP-1-A, "Operational QA Program"

Request for Additional Information

1. Request

The qualification requirements in Appendix A for the Manager Operational Quality Assurance Department are not satisfactory. It is an NRC staff position that the qualifications and experience of the Manager Operational Quality Assurance Department (offsite) be at least equivalent to those described in Section 4.4.5 of ANSI/ANS 3.1-1978, "Selection and Training of Nuclear Power Plant Personnel." In lieu of the above, we would accept a commitment to the education and experience described in the following Section 4.4.5 of ANS 3.1-1979:

EDUCATION: Bachelor Degree in Engineering or related science.

EXPERIENCE: Four (4) years experience in the field of quality assurance, or equivalent number of years of nuclear plant experience in a supervisory position preferably at an operating nuclear plant or a combination of the two. At least one (1) year of this four years experience shall be nuclear power plant experience in the implementation of the quality assurance program. Six (6) months of the one year experience shall be obtained within a quality assurance organization.

Provide a description to satisfy this position.

Reply

The qualifications of the Manager of Operational Quality Assurance (MOQA) have been revised. (See Appendix A).

2. Request

A commitment is made in the Policy Statement that "The Program shall... address... certain Regulatory Guides specified in Section II..." Quality assurance programs should reflect the degree of conformance to current regulatory and industry guidance. Accordingly, YAECO's QA program description should be updated to reflect conformance with the regulatory positions provided by the NRC in the following regulatory guides for future operational activities including maintenance and modification: 1.8-Rev. 1-R (5/77); 1.26-Rev. 3 (2/76); 1.29-Rev. 3 (9/78); 1.30 (8/11/72); 1.33-Rev. 2 (2/78); 1.37 (3/16/73); 1.38-Rev. 2 (5/77); 1.39-Rev. 2 (9/77); 1.58-Rev. 1 (9/80); 1.64-Rev. 2 (6/76); 1.74 (2/74); 1.88-Rev. 2 (10/76); 1.94-Rev. 1 (4/76); 1.116-Rev. 0-R (5/77); 1.123-Rev. 1 (7/77); 1.144 (1/79); and 1.146 (8/80).

Section II should be modified to address this position. To preclude any misinterpretation regarding the commitment statement, it is recommended that the first sentence under Part C. Implementation be revised as follows: Replace "where applicable...federal documents" with the following: "with the Regulatory Position in the below listed Regulatory Guides as modified in Appendix B." Identify the Guides by number and revision number and/or date as noted above.

Reply

Section II has been revised to address this item.

3. Request

In the Policy Statement, it is noted that "The Nuclear Safety Audit and Review Committee shall periodically review..." Clarify if this means monthly, annually, etc.

Reply

The periodic review performed by the Nuclear Safety Audit and Review Committee is semiannual in frequency. The Policy Statement has been revised to include the frequency.

4. Request

The verbs "directs" and "provides" are used throughout Section I in describing QA program responsibilities. Identify the specific individuals or groups who perform the activity when either verb is used.

Reply

Section I has been revised to clarify responsibilities for specific individuals or groups who perform the activity when either verb is used as practicable.

5. Request

Provide a commitment that the development, control and use of computer programs will be conducted in accordance with the QA program.

Reply

Computer Programs for activities identified in Section III for items important to safety, will be developed, controlled and used in accordance with the QA Program.

6. Request

Identify those personnel authorized to approve changes to the "Q-list" and describe methods for controlling its distribution.

Reply

The review, approval and distribution of the "Q-List" (QA Program, Appendices C and D) is controlled as part of the QA Program. Section VI.C has been revised to state this.

7. Request

Section II, page 7 - Modify Note No. 1 to satisfy the following staff position:

When conflicts in similar requirements contained in Technical Specifications and ANSI Standards exist, the requirements contained in Technical Specifications override those in the standards; however, requirements in the standards should be complied with when they supplement and are not in conflict with similar requirements in Technical Specifications.

Reply

Section II, page 7, Note No. 1 has been revised to satisfy the staff position.

8. Request

Section II, page 8 - Modify Note No. 5 to satisfy the following requirement:

Provisions are included for notifying the NRC for review and acceptance of changes (1) in the accepted QA program description prior to implementation, and (2) in organizational elements within 30- days after announcement. (Note - editorial changes or personnel reassignments of a non-substantive nature do not require NRC notification.)

Reply

Section II, page 8, Note No. 5 has been revised to satisfy this requirement.

9. Request

Describe the provisions which assure that deviations from specified quality standards are identified and procedures are established to ensure their control.

Reply

The requirements for control of deviation from specified QA requirements are included in Section III.B.2.c.

10. Request

Describe the provisions which assure that internal and external design interface controls, procedures, and lines of communication among participating design organizations and across technical disciplines are established and described for the review, approval, release, distribution, and revision of documents involving design interfaces.

Reply

Design interfaces are identified in Section III.B.1 through and including III.B.6. Design documents and document changes are controlled as specified in Section VI.B.3.a. and b., and VI.B.4.a. and c.

11. Request

Describe the provisions which assure that guidelines or criteria are established for determining the method of design verification (design review, alternate calculations, or test).

Reply

The provisions which assure that guidelines or criteria are established for determining the method of design verification are specified in Section III.C.1.d.

12. Request

For design verification activities, describe the provisions which assure the following:

The verifier is qualified and is not directly responsible for the design (i.e., neither the performer or his immediate supervisor). In exceptional circumstances, the designer's immediate supervisor can perform the verification provided:

- (1) The supervisor is the only technically qualified individual.
- (2) The need is individually documented and approved in advance by the supervisor's management.
- (3) QA audits cover frequency and effectiveness of use of supervisors as design verifiers to guard against abuse.

Reply

Section III.C.1.d. has been revised to address this item.

13. Request

The responsibilities of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of documentation should be identified in procedures. Modify Section 3 to address this position.

Reply

Section III.C.1.d. has been revised to address this position.

14. Request

Provide a commitment that the following provisions are included if the verification method is only by test:

- a. Procedures provide criteria that specify when verification should be by test.
- b. Prototype, component, or feature testing is performed as early as possible prior to installation of plant equipment, or prior to the point when the installation would become irreversible.

Reply

If the verification method is only by test, procedures provide criteria that specify when verification should be by test, and that prototype, component, or feature testing is performed prior to relying upon the component, system, or structure to perform its function. Section III.C.1.d. has been revised to address this item.

15. Request

Procedures should be established to assure that verified computer systems are certified and specified for a particular use. Modify Section III to address this position.

Reply

Section III.C.1.i. has been revised to address this position.



16. Request

Describe the provisions which assure that maintenance, modification, and inspection procedures are reviewed by qualified personnel knowledgeable in QA disciplines (normally the QA organization) to determine:

- a. The need for inspection, identification of inspection personnel, and documentation of inspection results.
- b. That the necessary inspection requirements, methods, and acceptance criteria have been identified.

Reply

The provisions to assure that maintenance, modification and inspection procedures are reviewed by personnel knowledgeable in QA disciplines are included in Section V.B.1.a.&b. and V.C.1.b.

17. Request

Provide a commitment that procedures are established and described to assure that obsolete or superseded documents are removed and replaced by applicable revisions in work areas in a timely manner.

Reply

The commitment that procedures are established to assure that obsolete or superceded documents are removed and replaced by applicable revisions is specified in Sections VI.B.1.a-e., VI.B.3.b., and VI.C.1.c.&d.

18. Request

Identify the specific organization(s) at Vermont Yankee and Yankee Rowe responsible for the control of purchased material, equipment, and services.

Reply

The Administrative Departments are responsible for the control of purchased material, parts and components at the Vermont Yankee and Yankee Plants. Section VII, B.3.c. of YOQAP-1-A has been revised to reflect this responsibility.

19. Request

Describe the provisions which assure that procurement of spare or replacement parts for safety-related structures, systems, and components is subject to present QA program controls, to codes and standards, and to technical requirements equal to or better than the original technical requirements.

Reply

Procurement of spare and replacement parts important to safety are controlled by current requirements as specified in Sections IV.C.1.a. and IV.C.1.e.

20. Request

Describe the provisions which assure that suppliers' Certificates of Conformance are periodically evaluated by audits, independent inspections, or tests to assure they are valid.

Reply

Suppliers Certificates of Conformance are evaluated during receipt inspections as specified in Section VII.C.1.e and f.

21. Request

Describe the specific organization(s) at Vermont Yankee and Yankee Rowe responsible for identifying and controlling materials (including consumables), parts, and components including partially fabricated subassemblies.

Reply

The Administrative Department is responsible for the identification and control of material, parts and components in storage per Section VIII. All other departments are responsible for maintaining traceability of items when the items are issued from Stores (examples: cutting pipe, plate, fabricating subassemblies, etc.).

22. Request

Describe the criteria for determining those processes that are controlled as special processes.

Reply

Special processes are those as defined by ANSI N18.7-1976, Section 5.2.18. "Special Processes are those that require interim in process controls in addition to final inspection to assure quality including such processes as welding, heat treating, chemical cleaning and nondestructive examinations." Section II includes references to ANSI 18.7-1976.

23. Request

Describe the processes which assure that when inspections associated with normal operations of the plant (such as routine maintenance, surveillance, and tests) are performed by individuals other than those who performed or directly supervised the work, but are within the same group, the following controls are met:

- a. The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure retaining item.
- b. The qualification criteria for inspection personnel are reviewed and found acceptable by the QA organization prior to initiating the inspection.

Reply

Inspections associated with the normal operations of the plant may be performed by individuals within the same group as those who performed the work, provided they were not also involved in performing or directly supervising the work. Existing plant practices in this area are adequate to ensure quality, as detailed below, and no changes to YOQAP-I-A are deemed necessary.

- a. Measures have been established in accordance with our response to NUREG-0737, Item I.C.6 "to assure that an effective system of verifying correct performance of operating activities is provided as a means of reducing human errors and improving the quality of normal operations".
- b. The qualification criteria for personnel performing inspections during normal operations are derived from ANSI N18.1 or ANSI N45.2.6 as appropriate to the nature of the inspection activity. These standards are included by reference in Section II of YOQAP-I-A, and have therefore received the generical approval of the QA organization for use at the operating plants. Implementation is subject to ongoing overview by the QA organization or other personnel knowledgeable in quality assurance.

24. Request

Provide a commitment that inspection procedures, instructions, or checklists provide, as required, for the following:

- a. Acceptance and rejection criteria.
- b. Identification of required procedures, drawings, and specifications and revisions.
- c. Specifying necessary measuring and test equipment including accuracy requirements.

Reply

Preparation and approval of inspection instructions and checklists is specified in Section X.B.1.a. and X.B.2.a. Section X.C.1.b. references Section XVII.C.1.a. which has been revised to include items a-c.

25. Request

Describe the provisions which assure that procedures provide criteria for determining the accuracy requirements of test equipment and criteria for determining when a test is required or how and when testing activities are performed.

Reply

Sections XI.B.2. and XI.C.1. have been revised to include provisions which assure that criteria for determining when a test is required and provisions to assure that procedures provide criteria for determining the accuracy requirements of test equipment.

26. Request

Describe the specific organization(s) at Vermont Yankee and Yankee Rowe responsible for establishing, implementing, and assuring effectiveness of the calibration program.

Reply

Each Plant Department is responsible for the establishment and implementation of its calibration program. Section XII.B.2. has been revised to so specify. OQA is responsible for review of implementing documents; and surveillance and/or audit of the program as specified in Section XII.B.1.a. and b.

27. Request

Describe the provisions for the storage of chemicals, reagents (including control of shelf life), lubricants, and other consumable materials.

Reply

Section VIII.B.2 has been revised to provide for storage of lubricants and consumables. Appendices C and D includes shelf life for reagents.

28. Request

Describe the provisions which assure that the application and removal of inspection and welding stamps and status indicators such as tags, markings, labels, and stamps are controlled.

Reply

Section XIV.C.1 has been revised to provide for control of application and removal of indicators such as tags, markings, labels and stamps.

29. Request

Identify those individuals or groups responsible for the disposition of nonconforming items.

Reply

Individuals and/or groups responsible for the disposition of nonconforming items are identified in Sections XV.B. Section XV.B.3 has been revised to clarify approval responsibility.