

Docket No. 50-271
BVY 00-23

Attachment A

Vermont Yankee Nuclear Power Station

Vermont Yankee Operational Quality Assurance Manual (VOQAM) Revision 4

Revised VOQAM Pages

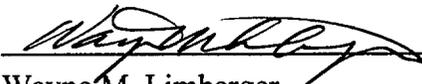
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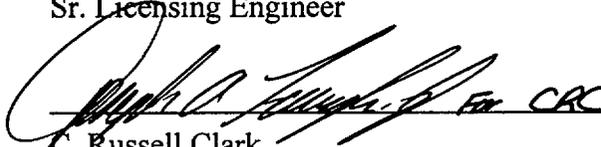
Item No.	VOQAM Section	Change Description	Reason for Change
1	Table of Contents/Index	Changed revision number of affected pages.	To incorporate reference to Revision 4.
2	Amendment/ Revision Sheet, page VI	Added “reason” statement for Revision 4.	Provides a summary description of the reasons for the revision.
3	V, page 2 of 3	Added wording to Subsection B.4 describing the methods by which VY meets the NRC’s approval conditions for use under 10CFR50.54(a)(3) of SERs for other utilities as was done for VOQAM Rev. 3.	Meets NRC expectations for use of other licensees’ SERs to make QA Program changes without prior NRC approval. Requested by NRC in 1/11/00 telephone call.
4	Appendix D, page 8 of 9, Subsection F	Added new Subsection F to describe controls for Installation, Test and Special Test Procedures.	Supports changes made in Section V.

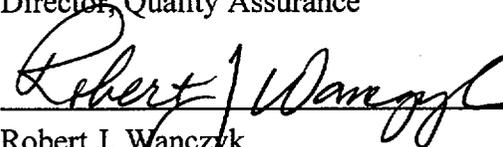
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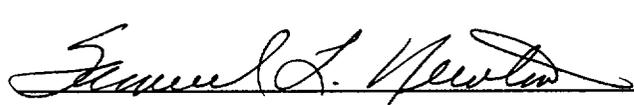
Vermont Operational Quality Assurance Manual

VOQAM

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AMENDMENT/REVISION SHEET

<u>Revision No.</u>	<u>Date</u>	<u>Reason</u>
0	5/1/98	To adopt Rev. 27 of the YOQAP as Rev.0 for the VOQAM. (Reference VY letter to NRC, dated 4/12/98.)
1	10/16/98	To update organizational changes, removed all references to YAEC and YNSD. VY assumed all YNSD responsibilities. Changed Sr. Vice President, Operations, to Director of Operations.
1A	4/6/99	Revised Section I to expand and correct the responsibilities of various key personnel based on internal audit recommendations and recent organization changes. Added Appendix D, which relocates certain Administrative Controls related to quality assurance, formerly contained in Section 6.0 of the Technical Specifications, to the Quality Assurance Manual. Revised Sections V, XVII and XVIII to refer to Appendix D for additional requirements regarding the activities covered by those sections. (Reference Proposed Change No. 208 and VY letter to NRC, BVY 99-20, dated February 1, 1999, as amended.)

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| 2 | 9/7/99 | Revised Section II to include reference to ANSI N101.4-1972, "Quality Assurance for Protective Coatings Applied to Nuclear Facilities" and Regulatory Guide 1.54, June 1973. Revised Appendix B to clarify provisions for initiating procedure changes in response to plant events, violations and nonconformances. Revised Appendix D to incorporate Section 6.2.A.h from Technical Specifications Amendment No. 168, per NRC Administrative Letter 95-06. Revised the Policy Statement, Sections I, II, III, XV, XVI and XVIII, and Appendix D to change "Director of Operations" title to "Senior Operations Executive". Revised Section I to include a note explaining the use of "Senior Operations Executive". Revised Section I to address organizational changes in the plant maintenance area. |
| 3 | 12/8/99 | Revised Section V and Appendix D to eliminate PORC review and Plant Manager approval of most plant procedures based on 10CFR50.54(a)(3) evaluation of other utilities' NRC approval bases for this reduction in commitment. Revised Appendix D to change "Manager of Operations to read "Senior Operations Executive." Removed list of plant procedures from Appendix D, Section 6.5.A, since it is redundant to list retained in Technical Specifications. Revised Appendix D to replace references to Technical Specification Proposed Change No. 208 with License Amendment No. 171 and clarify text accordingly. Revised Appendix D to state that PORC reviews plant changes that affect the FSAR. Added role of "Superintendent" to Section V responsibilities. Revised Appendix D to adopt the temporary change review criteria of ANSI N18.7-1976. |

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2/22/00

Revised Section V to include details from the 10CFR50.54(a)(3) evaluation for VOQAM Rev.3 to demonstrate how the NRC approval conditions for two Safety Evaluation Reports provided to WPPSS and Clinton Station were met by Vermont Yankee. This change satisfies an NRC request made on 1/11/00 during their review of VOQAM Rev. 3. Revised Appendix D to include supporting information for the Section V changes.

V. INSTRUCTIONS, PROCEDURES, AND DRAWINGS

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for prescribing and accomplishing activities requiring quality assurance in accordance with approved drawings, instructions, or procedures.

B. RESPONSIBILITIES

Each department Superintendent/Director/Manager is responsible for establishing and complying with applicable procedures governing the activities affecting quality.

Persons preparing and approving documents are responsible for assuring that specifications, instructions, procedures, and drawings include appropriate quantitative or qualitative acceptance criteria for determining that activities have been satisfactorily accomplished; assuring that the applicable criteria of 10CFR50 Appendix B and/or ANSI N18.7 are specified; and assuring that the documents are kept current. In addition, the following departments have the distinct responsibilities delineated below.

1. The Quality Assurance Department shall be responsible for preparation, review and approval of all Quality Assurance Department procedures. The QA Department also reviews and approves selected plant prepared quality assurance procedures.
2. The Plant shall be responsible for the preparation, approval, maintenance, and implementation of all instructions and procedures associated with plant activities, including selected QA Procedures.

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3. The Engineering Departments shall be responsible for:
 - a. Preparation and approval of engineering drawings and instructions, welding and nondestructive examination procedures, and procedures for Engineering Design Control.
 - b. Updating and control of original drawings and distribution of copies thereof.

4. The Plant Operations Review Committee shall be responsible for reviewing procedures affecting nuclear safety that have received a 10CFR50.59 (a) (2) safety evaluation, or that have been specifically designated for review, prior to their approval by the Plant Manager or designee. Except as noted below, other procedures affecting quality shall be reviewed by a Qualified Procedure Reviewer (QPR) and a Technical Verification Reviewer (TVR) who are knowledgeable in the functional area(s) affected by the procedures and who meet, as a minimum, ANSI N18.1-1971 Section 4 qualification criteria; in addition, QPRs and TVRs holding positions described in Sections 4.3.2 and 4.5 shall be qualified for another position as described in Section 4. An appropriately trained and qualified individual is assigned to perform a 10CFR50.59(a)(1) screening to determine the need for a written 10CFR50.59(a)(2) evaluation. Final review and approval are performed by a Responsible Procedure Owner (RPO), typically a department manager or above who is assigned by the Plant Manager. Procedures for which two or more departments share responsibility for implementing significant portions (e.g. certain administrative and programmatic procedures) shall be assigned to an RPO at an appropriate level of higher management (superintendent or above). An RPO assures that all required reviews, including any necessary cross-disciplinary reviews, have been satisfactorily completed prior to approval. The above requirements apply to both new and revised procedures, except that expedited temporary changes, one-time installation and test procedures, and special test procedures shall be processed in accordance with Appendix D, Sections 6.5.D through 6.5.F of this manual, as applicable.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:

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- a. Establishment of provisions which clearly delineate the sequence of actions to be accomplished in the preparation, review, approval, and control of instructions, procedures, and drawings.
 - b. Review of inspection plans; test, calibration, special process, maintenance and repair procedures; drawings and specifications; and changes thereto by the Quality Assurance Department or other personnel knowledgeable in quality assurance.
2. Appendix D specifies additional requirements regarding plant operating procedures.

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ADMINISTRATIVE CONTROLS

This Appendix contains the administrative controls related to quality assurance formerly included in Section 6 of the Technical Specifications. This is the result of relocation of certain technical specification requirements from the Technical Specifications to the licensee-controlled QA manual in accordance with License Amendment No. 171.

The Technical Specifications paragraphs relocated to the VOQAM are consistent with NRC Administrative Letter 95-06, "Relocation of Technical Specification Administrative Controls Related to Quality Assurance." The following summarizes those technical specifications relocated to the VOQAM.

Current Technical Specification

<u>CTS Section</u>	<u>Description</u>
6.2	REVIEW AND AUDIT
6.5 (PARTIAL)	PLANT OPERATING PROCEDURES
6.6	PLANT OPERATING RECORDS
6.8	FIRE PROTECTION INSPECTION

Administrative Controls

[Note: The following specifications were relocated to the VOQAM from the Technical Specifications as part of Amendment No. 171. The specifications were originally relocated without change while retaining the same numbering that existed in the Technical Specifications, and have subsequently been reviewed under 10 CFR 50.54 (a) (3) for consistency with the current organizational structure and other administrative elements of the VOQAM.]

6.2 REVIEW AND AUDIT

Organizational units for the review and audit of plant operations shall be constituted and have the responsibilities and authorities outlined below:

A. Plant Operations Review Committee

1. Membership
 - a. Chairman: Plant Manager
 - b. Vice-Chairman: Superintendent(s)
 - c. Engineering Support Supervisor
 - d. Operations Supervisor

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- e. Maintenance Supervisor
- f. Reactor and Computer Supervisor
- g. Chemistry Supervisor
- h. Instrument and Control Supervisor
- i. Radiation Protection Supervisor

2. Qualifications

The qualifications of the regular members of the Plant Operations Review Committee with regard to the combined experience and technical specialties of the individual members shall be maintained at a level at least equal to or higher than as described in Specification 6.1 [**Editorial Note: See Technical Specification 6.1**].

3. Meeting Frequency: Monthly, and as required, on call of the Chairman.

4. Quorum: Chairman or Vice-Chairman plus four members or their designated alternates.

NOTE: For purposes of satisfying a quorum, a Vice-Chairman may be considered a member providing that Vice-Chairman is not presiding over the meeting.

5. Designated alternates shall be from other plant personnel in the appropriate disciplines or as selected by the Plant Manager; however, there shall be no more than three (3) alternates serving on the committee at any one time.

6. Responsibilities

- a. Review proposed procedures affecting nuclear safety and changes thereto that have been evaluated in accordance with 10 CFR 50.59 (a) (2). Review other proposed procedures and changes thereto as required by specific regulatory commitments, or as determined by the Plant Manager.
- b. Review proposed tests and experiments.
- c. Review proposed changes to Technical Specifications.
- d. Review proposed changes or modifications to plant systems or equipment, which changes would require a change in procedures in (a) above, and/or in the Final Safety Analysis Report.

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- e. Review plant operations to detect any potential safety hazards.
- f. Investigate reported instances of violations of Technical Specifications, such investigations to include reporting, evaluation, and recommendations to prevent recurrence, to the Senior Operations Executive.
- g. Perform special reviews and investigations and render reports thereon as requested by the Chairman of the Nuclear Safety Audit and Review Committee.
- h. Review of the Fire Protection Program and implementing procedures, and submittal of recommended changes to the Nuclear Safety and Audit Review Committee.

7. Authority

- a. The Plant Operation Review Committee shall be advisory.
- b. The Plant Operation Review Committee shall recommend to the Plant Manager approval or disapproval of proposals under Items 6 (a) through (d) above.
 - 1. In the event of disagreement between the recommendations of the Plant Operation Review Committee and the actions contemplated by the Plant Manager, the course determined by the Plant Manager to be the more conservative will be followed with immediate notification to the Senior Operations Executive.
- c. The Plant Operation Review Committee shall make tentative determinations as to whether or not proposals considered by the Committee involve unreviewed safety questions. This determination shall be subject to review by the Nuclear Safety Audit and Review Committee.

8. Records

Minutes shall be kept at the plant of all meetings of the Plant Operation Review Committee and copies shall be sent to the Senior Operations Executive and the Nuclear Safety Audit and Review Committee.

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B. Nuclear Safety Audit and Review Committee

1. The Committee shall consist of at least six (6) persons:
 - a. Chairman
 - b. Vice Chairman
 - c. Four technically qualified persons who are not members of the plant staff.
 - d. No more than three members shall be selected from the organization reporting to the Senior Operations Executive.
 - e. The Committee will obtain advice and counsel from scientific or technical personnel employed by the Company or other organizations whenever the Committee considers it necessary to obtain further scientific or technical assistance in carrying out its responsibilities.
 - f. The Committee membership and its Chairman and Vice Chairman shall be appointed as specified in the Yankee Quality Assurance Manual [**Editorial Note: now the Vermont Yankee Operational Quality Assurance Manual**].

2. Qualifications

The Committee shall consist of a minimum of six (6) members of designated alternates who as a group employ expertise in the following areas:

- a. Nuclear Power Plant Technology
- b. Reactor Operations
- c. Utility Operations
- d. Power Plant Design
- e. Reactor Engineering
- f. Radiation Safety

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- g. Safety Analysis
 - h. Instrumentation and Control
 - i. Metallurgy
3. Meeting Frequency: Semi-annually and as required on call of the Chairman.
4. Quorum: Chairman or Vice Chairman plus four members or designated alternates.
5. Responsibilities:
- a. Review proposed changes to the operating license including Technical Specifications.
 - b. Review minutes of meetings of the Plant Operation Review Committee to determine if matters considered by that committee involve unreviewed or unresolved safety questions.
 - c. Review the safety evaluations for changes to equipment or systems completed under the provisions of Section 50.59 10 CFR to verify that such actions did not constitute an unreviewed safety question.
 - d. Periodic audits of implementing procedures, shall be performed under cognizance of the Committee. Included in these audits, but not limited to, are the following specific activities:
 - i. plant operations;
 - ii. facility fire protection program;
 - iii. the radiological environmental monitoring program and the results thereof at least once per 12 months;

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- iv. the Off-Site Dose Calculation Manual and implementing procedures at least once per 24 months;
 - v. the Process Control Program and implementing procedures for processing and packaging of radioactive waste at least once per 24 months;
 - vi. the performance of activities required by the Quality Assurance Program to meet the provisions of Regulatory Guide 1.21, Revision 1, June 1974, and Regulatory Guide 4.1, Revision 1, April 1975, at least once per 12 months.
- e. Investigate all reported instances of violations of Technical Specifications, reporting findings and recommendations to prevent recurrence to the Senior Operations Executive.
 - f. Perform special reviews and investigations and render reports thereon as requested by the Senior Operations Executive.
 - g. Review proposed tests and experiments and results thereof when applicable.
 - h. Review abnormal performance of plant equipment and anomalies.
 - i. Review unusual occurrences and incidents which are reportable under the provisions of 10 CFR Part 20 and 10 CFR Part 50.
 - j. Review of occurrences if safety limits are exceeded.
6. Authority
- a. Review proposed changes to the operating license including Technical Specifications and revised bases for submittal to the NRC.
 - b. Review proposed changes or modifications to plant systems or equipment, provided that such changes or modifications do not involve unreviewed safety questions.
 - c. Recommend to the Senior Operations Executive appropriate action to prevent recurrence of any violations of Technical Specifications.

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d. Evaluate actions taken by the Plant Operation Review Committee.

7. Records

Minutes of all meetings of this committee shall be recorded. Copies of the minutes shall be forwarded to the Manager of Operations, the Senior Operations Executive, the Plant Manager and any others that the Chairman may designate.

6.5 PLANT OPERATING PROCEDURES

A. Detailed written procedures, involving both nuclear and non-nuclear safety, including applicable check-off lists and instructions, covering areas listed in Technical Specification 6.5.A shall be prepared and approved.

All procedures shall be adhered to.

B. Radiation control standards and procedures shall be prepared, approved and maintained and made available to all station personnel. These procedures shall show permissible radiation exposure, and shall be consistent with the requirements of 10 CFR Part 20. This radiation protection program shall be organized to meet the requirements of 10 CFR Part 20.

C. Procedures prepared for A and B above shall be reviewed and approved by the applicable Department Supervisor or designee, or by the Plant Manager or designee if PORC review is required by Specification 6.2.A.6 above.

D. Temporary changes to procedures described in Technical Specification 6.5.A which do not change the intent of the original procedure may be made with the concurrence of one individual holding a senior operator license who is also the supervisor in charge of the shift (Shift Supervisor or Supervisory Control Room Operator), and one individual who is technically knowledgeable in the process covered by the procedure. Such changes shall be documented and subsequently reviewed by the applicable Department Supervisor or designee, or by the Plant Manager or designee if PORC review is required by Specification 6.2.A.6 above.

E. Temporary changes to procedures described in Specification 6.5.B may be made with the concurrence of an individual holding a senior operator license and the health physicist on duty.

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- F. One-time installation and test procedures prepared for the implementation of plant modifications requiring quality assurance are reviewed by PORC and approved by the Plant Manager prior to implementation. Special test procedures prepared for the conduct of non-routine testing of plant systems and components requiring quality assurance are reviewed by PORC and NSARC as described in Specifications 6.2.A.6.b and 6.2.B.5.g above, and are approved by the Senior Operations Executive prior to implementation.

6.6 PLANT OPERATING RECORDS

- A. Records and/or logs relative to the following items shall be kept in a manner convenient for review and shall be retained for at least five years:
1. Records of normal plant operation, including power levels and periods of operation at each power level.
 2. Records of principal maintenance activities, including inspection and repair or principal items of equipment pertaining to nuclear safety.
 3. Records of reportable occurrences.
 4. Records of periodic checks, inspection and/or calibrations performed to verify that surveillance requirements are being met.
 5. Records of any special reactor test or experiments.
 6. Records of changes made in the Operating Procedures.
 7. Test results, in units of microcuries, for leak tests performed on licensed sealed sources.
 8. Results of annual physical inventory verifying accountability of licensed sources on record.
- B. Records and/or logs relative to the following items shall be recorded in a manner convenient for review and shall be retained for the life of the plant:
1. Records of substitution or replacement of principal items of equipment pertaining to nuclear safety.

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2. Records of changes and drawing changes made to the plant as it is described in the Safety Analysis Report.
3. Records of plant radiation and contamination surveys.
4. Records of new and spent fuel inventory, transfers of fuel, and assembly histories.
5. Records of radioactivity in liquid and gaseous wastes released to the environment.
6. Records of radiation exposure for all plant personnel, including all contractors and visitors to the plant for whom monitoring was required in accordance with 10 CFR 20.
7. Records of transient or operational cycling for those plant components that have been designed to operate safely for a limited number of transients or operational cycles.
8. Records of inservice inspections of the reactor coolant system.
9. Minutes of meetings of the Plant Operation Review Committee and the Nuclear Safety Audit and Review Board.
10. Records for Environmental Qualification which are covered under the provisions of paragraph 6.9.
11. Records of analysis required by the Radiological Environmental Monitoring Program.
12. Records of radioactive shipments.

6.8 FIRE PROTECTION INSPECTION

- A. An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified off-site licensee personnel or an outside fire protection firm.
- B. An inspection and audit by an outside fire consultant shall be performed at intervals no greater than 3 years.

Docket No. 50-271
BVY 00-23

Attachment B

Vermont Yankee Nuclear Power Station

Vermont Yankee Operational Quality Assurance Manual (VOQAM) Revision 4

Summary of Commitments

SUMMARY OF VERMONT YANKEE COMMITMENTS

BVY NO.: 00-23

The following table identifies commitments made in this document by Vermont Yankee. Any other actions discussed in the submittal represent intended or planned actions by Vermont Yankee. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager of any questions regarding this document or any associated commitments.

COMMITMENT	COMMITTED DATE OR "OUTAGE"
None	N/A