

# VERMONT YANKEE NUCLEAR POWER CORPORATION

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January 16, 2002  
BVY 02-02

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

- References:
- (a) Letter, VYNPC to USNRC, "Annual Submittal of Quality Assurance Program Changes," BVY 00-114, dated December 20, 2000.
  - (b) Letter, VYNPC to USNRC, "Vermont Yankee Operational Quality Assurance Manual (VOQAM) Revision," BVY 01-30, dated April 23, 2001.
  - (c) Letter, VYNPC to USNRC, "Supplement to Submittal of proposed VOQAM Revision," BVY 01-57, dated July 10, 2001.
  - (d) Letter, USNRC to VYNPC, "Vermont Yankee Nuclear Power Station – Safety Evaluation for Operational Quality Assurance Manual (TAC No. MB1867)," NVY 01-76, dated July 27, 2001.

**Subject: Vermont Yankee Nuclear Power Station  
License No. DPR-28 (Docket No. 50-271)  
Annual Submittal of Quality Assurance Program Changes**

Pursuant to 10CFR50.54(a)(3) and 10CFR50.71(e), Vermont Yankee (VY) is providing herewith a copy of Revision 10 of the Vermont Yankee Operational Quality Assurance Manual (VOQAM), incorporating changes made to the quality assurance program since the last update (Revision 7) submitted with Reference (a).

Attachment 1 provides a summary of changes in VOQAM Revisions 8, 9 and 10 and Attachment 2 provides a complete copy of VOQAM Revision 10. The "Summary of Changes" provides a description of each change made subsequent to Revision 7 by section and page number, and the text on each page affected by the most recent revision to that page is indicated by revision bars in the left-hand margin. The "Table of Contents/Index" provides a list of effective pages for each VOQAM section and the current revision number for all of the pages in the section. For ease of document administration, VY updates the VOQAM by entire sections rather than single pages; only the content identified by revision bars was changed under the revision number shown on each page, although the revision number has been updated for all pages in the section. Each change is supported by a written evaluation in accordance with 10CFR50.54(a)(3), on file at VY, demonstrating that the change does not constitute a reduction in commitments contained in the quality assurance program as previously approved by the NRC. There was one change during this period that required prior NRC approval that is documented in References (b), (c) and (d).

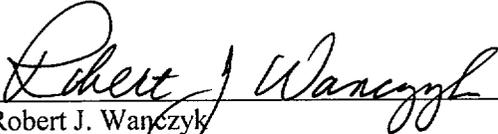
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This is to certify, as required by 10CFR50.71(e)(2)(i), that the information contained in the enclosed document accurately represents changes made under the provisions of 10CFR50.54(a)(3) since the previous submittal.

Please contact Mr. Wayne M. Limberger at (802) 258-5830 if you have any questions regarding this submittal.

Sincerely,

VERMONT YANKEE NUCLEAR POWER CORPORATION

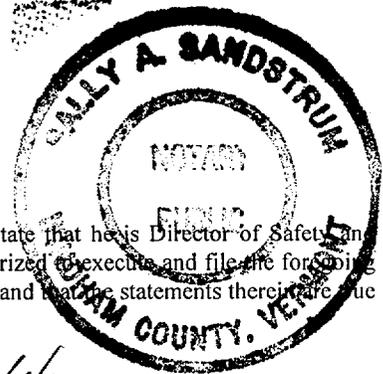
  
Robert J. Wanczyk  
Director of Safety and Regulatory Affairs

Attachment

- cc: USNRC Region I Administrator
- USNRC Region 1 Director of Nuclear Materials Safety and Safeguards
- USNRC Resident Inspector - VYNPS
- USNRC Project Manager - VYNPS
- VT Department of Public Service

STATE OF VERMONT     )  
                                   )ss  
 WINDHAM COUNTY     )

Then personally appeared before me, Robert J. Wanczyk, who being duly sworn, did state that he is Director of Safety and Regulatory Affairs of Vermont Yankee Nuclear Power Corporation, that he is duly authorized to execute and file the foregoing document in the name and on the behalf of Vermont Yankee Nuclear Power Corporation, and that the statements therein are true to the best of his knowledge and belief.



  
Sally A. Sandstrum, Notary Public  
My Commission Expires February 10, 2003



ATTACHMENT 1

Vermont Yankee Nuclear Power Station

Annual Submittal of Quality Assurance Program Changes

Summary of Changes made in VOQAM Revisions 8, 9 and 10

ATTACHMENT A

VOQAM Summary of Changes – Revision 8

Page 1 of 6

Item No.	VOQAM Section	Change Description	Reason for Change
1	I, Page 3	Added "Senior Vice President and Chief Nuclear Officer" to NOTE section.	Reflects recent executive management reorganization.
2	I, Page 3	Added sub-item C.1.b.8 to describe Senior Operations Executive's responsibility for direction of safety-related Procurement and Information Technologies functions.	Reflects recent executive management reorganization.
3	I, Page 4	Changed VP, Engineering direct reporting line from the President and CEO to the Senior Operations Executive.	Reflects recent executive management reorganization.
4	I, Page 5	Changed Director of Safety and Regulatory Affairs direct reporting line from the President and CEO to the Senior Operations Executive.	Reflects recent executive management reorganization.
5	I, Page 8	Changed sub-items C.1.f.1 and C.1.f.2 to show reporting lines of Procurement Manager for both general business and safety-related activities.	Reflects recent executive management reorganization.
6	I, Page 10	Changed sub-items C.1.h.1 and C.1.h.2 to show reporting lines of Information Technologies Manager for both general business and safety-related activities.	Reflects recent executive management reorganization.
7	I, Page 10	Added a new item I.C.1.h.4 to describe the responsibilities of Information Technologies in controlling electronic QA data. Renumbered remaining item.	Resolves an issue identified in a QA audit of Document Control.
8	I, Page 11	Removed day-to-day oversight of Operations Department from section I.C.2.a. Renumbered other items.	Obsolete requirement related to 1999 outage organization; responsibility now held by the Operations Superintendent.
9	I, Page 13	Removed "Electrical Maintenance" from section I.C.2.c.	Department has been consolidated with Mechanical Maintenance.
10	I, Page 13	Revised "Mechanical Maintenance" in section I.C.2.c.2 to read "Mechanical and Electrical Maintenance".	Reflects consolidation of groups.

## ATTACHMENT A

## VOQAM Summary of Changes – Revision 8

Page 2 of 6

Item No.	VOQAM Section	Change Description	Reason for Change
11	I, Page 21	Revised "Maintenance Production Manager - Mechanical" title to include "and Electrical".	Reflects consolidation of groups.
12	I, Page 21	In items I.C.2.m.2 through I.C.2.m.4, added the term "and electrical" to all instances of "mechanical."	Reflects consolidation of groups.
13	I, Page 22	Deleted the Maintenance Production Manager – Electrical.	Department has been consolidated with Mechanical Maintenance.
14	I, Page 23	Deleted "and scheduling" from item I.C.2.o.2.	Scheduling of work activities is now the responsibility of the Work Management Department.
15	I, Page 23	Added section I.C.2.p regarding the responsibilities of the Work Management Manager.	With the advent of 10CFR50.65(a)(4), this department now has QA-related responsibility in the area of risk assessment.
16	I, Page 28, Organizational Chart	Added Work Management Manager to the Organization Chart, deleted Maintenance Production Manager – Electrical, and changed Maintenance Production Manager-Mechanical to include "and Electrical."	Reflects organizational changes in the Work Management and Maintenance organizations.
17	II, Page 6	Removed the term "quality phase."	This term was meaningless in the context of "activities affecting quality in . . .". It is not a legitimate "phase" of nuclear plant life in the same manner as the "design, testing, operational and construction" phases.
18	III, Page 2	Eliminated reference to "unreviewed safety question," "10CFR50.59(a)(1)" and 10CFR50.59(a)(2). Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
19	III, Page 2	Removed review and approval of design procedures from the Senior Operations Executive's responsibilities.	This function has been reassigned to a cognizant "Responsible Procedure Owner" as permitted by changes made to VOQAM Section V under Revision 4.

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## VOQAM Summary of Changes – Revision 8

Page 3 of 6

Item No.	VOQAM Section	Change Description	Reason for Change
20	III, Page 3	In item III.C.1 d, changed "process" to "processes."	Editorial change to correct grammar.
21	III, Page 4	Revised section III.C.1.e to eliminate "including those originating 'on-site,'."	This is a YOQAP-1-A remnant from a time when most design changes were originated "off-site" at YAEC. All design changes now originate "on-site."
22	IV, Page 1	Relocated item IV.B.5 to subsection IV.B.2 and reworded to become a new item IV.B.2.b.	Editorial change to consolidate Engineering responsibilities under a single item.
23	IV, Page 2	Deleted unnecessary words: "vendor's," "referenced," and "the" (qualified personnel) in item C.1.b.	Editorial change to remove superfluous wording. The meaning is clear without it.
24	IV, Page 3	Changed "procurement documentation" to "procurement document requirements" in item IV.C.1.c.6.	Editorial change to relate the wording more accurately to the purpose of the activity.
25	V, Page 2	In item V.B.4, eliminated reference to "unreviewed safety question," "10CFR50.59(a)(1)" and 10CFR50.59(a)(2). Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
26	VI, Page 2	Revised section VI.B.4 to eliminate the wording "and the Approved Vendors List."	This function is now contracted to an off-site Vendor QA organization.
27	VI, Page 3	In item VI.C.1.c, deleted "Provision of" from sentence.	Eliminates redundant and superfluous wording.
28	VI, page 3	In item VI.C.1.e.1, changed "Engineering Design Change Requests" to "Design Changes."	This wording was a remnant of YOQAP-1-A, and is no longer used.
29	VI, Page 3	In item VI.C.1.e.4, separated the wording "maintenance and operating procedures" into its own sub-item, renumbered as "VI.C.1.e.5."	These are not sub-items under the VOQAM as previously shown.
30	VI, Page 4	In item VI.C.1.e.8, corrected capitalization to read "Event Reports".	Editorial correction.
34	VII, Page 1	In item VII.B.1, removed wording regarding vendor audits, commercial surveys, and AVL maintenance and relocated it to a new Vendor QA sub-item.	This function is now contracted to another company. It was previously performed as part of overall DE&S QA services.

## ATTACHMENT A

## VOQAM Summary of Changes – Revision 8

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Item No.	VOQAM Section	Change Description	Reason for Change
35	VII, Page 1	Revised item VII.B.1.a to identify site QA's role in oversight of on-site (and some off-site) vendor inspection activities.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
36	VII, Page 1	In item VII.B.3, added wording reflecting Procurement Engineering's responsibility for day-to-day control of the Vendor QA contractor's activities.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
37	VII, Page 1	Added a new item VII.B.4 to describe the responsibilities of the contracted Vendor QA organization. Renumbered remaining section.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
38	VII, Page 3	In item VII.C.1.e, added "the" before "Plant or Engineering."	Editorial change to improve wording.
39	VII, Page 3	In item VII.C.1.e, changed "Evaluations" to "Evaluation."	Editorial change to improve wording.
40	VIII, Page 1	In item B.1, changed "Quality Assurance Department" to "contracted Vendor Quality Assurance organization." Also corrected punctuation.	This function is now contracted out to another company. It was previously performed as part of overall DE&S QA services.
41	IX, Page 2	In item IX.B.3, replaced "change" with "modification."	Editorial change to improve wording.
42	IX, Page 2	In item IX.C.1, eliminated "the" in front of "implementation."	Editorial change to improve wording.
43	X, Page 1	In item X.B.1.a, de-capitalized "Plant Inspection."	Editorial change to improve wording.
44	X, page 1	Added new item X.B.1.b to identify site QA's role in oversight of on-site (and some off-site) vendor inspection activities. Renumbered remaining item.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
45	X, Page 1	Added new sub-section X.B.2 to identify the contracted Vendor QA organization's role in audit and survey of vendor QA programs, and off-site vendor inspection activities. Renumbered remaining item.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.

## ATTACHMENT A

## VOQAM Summary of Changes – Revision 8

Page 5 of 6

Item No.	VOQAM Section	Change Description	Reason for Change
46	X, Page 2	Removed “the” from in front of “implementation.”	Editorial change to improve wording.
47	XI, Page 1	Switched items XI.B.1.a and XI.B.1.b.	Clarifies that plant test programs are the first priority of the QA Department in this area.
48	XI, Page 1	In item XI.B.1.a, added “plant test programs.”	This item previously only addressed test documentation and was apparently related only to vendor testing. This provided an incomplete picture of QA’s scope of coverage.
49	XI, Page 1	Revised item XI.B.1.b to identify site QA’s role in oversight of on-site (and some off-site) vendor test activities.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
50	XI, Page 1	Added new sub-section XI.B.2 to identify the contracted Vendor QA organization’s role in audit and survey of vendor QA programs, and off-site vendor test activities. Renumbered remaining items.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
51	XI, Page 1	In item XI.B.4, eliminated reference to “unreviewed safety question.” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
52	XV, Page 1	Added the words “plant-generated” to item XV.B.1.a.	Editorial change to clarify the scope of QA’s review.
53	XV, Page 1	Relocated items XV.B.1.b (establishment of vendor feedback system) to Procurement, Section XV.B.5.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
54	XV, Page 1	In item XV.B.1.3.b, changed “confirming” to “conforming.”	Editorial change to correct typo.
55	XV, Page 2	Added the words “Establishment and” to item XV.B.5.a.	Fully implements a change made in VOQAM Rev. 5 to support procurement of QA services from more than one contractor.
56	XVII, Page 2	Added a new item XVII.B.3 to describe the responsibilities of Information Technologies in controlling electronic QA data. Renumbered remaining item.	Resolves an issue identified in a QA audit of Document Control.
57	Appendix A, Page 1	Changed item B.1 to read “Four years of experience . . .”	Editorial change to improve wording.

Item No.	VOQAM Section	Change Description	Reason for Change
58	Appendix D, Page 2	In item I.A.6, removed reference to “10CFR50.59(a)(2).” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
59	Appendix D, Page 3	Eliminated item I.A.6.h regarding PORC review of Fire Protection Program and procedures.	Implements NRC RIS 99-02.
60	Appendix D, Page 3	In item I.A.7.c, eliminated reference to “unreviewed safety question.” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
61	Appendix D, Page 4	Revised NSARC criteria to use the term “standing Committee” in I.B.1 and “At least four technically qualified persons” in I.B.1.c.	Clarification of intent.
62	Appendix D, Page 4	Revised sub-section I.B.1.d to eliminate the restriction on standing members reporting to the Senior Operations Executive and restrict quorum membership to those with line responsibility for operating the plant. Also added a note at end of section defining “line responsibility for operating the plant.”	Aligns NSARC criteria with ANSI N18.7-1976 requirements.
63	Appendix D, Page 5	In item I.B.5.b, eliminated reference to “unreviewed safety question.” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
64	Appendix D, Page 5	In item I.B.5.c, eliminated reference to “safety evaluations.” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
65	Appendix D, Page 6	In item I.B.6.b, eliminated reference to “unreviewed safety question.” Added wording to reflect the new NRC regulation.	The new 10CFR50.59 regulation no longer uses this terminology.
66	Appendix D, Page 7	In item I.B.7, eliminated “Manger of Operations.”	Editorial correction to remove obsolete title, which was replaced by the term “Senior Operations Executive” in a previous revision.
67	Appendix D, Page 9	Renumbered Section 6.8 as Section IV.	This is a correction that was omitted when the rest of Appendix D was renumbered.

ATTACHMENT A  
VOQAM Summary of Changes - Revision 9  
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Item No.	VOQAM Section	Change Description	Reason for Change
1	XVII, Page 1	Changed the title "Technical Support Department" to "Engineering Support Department" in XVII.B.1	Reflects relocation of the DCC organization to Engineering Support.
2	Appendix B, Page 21	Removed the language regarding use of routine procedures.	Incorporates NRC SER NVY 01-76.

ATTACHMENT A  
VOQAM Summary of Changes - Revision 10  
Page 1 of 1

Item No.	VOQAM Section	Change Description	Reason for Change
1	I, Page 17	Clarified that the Engineering Support Superintendent is only responsible for contracts and contractors for special projects.	Reflects reassignment of general maintenance and modification contractor control to the Maintenance Support organization.
2	I, Page 22	Added responsibility for management of contracts and contractors for general maintenance and modifications to the Maintenance Support Manager's section.	Reflects reassignment of general contractor control responsibility to the Maintenance Support organization.
3	XVII, Page 1	Added "authentication" to Scope, Section A.1.	Aligns this section with the language added regarding electronic authentication of QA records
4	XVII, Page 2	Added responsibility for Information Technologies to issue unique user identification/password combinations for electronic records authentication.	Reflects incorporation of RIS 2000-18 guidance.
5	XVII, Page 3	Added specific guidance for electronic recordkeeping.	Reflects incorporation of RIS 2000-18 guidance.

ATTACHMENT 2

Vermont Yankee Nuclear Power Station

Annual Submittal of Quality Assurance Program Changes

Vermont Yankee Operational Quality Assurance Program, Revision 10

VERMONT YANKEE NUCLEAR POWER CORPORATION

Vermont Operational Quality Assurance Manual

VOQAM

PREPARED BY: Wayne M. Limberger 12/17/01  
Wayne M. Limberger Date  
Quality Assurance Manager

REVIEWED BY: Robert J. Wanczyk 12/17/01  
Robert J. Wanczyk Date  
Director of Safety and Regulatory Affairs  
Vermont Yankee

APPROVED BY: Michael A. Balduzzi 12/22/01  
Michael A. Balduzzi Date  
Senior Vice President and Chief Nuclear Officer  
Vermont Yankee

VERMONT YANKEE NUCLEAR POWER CORPORATION

VOQAM  
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Rev.: 10

VERMONT YANKEE NUCLEAR POWER CORPORATION

VOQAM

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VERMONT YANKEE NUCLEAR POWER CORPORATION

VOQAM

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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VOQAM

AMENDMENT/REVISION SHEET

<u>Revision No.</u>	<u>Date</u>	<u>Reason</u>
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.

VERMONT YANKEE NUCLEAR POWER CORPORATION

VOQAM

AMENDMENT/REVISION SHEET

<u>Revision No.</u>	<u>Date</u>	<u>Reason</u>
4	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.
5	3/15/00	Revised Section I to address the use of more than one contractor to obtain quality assurance services, and to correct obsolete references to Technical Specification sections that have been moved to Appendix D of the VOQAM. Revised Appendix B to incorporate the revised Regulatory Guide 1.26 and ANSI N18.7 exceptions approved by the NRC on January 13, 2000 (Reference letter BVY 00-04.)
6	7/12/00	Revised Section I to adopt approved organizational changes. Revised all Sections except XII, XIV and Appendices A through C to incorporate results of the annual VOQAM review. Revised Sections I and IX to address ownership of special process programs, procedures, personnel qualification and implementation activities.

VERMONT YANKEE NUCLEAR POWER CORPORATION

VOQAM

AMENDMENT/REVISION SHEET

<u>Revision No.</u>	<u>Date</u>	<u>Reason</u>
7	12/14/00	Revised Section I and the Organizational Chart to reflect changes in the Engineering Departments, the Training Department and the Reactor and Computer Engineering Department. Removed Emergency Planning from the Director of Safety and Regulatory Affairs' list of direct reports in Section I. Standardized the positions of QA Manager, Procurement Manager, Training Superintendent and Information Technologies Manager in Section I with other similar positions regarding duties common to all such positions. Revised Appendix D to remove specific job titles for PORC membership and replace them with functional area designations. Made editorial changes in Sections I, VI and Appendix D to correct errors introduced in previous revisions.
8	07/09/01	Revised Section I and the Organizational Chart to reflect organizational and responsibility changes in Executive Management, Operations, Maintenance, Work Management and Information Technologies. Revised wording in Sections III, V, XI, and Appendix D involving application of 10CFR50.59 screenings and written safety evaluations, to adopt requirements from the new 10CFR50.59 regulation. Revised Sections VI, VII, VIII, X, XI and XV to complete implementation of changes made in VOQAM Rev. 5 that removed references to a single source of contracted QA services, allowing establishment of a separate Vendor QA function. Revised Sections II and VI to remove obsolete wording that was related to the superseded YAEC QA Program, YOQAP-1-A. Revised Sections III and Appendix D to remove superseded responsibilities. Made editorial changes to Sections II, IV, VI, VII, IX, X, XI, and XV to provide clarification, improve wording and correct errors. Revised Section XVII to identify the responsibilities of the Information Technologies Department in controlling electronic QA data. Revised Appendix D to adopt NRC RIS 99-02 regarding PORC review of the Fire Protection Program and implementing procedures.

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AMENDMENT/REVISION SHEET

<u>Revision No.</u>	<u>Date</u>	<u>Reason</u>
9	10/02/01	Revised Section XVII to correct the alignment of the Document Control Center from the Technical Support Department to the Engineering Support Department. Revised Exception IX.B of Appendix B to remove references to the two-year usage threshold for routine plant procedures, as permitted by NRC SER NVY 01-76.
10	01/04/02	Revised Organization, Section I, to reflect reassignment of responsibility for control of general maintenance and modification contractors to the Maintenance Support Department. Revised Section XVII to adopt the guidance contained in NRC Regulatory Issue Summary 2000-18.

VERMONT YANKEE NUCLEAR POWER CORPORATION

POLICY STATEMENT

OPERATIONAL QUALITY ASSURANCE PROGRAM

It is the policy of those organizations operating under this Quality Assurance Program to strive for excellence in all aspects of nuclear power plant operation. This goal can only be attained if each individual recognizes that Quality is everyone's responsibility. Each worker, supervisor, and manager has a role to play in achieving the goal of "doing it right the first time." Only if we recognize that Quality is of paramount importance can we continue to provide for the safe and reliable generation of power.

The function of the quality verification program is to assess the adequacy, content, and appropriateness of the work being performed and to facilitate continuous enhancements. This function supports the line organizations and provides management with needed feedback. However, supervision and management should not rely solely upon the efforts of the Quality Assurance Groups for quality verification; they must also take an active role in self-assessment of those activities under their control to identify quality problems. As previously noted, the ultimate responsibility for quality lies with the line organization.

Under the program, the Senior Operations Executive is the final management authority responsible for assuring that the Quality Assurance Program is implemented within the Vermont Yankee Nuclear Power Corporation.

The Vice President/Director/Department Head is responsible for implementing the program for those departments under his (or her) direction. The Director of Quality Assurance reporting to the Director of Safety and Regulatory Affairs, is responsible for preparation, control, and distribution of the Quality Assurance Program and revisions thereto, and shall establish policies under which the Quality Assurance Department operates. The Quality Assurance staff shall have the authority and organizational freedom to meet the requirements of 10CFR50, Appendix B.

The Plant Manager shall be responsible for the day-to-day implementation of the program's procedural requirements at the plant.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

The Nuclear Safety Audit and Review Committee shall review the adequacy and effectiveness of this program. Any discrepancies and/or recommendations for corrections or enhancements shall be reported to the Senior Operations Executive.

The safe and reliable generation of power can only be achieved with the cooperation and support of all personnel. We expect that every individual will perform his or her task with the skill, professionalism, and dedication necessary to achieve this goal.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

### I. ORGANIZATION

#### A. SCOPE

This section of the Operational Quality Assurance Program describes the duties and responsibilities of the personnel involved in establishing and executing the Operational Quality Assurance Program.

#### B. RESPONSIBILITY

The responsibility for design, maintenance, and operation of the Plant rests with the Vermont Yankee Nuclear Power Corporation. The responsibility for implementing the Operational Quality Assurance Program within Vermont Yankee is vested in the Senior Operations Executive who has delegated certain areas of authority for the development and implementation of certain phases of the Program as set forth in the following paragraphs of this section.

Vermont Yankee retains one or more contracted services organization(s), under the cognizance of the Quality Assurance Manager, as its authorized agent for provision of certain quality assurance and related support services. Other contracted activities affecting quality and subject to oversight by the Quality Assurance Department include selected engineering and related technical services and various administrative and other general support services. All work affecting quality assurance performed by approved contractors under the terms of the applicable contractual agreements shall be conducted in accordance with the programs and procedures required by this Operational Quality Assurance Program or the contractors' approved Quality Assurance Programs.

The Quality Assurance Department, reporting to the VY Director of Safety and Regulatory Affairs has the organizational responsibility for the continuing review and audit of the implementation of the Operational Quality Assurance Program.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

### C. ORGANIZATIONAL RELATIONSHIPS

The lines of authority for all personnel involved in the implementation of the Operational Quality Assurance Program are shown in Figure 1, and their QA-related responsibilities are defined in the following sections. Interfacing between the Vermont Yankee plant and any contracted service organization is provided by the cognizant VY organization, as stipulated in the contracts. The qualification requirements for those key personnel are identified in approved job descriptions as required by ANSI N18.7.

#### 1. Corporate Staff

##### a. President and Chief Executive Officer

1. Provides executive direction to senior managers regarding strategies for pursuit of quality objectives.
2. Fosters a corporate culture in which quality is actively promoted and integrated into all aspects of work.
3. Provides for mediation and resolution of quality issues that cannot be resolved at the Vice President/Director level.

VERMONT YANKEE NUCLEAR POWER CORPORATION

b. Senior Operations Executive

NOTE

This position may be variously titled “Vice President, Operations;” “Senior Vice President, Operations;” “Vice President and Manager of Operations;” “Director of Operations;” “Senior Vice President and Chief Nuclear Officer,” etc. The incumbent will only be considered an Officer of the Company when the title includes “Vice President”; however, the Board of Directors may assign certain authorities and responsibilities of a company officer (such as signing “oath or affirmation” statements) to other senior management titles.

1. Reports to the President - Vermont Yankee Nuclear Power Corporation.
2. Ensures the QA Program is effectively implemented.
3. Dispositions In-Plant Audits and issues concurrence directives.
4. Ensures that applicable programs and procedures effectively implement the QA Program.
5. Reviews and approves all changes to the Operational Quality Assurance Program.
6. Appoints the NSAR Committee members including Chairman and Vice Chairman.
7. Acts as the Manager of Operations.
8. Provides executive direction for the quality-affecting activities of the Procurement and Information Technologies Departments, independent of the general administrative and business functions of those organizations.

VERMONT YANKEE NUCLEAR POWER CORPORATION

c. Vice President, Engineering

1. Reports to the Senior Operations Executive.
2. Has overall responsibility for design and plant engineering. Oversees the planning, scheduling, and direction of activities of employees engaged in design changes, alterations, and systems readiness.
3. Provides for review and approval of safety-related design change documents, selected plant programs and policies.
4. Provides for interfacing between Engineering and other plant and corporate functions.
5. Responsible for Fire Protection.
6. Ensures that applicable engineering programs and procedures effectively implement the QA Program.

VERMONT YANKEE NUCLEAR POWER CORPORATION

- d. Director of Safety and Regulatory Affairs
1. Reports to the Senior Operations Executive.
  2. Oversees the activities of the Quality Assurance, Licensing, and Safety Departments.
  3. Oversees the development, implementation, and maintenance of the Quality Assurance Program and implementing procedures. Reviews all changes to the QA Program.
  4. Acts as the Chairman of the NSARC.
  5. Provides for the review of and compliance with federal and state regulations and standards for nuclear power facilities.

VERMONT YANKEE NUCLEAR POWER CORPORATION

e. Quality Assurance Manager

1. Reports directly to the Director of Safety and Regulatory Affairs.
2. Reviews or recommends company policy relative to Quality Assurance practices.
3. Assures that the Operational Quality Assurance Program satisfies the requirements of 10CFR50 Appendix B and ANSI N18.7-1976, and is modified and/or revised as standards, regulations and experience dictate.
4. Provides for evaluation of changes to the Quality Assurance Program to the requirements of 10CFR50.45(a)(3).
5. Reviews and approves all changes to the Operational Quality Assurance Program, and provides for preparation, control, and distribution of the Program and revisions thereto.
6. Establishes the qualification requirements for the principal Quality Assurance staff positions to assure competence commensurate with responsibility.
7. Provides for the training and retraining of Quality Assurance personnel in Quality assurance and audit techniques.
8. Authorizes personnel performing Quality Assurance functions to have direct access to management levels which will assure accomplishment of quality-affecting activities.
9. Provides for effective implementation of the Program within the Quality Assurance Department, and establishes policies, programs and procedures under which the Quality Assurance Department functions.
10. Ensures that personnel performing Quality Assurance functions have sufficient authority and organizational freedom to:
  - a. identify quality problems,
  - b. initiate, recommend, or provide solutions through designated channels, and
  - c. verify implementation of solutions.

**VERMONT YANKEE NUCLEAR POWER CORPORATION**

11. Verifies that the QA Program is effectively implemented throughout the Vermont Yankee organization for all activities requiring Quality Assurance
12. Provides, through Quality Assurance Department audits and surveillances, for independent verification of site operation by individuals or groups who do not have direct responsibility for performing the work, to assure that applicable approved procedures, specifications, licenses and safety regulations are satisfied.
13. Provides for the stoppage of unsatisfactory work; and for the control of further processing or delivery of nonconforming material.
14. Provides for the audit of design changes and specifications to verify adequacy of quality requirements. Independent review shall be performed by an uninvolved, but technically knowledgeable person in the engineering discipline.
15. Provides for the audit, inspection and/or surveillance of contractor/vendor activities for operating plants to assure the effectiveness of contractual interfaces and compliance with the applicable criteria of 10CFR50, Appendix B and ANSI N18.7-1976.
16. Provides to NSARC a periodic review of the Operational Quality Assurance Program to determine the adequacy and effectiveness of the Program.
17. Appoints the NDE and N45.2.6 Level III Examiner.
18. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

f. Procurement Manager

1. Reports directly to the Director of Administration for general administrative and business purposes
2. Reports indirectly to the Senior Operations Executive for the following quality-affecting activities.
3. Responsible for procurement and receipt inspection of all materials and services required for operations and continued maintenance of the facility.
4. Oversees the storage and preservation of materials.
5. Responsible for ensuring regulatory compliance for materials and services procured, stored, and utilized in the plant's safety-related systems.
6. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

g. Training Superintendent

1. Reports to the Senior Operations Executive.
2. Establishes and maintains all operator and plant training programs.
3. Remains current on all regulatory requirements concerning training and qualifications of plant personnel and ensures that Plant training programs and procedures are revised in a timely manner in response to changing needs and regulations.
4. Provides overall coordination and supervision for the Technical Training Managers and the Operations Training Manager in carrying out their duties.
5. Evaluates the effectiveness of the training programs and the performance of the individuals participating in the training.
6. Fulfills other responsibilities (except PORC Chairman) common to all Superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

h. Information Technologies Manager

1. Reports directly to the Director of Administration for general administrative and business purposes
2. Reports indirectly to the Senior Operations Executive for the following quality-affecting activities.
3. Provides for and manages administration of the Software Quality Assurance Program.
4. Provides for retrievability and loss/damage protection for electronic QA data until converted into a permanent storage medium.
5. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

### 2. Site Staff

#### a. Plant Manager

1. Reports to the Senior Operations Executive.
2. Directs the plant's implementation of the Operational Quality Assurance Program.
3. Prescribes and directs the development of Plant procedures, instructions, schedules, and programs as necessary to assure the safe and dependable operation of the facility.
4. Maintains a thorough knowledge of, and assures compliance with, the regulatory requirements for operating a nuclear power plant.
5. Directs the preparation and maintenance of power plant records, reports, and logs.
6. Acts as Chairman of the Plant Operations Review Committee with authority and responsibility as established in Appendix D.
7. Provides information and reports to the Nuclear Safety Audit and Review Committee as required and as directed by the Senior Operations Executive.
8. Directs the control and surveillance of all special nuclear material on site.
9. Assures the implementation of training/retraining programs as required by the Plant license, regulations, or applicable standards; and as necessary to assure safe work practices and compliance with standard operating practices, license and Technical Specifications, safety rules, and applicable regulations.

VERMONT YANKEE NUCLEAR POWER CORPORATION

b. General Responsibilities Common to All Superintendent Positions

1. Directs and oversees implementation of aspects of the Quality Assurance Program in the functional areas supervised.
2. Maintains a thorough knowledge of, and assures compliance with, the regulatory requirements of a nuclear power plant in the functional areas supervised.
3. Directs the preparation and maintenance of power plant records, reports and logs, as applicable.
4. Assists in the development of plant procedures, programs, instructions and schedules in the functional areas supervised.
5. Provides information, reports and records as directed by the Plant Manager.
6. Assists in establishment of safe work practices, and the training and instruction of plant personnel in the observance of standard operating practices, NRC license and Technical Specifications, and safety rules and regulations.
7. Acts as Vice Chairman of the Plant Operations Review Committee, with responsibilities as established in Appendix D.

VERMONT YANKEE NUCLEAR POWER CORPORATION

c. Maintenance Superintendent

1. Reports to the Plant Manager.
2. Oversees evaluation, coordination, and direction of the activities of employees engaged in the installation, inspection, testing, adjustment, maintenance and repair of plant equipment as appropriate. Is responsible for the Instrument & Control Maintenance, Mechanical and Electrical Maintenance, and Maintenance Support areas.
3. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

d. Technical Services Superintendent

1. Reports to the Plant Manager.
2. Responsible for the Security, Radiation Protection, Technical Support, and Chemistry Departments.
3. Fulfills other responsibilities common to all superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

e. Operations Superintendent

1. Reports to the Plant Manager.
2. Responsible for the Operations Department functions.
3. Has the responsibility and authority for insuring the safe and efficient operations of the plant and its supporting systems in accordance with applicable station licenses, technical specifications, procedures, instructions, established company policy and safety rules.
4. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.
5. On behalf of the Operations Department, fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

f. Work Management/Outage Superintendent

1. Reports to the Plant Manager.
2. Responsible for the Work Control Department including the quality-related functions of preventive maintenance, repair parts/materials selection, and equipment maintenance record-keeping.
3. Responsible for long-range production and refueling outage work scheduling under the Work Management and Outage Administration Departments.
4. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.

g. Design Engineering Superintendent

1. Reports to the Vice President, Engineering.
2. Exercises design authority for the mechanical/structural, electrical / I&C, and fluid systems engineering efforts necessary to support the normal and emergency needs of the plant.
3. Oversees the planning, scheduling, and direction of activities of employees engaged in design changes and alterations.
4. Provides for generation, review and approval of safety-related design change and installation documents, support for the installation of these design changes, and close-out of the associated documentation.
5. Maintains formal documentation of plant design basis and design change activities necessary to meet operational and regulatory requirements
6. Provides for review and approval of drawings and specifications.
7. Reviews and approves selected plant programs and policies.
8. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

h. Engineering Support Superintendent

1. Reports to the Vice President, Engineering.
2. Manages the contracts and contractors used to accomplish special projects, and oversees project implementation.
3. Provides for the generation of project plans, schedules budget, manloading, etc. necessary to support field activities.
4. Oversees and manages the Project Engineering efforts necessary to support normal and emergency needs of the plant
5. Provides for implementation of special processes when performed by on-site contractors in support of plant modifications or repairs and replacements.
6. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

i. System Engineering Superintendent

1. Reports to the Vice President, Engineering.
2. Provides electrical and mechanical systems engineering support to Operations and Maintenance departments.
3. Assesses the performance of plant systems and makes recommendations for improvement.
4. Oversees and manages programs associated with the systems engineering function, including the Maintenance Rule compliance program, Fire Protection Program, special process programs (NDE, welding, heat treating), Inservice Inspection Program and Inservice Testing Program.
5. Fulfills other responsibilities common to all Superintendent positions as described in I.C.2.b.

VERMONT YANKEE NUCLEAR POWER CORPORATION

j. General Responsibilities Common to All Department Manager Positions

1. Manages implementation of aspects of the Quality Assurance Program that relate to the activities of the Department.
2. Consistent with company policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures and ensures that department administrative systems exist such that the responsibilities assigned to the Department are executed effectively in accordance with operational and regulatory requirements.
3. Consistent with company policies and applicable instructions, organizes Department functions and activities, and assigns and schedules qualified personnel to accomplish Department objectives.
4. Plans, schedules and supervises the day-to-day activities of the Department, and maintains a current status of Department activities, commitments and requirements. Coordinates the activities of the Department with other plant functions as applicable.
5. Prepares and maintains long-range plans and schedules for Department commitments such as personnel training, retraining and qualification, preventive maintenance, material procurement, plant modifications, etc.
6. Develops and maintains the procedural controls necessary to fulfill all department commitments and requirements. Reviews all Department procedures to ensure that they are current, accurate and approved.
7. Prepares and/or supervises the preparation of Department reports, logs and records as required. Ensures that necessary quality documents (reports, logs, inspection and test records, etc.) are prepared, reviewed, approved and properly filed to establish that Department activities meet all operational and regulatory requirements.
8. Establishes and directs a program of departmental training that will assure a staff of personnel capable of safety and effectively performing their duties in accordance with established practices, procedures and regulations.
9. Fulfills other responsibilities common to all supervisory positions and carries out other duties and responsibilities as assigned by the cognizant Director or Superintendent.

VERMONT YANKEE NUCLEAR POWER CORPORATION

k. Technical Support Manager

1. Reports to the Technical Services Superintendent.
2. Oversees and manages programs associated with the technical/administrative support areas, including, Corrective Action, Operating Experience, and Regulatory Reporting Compliance.
3. Fulfill other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

1. Maintenance Production Manager – Instrument and Controls

1. Reports to the Maintenance Superintendent.
2. Is responsible for instrumentation and control maintenance activities throughout the plant. Such activities include installation, inspection and surveillance testing, calibration, adjustment, preventative maintenance, and repair of the plant instrumentation and controls equipment.
3. Establishes calibration techniques, frequencies, and records as necessary to assure reliable indication and control for plant system parameters.
4. Assumes responsibility for the condition, maintenance, and reliability of plant instrumentation and control equipment other than that specifically assigned to other departments.
5. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

m. Maintenance Production Manager – Mechanical and Electrical

1. Reports to the Maintenance Superintendent.
2. Is responsible for mechanical and electrical maintenance activities throughout the plant. Such activities include installation, inspection and surveillance testing, adjustment, preventive maintenance and repair of plant mechanical and electrical equipment.
3. Provides for control of special processes (welding, heat treating, nondestructive examinations, etc.) when performed by the Mechanical and Electrical Maintenance organization or on-site contractors in support of plant modifications or repairs and replacements.
4. Assumes responsibility for the condition, maintenance, and reliability of plant mechanical and electrical equipment other than that specifically assigned to other departments.
5. Fulfills other responsibilities common to all Department Manger positions as described in I.C.2.j.

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n. Maintenance Support Manager

1. Is responsible for engineering support of plant maintenance activities, including review of plant equipment failure frequency and evaluation of equipment reliability.
2. Assumes responsibility for the condition, maintenance and reliability of all plant equipment other than that specifically assigned to other departments.
3. Manages the vendor equipment manual maintenance program.
4. Manages the contracts and contractors for general maintenance and modifications, and oversees implementation.
5. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

o. Work Control Manager

1. Reports to the Work Management/Outage Superintendent.
2. Manages the planning of work activities necessary to support the operation and maintenance of the facility.
3. Ensures that the maintenance planning and control data base for equipment and preventive maintenance is maintained.
4. Manages the Preventive Maintenance Program.
5. Establishes and maintains equipment history records.
6. Selects and orders materials and spare parts in areas of assigned responsibility.
7. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

p. Work Management Manager

1. Reports to the Work Management/Outage Superintendent.
2. Manages the scheduling of work activities necessary to support the operation and maintenance of the plant.
3. Manages the program for assessing the cumulative safety risk of removing plant equipment from service in accordance with 10CFR50.65(a)(4).
4. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

q. Chemistry Manager

1. Reports to the Technical Services Superintendent.
2. Assumes responsibility for providing the necessary administrative supervision and required personnel to meet the needs of the established Radiological Environmental Monitoring Programs.
3. Prescribes and maintains chemistry conditions and purity of reactor coolant and other process fluids within applicable limits.
4. Develops and maintains records of all chemistry and radiochemistry aspects of the plant.
5. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

r. Radiation Protection Manager

1. Reports to the Technical Services Superintendent.
2. Controls processing of all radioactive waste shipments in accordance with 10CFR71 and maintains applicable records.
3. Develops work and housekeeping practices in radiologically controlled areas of the plant to minimize personnel exposure and the spread of radioactive contamination.
4. Assumes responsibility for receipt, storage, shipment, and disposal of radioactive material utilizing proper Federal and State regulations (other than nuclear fuel).
5. Has direct access to the Plant Manager in all health physics matters.
6. Is responsible for facilities maintenance activities, including control of maintenance tools.
7. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

s. Reactor Engineering Manager

1. Reports to the Technical Services Superintendent.
2. Supervises the Reactor Engineering Department, which includes the Process Computer Engineering Group. Directs performance of nuclear and thermal core analysis, planning and scheduling of fuel rearrangements and fuel cycling, rod withdrawal sequences, rod patterns, and reactor maneuvering during plant startup.
3. Maintains the Emergency Response Facility Information System (ERFIS) and the Safety Parameter Display System (SPDS) in support of normal and emergency plant operations.
4. Establishes and directs a program of Nuclear Performance Monitoring and Surveillance Testing as required by the plant license, approved plant procedures, or other plant requirements.
5. Establishes a program of control, accountability and record keeping as required to maintain an accurate inventory of licensed special nuclear material.
6. Fulfills other responsibilities common to all Department Manager positions as described in I.C.2.j.

VERMONT YANKEE NUCLEAR POWER CORPORATION

D. REVIEW AND AUDIT

Two committees have been established for the Vermont Yankee plant whose objectives are to insure the plant is operated safely, utilizing good engineering practices. The committees are charged with making recommendations to modify operational methods or safety precautions.

The Plant Operations Review Committee is made up of Plant personnel.

The Nuclear Safety Audit and Review Committee shall have no more than three members selected from the organization reporting to the Senior Operations Executive.

1. Plant Operations Review Committee

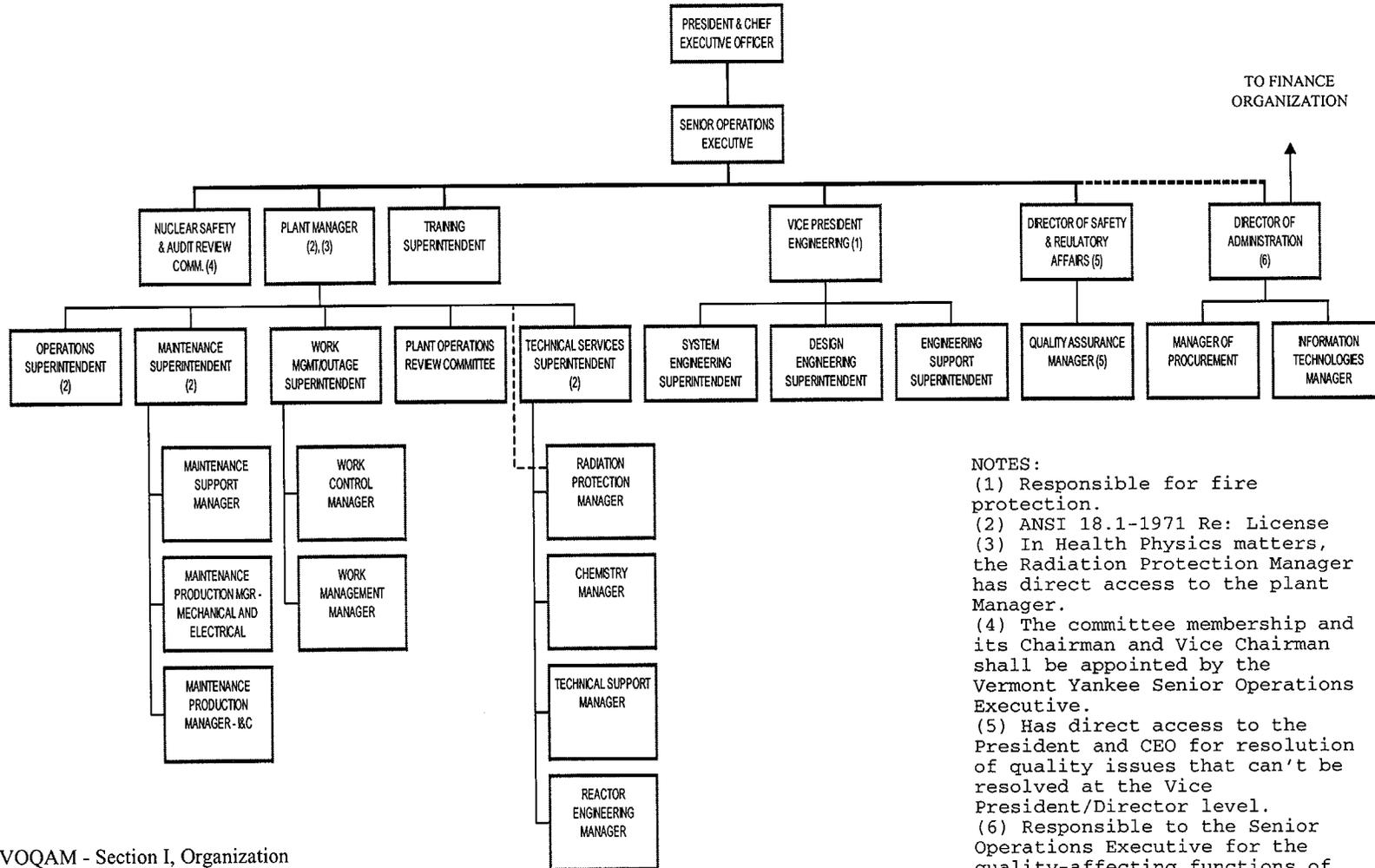
- a. See Section I "Review and Audit", Sub-Section I.A, of Appendix D.

2. Nuclear Safety Audit and Review Committee

- a. See Section I "Review and Audit", Sub-Section I.B, of Appendix D.
- b. The NSAR Committee shall be responsible for evaluating changes to the Vermont Yankee organizational chart (Figure 1 to Section 1)

# VERMONT YANKEE NUCLEAR POWER CORPORATION

## VERMONT YANKEE OPERATIONAL QUALITY ORGANIZATION



**NOTES:**

- (1) Responsible for fire protection.
- (2) ANSI 18.1-1971 Re: License
- (3) In Health Physics matters, the Radiation Protection Manager has direct access to the plant Manager.
- (4) The committee membership and its Chairman and Vice Chairman shall be appointed by the Vermont Yankee Senior Operations Executive.
- (5) Has direct access to the President and CEO for resolution of quality issues that can't be resolved at the Vice President/Director level.
- (6) Responsible to the Senior Operations Executive for the quality-affecting functions of Procurement and Information Technologies.

VERMONT YANKEE NUCLEAR POWER CORPORATION

II. QUALITY ASSURANCE PROGRAM

A. SCOPE

This section establishes the criteria to be applied to systems requiring Quality Assurance which prevent or mitigate the consequences of postulated accidents which could cause undue risk to the health and safety of the public. The structures, systems, components and other items requiring quality assurance are listed in the Vermont Yankee Safety Classification Manual.

B. RESPONSIBILITIES

1. Compliance with the requirements of the Operational Quality Assurance Program - based on the criteria of Title 10 of the Code of Federal Regulations, Part 50, Appendix B, and ANSI N18.7-1976 - shall be the responsibility of all personnel involved with activities affecting operational safety. The Plant shall have a matrix of major quality assurance procedures cross referenced to each applicable criteria of 10CFR50 Appendix B. The performance of quality-related activities shall be accomplished with specified equipment under suitable environmental conditions.

Note: Each criterion section for the Program incorporates the designation of specific organizational responsibilities. As used in this program, the term "Plant" shall mean all organizations reporting to the Plant Manager, and the term, "Engineering Departments" shall mean all organizations reporting to the Vice President, Engineering. "Procurement" shall mean all organizations reporting to the Procurement Manager.

2. Individuals having direct responsibilities for establishment/distribution control/implementation of the Operational Quality Assurance Program are delineated in Section I "Organization" of the Program.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

### C. IMPLEMENTATION

Establishment of an effective Operational Quality Assurance Program is assured through consideration of and conformance with the Regulatory Positions in the below listed Regulatory Guides as modified in Appendix B. Implementation of this Program is assured through Quality Assurance procedures derived from Quality Assurance policies, goals and objectives. The Quality Assurance Department shall review Quality Assurance program procedures to assure their derivation from the policies, goals and objectives established by the President.

1. Title 10 of the Code of Federal Regulations, Part 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants
- \* 2. ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.33, Revision 2)
3. ANSI N45.2.1-1973, Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.37, March 16, 1973)
- \* 4. ANSI N45.2.2-1972, Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (Endorsed by Regulatory Guide 1.38, Revision 2)
- \* 5. ANSI N45.2.3-1973, Housekeeping During the Construction Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.39, Revision 2)
6. ANSI N45.2.4-1972, Installation, Inspection and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Plants (Endorsed by Regulatory Guide 1.30, August 11, 1972)

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7. ANSI N45.2.5-1974, Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.94, Revision 1)
- \* 8. ANSI N45.2.6-1978, Qualification of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.58, Revision 1)
9. ANSI N45.2.8-1975, Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants (Endorsed by Regulatory Guide 1.116, Revision 0-R)
- \* 10. ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants (Endorsed by Regulatory Guide 1.88, Revision 2)
- \* 11. ANSI N45.2.10-1973, Quality Assurance Terms and Definitions
12. ANSI N45.2.11-1974, Quality Assurance Requirements for the Design of Nuclear Power Plants (Endorsed by Regulatory Guide 1.64, Revision 2)
13. ANSI N45.2.12-1977, Requirements for Auditing of Quality Assurance Program for Nuclear Power Plants (Endorsed by Regulatory Guide 1.144, Revision 1)
14. ANSI N45.2.13-1976, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants (Endorsed by Regulatory Guide 1.123, Revision 1)

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15. ANSI N45.2.23-1978, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants (Endorsed by Regulatory Guide 1.146, August 1980)
  16. ANSI N18.1-1971, Selection and Training of Nuclear Power Plant Personnel (Endorsed by Regulatory Guide 1.8, Revision 1-R)
  17. ANSI N101.4-1972, Quality Assurance for Protective Coatings Applied to Nuclear Facilities (Endorsed by Regulatory Guide 1.54)
  - \* 18. Regulatory Guide 1.26, Revision 3, Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants
  - \* 19. Regulatory Guide 1.29, Revision 3, Seismic Design Classification
- Notes:
- 1) When conflicts in similar requirements contained in Technical Specifications and the above documents exist, the requirements contained in Technical Specifications override those in the documents. Requirements in the documents will be considered when they supplement and are not in conflict with similar requirements in Technical Specifications.
  - 2) Revisions to the above listed documents will be considered for applicability to the Vermont Operational Quality Assurance Program upon written direction thereof by the Regional Administrator, Nuclear Regulatory Commission - Office of Inspection and Enforcement - Region I.
  - 3) Only those documents listed above shall be considered applicable to the Vermont Yankee plant. Documents further referenced by the above listed documents shall not be considered applicable. They may, however, be considered as guidelines.

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\*Exceptions and alternatives to the provisions contained in this Standard/Guide are detailed in Appendix B.

- 4) This Program shall be applicable to those activities requiring quality assurance which occur commencing within 90 days after acceptance of the Program by the Nuclear Regulatory Commission.
- 5) The NRC shall be notified of changes, that reduce commitments in the accepted description of the QA program, for their review and acceptance prior to implementation. Acceptance will be assumed 60 days after submittal unless notified otherwise.
- 6) Changes that do not reduce QA program commitments shall be submitted to the NRC at least annually.
- 7) Editorial changes or personnel reassignments of a nonsubstantive nature do not require NRC notification.

VERMONT YANKEE NUCLEAR POWER CORPORATION

D. MANAGEMENT EVALUATION

The Senior Operations Executive directs a thorough evaluation of the established Operational Quality Assurance Program by assigning the Nuclear Safety Audit and Review Committee the task of reviewing for compliance with and evaluating the effectiveness of quality related activities.

E. TRAINING

1. The Training Manager is responsible for the indoctrination and training of staff personnel performing activities affecting operations or requiring quality assurance, and of the operators who are formally licensed or qualified.
2. Each Director/Superintendent/Department Manager is responsible for the indoctrination and training of department personnel performing activities affecting quality in applicable design and engineering, test, operational, construction, or maintenance phases.
3. The indoctrination and training programs shall provide the following:
  - a. Instruction as to the purpose, scope, and implementation of quality-related manuals, instructions, and procedures.
  - b. Training and qualification in the principles and techniques of the activity being performed.
  - c. Documentation of the scope, objective, and method of implementing the program.

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- d. Maintenance of personnel proficiency by retraining, re-examining, and/or recertifying.
- e. Documentation of the training sessions including content, attendance, dates, and results where applicable.

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III. DESIGN CONTROL

A. SCOPE

This section of the Operational Quality Assurance Program establishes measures to assure that the design of and changes to structures, systems, and components covered by the Operational Quality Assurance Program are controlled.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for auditing design documents and engineering specifications to verify that quality requirements, such as inspection requirements and acceptance criteria, have been included by the responsible parties.
2. The Engineering Departments shall be responsible for:
  - a. The control of design activities (including design interfaces) for the change of structures, systems, or components including the requirement for independent review. (This NRC mandated review shall be performed by uninvolved, but technically knowledgeable, individuals in the engineering discipline.)
  - b. Identification, documentation, and control of deviations from specified design requirements and/or quality standards.
  - c. Design analysis and delineation of acceptance criteria for inspections and tests.
  - d. Verification of the adequacy of a specific design feature by implementation of a prototype test when required.

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- e. Review of inspection and test data for compliance with established engineering criteria.
3. The Plant Operations Review Committee shall be responsible for:
- a. Review of all proposed plant changes and recommending their approval or disapproval to the Plant Manager.
  - b. Review of proposed changes to identify any issues related to nuclear safety that were not previously considered and, if applicable, determine whether prior NRC approval is required per 10CFR50.59.
4. The Plant Manager shall be responsible for:
- a. Review of the recommendations of the Plant Operations Review Committee.
  - b. Review and approval of proposed plant changes.
5. The Nuclear Safety Audit and Review Committee shall be responsible for the review of plant changes.
6. The Senior Operations Executive and staff shall be responsible for:
- a. Review, approval and distribution of plant change documents.
7. The Project Engineering Department shall be responsible for the distribution of design change documents to the contractor performing the work where contract administration responsibilities have been assigned.

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C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Correct translation of applicable regulatory requirements and design bases into specifications, drawings and written documents.
  - b. Application of suitable design controls to such activities as reactor physics; seismic, stress, thermal, hydraulic, radiation, and accident analyses; compatibility of materials; and accessibility for inservice inspection, maintenance and repair.
  - c. Design reviews to assure that design characteristics can be controlled, inspected and tested.
  - d. Performance of proper selection and accomplishment of design verification or checking processes such as design reviews, alternate calculations, qualification testing or test programs. When a test program is used to verify the adequacy of a design, a qualification test of a prototype unit under the most adverse design conditions shall be used. The responsibilities and qualifications of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of documentation are identified in procedures.

Procedures will provide the criteria that specify when verification should be by test. If the verification method is by test only, prototype, component, or feature testing is performed in accordance with written procedures prior to relying upon the component, system, or structure to perform its function.

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- e. Subjection of design and specification changes to the same design controls and approvals that were applicable to the original design unless designated in writing to another responsible organization.
- f. Documentation of errors and deficiencies in the design process that adversely affect safety classified structures, systems, and components; performance of corrective action to preclude repetition.
- g. Selection of suitable materials, parts, equipment, and processes for safety classified structures, systems, and components.
- h. Review of standard "off-the-shelf" commercial or previously approved materials, parts, and equipment that are essential to the safety functions of structures, systems, and components, for suitability of application prior to selection.
- i. Establishment of procedures to assure that computer programs are verified and validated for a particular application.

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IV. PROCUREMENT DOCUMENT CONTROL

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures necessary to assure that applicable regulatory requirements, design bases and other requirements which are necessary to assure adequate quality, are suitably included or referenced in the documents for procurement of material, equipment and services.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for auditing the procurement process.
2. Plant and Engineering Departments in conjunction with the Procurement organization, shall be responsible for:
  - a. The preparation, review, issue, and control of purchase documents.
  - b. Initiation and/or review of purchase documentation for construction services including contractor supplied material and equipment required for plant changes where contract administration responsibilities have been assigned.
3. The Procurement organization shall be responsible for:
  - a. Preparation of detailed procedures as to how purchase documents are prepared, reviewed, approved, issued, and controlled.
  - b. Review of plant procurement requisitions.
4. The Engineering Departments shall be responsible for:
  - a. Preparation of engineering specifications which detail the technical and quality requirements for material, equipment and services.

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C. IMPLEMENTATION

1. Satisfaction of the criterion shall be assured through the implementation of the actions listed below:
  - a. Documentation of the review and approval of procurement documents prior to release and availability of this documentation for verification.
  - b. Identification of the applicable quality assurance requirements of 10CFR50, Appendix B and/or ANSI N18.7, and/or other applicable codes, standards or regulatory documents in procurement documents which are to be reviewed by qualified personnel knowledgeable in quality assurance.
  - c. Identification in the procurement documents of the documentation to be prepared, maintained, and/or submitted to the purchaser prior to use, such as:
    1. Drawings, specifications, procedures;
    2. Inspection and fabrication plans;
    3. Inspection and test records;
    4. Personnel and procedure qualifications;
    5. Chemical and physical test results of material; and
    6. Quality Assurance Department's right of access to the vendor's facilities

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and records for surveillance and/or audit to procurement document requirements

- d. Review and approval of changes and revisions to procurement documents at least equivalent to those for the original document.
- e. Control of procurement documents for spare and replacement parts at least equivalent to that used for the original equipment.

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### 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 written 10CFR50.59 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 review to determine the need for a written 10CFR50.59 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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VI. DOCUMENT CONTROL

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for controlling the issuance of documents, including revisions thereto, which affect quality activities.

B. RESPONSIBILITIES

1. All participating departments shall establish document control measures which provide for the following:
  - a. Identification of organizations responsible for preparation, review, approval, and control of documents.
  - b. Identification of documentation to be used in performing the activity.
  - c. Coordination and control of interface documents.
  - d. Establishment of distribution lists.
  - e. Action to be taken for obsolete or superseded documents.

In addition, the following organizations have the unique responsibilities delineated below.

2. The Plant shall be responsible for:
  - a. Controlling the issuance of plant operating, maintenance, repair, refueling, inspection and test, and change documents.

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- b. Distribution and maintenance of all plant approved and/or revised documents assuring quality at the location where the activity is performed.
  - c. Controlling the maintenance and distribution of engineering drawings, specifications, welding and nondestructive examination documents.
  - d. Revision and distribution of welding and nondestructive examination documents.
3. The Vice President, Engineering and staff shall be responsible for:
    - a. A system of review and approval of Plant drawings and specifications, including welding and nondestructive examination documents.
  4. The Quality Assurance Department shall be responsible for establishing the means for the preparation, control, and distribution of the VYNPC Operational Quality Assurance Manual and revisions thereto.

### C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Review and approval of document changes by the same organizations that performed the original review and approval or by other responsible organizations delegated by the controlling authority.

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- b. Inclusion of approved changes in instructions, drawings, and other applicable documents prior to placing the system in operating status.
- c. Availability of documents at the location where the activity is to be performed prior to commencing the work.
- d. Establishment, revision, and distribution of a master list or equivalent to identify the current revision number of instructions, specifications, drawings, procurement documents, or other quality assuring documents.
- e. Control of documents identified as follows:
  - 1. Design documents (i.e., Design Changes, Specifications, Calculations, etc.);
  - 2. Design, manufacturing, construction, and installation drawings;
  - 3. Procurement documents;
  - 4. Operational Quality Assurance Program;
  - 5. Maintenance, and operating procedures;
  - 6. Manufacturing, inspection and test instructions;
  - 7. Test documents;

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- 8. Event Reports, including nonconformances.
  
- f. Appendices to the Operational Quality Assurance Program are considered to be part of the Program and are reviewed and approved in accordance with the Program.

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VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

A. SCOPE

This section of the Operational Quality Assurance Program establishes measures to assure that purchased material, equipment and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Surveillances of on-site vendor activities, and local/regional off-site vendor activities as requested by the Procurement organization.
  - b. Annual performance appraisal of the contracted Vendor QA organization.
2. The Quality Assurance Department, with technical support from the Plant and/or Engineering Departments, shall be responsible for evaluating vendor manufacturing and technical capabilities upon request.
3. The Procurement organization shall be responsible for:
  - a. Receipt inspection and control of material and equipment, and associated quality assurance documentation.
  - b. Control of purchased material, parts and components until issued for installation or use.
  - c. Day-to-day oversight of the contracted Vendor Quality Assurance organization, including requests for vendor audits, commercial grade surveys and surveillances.
4. The contracted Vendor Quality Assurance organization is responsible for:
  - a. Audits and commercial grade surveys of material vendors and contracted service suppliers, and surveillances of most off-site vendor activities.
  - b. Maintenance of the Evaluated Suppliers List.
5. The Plant and Engineering Departments, shall be responsible for:
  - a. Evaluation of purchased services during and/or after completion of the service.

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C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Audits and Commercial Surveys of vendors based on one or more of the following, as appropriate to the scope of procurement activities:
    1. When required in order to verify vendor capabilities to comply with the applicable criteria of 10CFR50, Appendix B, ANSI N18.7, or other quality program baselines.
    2. When required based on the results of review and evaluation of vendor performance history.
    3. When required in order to observe vendor facilities/service activities to assure conformance to purchase specifications.
  - b. Surveillances of vendors which provide for:
    1. Specification of applicable quality controls, processes to be witnessed or verified, documentation required, and personnel responsible for performing the surveillance.
    2. Verification that the vendor complies with the quality requirements specified in procurement documents by observation of in-process work.
  - c. Transfer of the following records from the vendor to the plant:

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1. Documentation that identifies the purchased material/services and certifies compliance with the applicable procurement document requirements.
  2. Documentation that identifies any deviation(s) from procurement requirements, including a description of those deviations dispositioned "accept as is" or "repair".
- d. Receipt inspections of vendor furnished material/off-site services by the Procurement organization, in accordance with predetermined instructions, to assure:
1. Material is identified and conforms with receiving documentation.
  2. Material and documentation are determined acceptable prior to use.
  3. Inspection records or certificates of conformance attesting to material acceptability are on-site prior to use.
  4. Items are identified as to their inspection status prior to release for controlled storage, installation or further work.
  5. Records of personnel qualifications are determined acceptable prior to performance of safety-related work.
  6. Records of calibration for contractor-supplied measuring and test equipment are determined acceptable prior to use on safety-related work.
- e. Acceptance of on-site contracted services by the Plant or Engineering Department responsible for overseeing the work, including review and acceptance of contractor-supplied documentation.
- f. Evaluation of vendor effectiveness to control quality is performed at intervals consistent with the importance, complexity and quality of the item/services.

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VIII. IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for identification and control necessary to prevent the use of incorrect or defective material, parts, and components.

B. RESPONSIBILITIES

1. The contracted Vendor Quality Assurance organization shall be responsible for review, evaluation, or verification (audit, commercial survey or surveillance) of vendor quality controls and work processes for traceability of materials through the use of heat number, part number, or serial number, either on the item or on records traceable to the items.
2. The Procurement organization and/or Plant shall be responsible for:
  - a. Preparation and approval of documents for the identification and control of materials, parts, components and storage of lubricants and other consumable materials.
  - b. Maintenance of traceability of materials, parts, and components received, stored, installed, and used at the Plant.
3. The Engineering Departments shall be responsible for assuring that engineering specifications contain appropriate requirements for the identification and control of materials, parts, and components.

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4. The Manager of Procurement and staff shall be responsible for providing review and approval of documentation for the purchase of materials, parts, and components.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Traceability of the identification of materials and parts to the appropriate documentation such as drawings, specifications, purchase orders, manufacturing and inspection documents, deviation reports, and Physical and Chemical Material Test Reports.
  - b. Identification of the item in a location and with a method which does not affect its fit, function or quality.
  - c. Documented verification of correct identification of materials, parts, and components prior to release for use.

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IX. CONTROL OF SPECIAL PROCESSES

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures necessary to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel in accordance with applicable codes, standards, specifications, criteria and other special requirements.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Surveillance of certain nondestructive tests in accordance with Welding and Nondestructive Examination Procedures.
  - b. Review of special process documents, generated by the Engineering Department and vendors for use on-site, as requested and when otherwise specified.
2. The Project Engineering Department shall be responsible for:
  - a. Preparation of documents for welding, heat treating, filler metal control, and nondestructive examinations.
  - b. Review and approval of special process documents provided by vendors for use on-site, as requested and when otherwise specified.

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3. The Plant and/or Project Engineering Department shall be responsible for:
  - a. Assurance that maintenance and modification work involving special processes are performed by qualified personnel in accordance with approved documents.
  - b. Control of material used in special processes by plant and contractor personnel.
  - c. Training, qualification, and requalification of personnel in welding and nondestructive testing processes, such as liquid penetrant examination.
4. The Manager of Procurement and staff shall be responsible for review and approval of purchase documentation for special process material.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through implementation of the actions listed below:
  - a. Completion of qualification records of documents, equipment, and personnel connected with special processes in accordance with applicable codes, standards, and specifications.
  - b. Performance of special processes accomplished in accordance with written process sheets or equivalent with recorded evidence of verification.
  - c. Maintenance and updating of qualification records of special process documents, equipment, and personnel.

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X. INSPECTION

A. SCOPE

This section of the Operational Quality Assurance Program establishes measures for inspection of activities requiring quality assurance to verify conformance with approved procedures, drawings, specifications and instructions.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Audit and surveillance of plant inspection activities.
  - b. Audit and surveillance of on-site vendor inspection activities, and surveillance of local/regional off-site vendor inspection activities as requested by the Procurement organization.
  - c. Surveillance of documentation pertinent to the Inservice Inspection and Test Program.
2. The contracted Vendor Quality Assurance organization is responsible for:
  - a. Audit and commercial grade survey of material vendor and contracted service supplier inspection programs, and surveillance of most off-site vendor inspection activities.
3. The Plant shall be responsible for:
  - a. Writing and approving inspection instructions and check lists.
  - b. Assuring that activities requiring quality assurance meet predetermined requirements.
  - c. Providing qualified personnel and necessary equipment for inspections to assure quality work.
  - d. Performing inspection activities to assure that predetermined requirements have been met.
  - e. Incorporating and observing inspection hold points where applicable.

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C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through implementation of the actions listed below:
  - a. Independence of personnel performing the inspection from the personnel performing the activity being inspected.
  - b. Use of instructions or check lists which incorporate the details listed in Section XVII Item C.1.a.
  - c. Use of necessary drawings and specifications when performing inspection operations.
  - d. Inspection of repairs and replacements in accordance with the approved design and inspection requirements or acceptable alternatives.
  - e. Surveillance of processing methods, equipment, and personnel when direct inspection is not possible.
  - f. Qualification of inspectors in accordance with applicable codes, standards, and company training programs; and maintenance of qualifications and certifications.
  - g. Review of maintenance documents by qualified personnel knowledgeable in quality assurance to determine the need for inspection, identification of inspection personnel, and documenting inspection results.

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XI. TEST CONTROL

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for a test program to demonstrate that structures, systems, and components will perform satisfactorily in service.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Surveillance of plant test programs and documentation generated during testing.
  - b. Surveillance of on-site vendor test program activities, and local/regional off-site vendor test program activities as requested by the Procurement organization.
2. The contracted Vendor Quality Assurance organization is responsible for:
  - a. Audit and commercial grade survey of material vendor and contracted services supplier test programs, and surveillance of most off-site vendor testing activities.
3. The Plant, with technical support from the Engineering Departments shall be responsible for:
  - a. Determination of testing requirements, including test parameters and specifications, acceptance criteria and documentation of test results, to be implemented following plant changes.
  - b. Development of test documents, performance of tests, and documentation, evaluation, and approval of test results.
  - c. Provision of qualified personnel and calibrated equipment for testing.
4. The Nuclear Safety Audit and Review Committee shall be responsible for reviewing proposed tests or experiments to identify any issues related to nuclear safety that were not previously considered as described in 10CFR50.59.

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4. The Plant Operations Review Committee shall be responsible for the review of all test documents and test results for special tests.

**C. IMPLEMENTATION**

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Assurance that changes, repairs, and replacements are tested in accordance with the approved design and testing requirements or acceptable alternatives.
  - b. Review of written test documents for incorporation or reference of the following:
    1. Requirements and acceptance limits contained in applicable design and procurement documents.
    2. Instructions for performing the test.
    3. Test prerequisites, such as:
      - a) Calibrated instrumentation;
      - b) Adequate and appropriate equipment;
      - c) Trained, qualified, and licensed/certified personnel;
      - d) Readiness of item to be tested, including work completion, system restoration, etc.
      - e) Suitable and controlled environmental conditions; and

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- f) Provisions for data collection and storage.
  - 4. Mandatory inspection hold points for witness by Plant, contractor or third-party inspector, when applicable.
  - 5. Acceptance and rejection criteria.
  - 6. Method of documenting test data and results.
- c. Procedures shall provide for specification of test equipment with suitable accuracy. The criteria for determining the accuracy requirements of test equipment shall be provided when identification of specific equipment is not practical.

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XII. CONTROL OF MEASURING AND TEST EQUIPMENT

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for the control, calibration and periodic adjustments of tools, gages, instruments, and other measuring and test devices used to verify conformance to established requirements.

B. RESPONSIBILITIES

1. The Plant shall be responsible for:
  - a. Development of the implementing documents for control of measuring and test equipment including identification and calibration for equipment under their control.
  - b. Provision of calibrated tools, gages and instruments necessary to perform required measurements and tests.
  - c. Maintenance of calibration records.
  - d. Preparation and review of specifications for measuring and test equipment, such that all applicable requirements are satisfied.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Identification and traceability of measuring and test equipment to the calibration test data.

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- b. Labeling or tagging of measuring and test equipment to indicate due date for calibration.
- c. Calibration of measuring and test equipment at specified intervals based on required accuracy, purpose, degree of usage, stability characteristics, and other conditions affecting the measurement.
- d. Documentation of measures taken to determine the validity of previous inspections performed when measuring and test equipment is found to be out of calibration.
- e. Use of calibration standards having an uncertainty (error) requirement of no more than 1/4 of the tolerance of the equipment being calibrated. Calibration standards limited by the "state-of-the-art" may have a greater acceptable uncertainty.
- f. Documentation and maintenance of the status of all items under the calibration system.
- g. Traceability of reference and transfer standards to nationally recognized standards; or, documentation of the basis for calibration where national standards are nonexistent.

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XIII. HANDLING, STORAGE AND SHIPPING

A. SCOPE

This section of the Operational Quality Assurance Program establishes measures to control the handling, storage, shipping, cleaning and preservation of material and equipment to prevent damage or deterioration.

B. RESPONSIBILITIES

1. The Procurement organization shall be responsible for:
  - a. Development of the implementing documents for handling, storage and shipping of materials and equipment.
  - b. Provisions of suitable facilities and equipment for handling, storage, and shipping of materials.
2. The Plant shall be responsible for:
  - a. Inspection and test of special handling tools and equipment.

C. IMPLEMENTATION

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

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- a. Specification and accomplishment of special handling, preservation, storage, cleaning, packaging, and shipping requirements by qualified individuals in accordance with predetermined work and inspection instructions.
  
- b. Preparation of instructions in accordance with design and specification requirements which control the cleaning, handling, storage, packaging, shipping and preservation of safety classified materials, components and systems to preclude damage, loss or deterioration by environmental conditions such as temperature or humidity.

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XIV. INSPECTION, TEST AND OPERATING STATUS

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for indicating the status of items undergoing inspections and tests (via tags, labels, logs, data sheets, etc.), to prevent the unintentional bypass of required tests. In addition, this section establishes measures for indicating the operating status of components and systems to prevent their inadvertent operation.

B. RESPONSIBILITIES

1. The Plant shall be responsible for:
  - a. Ensuring indication of the status of operating equipment or systems to be removed from service for maintenance, test, inspection, repair or change.
  - b. Designation of personnel who are responsible for directing the status change of equipment and systems.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Notification of affected organizations for changes in the inspection, test and operating status of structures, systems, and components.
  - b. Procedural control of the bypassing of required inspections, tests and other critical operations with the concurrence of the Quality Assurance Department.

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- c. Procedural control of the application and removal of inspection and status indicators such as tags, markings, labels and stamps.

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XV. NONCONFORMING MATERIALS, PARTS, AND COMPONENTS

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures to control materials, parts, components, or any other activities which do not conform to requirements, in order to prevent their inadvertent use.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Review of plant-generated Event Reports to verify resolution of significant conditions adverse to quality.
  - b. Initiation of Event Reports when conditions are found which may adversely affect the quality of plant systems, structures, activities, or components.
2. The Plant, with technical support from the Engineering Departments shall be responsible for:
  - a. Review of nonconforming items or services which cannot be corrected to a conforming condition by vendor rework
  - b. Approval of nonconforming but acceptable items or services via a "use-as-is" disposition.
  - c. Preparation or approval of implementing documents for repair of nonconforming items that cannot be reworked to a conforming condition or accepted as-is.

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3. The Senior Operations Executive and staff shall be responsible for the evaluation of significant plant-initiated nonconforming item, service, or activity dispositions.
4. The Plant shall be responsible for:
  - a. Writing implementation documents for the identification, documentation, and corrective action for services, material, installation, testing, operation, and/or surveillance nonconformances at the Plant.
  - b. Establishment of measures to provide for the documented control of nonconforming materials, parts, and components.
5. The Procurement organization in conjunction with the Quality Assurance Department, shall be responsible for:
  - a. Establishment and implementation of the feedback system between the plant and vendor representatives for the disposition of nonconforming services, materials, parts and components.

### C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Identification, disposition, inspection and segregation of nonconforming items or activities.
  - b. Identification of those individuals or groups delegated the responsibility and authority for the disposition and written approval of nonconforming items or activities.

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- c. Inspection and test of reworked or repaired items which require reinspection and retest to original methods or methods equivalent thereto.
  - d. Inclusion of nonconformance reports dispositioned "accept as is" or "repair" as part of the inspection records.
  - e. Periodic analysis of nonconformance reports to show quality trends with the results reported to management for review and assessment.
2. The identification, description, disposition, inspection and signature approval of the disposition for a nonconformance shall be documented in an Event Report.

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XVI. CORRECTIVE ACTION

A. SCOPE

This section of the Operational Quality Assurance Program establishes measures to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment are promptly identified and corrected.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for review and/or audit of recommendations to prevent recurrence of a significant condition adverse to quality.
2. The Senior Operations Executive and staff shall be responsible for:
  - a. Review of significant adverse conditions reported by the Plant including corrective actions taken.
3. The Plant shall be responsible for:
  - a. Identification of causes of conditions adverse to quality.
  - b. Implementation of the corrective action.
  - c. Documentation of corrective action taken.
4. The Engineering Departments shall be responsible for:
  - a. Review of conditions adverse to quality which involve design deficiencies to determine the cause of the condition.

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- b. Recommendations of corrective action to preclude repetition of design deficiencies.
5. The Plant Operations Review Committee shall be responsible for:
- a. Review of significant conditions adverse to quality and recommending corrective action.
  - b. Recommendations involving repetition of significant operating deficiencies.

C. IMPLEMENTATION

- 1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Initiation of corrective action to preclude recurrence following the determination of a condition adverse to quality.
  - b. Follow-up reviews to verify proper implementation of corrective actions and to close out the corrective action documentation.
  - c. Reporting of significant conditions adverse to quality, the cause of the conditions, and the corrective action implemented to the cognizant levels of management for review and assessment.

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XVII. QUALITY ASSURANCE RECORDS

A. SCOPE

1. This section of the Operational Quality Assurance Program establishes the measures for maintenance of records which provide documentary evidence of the quality of items and the activities affecting quality. Requirements shall be established for identification, authentication, transmittal, retrievability and retention of quality assurance records including duration, location, protection and assigned responsibility.
2. The quality assurance records shall include, but not be limited to, plant history; operating logs; principal maintenance; design change activities; reportable occurrences; nonconformance reports; results of reviews, inspections, tests, audits and material analyses; monitoring of work performance; qualification of personnel, documents and equipment; drawings; specifications; procurement documents; calibration documents and reports; and corrective action reports.

B. RESPONSIBILITIES

1. The Quality Assurance Department, in conjunction with the Engineering Support Department, shall be responsible for:
  - a. Maintenance of qualification/certification records for Quality Assurance Department personnel.
  - b. Maintenance of audit, surveillance and inspection records of quality assurance activities generated by the Quality Assurance Department personnel or their designates.
  - c. Preparation, control, and distribution of the Operational Quality Assurance Program and revisions thereto.
2. The Plant shall be responsible for:
  - a. Writing implementation documents for the establishment and maintenance of Plant Operational Quality Assurance records.
  - b. Designating individuals and establishing requirements for the control of plant design, procurement, and operational records involving quality assurance.
  - c. Provision of facilities to prevent deterioration or loss of documentation.
  - d. Provision of a system for the review, approval and retention of plant prepared documents such as reportable occurrences, technical reports, required records and the meeting minutes of official committees.

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3. The Information Technologies Department shall be responsible for:
  - a. Retrievability of electronic QA data, including a data recovery program, until converted into a permanent storage medium.
  - b. Protection of electronic QA data from loss or damage until converted into a permanent storage medium.
  - c. Issuance of unique user identification/password combinations for electronic records authentication in accordance with Nuclear Information and Records Management Association Technical Guideline TG11-1998.
4. Each department shall be responsible for establishing a system of review, approval and retention of documents relating to quality assurance for the operation of the departments.

C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the actions listed below:
  - a. Specifying the content and details required for records that document the acceptability of activities and items affecting quality, including the following as appropriate:
    - 1) Description of the type of activity or item.
    - 2) Evidence of completion and verification of the activity.
    - 3) The completion date and results of the activity.
    - 4) Information related to conditions adverse to quality.
    - 5) Inspector or data recorder identification.
    - 6) Evidence as to the acceptability of the activity or item.
    - 7) Acceptance and rejection criteria, if applicable.
    - 8) Identification of required procedures, drawings, and specifications and revisions, if applicable.
    - 9) Specification of the necessary measuring and test equipment including accuracy requirements, if applicable.

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- b. Providing for record administration, receipt, storage, preservation, safekeeping, retrieval and final disposition.
  - c. Construction, location and security of record storage facilities to prevent destruction of the records by fire, flooding, theft, and deterioration by environmental conditions such as temperature or humidity. Duplicate records shall be stored in a separate remote location when the type of document is not included in the record storage facility.
2. Quality Assurance records retained in electronic media are managed in accordance with an established electronic recordkeeping system that ensures the authenticity, acceptability and integrity of the records during their required retention period. This system implements the guidance contained in USNRC Regulatory Issue Summary 2000-18, "Guidance on Managing Quality Assurance Records in Electronic Media," and in the Nuclear Information and Records Management Association (NIRMA) technical guidelines referenced therein, subject to the following:
- a. Authentication of electronic QA records shall be accomplished using a unique user identification/password combination as described in NIRMA TG11-1998. Alternatively, evidence of authentication for records that are scanned from hard copy into industry standard electronic format shall be provided by electronic representation of the manual signature.
  - b. Acceptability of electronic QA records shall be confirmed through ongoing surveillance by the records management staff upon transfer of the records into the electronic recordkeeping system.
  - c. Integrity of electronic QA records shall be assured through establishment of individual user account profiles that restrict the actions that can be performed on the records (e.g. read-only, revise, update).
  - d. Retrievability and disaster recovery for electronic QA records shall be accomplished in accordance with Information Technologies data management practices and procedures that are subject to periodic audit by the Quality Assurance Department.
  - e. Configuration management for the software program used in recordkeeping for electronic QA records shall be performed in accordance with the Software Quality Assurance Program.
  - f. Electronic QA records shall be stored permanently, in more than one location, on compact disk.

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- g. The guidance in RIS 2000-18 shall be implemented in lieu of that in USNRC Generic Letter 88-18, "Plant Record Storage on Optical Disk," due to improvements in electronic storage media that have superseded the storage methodology addressed in GL 88-18.
- 3. Appendix D specifies additional requirements regarding plant operating records.

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XVIII. AUDITS

A. SCOPE

This section of the Operational Quality Assurance Program establishes the measures for a comprehensive system of planned and documented audits and in-plant surveillances to verify compliance with all aspects of the Program and to assess the effectiveness of the Program.

B. RESPONSIBILITIES

1. The Quality Assurance Department shall be responsible for:
  - a. Providing objective evidence for completion of audits/surveillances of activities encompassed by the 18 criteria of 10CFR50 Appendix B, and ANSI N18.7.
  - b. Training of audit and surveillance personnel.
  - c. Scheduling, coordinating, and implementing the formal In-Plant Audit/Surveillance Programs performed on activities covered in Sections III through XVII of this document.
  - d. Preparing information regarding the In-Plant Audit Program for review by the Nuclear Safety Audit and Review Committee.
  - e. Performing audits of vendors.
  - f. Preparation of Event Reports for audit/surveillance findings adverse to quality.
  - g. Following up of discrepancies discovered during audits/surveillance.



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C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the implementation of the following actions:
  - a. Performance of audits in the below listed areas where the requirements of Appendix B to 10CFR Part 50 and ANSI N18.7 are being implemented:
    - 1) Operation, maintenance and repairs.
    - 2) The preparation, review, approval, and control of designs, specifications, procurement documents, instructions, procedures, and drawings.
    - 3) Receiving and plant inspections.
    - 4) Indoctrination and training programs.
    - 5) Implementation of operating and test procedures.
    - 6) Calibration of measuring and test equipment.
  - b. Scheduling of audits regularly on the basis of the status and safety importance of the activities being performed.

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2. The implementing documents shall provide for the following:
  - a. Documentation of audit/surveillance results and review with management having responsibility in the area.
  - b. Necessary action to be taken by responsible management to correct deficiencies revealed by the audit/surveillance.
  - c. Re-audit of deficient areas until corrections have been accomplished to preclude recurrence of the deficiencies.
  - d. Inclusion of an objective evaluation of quality-related practices, procedures, instructions and the effectiveness of implementation in the audit.
  - e. Inclusion of an objective evaluation of work areas, activities, processes and items and the review of documentation in the audit.
3. Appendix D specifies additional requirements regarding the review and audit of plant operations.

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APPENDIX A

Qualification Requirements for  
Management of Quality Assurance

Management of Quality Assurance must meet the below listed qualification requirements:

A. EDUCATION:

Bachelor's degree in Science or Engineering, or the equivalent in practical experience.

B. EXPERIENCE:

1. Four years of experience in the field of Quality Assurance, or
2. Equivalent number of years of nuclear plant experience in a supervisory position preferably at an operating nuclear power plant or a combination of the two.
  - a) At least one year of this four years experience shall be nuclear power plant experience in the implementation of the Quality Assurance Program, and
  - b) Six months of the one year experience shall be obtained within a Quality Assurance organization.

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APPENDIX B

Exceptions

The sub-categories of this Appendix summarize the exceptions noted in Section II of the Vermont Yankee Operational Quality Assurance Manual.

Appendix B

<u>Sub-Category</u>	<u>Standard/Guide</u>	<u>Title</u>
I.	ANSI N45.2.3-1973	Housekeeping During the Construction Phase of Nuclear Power Plants
II.	ANSI N45.2.9-1974	Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants
III.	ANSI N45.2.10-1973	Quality Assurance Terms and Definitions
IV.	R.G. 1.64, Rev.2	Quality Assurance Requirements for the Design of Nuclear Power Plants
V.	ANSI N45.2.2-1972	Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants
VI.	ANSI N45.2.6-1978	Qualification of Inspection, Examination and Testing Personnel for the Construction Phase of Nuclear Power Plants

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APPENDIX B

(continued)

Appendix B

<u>Sub-Category</u>	<u>Standard/Guide</u>	<u>Title</u>
VII.	R.G. 1.26, Rev. 3	Quality Group Classifications and Standards for Water-, Steam- and Radioactive-Waste-Containing Components of Nuclear Power Plants
VIII.	R.G. 1.29, Rev. 3	Seismic Design Classification
IX.	ANSI N18.7-1976	Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
X.	R.G. 1.33, Rev. 2	Quality Assurance Program Requirements (Operations)

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I. ANSI N45.2.3 - 1973, Housekeeping During the Construction Phase of Nuclear Power Plants

A. EXCEPTION:

Subsection 2.1 - Planning

The Vermont Yankee plant takes exception to the five-zone requirements specified in the subject standard.

ALTERNATIVE:

The Vermont Yankee plant shall establish as a minimum a three zone program as follows:

Zone III

Zone III criteria shall be applied to major portions of the reactor coolant system which are opened for inspection, maintenance or repair.

1. Access control over personnel shall be required.
2. Cleanliness shall be maintained, commensurate with the work being performed, to preclude the entry of foreign material to the Reactor Coolant System.
3. A documented cleanliness inspection shall be performed immediately prior to closure.

Note: The Zone III requirements may be expanded for certain maintenance repair activities if deemed appropriate by plant management. In such instances applicable sections of Zones I & II shall be specified.

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### Zone IV

Zone IV criteria shall be applied to the radiation control areas of the plant.

1. Standard janitorial and work practices shall be utilized to maintain a level of cleanliness commensurate with company policy in the areas of Housekeeping, Plant and Personnel Safety and Fire Protection.
2. Additional housekeeping requirements shall be implemented as required for the control of radioactive contamination.
3. Smoking and eating shall be controlled consistent with good health physics practices and to maintain cleanliness.

### Zone V

Zone V criteria shall be applied to the remainder of the plant.

1. Standard janitorial and work practices shall be utilized to maintain a level of cleanliness commensurate with company policy in the areas of Housekeeping, Plant and Personnel Safety and Fire Protection.

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B. EXCEPTION:

Subsection 3.2 - Control of Facilities

The Vermont Yankee plant takes exception to the control of tools, equipment, materials and supplies used in Zone III.

ALTERNATIVE:

The Vermont Yankee plant shall verify control for Zone III as indicated in Exception A of this sub-category.

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II. ANSI N45.2.9 - 1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants

A. EXCEPTION:

Subsection 5.6(3) Facility

The Vermont Yankee plant takes exception to "structures, doors, frames, and hardware should be Class A fire rated with a recommended four hour minimum rating."

ALTERNATIVE:

"Doors, structures, frames, and hardware shall be designed to comply with the requirements of a minimum two (2) hour fire rating, meeting NFPA No. 232 guidelines."

JUSTIFICATION:

The two (2) hour rating has been endorsed by the NRC Standard Review Plan NUREG-0800, Revision 2, dated July 1981.

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III. ANSI N45.2.10 - 1973, Quality Assurance Terms and Definitions

A. EXCEPTION:

Subsection 2 - Terms and Definitions

The Vermont Yankee plant takes exception to the definitions of "Certificate of Conformance" and "Certificate of Compliance".

ALTERNATIVE:

The Vermont Yankee plant shall reverse the definitions of the above terms so our Program will be in compliance with the implied definitions in the ASME B&PV Code and Yankee specifications.

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IV. Regulatory Guide 1.64, Revision 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants"

A. EXCEPTION:  
Subsection c.2

The Vermont Yankee plant takes exception to the regulatory guide position on the exclusion of supervisors performing design verification.

ALTERNATIVE:

The Vermont Yankee plant will continue the accepted practices for independent design verification in accordance with the provisions of ANSI N45.2.11-1974, Section 6.1.

JUSTIFICATION:

The exclusion of line supervision to perform design verification has proven to be an unnecessary burden on the resources within the engineering organizations of the company, and counterproductive during heightened periods of engineering activities. ANSI N45.2.11 contains specific limitations on the situations in which a supervisor is permitted to perform design verification. The standard states, "This verification may be performed by the originator's supervisor provided the supervisor did not specify a singular design approach, or rule out certain design considerations and did not establish the design inputs used in the design, or if the supervisor is the only individual in the organization competent to perform the verification." This control was developed through realistic evaluation of the practicable limits that restrictions impose on engineering organizations by the working group that developed ANSI N45.2.11.

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V. ANSI N45.2.2 - 1972, Packaging, Shipping, Receiving, Storage & Handling of Items for Nuclear Power Plants

A. EXCEPTION:

Subsection 3.7.1 & A3.7.1 - Containers

The Vermont Yankee plant takes exception to the specific requirements for containers.

ALTERNATIVE:

Containers shall be of suitable construction to assure material is received undamaged.

JUSTIFICATION:

Containers shipped by closed carrier, stored inside and not subjected to a wet environment do not require weather resistant fiberboard, therefore, this is an unnecessary expense. Additionally, numerous vendors utilize shipping containers that do not comply with the specific requirements of this section, i.e., flaps overlap. The acceptance criteria for a shipping container should be established based on the capability of the container to maintain the component material in a safe condition. Technology has advanced beyond the standard.

B. EXCEPTION:

Subsection 3.7.2 - Crates and Skids

The Vermont Yankee plant takes exception to the requirement that skids and runners shall be used on boxes with a gross weight of 100 pounds or more.

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ALTERNATIVE:

Skids or runners shall be used on boxes with a gross weight of 100 pounds or more if practical.

JUSTIFICATION:

Storage methods and container design frequently are such that runners or skids are not feasible.

C. EXCEPTION:

Subsection 5.2.1 - Shipping Damage Inspection

The Vermont Yankee plant takes exception to the requirement that a preliminary visual inspection or examination be performed prior to unloading.

ALTERNATIVE:

The Vermont Yankee plant shall perform those required inspections after unloading. In special instances, preunloading inspections shall be performed.

JUSTIFICATION:

Post unloading inspection is adequate to determine any damage that may have been incurred during shipping and handling.

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D. EXCEPTION:

Subsection 5.2.2 - Item Inspection

The Vermont Yankee plant takes exception to the requirement, that "The inspections shall be performed in an area equivalent to the level of storage requirements for the item."

ALTERNATIVE:

The Vermont Yankee plant shall perform receiving inspection in a manner and in an environment which do not endanger the requisite quality of the item; however, receiving area environmental controls may be less stringent than storage environmental controls for that item. When inspections are performed in receiving areas with environmental controls less stringent than storage area environmental controls, a time limit shall be established on a case basis for retention of items in the receiving area. Retention time shall be such that deterioration is prevented and applicable manufacturer recommendations are addressed.

JUSTIFICATION:

Receipt inspection activities are for a much shorter duration and therefore should not be subjected to the same stringent requirements as required for storage.

E. EXCEPTION:

Subsection 5.2.3 - Special Inspection

The Vermont Yankee plant takes exception to attaching special inspection procedures to the item or container.

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ALTERNATIVE:

Special inspection procedures shall be readily available to personnel performing inspections.

JUSTIFICATION:

Procedures are subject to less abuse and more stringent controls when maintained on file and not attached to the item. Inspection status is maintained by tagging and procedure control.

F. EXCEPTION:

Subsection 6.1.2 - Levels of Storage

The Vermont Yankee plant takes exception to two specific requirements associated with fuel storage (classified Level A).

ALTERNATIVE:

The Vermont Yankee plant shall meet the requirements of Level A storage for new fuel with the exception of special air filtering; and temperature and humidity controls.

JUSTIFICATION:

The existing storage conditions at the Vermont Yankee operating plant are consistent with the protection provided to the fuel while in storage at the manufacturer (vendor) and/or while in transit to the plant site and are judged to provide adequate protection to the fuel assembly structure which is of highly corrosion resistant materials. We believe that the above listed requirements are intended for application at the manufacturing facility (vendor) where the uranium pellets may be exposed to the atmosphere and not in its fully encapsulated, and therefore, fully protected form in a completed fuel assembly.

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G. EXCEPTION:

Appendix A-3 Subsection A3.5.1(1) - Caps & Plugs

The Vermont Yankee plant takes exception to the requirement that nonmetallic plugs and caps shall be brightly colored.

ALTERNATIVE:

Nonmetallic plugs and caps shall be of a contrasting color.

JUSTIFICATION:

The purpose of utilizing brightly colored plugs and caps is to assist in assuring obstructions are not inadvertently placed in operating components or systems. By using plugs and caps of a contrasting color this objective can be achieved.

H. EXCEPTION:

Appendix A-3 Subsection A3.9(1) - Second Group, Markings

The Vermont Yankee plant takes exception to the requirement that container markings shall appear on a minimum of two sides.

ALTERNATIVE:

Containers shall be adequately marked to provide identification and retrievability.

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JUSTIFICATION:

Containers are tagged to provide identification and inspection status. Employment of two tags on small containers adds bulk and confusion and does not provide for better identification or traceability.

I. EXCEPTION:

Appendix A-3, Subsection A.3.9(4) - Second Group, Marking

The Vermont Yankee plant takes exception to the requirement that container markings shall be no less than 3/4" high, container permitting.

ALTERNATIVE:

Container markings shall be of a size which permits easy recognition.

JUSTIFICATION:

Markings were intended to provide identification and instructions. The criteria should be that the markings clearly provide the same.

J. EXCEPTION:

Appendix A-3 Subsection A.3.9(6) - Second Group, Marking

The Vermont Yankee plant takes exception to the information required for container marking.

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ALTERNATIVE:

Marking shall be adequate in each case to provide identification, traceability and instructions for special handling, as applicable.

JUSTIFICATION:

The information required is excessive. Cluttering a container with excessive markings only reduces the main objectives, maintaining identification and establishing special controls.

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VI. ANSI N45.2.6 - 1978, Qualification of Inspection, Examination and Testing Personnel for Nuclear Power Plants

A. EXCEPTION:

The Vermont Yankee plant takes exception to the application of the Standard to all Vermont Yankee personnel performing inspection, examination and testing.

ALTERNATIVE:

Vermont Yankee personnel identified in ANSI N18.1-1971 who perform inspection, examination and testing will be qualified to ANSI N18.1-1971.

Vermont Yankee personnel not identified in ANSI N18.1-1971 who perform inspection, examination and testing will be qualified to ANSI N45.2.6-1978.

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VII. Regulatory Guide 1.26, Rev. 3, (2/76), Quality Group Classifications and Standards for Water-, Steam- and Radioactive-Waste-Containing Components of Nuclear Power Plants

A. EXCEPTION:

Vermont Yankee takes exception to the Regulatory Guide in its entirety. Vermont Yankee also takes exception, in general, to inclusion of safety classification basis requirements in the Quality Assurance Program.

ALTERNATIVES:

Vermont Yankee will identify appropriate industry-standard criteria for safety classification of systems, structures and components in the Final Safety Analysis Report, subject to the provisions of 10CFR50.59.

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VIII. Regulatory Guide 1.29, Rev. 3, (9/78), Seismic Design Classification

A. EXCEPTION:

The Vermont Yankee plant takes exception to the application of Regulatory Guide 1.29, Rev. 3, (9/78).

ALTERNATIVES:

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The seismic design classification of structures, systems, and components at Vermont Yankee shall be as defined in the Vermont Yankee FSAR.

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IX. ANSI N18 .7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

A. EXCEPTION

Subsection 4.5 - Audit Program

The Vermont Yankee Plant takes exception to the requirement that audits of all safety-related functions shall be completed within a period of two (2) years.

Alternative:

Audits of selected aspects of operational phase activities shall be performed with a frequency commensurate with their safety significance and in such a manner as to assure that an audit of all safety-related functions is completed at least once within a three (3) year period, based upon the results of an annual Functional Area Assessment.

The Annual Functional Area Assessment is a documented analysis of functional areas important to safety. The purpose is to identify strengths and weaknesses (if applicable) to determine the level and focus of independent oversight activities for the upcoming year. The basis for the assessment shall include the results of QA Audits and Surveillance, NRC Inspections, Event Reports, Nonconformance Reports, Corrective Action Reports, and Self-Assessments. Other indicators such as Personnel Changes, change/increase in functional area responsibilities, Industry Findings, and INPO evaluations will also be considered. Each area will be assigned a rating with a comparison to previous years.

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This assessment will be reviewed and approved by QA and Plant Management. This document is considered a QA record and will be available for NRC review.

### Justification:

To utilize quality oversight resources more effectively, senior management desires the flexibility to direct resources to areas which have perceived weaknesses. The two-year audit cycle has not ensured that the frequency, scope and associated resources are based on the risk associated with the audit area.

Vermont Yankee proposes to adjust the audit schedule based on empirical data and performance history to complete audits of safety-related functions within a period of three years. This modification meets the intent of published regulatory requirements involving activities important to safety.

### B. EXCEPTION:

#### Subsection 5.2.15 - Review, Approval and Control of Procedures

Vermont Yankee takes exception to the following paragraph;

"Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable".

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### Alternative:

Plant procedures will be assessed for adequacy either periodically or continuously in accordance with administrative controls. When periodic review is used as the assessment method, these controls will establish a schedule for review.

All applicable plant procedures will be reviewed following an unusual incident, unexpected transient, operator error, or equipment failure (malfunction), and following a modification to a system.

Routine procedures provide the fundamental written guidance for routinely managing, operating and maintaining the plant. Routine plant procedures are assessed by users before and during use to determine if changes are necessary or desirable. Routine procedures receive an appropriate degree of scrutiny by individuals knowledgeable in the procedures, and are updated as necessary to ensure adequacy during suitably controlled activities such as normal procedure usage, development of plant modifications, industry experience reviews, licensing actions, training activities, corrective actions for nonconforming conditions, and quality assurance audits and surveillances.

Nonroutine procedures are those procedures whose use is event-driven, such as Emergency Operating Procedures, Emergency Plan Implementing Procedures, Off-Normal Procedures, and Operational Transient Procedures; these procedures will be reviewed every two years. However, if a nonroutine procedure is fully exercised and there is a detailed scrutiny of the entire procedure as part of a documented training program, this may serve as the biennial review of the procedure used.

At least every two years, the Quality Assurance (or other independent) organization shall audit a representative sample of routine plant procedures. The audit is to ensure the acceptability of the procedures and verify that the procedure review/assessment and revision program is being implemented effectively. The root cause of significant deficiencies is to be determined and corrected.

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### Justification:

The ANSI N18.7 requirement to review each safety-related procedure on a biennial cycle results in the expenditure of significant technical and administrative resources. For routine procedures, these scheduled reviews are paralleled by ongoing assessment activities that assure the adequacy of the procedures and provide for necessary updates; thus, performance of scheduled reviews in this environment of continuous assessment is redundant and produces little added benefit. Programmatic controls and practices are in place to provide adequate assessments for routine procedures, including the following:

- The plant modification processes require that procedures affected by the modification be identified during the design change preparation, and revised prior to closure of the modification package.
- The Operating Experience Program involves the review of USNRC, INPO, and vendor supplied information for applicability and determination of further action. This review includes an evaluation of applicable documents such as procedures and the initiation of required changes.
- Administrative controls currently exist requiring that if a procedure cannot be performed as written, a procedure change must be completed prior to continuation of the procedure.
- Temporary changes are occasionally generated during, or prior to procedure use. Current administrative controls require that those changes that are permanent shall be incorporated into the procedure via the procedure revision process.
- As part of the audit and surveillance process, procedures are evaluated as to adequacy, ease of use, proper technical content, and compliance with applicable plans and programs.
- As a result of licensing actions (Technical Specification proposed change preparation, NRC inspection responses, adoption of NRC guidance, etc.), procedures are evaluated and changed as necessary.
- Training activities provide an opportunity for users to identify and initiate changes.

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- Corrective actions for nonconforming conditions frequently involve updating affected procedures.

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C. EXCEPTION:

Subsection 5.3.9

Vermont Yankee takes exception to the requirements that detail Emergency Procedures be in accordance with Paragraph 5.3.9.

Alternative:

Vermont Yankee Emergency Operating Procedures are written in accordance with the Symptom/Function-Based Guidelines developed by the BWR Owners Group and accepted by the NRC. These Symptom/Function Based Procedures, mandated by the NRC in NUREG-0737, have format and content different from the Event-Oriented Emergency Procedures described in ANSI N18.7-1976.

Justification:

NUREG 0737 supersedes ANSI N18.7-1976 in the area of Emergency Operating Procedures. Changes to procedure format are required in order to develop Symptom/Function-Based Procedures.

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X. Regulatory Guide 1.33, Revision 2, Quality Assurance Requirements (Operational)

A. EXCEPTION:

Subsection 4.5 - Audit Program

The Vermont Yankee Plant takes exception to the following:

- Section 4.5 states that "all audits of safety related functions are completed within a two (2) year period".
- Paragraph 4.a. "The results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operations - shall be audited at least once per 6 months".
- Paragraph 4.b. "The conformance of facility operation to provisions contained within the technical specifications and applicable license conditions - shall be audited at least once per 12 months."
- Paragraph 4.c. "The performance, training, and qualifications of the facility staff - shall be audited at least once per 12 months."

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### Alternative:

Audits of selected aspects of the functional areas listed above, shall be performed within a frequency commensurate with their safety significance and will be completed at least once within a three (3) year period, based upon the results of an annual functional area assessment.

### Justification:

To utilize quality oversight resources more effectively, senior management desires the flexibility to direct resources to areas which have perceived weaknesses. The two-year audit cycle has not ensured that the frequency, scope and associated resources are based on the risk associated with the audit area.

Vermont Yankee proposes to adjust the audit schedule based on empirical data and performance history to complete audits of safety-related functions within a period of three years. This modification meets the intent of published regulatory requirements involving activities important to safety.

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APPENDIX C

Vermont Yankee

Classification of Structures, Components, and Systems

NOTE: A comprehensive listing is in the Vermont Yankee Safety Classification Manual.

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APPENDIX D

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.

<u>CTS Section</u>	<u>Previous Technical Specification</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 subsequent changes have been reviewed under 10 CFR 50.54 (a) (3) for consistency with the current organizational structure and other administrative elements of the VOQAM.]

I. 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 (PORC)

1. Membership

PORC membership shall be comprised of a Chairman (usually the Plant Manager), Vice-Chairman (usually designated Superintendents) who may preside over meetings in the Chairman's absence or as requested\*, and experienced and qualified representatives from Operations, Maintenance, Engineering, Chemistry, Radiation Protection and Reactor and Computer Engineering. Designated alternates may fill the role of regular members subject to the conditions in I.A.5.

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\* May not fill this role when serving as a voting member in a PORC meeting quorum, and vice versa.

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 Technical Specification 6.2.

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. PORC members and designated alternates shall be from plant personnel in the appropriate disciplines as selected by the Plant Manager. 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 reviewed in accordance with 10 CFR 50.59 and determined to need a written 10CFR50.59 evaluation. 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.

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 any issues related to nuclear safety that were not previously considered and, if applicable, whether prior NRC approval is required per 10CFR50.59. 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 standing Committee shall consist of at least six (6) persons:
  - a. Chairman
  - b. Vice Chairman
  - c. At least four technically qualified persons who are not members of the plant staff.
  - d. No more than a minority of the quorum shall have line responsibility for operation of the facility.
  - 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 by the Senior Operations Executive.

Note: It is interpreted that individuals that have "line responsibility for operation of the facility" include active licensed personnel, the Operations Superintendent and the Plant Manager.

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

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- f. Radiation Safety
  - 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 any issues related to nuclear safety that were not previously considered by NSARC and, if applicable, whether prior NRC approval is required per 10CFR50.59.
  - c. Review the written 10CFR50.59 evaluations for changes to equipment or systems completed under the provisions of 10CFR50.59 to verify that such actions did not require prior NRC approval as stated above.
  - 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, to confirm that such changes or modifications do not require prior NRC approval as stated above.
  - 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 Senior Operations Executive, the Plant Manager and any others that the Chairman may designate.

II. 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 6.4 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 II.A and II.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 Section I.A.6 above.
- D. Temporary changes to procedures described in Technical Specification 6.4 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 Section I.A.6 above.
- E. Temporary changes to procedures described in Section II.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 Section I.A.6.b and I.B.5.g above, and are approved by the Senior Operations Executive prior to implementation.

III. 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.

| IV. 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.