

VERMONT YANKEE NUCLEAR POWER CORPORATION

Vermont Operational Quality Assurance Manual

VOQAM

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ATTACHMENT A

VOQAM Summary of Changes – Revision 3

Item No.	VOQAM Section	Change Description	Reason for Change
1	Table of Contents/Index	Changed revision number of affected pages.	To incorporate reference to Revision 3.
2	Amendment/ Revision Sheet, page V	Added “reason” statement for Revision 3.	Provides a summary description of the reasons for the revision.
3	V, page 1 of 3	Changed first paragraph of Section B to state “Superintendent/Director/ Manager.”	Acknowledges Vermont Yankee’s current management structure.
4	V, page 2 of 3	Revised PORC’s procedure review responsibilities to include only those procedures that have received a 10CFR50.59(a)(2) safety evaluation, or that have been specifically designated for review.	Makes VOQAM consistent, under the provisions of 10CFR50.54(a)(3), with other utilities that have received NRC approval to eliminate PORC review of most procedures.
5	Appendix D, page 1 of 9, first paragraph	Changed reference to Technical Specification Proposed Change No. 208 to License Amendment No. 171, and made editorial changes to reflect completion of the relocation of Administrative Controls from the Technical Specifications to the VOQAM.	Acknowledges that the Administrative Controls section of Technical Specifications now resides in the VOQAM under the provisions of NRC Administrative Letter 95-06.

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6	Appendix D, page 1 of 9, NOTE	Clarified wording to indicate that the Administrative Controls originally relocated from Technical Specifications “without change” have now been subjected to revision under the provisions of 10CFR50.54(a)(3).	Necessary to allow changes to the Administrative Controls as permitted by 10CFR50.54(a)(3).
7	Appendix D, page 2 of 9, section 6.2.A.6.a	Revised to state PORC’s responsibility for reviewing procedures: 1) that have been evaluated in accordance with 10CFR50.59(a)(2); 2) as required to meet specific regulatory commitments; or 3) as determined by the Plant Manager.	Makes VOQAM consistent, under the provisions of 10CFR50.54(a)(3), with other utilities that have received NRC approval to eliminate PORC review of most procedures.
8	Appendix D, page 2 of 9, section 6.2.A.6.d	Revised to state that PORC reviews proposed plant changes and modifications that would require a change in the Final Safety Analysis Report, as well as those would that cause a “change in procedures.”	Aligns this responsibility with PORC’s obligation to review plant changes for the existence of Unreviewed Safety Questions. (Review of impact on plant procedures is a subset of this broader review, and is accomplished through review of the design change package.)
9	Appendix D, pages 3, 4 and 6 of 9	Changed all references to the “Manager of Operations” to read “Senior Operations Executive.”	Brings Appendix D into line with changes to the rest of the VOQAM made in Revision 2, applying this generic title as permitted in 10CFR50.54(a)(3).

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10	Appendix D, page 7 and 8 of 9, section 6.5.A	Removed the list of procedure types, sub-items 6.5.A.1 through 6.5.A.9, and referenced Technical Specification 6.5.A for this information.	Eliminates redundancy in the VOQAM, since this list was retained in the Technical Specifications and should not have been placed in the VOQAM as part of Revision 2.
11	Appendix D, page 8 of 9, section 6.5.C and 6.5.D	Revised to state that new procedures and temporary changes thereto shall be approved by the applicable Department Supervisor, in lieu of being reviewed by PORC and approved by the Plant Manager, unless otherwise specified.	Makes VOQAM consistent, under the provisions of 10CFR50.54(a)(3), with other utilities that have received NRC approval to eliminate PORC review and Plant Manager approval for most procedures.
12	Appendix D, page 8 of 9, section 6.5.D	Revised to change review requirements from two SROs (who aren't required to be on shift) to one SRO who is in charge of the shift and one other individual who is technically knowledgeable in the procedure.	Establishes compliance with ANSI N18.7-1976 requirements for review of temporary changes to procedures. (Entered into VY's corrective action program.)

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VOQAM Summary of Changes – Revision 2

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Item No.	VOQAM Section	Change Description	Reason for Change
1	Table of Contents/Index	Changed revision number of affected pages and listed pages.	To incorporate reference to Revision 2 and "Effective Pages" column.
2	Amendment/ Revision Sheet, page V	Added "reason" statement for Revision 2.	Provides a summary description of the reasons for the revision.
3	II, page 4 of 7	Included reference to ANSI N101.4-1972, "Quality Assurance for Protective Coatings Applied to Nuclear Facilities" and Regulatory Guide 1.54, June 1973.	Reference to these documents was not retained in YOQAP-1-A based on a June 10, 1981 letter from the NRC (W.P. Haas to W.P. Johnson) specifying the Regulatory Guides that had to be included in the Quality Assurance Program; Reg. Guide 1.54 was omitted from the NRC list but is applicable to use of nuclear-grade coatings.
4	Appendix B, page 23 of 26	Clarified the wording regarding initiation of procedure changes when procedures are identified as a factor in plant events, violations and nonconforming conditions.	The previous wording implied that root cause analyses are required by the corrective action (Event Report) program for all plant events, violations and nonconforming conditions. Root cause analysis is in fact limited to the most significant plant events; events of lesser significance receive a level of cause analysis (Apparent Cause or Most Probable Cause) commensurate with their importance to safety.
5	Appendix D, page 3 of 10	Incorporated Section 6.2.A.h	Added to Technical Specifications by Amendment No. 168, and relocated to VOQAM per NRC Administrative Letter 95-06.

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6	Policy Statement, pages 1 and 2	Changed the title “Director of Operations” to “Senior Operations Executive”.	Will reduce the need to make VOQAM changes every time this position changes executive status.
7	I, pages 1, 2, 3, 10, 12, 28 and Org. Chart, page 29	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.
8	I, page 3	Added a note explaining that the “Senior Operations Executive” position may encompass various titles including “Vice President” or “Director” depending on the executive management scope of the incumbent’s role.	See above.
9	I, pages 21 through 23 and Org. Chart, page 29	Revised description of Mechanical Maintenance and Facilities Manager and Electrical and Controls Maintenance Manager positions to reflect reassignment of electrical and facilities activities to a new Electrical Maintenance and Facilities Manager position, and added a description and org. chart box for the new position.	Reflects administrative changes made in the plant maintenance organization.
10	II, Page 6	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.

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11	III, Page 2	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.
12	XV, Page 2	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.
13	XVI, page 1	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.
14	XVIII, page 2	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.
15	Appendix D, Page 7	Changed the title “Director of Operations” to “Senior Operations Executive”.	See above.

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## VOQAM Summary of Changes – Revision 1A

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Item No.	VOQAM Section	Change Description	Reason for Change
1	I	Page 2 of 29 Added the quality assurance responsibilities of the President and Chief Executive Officer.	Responds to a recommendation of the 1998 JUMA Audit Team.
2	I	Page 9 of 29 Added the Special Projects Manager position.	Incorporates new position.
3	I	Page 11 of 29 Added day-to-day oversight of Operations Department functions to Plant Managers responsibilities.	Update due to organizational changes.
4	I	Page 14 of 29 Changed responsibilities of Operations Superintendent to include general management oversight of Operations Department functions.	Update due to organizational changes.
5	I	Page 15 of 29 Changed Operations Manager's reporting lines to reflect direct reporting to Plant Manager for day-to-day operations, with a secondary reporting line to the Operations Superintendent for general management issues.	Update due to organizational changes.
6	I	Page 29 of 29 Revised the organization chart to reflect the above changes.	Update due to organizational changes.
7	I	Pages 1 of 29 through 29 of 29 Corrected all footers to include new page count and revision number.	Editorial
8	V	Page 3 of 3 Added reference to Appendix D for additional requirements.	Addresses Proposed Change No. 208 to VY Technical Specifications.
9	V	Pages 1 of 3 through 3 of 3 Corrected all footers to include new page count and revision number.	Editorial



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Item No.	VOQAM Section	Change Description	Reason for Change
10	XVII	Page 3 of 3 Added reference to Appendix D for additional requirements.	Addresses Proposed Change No. 208 to VY Technical Specifications.
11	XVII	Page 1 of 3 through 3 of 3 Corrected all footers to include new revision number.	Editorial
12	XVIII	Page 4 of 4 Added reference to Appendix D for additional requirements.	Addresses Proposed Change No. 208 to VY Technical Specifications.
13	XVIII	Page 1 of 4 through 4 of 4 Corrected all footers to include new revision number.	Editorial
14	APPENDIX D	Page 1 of 10 through 10 of 10 Incorporated requirements of Section 6.2, 6.5 (partial), 6.6 and 6.8 of the Technical Specifications into the VOQAM.	Relocation of requirements as described in Proposed Change No. 208 to Technical Specifications.

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AMENDMENT/REVISION SHEET

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

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AMENDMENT/REVISION SHEET

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<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. Revised Appendix D to adopt the temporary change review criteria of ANSI N18.7-1976.

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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.

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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, redesign, evaluation, 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 a contracted services organization as its authorized agent for provision of certain quality assurance and related support services; selected engineering and related technical services; and various administrative and other general support services. All work affecting quality assurance performed by the approved contractor under the terms of the contractual agreement shall be conducted in accordance with the programs and procedures required by this Operational Quality Assurance Program or the contractor's approved Quality Assurance Program.

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.



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### 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 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 job descriptions maintained in accordance with plant Technical Specifications.

#### 1. Vermont Yankee Nuclear Power Corporation

##### 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.

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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;" etc. The incumbent will only be considered an Officer of the Company when the title includes "Vice President"; however, the Board of Directors may delegate certain authorities and responsibilities of a company officer (such as signing "oath or affirmation" statements) to the Director of Operations.

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.

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c. Vice President, Engineering

1. Reports to the President.
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 review and approval of drawings and specifications.
5. Provides for interfacing between the Plant and Engineering.
6. Responsible for Fire Protection.
7. Ensures that applicable programs and procedures effectively implement the QA Program.

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- d. Director of Safety and Regulatory Affairs
1. Reports to the President.
  2. Oversees the activities of the Quality Assurance Department.
  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. Evaluates In-Plant Audits and recommends disposition to the Director of Operations.
  6. Provides for the review of and compliance with federal and state regulations and standards for nuclear power facilities.

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e. Director of Quality Assurance

1. Reports directly to the Director of Safety and Regulatory Affairs.
2. Establishes the qualification requirements for the principal Quality Assurance management positions to assure competence commensurate with responsibility. See Appendix A.
3. Reviews all changes to the Operational Quality Assurance Program.
4. Reviews or recommends company policy relative to Quality Assurance practices.
5. Authorizes personnel performing Quality Assurance functions to have direct access to management levels which will assure accomplishment of quality-affecting activities.
6. Establishes policies under which the Quality Assurance Department functions.
7. Provides for preparation, control, and distribution of the Operational Quality Assurance Program and revisions thereto.

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8. Provides for implementation of the Program within the Quality Assurance Department.
9. Provides to NSARC a periodic review of the Operational Quality Assurance Program to determine the adequacy and effectiveness of the Program. Provide for evaluations of changes to the Quality Assurance Program to the requirements of 10CFR50.54(a)(3).
10. Provides, through the Quality Assurance Department, 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.
11. 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.
12. As directed by the Vermont Yankee Director of Safety and Regulatory Affairs, assures that the QA Program is effectively implemented.
13. Appoints the NDE and N45.2.6 Level III Examiner

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f. Manager of Operational Quality Assurance

1. Reports to the Director of Quality Assurance.
2. Assures that the Operational Quality Assurance Program satisfies the requirements of 10CFR50 Appendix B and ANSI N18.7-1976.
3. 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.
4. 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.
5. Provides for the training and retraining of Quality Assurance personnel in quality assurance and audit techniques.
6. Ensures through verification that the Program is implemented for all activities requiring Quality Assurance.
7. Provides for the stoppage of unsatisfactory work; and for the control of further processing or delivery of nonconforming material.
8. Directs the independent verification through audits and surveillances of plant or site operational activities to assure that applicable approved procedures, specifications, licenses, and safety regulations are satisfied.
9. Ensures that the QA Program is modified and/or revised as standards regulations and experience dictate.
10. Ensures that applicable QA Department Programs and Procedures effectively implement the QA Program.

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g. Procurement Manager

1. Reports to the Direction of Administration.
2. Responsible for procurement and receipt inspection of all materials and services required for operations and continued maintenance of the facility.
3. Oversees the storage and preservation of materials.
4. Responsible for ensuring regulatory compliance for materials and services procured, stored, and utilized in the plant's safety-related systems.

h. Director of Design Engineering

1. Reports to the Vice President, Engineering.
2. Oversees the planning, scheduling, and direction of activities of employees engaged in design changes and alterations.
3. Reviews and approves safety-related design change documents, selected plant programs and policies.
4. Provides for review and approval of drawings and specifications.
5. Provides for interfacing between the Plant and Engineering.



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i. Special Projects Manager

1. Reports to the Director of Engineering
2. Oversees and manages work planning for the Design Engineering Department.
3. Oversees and manages critical capital and operating projects.
4. Fulfills other responsibilities common to all supervisory positions and carries out other duties and responsibilities as may be assigned by the Director of Engineering.

j. Training Manager

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 Support Training Supervisor, the Engineering and Maintenance Training Supervisor, the Operations Training Supervisor, and the Training Support Supervisor in carrying out their duties.
5. Evaluates the effectiveness of the training programs and the performance of the individuals participating in the training.

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k. System Engineering Manager

1. Reports to the Vice President, Engineering.
2. Provides 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. Includes Maintenance Rule.
5. Responsible for electrical and mechanical systems engineering.
6. Maintains formal documentation associated with system engineering programs for required operational and license requirements.
7. Fulfills other responsibilities common to all supervisory positions and carries out other duties and responsibilities as may be assigned by the Vice President, Engineering.

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2. Plant

a. Plant Manager

1. Reports to the Senior Operations Executive.
2. Directs the on-site implementation of the Operational Quality Assurance Program.
3. Responsible for day-to-day oversight of Operations Department functions.
4. Prescribes and directs the development of Plant procedures, instructions, schedules, and programs as necessary to assure the safe and dependable operation of the facility.
5. Maintains a thorough knowledge of, and assures compliance with, the regulatory requirements for operating a nuclear power plant.
6. Directs the preparation and maintenance of power plant records, reports, and logs.
7. Acts as Chairman of the Plant Operations Review Committee with authority and responsibility as established in the Technical Specifications of the plant operating license.
8. Provides information and reports to the Nuclear Safety Audit and Review Committee as required and as directed by the Senior Operations Executive.
9. Directs the control and surveillance of all special nuclear material on site.
10. 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.

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b. Maintenance Superintendent

1. Reports to the Plant Manager.
2. Oversees planning, scheduling, coordination, and direction of activities of employees engaged in the installation, inspection, and maintenance of all equipment, buildings, and structures as appropriate. Is responsible for the Electrical & Control Maintenance, Work Control and Mechanical Maintenance and Facilities areas.
3. Assists in the development of Plant procedures, instructions, schedules, and programs as necessary to assure the safe and dependable maintenance of the facility.
4. Maintains a thorough knowledge of, and assures compliance with, the regulatory requirements for maintenance of a nuclear power plant.
5. Acts as Vice Chairman of the Plant Operations Review Committee with responsibilities as established in the Technical Specifications of the plant operating license.
6. Directs the preparation and maintenance of power plant records, reports, and logs as applicable.
7. Provides information, reports, and records as directed by the Plant Manager.
8. Assists in directing the 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, safety rules and regulations.

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c. Technical Services Superintendent

1. Reports to the Plant Manager.
2. Responsible for the Security, Radiation Protection, Technical Support, and Chemistry Departments.
3. Assists in the development of Plant procedures, instructions, schedules, and programs as necessary to assure the safe and dependable operation of the facility and the safe conduct of refuel operations.
4. Maintains a thorough knowledge of, and assures compliance with, the regulatory requirements of a nuclear power plant.
5. Acts as Vice Chairman of the Plant Operations Review Committee with responsibilities as established in the Technical Specifications of the plant operating license.
6. Directs the preparation and maintenance of power plant records, reports, and logs as applicable.
7. Provides information, reports, and records as directed by the Plant Manager.
8. Assists in directing the 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, safety rules and regulations.

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d. Operations Superintendent

1. Reports to the Plant Manager.
2. Responsible for the Reactor Engineering Department and general management oversight of 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. Acts as Vice Chairman of the Plant Operations Review Committee with responsibilities as established in the Technical Specifications of the plant operating license.

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e. Operations Manager

1. Reports to the Plant Manager for day-to-day operations, with a secondary reporting line to the Operations Superintendent for general management issues.
2. Has the responsibility and authority for insuring the safe and efficient operation of the plant and its supporting systems in accordance with applicable station licenses, Technical Specifications, procedures, instructions, established company policy and safety rules.
3. Consistent with plant policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures and insures that department administrative systems exist such that the responsibilities assigned to the Operations Department are executed effectively and efficiently in accordance with company intent. Insures that necessary documentation is prepared, reviewed, approved, and properly processed to verify that department activities meet all established requirements.
4. Maintains current status of Operations Department activities and requirements. Prepares and maintains, plans and schedules for department commitments such as personnel training, retraining and qualification.
5. Insures that all records, tests, reports, and logs maintained by the Operations Department are properly reviewed and approved.
6. Insures that all Operations Department personnel in a training status are actively pursuing the established program and that their performance is being adequately evaluated.
7. Reviews all Operations Department procedures to insure that they are current, accurate, and approved.
8. Implements aspects of the Plant Quality Assurance Program which relate to the activities of the Operations Department.

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f. Project Engineering Manager

1. Reports to the Vice President, Engineering.
2. Oversees and manages the Project Engineering efforts necessary to support emergency needs of the plant.
3. Provides for the generation of project plans, schedules budget, manloading, etc. necessary to support field activities.
4. Manages the contracts, contractors used to accomplish projects, and oversee project implementation.
5. Develops maintenance and oversight of implementation of program and procedures associated with Project Engineering.
6. Maintains formal documentation of Project Engineering activities for required operation and license requirements.
7. Fulfills other responsibilities common to all supervisory positions and carries out other duties and responsibilities as may be assigned by the Director of Engineering.
8. Manages the Fire Protection Program.



VERMONT YANKEE NUCLEAR POWER CORPORATION

g. Technical Support Manager

1. Reports to the Technical Services Superintendent.
2. Oversees and manages programs associated with the technical/administrative supports areas.
3. Maintains formal documentation associated with the technical and administrative activities for required operational and licensee documentation.
4. Fulfills other responsibilities common to all supervisory positions and carries out other duties and responsibilities as may be assigned by the Technical Services Superintendent.

h. Electrical Design Engineering Manager

1. Reports to the Director of Design Engineering.
2. Design authority for the electrical and instrumentation & control engineering efforts necessary to support the normal and emergent needs of the plant.
3. Oversee and manage programs associated with design engineering.
4. Provide for the generation of design change and installation documents, and support for the installation of these design changes and the close-out of associated documentation.
5. Maintain formal documentation of plant design basis and design change activities for required operational and license requirements.

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- i. Fluid Systems Engineering Manager
  1. Reports to the Director of Design Engineering.
  2. Design authority for the system engineering efforts necessary to support the normal and emergency needs of the plant.
  3. Oversee and manage programs associated with design engineering.
  4. Provide for the generation of design change and installation documents, and support for the installation of these design changes and the close-out of associated documentation.
  5. Maintain formal documentation of plant design basis and design change activities for required operational and license requirements.

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j. Mechanical/Structural Design Engineering Manager

1. Reports to the Director of Design Engineering.
2. Design authority for the mechanical structural systems engineering efforts necessary to support the normal and emergent needs of the plant.
3. Oversee and manage programs associated with design engineering.
4. Provide for the generation of design change and installation documents, and support for the installation of these design changes and the close-out of associated documentation.
5. Maintain formal documentation of plant design basis and design change activities for required operational and license requirements.
6. Fulfill other responsibilities common to all supervisory positions and carries out other duties and responsibilities as may be assigned by the Director of Engineering.

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k. Instrument and Controls Manager

1. Reports to the Maintenance Superintendent.
2. Plans, schedules and supervises the activities of the Instrument and Controls Department. Such activities to include; installation, inspection, calibration, adjustment, maintenance, and repair of the plant instrumentation and controls equipment.
3. Coordinates the activities of the Instrument and Controls Department with all other plant functions.
4. Establishes and directs a program of preventive maintenance, calibration, and surveillance testing as required by the plant license, approved plant procedures, or other plant requirements.
5. Establishes calibration techniques, frequencies, and records as necessary to assure reliable indication and control for plant system parameters.
6. Establishes and directs a program of departmental training that will assure a staff of Instrument and Controls personnel capable of safely and efficiently performing their duties in accordance with established practices, procedures, and regulations.
7. Prepares and/or supervises the preparation of reports, logs, and historical records as required.
8. Implements those aspects of the Plant Quality Assurance Program which relate to the activities of the Instrument and Controls Department.
9. Develops and maintains, in accordance with approved plant procedures, the procedural controls necessary to fulfill the above responsibilities.

VERMONT YANKEE NUCLEAR POWER CORPORATION

1. Mechanical Maintenance Manager

1. Reports to the Maintenance Superintendent.
2. Is responsible for mechanical maintenance activities throughout the plant.
3. Consistent with plant policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures, and insures that department administrative systems exist such that the responsibilities assigned to the Mechanical Maintenance Department are executed effectively and efficiently in accordance with company intent. Insures that necessary documentation is prepared, reviewed, approved, and properly filed to establish that department activities meet all requirements.
4. Consistent with plant policies and applicable instructions, organizes department functions and activities, assigns duties, and schedules personnel to accomplish department requirements. Reviews and supervises all department assignments.
5. Maintains current status of department activities and requirements. Prepares and maintains long-range plans and schedules for department commitments such as personnel training and qualification, plant modifications, etc.
6. Staffs and trains Mechanical Maintenance Department personnel.
7. Implements aspects of the Plant Quality Assurance Program which relate to the activities of the Mechanical Facilities Maintenance Department.
8. Reviews mechanical equipment failure frequency and evaluates equipment reliability.
9. Assumes responsibility for the condition, maintenance, and reliability of all plant mechanical equipment other than that specifically assigned to other departments.

VERMONT YANKEE NUCLEAR POWER CORPORATION

- m. Electrical Maintenance and Facilities Manager
1. Reports to the Maintenance Superintendent.
  2. Is responsible for electrical maintenance and facilities activities throughout the plant.
  3. Consistent with plant policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures, and insures that department administrative systems exist such that the responsibilities assigned to the Electrical Maintenance and Facilities Department are executed effectively and efficiently in accordance with company intent. Insures that necessary documentation is prepared, reviewed, approved, and properly filed to establish that department activities meet all requirements.
  4. Consistent with plant policies and applicable instructions, organizes department functions and activities, assigns duties, and schedules personnel to accomplish department requirements. Reviews and supervises all department assignments.
  5. Maintains current status of department activities and requirements. Prepares and maintains long-range plans and schedules for department commitments such as personnel training and qualification, plant modifications, etc.
  6. Staffs and trains Electrical Maintenance and Facilities Department personnel.
  7. Implements aspects of the Plant Quality Assurance Program which relate to the activities of the Electrical Maintenance and Facilities Department.
  8. Reviews electrical equipment failure frequency and evaluates equipment reliability.
  9. Assumes responsibility for the condition, maintenance, and reliability of all plant electrical equipment other than that specifically assigned to other departments.

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n. Work Control Manager

1. Reports to the Maintenance Superintendent.
2. Manages the planning and scheduling of activities necessary to support the operation and maintenance of the facility.
3. Provides and maintains the necessary administrative systems and procedures to effectively perform the department's functions.
4. Ensures that the department personnel supporting the operations and maintenance activities are properly trained.
5. Ensures that the maintenance planning and control data base for equipment and preventative maintenance is maintained.
6. Manages the Preventative Maintenance Program.
7. Establishes and maintains equipment history records.
8. Selects and orders materials and spare parts in areas of assigned responsibility.

VERMONT YANKEE NUCLEAR POWER CORPORATION

o. Chemistry Manager

1. Reports to the Technical Services Superintendent.
2. Consistent with the policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures, and insures that department administrative systems exist such that the responsibilities assigned to the Chemistry Department are executed effectively and efficiently in accordance with company intent. Insures that necessary documentation is prepared, reviewed, approved, and properly filed to establish that department activities meet all requirements.
3. Consistent with plant policies and applicable instructions, organizes department functions and activities, assigns and schedules personnel to accomplish department requirements. Reviews and supervises all department assignments.
4. Maintains current status of department activities and requirements. Prepares and maintains long-range plans and schedules for department commitments such as personnel training and qualification, preventive maintenance, material procurement, plant modifications, etc.
5. Assumes responsibility for providing the necessary administrative supervision and required personnel to meet the needs of the established Radiological Environmental Monitoring Programs.
6. Prescribes and maintains chemistry conditions and purification of coolants within applicable limits.
7. Develops and maintains records of all chemistry and radiochemistry aspects of the plant.



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p. Radiation Protection Manager

1. Reports to the Technical Services Superintendent.
2. Consistent with the policies and applicable instructions, institutes necessary programs, issues instructions, originates procedures, and insures that department administrative systems exist such that the responsibilities assigned to the Radiation Protection Department are executed effectively and efficiently. Insures that necessary documentation is prepared, reviewed, approved, and properly filed to establish that department activities meet all requirements.
3. Consistent with plant policies and applicable instructions, organizes department functions and activities, assigns and schedules personnel to accomplish department requirements. Reviews and supervises all department assignments.
4. Maintains current status of department activities and requirements.
5. Prepares and maintains long-range plans and schedules for department commitments such as personnel training and qualification, preventive maintenance, material procurement, plant modifications, etc.
6. Develops and maintains records of all radioactive waste shipments.
7. Develops work and housekeeping practices in radiologically controlled areas of the plant to minimize personnel exposure and the spread of radioactive contamination.
8. Assumes responsibility for receipt, storage, shipment, and disposal of radioactive material utilizing proper Federal and State regulations (other than nuclear fuel).
9. Has direct access to the Plant Manager in all health physics matters.

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q. Reactor Engineering Manager

1. Reports to the Operations Superintendent.
2. Plans, schedules, and supervises the activities of the Reactor Engineering Department which includes the Process Computer Engineering Group. Such activities to include: 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. Coordinates the activities of the Reactor Engineering Department with all other plant functions. 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. Establishes and directs a program of departmental training that will assure a staff of Reactor Engineering personnel capable of safely and efficiently performing their duties in accordance with established practices, procedures, and regulations.
7. Prepares and/or supervises the preparation of reports, logs, and historical records as required.
8. Implements those aspects of the Plant Quality Assurance Program which relate to the activities of the Reactor Engineering Department.
9. Develops and maintains, in accordance with approved plant procedures, the procedural controls necessary to fulfill the above requirements.

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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

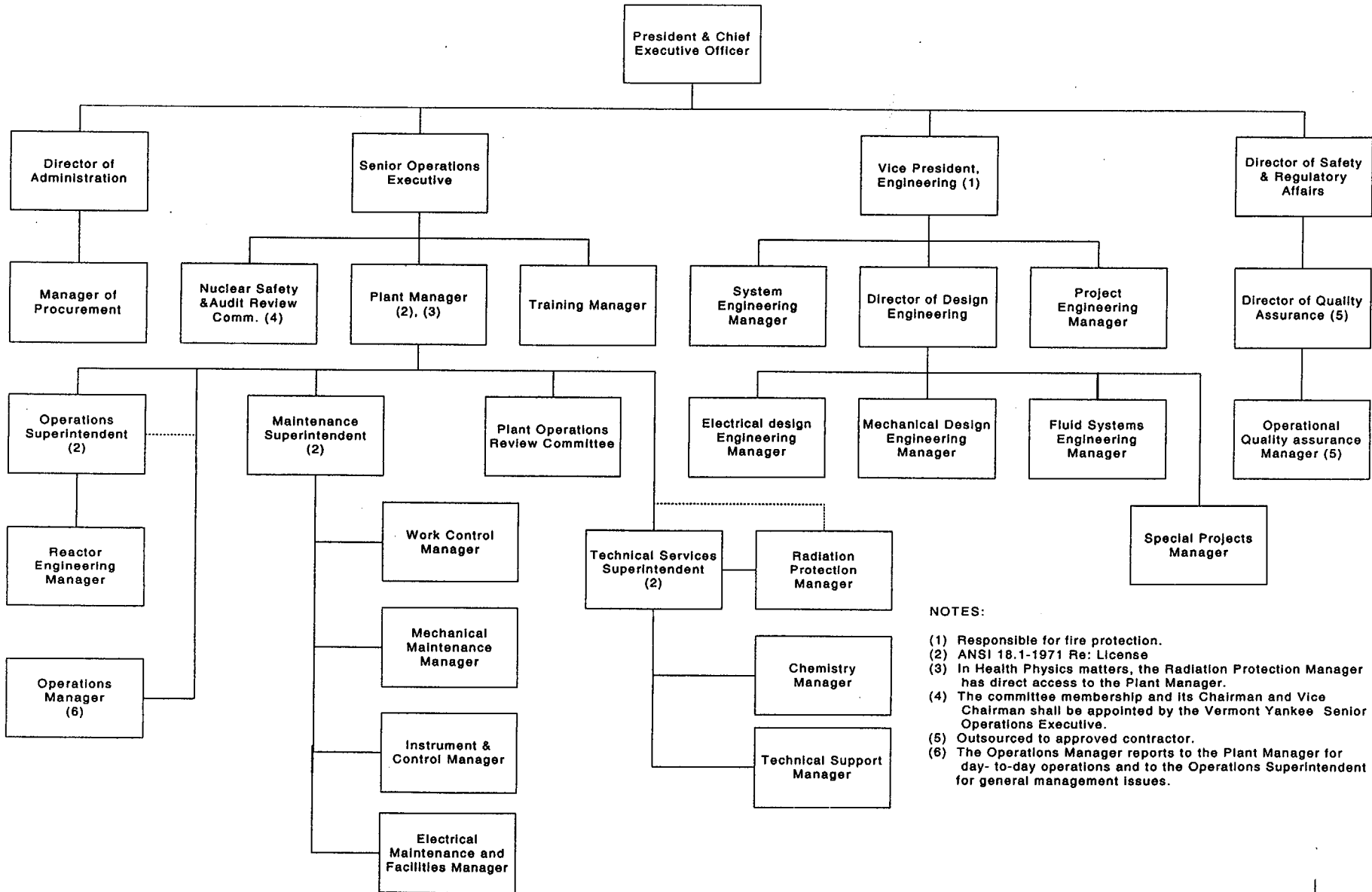
- a. See Section 6.2.A "Review and Audit" of Appendix A Technical Specifications to the Operating License DPR-28.

2. Nuclear Safety Audit and Review Committee

- a. See Section 6.2.B "Review and Audit" of Appendix A Technical Specifications to the Operating License DPR-28.
- 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 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) Outsourced to approved contractor.
- (6) The Operations Manager reports to the Plant Manager for day-to-day operations and to the Operations Superintendent for general management issues.

# 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.

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 Position 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 Department Director/Manager is responsible for the indoctrination and training of department personnel performing activities affecting quality in applicable design and engineering, test, operational, construction, or quality 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.

## VERMONT YANKEE NUCLEAR POWER CORPORATION

### 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/Plant 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 an uninvolved, but technically knowledgeable, person 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. Determination of whether proposed changes involve unreviewed safety questions.
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. Approval of procedures for processing plant design changes and engineering design changes.
  - b. Review, approval and distribution of plant change documents.
7. The Engineering Departments 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 process 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, including those originating "on-site", 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. 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.
- h. Selection of suitable materials, parts, equipment, and processes for safety classified structures, systems, and components.
- 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. The Plant or the corporate staff shall be responsible for:
  - a. The preparation, review, issue, and control of purchase documents.
  - b. Preparation of detailed procedures as to how purchase documents are prepared, reviewed, approved, issued, and controlled.
  - c. Review of plant procurement requisitions.
3. 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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4. The Plant shall be responsible for 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.

**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 vendor's applicable quality assurance requirements of 10CFR50, Appendix B and/or ANSI N18.7, and/or other applicable codes, standards or regulatory documents referenced in procurement documents which are to be reviewed by the 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;

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5. Chemical and physical test results of material; and
  6. Quality Assurance Department's right of access to the vendor's facilities and records for surveillance and/or audit to procurement documentation.
- 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 10CFR50.59 (a) (2) safety evaluation, or that have been specifically designated for review, prior to their approval by the Plant Manager or designee.

C. IMPLEMENTATION

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

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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:

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- a. Controlling the issuance of plant operating, maintenance, repair, refueling, inspection and test, and change documents.
  - b. Distribution and maintenance of all plant approved and/or revised documents assuring quality at the location where the activity is performed.
  - c. Review and distribution of drawings.
3. The Engineering Departments shall be responsible for:
- a. Controlling the maintenance and distribution of engineering drawings, specifications, welding and nondestructive examination documents.
  - b. Revision and distribution of welding and nondestructive examination documents.
4. The Vice President, Engineering and staff shall be responsible for:
- a. A system of review and approval of Plant drawings and specifications.
5. 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 Approved Vendors List and revisions thereto.

### C. IMPLEMENTATION

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

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- 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.
- b. Inclusion of approved changes in instructions, drawings, and other applicable documents prior to placing the system in operating status.
- c. Provision of 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., Engineering Design Change Requests, Specifications, Calculations, etc.);
  - 2. Design, manufacturing, construction, and installation drawings;
  - 3. Procurement documents;
  - 4. Operational Quality Assurance Program, maintenance, and operating procedures;
  - 5. Manufacturing, inspection and test instructions;



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6. Test documents;
  7. Design changes; and
  8. Nonconformance reports.
  9. Event reports.
- 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. Quality Assurance Department shall be responsible for:
  - a. Audits and Commercial Surveys of vendor quality assurance programs.
  - b. Surveillances of vendor activities.
  - c. Maintenance of the Approved Vendors List.
2. The Quality Assurance and/or Engineering Departments shall be responsible for evaluating vendor manufacturing and technical capabilities upon request.
3. The Plant shall be responsible for:
  - a. Receipt inspection and control of material and equipment.
  - b. Evaluation of purchased services during and/or after completion of the service.
  - c. The Manager of Procurement shall be responsible for the control of purchased material, parts and components until issued for installation or use.

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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 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. Review and acceptance of vendor documentation by a responsible quality assurance individual.
- e. Receipt inspections of vendor furnished material/services, 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.
- f. Evaluations 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 Quality Assurance Department 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 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, as requested, generated by the Engineering Department and vendors for use on-site and when otherwise specified.
2. The Engineering Departments 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 the vendor for use on-site and when otherwise specified.

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3. The Plant shall be responsible for:
  - a. Assurance that maintenance and change work involving special processes are performed by qualified personnel in accordance with approved documents.
  - b. Control of material used in special processes by plant personnel.
  - c. Training, qualification, and requalification of personnel in nondestructive testing, 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 the 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. Auditing and Surveillance of Plant Inspection activities.
  - b. Surveillance of documentation pertinent to the Inservice Inspection and Test Program.
  - c. Surveillance of vendor inspection activities and personnel.
2. 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. Perform inspection activities to assure that predetermined requirements have been met.
  - e. Hold points incorporation where applicable.

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C. IMPLEMENTATION

1. Satisfaction of this criterion shall be assured through the 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 vendor test program activities.
  - b. Surveillance of the documentation generated during the test program.
2. The Engineering Departments/Plant shall be responsible for:
  - a. Determination of when testing is required following plant changes.
  - b. Establishment of specifications, requirements, and acceptance criteria for testing following plant changes.
  - c. Development of test documents, performance of tests, and documentation, evaluation, and approval of test results.
  - d. Provision of qualified personnel and calibrated equipment for testing.
3. The Nuclear Safety Audit and Review Committee shall be responsible for reviewing proposed tests or experiments which involve an unreviewed safety question as defined 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) Completeness of item to be tested;
      - 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 owner, contractor or 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 Plant 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.
  - c. 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:
  - 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.



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- 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.

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- b. Procedural control of the bypassing of required inspections, tests and other critical operations with the concurrence of the Quality Assurance Department.
- 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 Event Reports to verify resolution of significant conditions adverse to quality.
  - b. Establishment of feedback system between plant and vendor representatives in regard to nonconforming material or services.
  - c. Initiation of Event Reports when conditions are found which may adversely affect the quality of plant systems, structures, activities, or components.
  
2. The Engineering and/or Plant Departments shall be responsible for:
  - a. Review of nonconforming services or items which cannot be corrected by vendor action.
  - b. Preparation or approval of implementing documents for repair and/or rework of nonconforming items.

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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.
  - c. Establishment of 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 furnished to the plant.
  - 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 nonconformance shall be documented in a nonconformance 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 following the determination of a condition adverse to quality to preclude recurrence.
  - 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, both "off-site" and "on-site".



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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, 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 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

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such as reportable occurrences, technical reports, required records and the meeting minutes of official committees.

3. The Engineering and/or Plant Departments 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 details required for inspections and test records including the following as applicable:
    - 1) Description of the type of observation.
    - 2) Evidence of completion and verification of manufacturing, inspection, or test operations.
    - 3) The date and results of the inspection or test.
    - 4) Information related to conditions adverse to quality.
    - 5) Inspector or data recorder identification.
    - 6) Evidence as to the acceptability of the results.
    - 7) Acceptance and rejection criteria.
    - 8) Identification of required procedures, drawings, and specifications and revisions.
    - 9) Specification of the necessary measuring and test equipment including accuracy requirements.
    - 10) Spent fuel storage records.

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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. 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 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. 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 plant.
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.
  - f. 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.

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- 3) Receiving and plant inspections.
  - 4) Indoctrination and training programs.
  - 5) Implementation of operating and test procedures.
  - 6) Calibration of measuring and test equipment.
- g. Scheduling of audits regularly on the basis of the status and safety importance of the activities being performed.
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 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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<u>Appendix B 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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(continued)

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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APPENDIX B

(continued)

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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APPENDIX B

(continued)

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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(continued)

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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APPENDIX B

(continued)

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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(continued)

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:

The Vermont Yankee plant takes exception to the Regulatory Guide in its entirety.

ALTERNATIVES:

Vermont Yankee shall continue to classify structures, components and systems in accordance with ANS-22, Draft No. 4, Rev. 1, May 1973, "Nuclear Safety Criteria for the Design of Stationary Boiling Water Reactor Plants," as in the past.

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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:

Vermont Yankee

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 periodically reviewed in accordance with administrative controls. These controls will establish a schedule for these periodic reviews. 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.

Nonroutine procedures such as Emergency Operating Procedures, Emergency Plan Implementing Procedures, or other procedures whose use may be event driven, 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 that are used more frequently than every two years. The audit is to ensure the acceptability of the procedures and verify that the procedure review and revision program is being implemented effectively. The root cause of significant deficiencies is to be determined and corrected.

Routine plant procedures that have not been used for two years will be reviewed before use to determine if changes are necessary or desirable.

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#### Justification:

The current requirement to review each safety-related procedure on a biennial cycle results in the expenditure of significant technical and administrative resources. Programmatic controls and practices are in place to provide adequate reviews, 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.

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- When procedures are identified as contributing factors for plant events, violations and nonconforming conditions, changes are initiated.
- Changes to Technical Specifications and the FSAR are reviewed for potential impact on, and initiation of changes to plant procedures.
- Plant procedures are approved by appropriate personnel prior to initial use. Current administrative controls also require pre-job briefings for procedures identified as infrequent.

This modification meets the intent of published regulatory requirements involving activities important to safety.

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.

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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.

Current Technical Specification

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

Administrative Controls

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

6.2 REVIEW AND AUDIT

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

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

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

2. Qualifications

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

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

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

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

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

6. Responsibilities

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

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

7. Authority

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

8. Records

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

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B. Nuclear Safety Audit and Review Committee

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

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

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

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



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

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

7. Records

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

6.5 PLANT OPERATING PROCEDURES

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

All procedures shall be adhered to.

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

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

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

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

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6.6 PLANT OPERATING RECORDS

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

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

6.8 FIRE PROTECTION INSPECTION

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