MAINE YANKEE ATOMIC POWER COMPANY

OPERATIONAL QUALITY ASSURANCE PROGRAM

Revision 6

TABLE OF CONTENTS

Rev. No.: 6

Date: 11/19/90

MAINE YANKEE ATOMIC POWER COMPANY

OPERATIONAL QUALITY ASSURANCE PROGRAM

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POLICY STATEMENT

Operational Quality Assurance Program

The Maine Yankee Atomic Power Company Operational Quality Assurance Program shall comply with the requirements of the Code of Federal Regulations, Title 10, Part 50, Appendix B, with respect to the operation, maintenance of, and changes to, the nuclear generating facility.

The Company policy of a firm commitment to quality is best reflected in a memorandum to all employees from its President and incorporated into this program as Attachment 1.

ATTACHMENT 1

November 19, 1990
Revised

TO: ALL PERSONNEL

FROM: Charles D. Frizzle, President

THE QUALITY MISSION

The designers, builders and management of Maine Yankee Atomic Power Company have been committed to high standards of engineering and operational quality from the beginning. During the ensuing years we have installed substantial plant modifications, conducted special operational performance tests and dramatically expanded personnel training programs and staffing to insure continued quality improvements in plant reliability and safety. Today Maine Yankee is recognized by regulators and public alike as a leader in the industry with 14 years of superior performance and proven dedication to the principles of continuous quality improvement.

Uncompromising dedication to continuous quality improvement must continue and be vigorously pursued by every member of our organization if we are to deserve the public confidence that is necessary for continued success. Among other things, uncompromising dedication to quality improvement requires:

- Not only full understanding and compliance with requirements but a willingness to continually question, upgrade and improve the requirements.
- Thorough understanding of your job functions and an understanding of why your job is important.
- Producing, expecting and accepting nothing but the highest standards of performance. Make sure that the right things are done correctly the first time.
- Identification, repair or reporting of any equipment, process or material in the plant that is nonconforming, deficient or otherwise not up to an acceptably high level of performance.

The Operational Quality Assurance Program (OQAP) is the regulatory basis for the processes and controls we need to achieve a high level of quality and safety in plant operation. Achievement and verification of quality are line management functions which are prescribed by the OQAP and its implementing procedures. The OQAP has provided for the Quality Programs Department to be the principle coordinator and consultant for quality verification activities.

I challenge every employee to actively cooperate and support our fundamental quality objectives of continuous quality improvement, safe operation and high public confidence. You are the key to successful pursuit of excellence in all Maine Yankee activities.

President

I. ORGANIZATION

A. SCOPE

This section describes the functions and relationship of personnel responsible for establishing and implementing the Operational Quality Assurance Program.

B. RESPONSIBILITY

Maine Yankee Atomic Power Company management is responsible for the safe operation of its nuclear power plant.

This Operational Quality Assurance Program is adopted to ensure that Company activities related to safety are in full compliance with regulatory requirements, meet all applicable industry standards, and are consistent with good engineering and management practices.

The Quality Programs Department Manager assures that the Program is implemented effectively. Quality Programs Department personnel have authority for access to all records necessary to fulfill their responsibilities.

The President is the corporate officer with general responsibility for all aspects of operational quality. Specific areas of responsibility are delegated to other personnel and organizations as indicated throughout the program and in Appendix B. Maine Yankee management retains full responsibility for the effectiveness of the overall program.

C. ORGANIZATIONAL RELATIONSHIPS

Maine Yankee Atomic Power Company lines of authority of personnel involved in the implementation of the Operational Quality Assurance Program are indicated in Section 5 of the Technical Specifications.

The Nuclear Services Division of Yankee (YNSD) has a continuing contractual obligation to provide services to the Maine Yankee Atomic Power Company. The two companies interlock at the executive level to provide additional assurance that YNSD provides the services assigned. A corporate officer of the Yankee Atomic Electric Company is also a Vice President of the Maine Yankee Atomic Power Company. This Maine Yankee Vice President is referred to hereafter as the Vice President, YNSD.

D. REVIEW AND AUDIT COMMITTEES

As required by the Technical Specifications, two committees have been established to insure that the plant is operated in accordance with regulatory requirements and the standards established by this Program.

1. Plant Operations Review Committee

This Committee is composed of experienced and qualified plant personnel having direct line responsibility for plant operation. See Section 5.5, "Review and Audit" of Technical Specifications.

2. Nuclear Safety Audit and Review Committee

This Committee is composed of experienced and qualified personnel not having line responsibility for plant operation. See Section 5.5, "Review and Audit" of Technical Specifications.

II. OPERATIONAL QUALITY ASSURANCE PROGRAM

A. SCOPE

The Operational Quality Assurance Program applies to activities affecting the quality of the identified structures, systems and components classified and designated by the Manager, Plant Engineering and which are necessary to ensure the integrity of the Reactor Coolant Pressure Boundary, or the capability to shutdown the reactor and maintain a safe shutdown condition or the capability to prevent or mitigate the consequences of an accident. Manager, Plant Engineering is responsible for establishing and maintaining documentation which designates the safety classification of plant systems. The program takes into account the need for special controls, processes, environmental conditions, equipment, tools and skills to attain the required quality and the need for verification of quality by inspections, evaluations or tests.

B. RESPONSIBILITIES

Compliance with the requirements of the Operational Quality Assurance Program is the responsibility of all personnel involved with activities affecting operational safety. Individuals responsible for establishing and executing the Operational Quality Assurance Program are delineated in Section I, "Organization", and Appendix B of this Program. The Quality Programs Department shall regularly review the status and adequacy of the Operational Quality Assurance Program.

C. IMPLEMENTATION

The Operational Quality Assurance Program is established as required by, and to assure conformance with, Title 10 of the Code of Federal Regulations, Part 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants.

Establishment of an effective Operational Quality Assurance Program is assured through conformance with ANSI Standards and the regulatory position of regulatory guides as specified in Paragraph F of this section of the QA Program. Implementation of this Program is assured through procedures derived from those standards and guides.

NOTES: 1) The plant Technical Specifications shall be the governing document when determining requirements to be imposed in all areas which are addressed in both technical specifications and the specified standards and guides.

2) Revisions to the specified standards and guides will be considered for applicability to the Maine Yankee Operational Quality Assurance Program upon written direction thereof by the Nuclear Regulatory Commission - Regional Office.

3) ANSI Standard N18.7-1976 is the endorsing document for all other specified ANSI Standards. All such endorsed ANSI Standards will be implemented to the degree of applicability indicated in ANSI N18.7-1976.

4) Changes to the Operational Quality Assurance Program shall be handled as follows:

   a) This program shall be applicable to those activities requiring quality assurance which occur commencing 90 days after acceptance of the program by the Nuclear Regulatory Commission.

   b) Changes that reduce commitments in the accepted description of the QA Program, shall be submitted for NRC review and acceptance prior to implementation. Acceptance will be assumed 60 days after submittal unless notified otherwise.

   c) Changes that do not reduce QA Program commitments shall be submitted to the NRC at least annually.

   d) Editorial changes or personnel reassignments of a minor nature do not require NRC notification.

D. MANAGEMENT EVALUATION

The Nuclear Safety Audit and Review Committee, under the direction of the Vice President, YNSD, conducts evaluations of the Quality Assurance Program for compliance and effectiveness. The Vice President, YNSD shall bring unresolved issues to the attention of the Maine Yankee President.

E. TRAINING

1. The indoctrination and training programs shall provide the following quality assurance related activities:

   a. Instruction as to the purpose, scope, and implementation of quality assurance manuals, instructions, and procedures.

b. Training and qualification in the principles and techniques of the activity being performed.

c. Maintenance of proficiency by retraining, reexamining, and/or recertifying personnel.

d. Documentation of the training sessions including content, attendance, dates and results where applicable.

F. ANSI STANDARDS AND REGULATORY GUIDES

The Operational Quality Assurance Program is written to conform to the ANSI standards and regulatory guides listed below, as modified herein.

1. ANSI N18.1 - 1971, Selection and Training of Nuclear Power Plant Personnel, as modified by Regulatory Guide 1.8, Revision 1.

   a. EXCEPTION:

      Maine Yankee takes exception to the provisions of Paragraph 4.5.2 which requires technicians in responsible positions to have a minimum of two years of working experience in their specialty.

      ALTERNATIVE:

      Maine Yankee will adhere to Section 5.3.1.c of Technical Specifications.

2. ANSI N18.7 - 1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants, as modified by Regulatory Guide 1.33, Revision 2, and the following exceptions.

   a. EXCEPTION:

      The following exception is taken by Maine Yankee.

      ANSI standards not referenced in ANSI N18.7-1976, but which are referenced in an ANSI standard endorsed by N18.7-1976 shall not be considered as applicable to the Maine Yankee Operational Quality Assurance Program.

ALTERNATIVE:

Maine Yankee may use the noted standards as guides, as necessary.

b. EXCEPTION:

Maine Yankee takes exception to Section 4.3 "Independent Review Program" and Section 4.4 "Review Activities of the Onsite Operating Organization".

ALTERNATIVE:

Section 4.3 refers to requirements for the Nuclear Safety and Audit Review Committee (NSARC). Technical Specification 5.5.B establishes appropriate requirements for independent review for NSARC.

Section 4.4 refers to requirements for the Plant Operations Review Committee (PORC). Technical Specification 5.5.A establishes appropriate requirements for review activities of the onsite operating organization.

c. EXCEPTION:

Maine Yankee takes exception to the provision of paragraph 5.2.2, which requires that one of the two individuals providing approval of temporary (procedure) changes "... shall be the supervisor in charge of the shift."

ALTERNATIVE:

Maine Yankee will adhere to Section 5.8.3 of the Plant Technical Specifications.

d. EXCEPTION:

Maine Yankee takes exception to the application of paragraph 5.2.16, as applied to control of measuring and test equipment for radiological controls equipment. Paragraph 5.2.16 requires that an evaluation be made and documented concerning the validity of previous tests from the time of the last calibration when the device is found out of calibration.

ALTERNATIVE:

It is impractical to log everywhere that a survey instrument is used. Personnel carry a pocket dosimeter and TLD for monitoring radiation levels.

e. EXCEPTION:

Maine Yankee takes exception to application of paragraph 5.3.9.1, Emergency Procedure Format and Content.

ALTERNATIVE:

NRC Order dated July 10, 1981 confirmed Maine Yankee's commitment concerning NUREG 0737, supplement 1C1 for TMI related items. Maine Yankee's Emergency Operating Procedures (EOP) will be written to the requirements of the EOP Writer's Guide, based on NUREG 0899, submitted to the NRC for review on March 18, 1986.

3. ANSI N18.17 - 1973, Industrial Security for Nuclear Power Plants.

a. EXCEPTION:

Maine Yankee takes exception to the application of ANSI N18.17 for Security.

ALTERNATIVE:

10CFR73 requires that Security Plans be established and approved by the NRC. This provides adequate assurance that an acceptable Security Plan is established and implemented that meets or exceeds ANSI N18.17 requirements.

4. ANSI N45.2.1 - 1973, Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants, as modified by Regulatory Guide 1.37, March 16, 1973.

5. ANSI N45.2.2 - 1972, Packaging, Shipping, Receiving, Storage & Handling of Items for Nuclear Power Plants (During the Construction Phase), as modified by Regulatory Guide 1.38, Revision 2, and the following exceptions.

   a. EXCEPTION:

      Subsection 3.7.1 & A3.7.1 - Containers

      Maine Yankee 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

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

      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

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

ALTERNATIVE:

Maine Yankee shall perform those required inspections after unloading. In special instances, pre-unloading inspections shall be performed.

JUSTIFICATION:

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

d. EXCEPTION:

Subsection 5.2.2 - Item Inspection

Maine Yankee 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:

Maine Yankee shall perform receiving inspection in a manner and in an environment which does 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

Maine Yankee takes exception to attaching special inspection procedures to the item or container.

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

Maine Yankee takes exception to two specific requirements associated with fuel storage (classified level A).

ALTERNATIVE:

Maine Yankee 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 Maine Yankee plant is consistent with the protection provided to the fuel while in storage at the manufacturer (vendor) and 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.

g. EXCEPTION:

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

Maine Yankee takes exception to the requirement that non-metallic plugs and caps shall be brightly colored.

ALTERNATIVE:

Non-metallic 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

Maine Yankee 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.

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

Maine Yankee 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

Maine Yankee takes exception to the information required for container marking.

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.

6. ANSI N45.2.3 - 1973, Housekeeping During the Construction Phase of Nuclear Power Plants, as modified by Regulatory Guide 1.39, Revision 2, and the following exceptions.

a. EXCEPTION:

Subsection 2.1 - Planning

Maine Yankee takes exception to the five-zone requirements specified in the subject standard.

ALTERNATIVE:

Maine Yankee 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, so as 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 may be specified.

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.

b. EXCEPTION:

Subsection 2.4 - Personnel Qualifications

Maine Yankee takes exception to the word "all" in the subject paragraph.

ALTERNATIVE:

Personnel, with unescorted access, working in zone controlled areas shall be familiar with housekeeping requirements for the various zones.

Personnel working in zoned controlled areas with escorted access will be escorted by a person with unescorted access who is familiar with the requirements.

c. EXCEPTION:

Subsection 3.2 - Control of Facilities

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

ALTERNATIVE:

Maine Yankee shall verify control for Zone III as indicated in the previous exception.

7. ANSI N45.2.4 - 1972, Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations, as modified by Safety Guide 30, August 11, 1972.

8. 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, as modified by Regulatory Guide 1.94, Revision 1.

9. ANSI N45.2.6 - 1978, Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants, as modified by Regulatory Guide 1.58 Revision 1, and the following exception.

a. EXCEPTION:

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

ALTERNATIVE:

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

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

Contractor personnel who perform inspection, examination and testing at Maine Yankee will be qualified to ANSI N45.2.6-1978.

10. ANSI N45.2.8 - 1975, Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for Construction Phase of Nuclear Power Plants, as modified by Regulatory Guide 1.116, Revision OF

11. ANSI N45.2.9 - 1974, Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants, as modified by Regulatory Guide 1.88, Revision 2.

12. ANSI N45.2.10 - 1973, Quality Assurance Terms and Definitions, as modified by Regulatory Guide 1.74, February 1974, and the following exception.

a. EXCEPTION:

Subsection 2 - Terms and Definitions

Maine Yankee takes exception to the definitions of "Certificate of Conformance" and "Certificate of Compliance".

ALTERNATIVE:

Maine Yankee 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 Maine Yankee specifications.

13. ANSI N45.2.11 - 1974, Quality Assurance Requirements for the Design of Nuclear Power Plants, as modified by Regulatory Guide 1.64, Revision 2.

14. ANSI N45.2.12 - 1977, Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants, as modified by Regulatory Guide 1.144, January 1979, and the following exceptions.

a. EXCEPTION:

Subsection 4.2.2 Team Selection

Maine Yankee takes exception to the requirement that a "Lead Auditor" be appointed as team leader.

ALTERNATIVE:

Team Selection

Audits will be performed under the cognizance of a lead auditor.

b. EXCEPTION:

Subsection 3.5.3

Maine Yankee takes exception to the requirement for supplemental audits.

ALTERNATIVE:

Maine Yankee Internal Audits are performed on a calendar year frequency and preclude the need for supplemental audits. Supplemental Audits will be initiated by the Manager, Quality Programs as deemed necessary for significant changes in the QA Program or procedures.

c. EXCEPTION:

Subsection 4.5.1

Maine Yankee takes exception to the thirty day requirement for corrective action.

ALTERNATIVE:

Maine Yankee will specify corrective actions and provide management approval within thirty working days. Corrective action completion dates will be as specified in the audit documentation approved by management.

15. ANSI N45.2.13 - 1976, Quality Assurance Requirements for the Control of Procurement of Items and Services for Nuclear Power Plants, as modified by Regulatory Guide 1.123, Revision 1.

16. ANSI N45.2.23 - 1978, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants, as modified by Regulatory Guide 1.146, August 1980.

17. ANSI N101.4 - 1972, Quality Assurance for Protective Coatings Applied to Nuclear Facilities, as modified by Regulatory Guide 1.54, June 1973.

18. ANSI N323 - 1978, Radiation Protection Instrumentation Test and Calibration.

a. EXCEPTION:

Subsection 6.1

Maine Yankee takes exception to the requirement that for photon and neutron monitoring instrument calibrations, the source-to-detector distance shall be seven times the maximum dimension of the source or detector, whichever is larger, or suitable corrections shall be used.

ALTERNATIVE:

Maine Yankee will comply with the monitoring equipment manufacturer's technical manual recommendations for calibration using a pulse generator.

19. Regulatory Guide 1.26, Revision 3, Quality Group Classifications and Standards for Water, Steam and Radioactive - Waste - Containing Components of Nuclear Power Plants.

a. EXCEPTION:

Maine Yankee takes exception to the Guide in its entirety.

ALTERNATIVE:

Maine Yankee shall continue to classify structures, components and systems in accordance with ANSI Standard N18.2, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants" as in the past.

20. Regulatory Guide 1.29, Revision 3, Seismic Design Classification.

a. EXCEPTION:

Maine Yankee takes exception to the application of Reg. Guide 1.29, Rev. 3, (9/78).

ALTERNATIVE:

Maine Yankee shall apply Reg. Guide 1.29, Rev. 3 (9/78) to those structures, systems and components as defined in the Maine Yankee FSAR Section 2.5.

III. DESIGN CONTROL

A. SCOPE

This section 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 Programs Department shall be responsible for:

   a. Evaluation and/or audit of the design control system.

   b. Review of design sketches and specifications to assure that the documents are prepared, checked and reviewed in accordance with procedures and that the documents contain the necessary quality assurance requirements including:

      1) Inspection and test requirements

      2) Acceptance requirements

      3) The extent of documenting inspection and test results

2. The Plant Engineering Department shall be responsible for:

   a. The control of design activities for changes to structures, systems, or components.

   b. Preparation, review and approval of design documents including the correct translation of applicable regulatory requirements and design bases into specifications, drawings and written documents.

   c. Application of suitable design controls to such activities as: field design engineering; physics; seismic, stress, thermal, hydraulic, radiation, and accident analyses; compatibility of materials; accessibility for inservice inspection, maintenance and repair; and quality standards.

   d. Identification, documentation, and control of deviations from specified design requirements and/or quality standards.

   e. Delineation of acceptance criteria for inspections and tests.

   f. Design reviews to assure that design characteristics can be controlled, inspected and tested.

g. Proper selection and performance of design verification processes such as design reviews, alternate calculations, qualification testing or test programs. If the verification method is only by test, procedures shall provide: criteria that specify when verification should be by test; that prototype, component or feature testing is performed as early as possible prior to installation of plant equipment, or prior to the point when installation would become irreversible; and verification by test is performed under conditions that simulate the most adverse design conditions.

h. Subjection of design and specifica[illegible] to the same design controls and approvals t[illegible]able to the original design unless designated in writing to another responsible organization. Minor changes may be performed without original design controls using approved procedures which provide appropriate alternate controls.

i. Selection of suitable materials, parts, equipment, and processes for safety classified structures, systems, and components.

j. Control of Fire Protection in accordance with YNSD YA-GEN-9.

k. Notification to responsible personnel that a design change may affect performance of their duties.

l. Maintenance of records which correctly identify the as-built condition of the facility for the life of the item while installed.

m. Establishing design control program procedures which prescribe:

1) Implementation of the provisions delineated above.

2) Organizational responsibilities for preparing, reviewing, verifying and approving design documents such as system descriptions, design input and criteria, design drawings/sketches, design analyses, specifications, and procedures/instructions.

3) Identification of internal and external design interface controls including lines of communication among participating design organizations and across technical disciplines for the review, approval, release, distribution and revision of design documents.

4) Provisions to satisfy Regulatory Guide 1.64, Rev. 2 (ANSI Standard N45.2.11 - 1974).

3. The Fire Protection Coordinator YNSD shall be responsible for review of proposed design changes of fire protection systems in accordance with the Yankee Nuclear Services Division General Specifications YA-GEN-9.

4. The Plant Manager shall be responsible for:

   a. Evaluation of the recommendations of the Plant Operations Review Committee.

   b. Review and approval of proposed design changes.

5. The Yankee Nuclear Services Division shall be responsible for:

   a. Establishing and implementing a system for processing design changes.

   b. Independent design verification of proposed design changes to assure the adequacy of design.

IV. PROCUREMENT DOCUMENT CONTROL

A. SCOPE

This section establishes measures to assure that applicable requirements necessary to assure adequate quality are included or referenced in procurement documents for material, equipment and services.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation and/or audit of procurement document control, including the preparation, review, and approval of purchase requests for material, equipment, and services covered by the Operational Quality Assurance Program.

   b. Review and specify Quality requirements for material, equipment and service purchases.

   c. Review of safety classified purchase specifications for inclusion of proper inspection requirements and acceptance criteria.

2. The Materials Management Section shall be responsible for:

   a. Processing and control of requisitions for purchase orders.

   b. Assuring adequate control and temporary storage of quality assurance documentation of purchased material.

   c. Establishing procedures which prescribe:

      1) Preparation of procurement documents.

      2) Documentation of the review and approval of procurement documents prior to release and availability of this documentation for verification.

      3) Identification of the vendor's quality assurance requirements applicable to the items or services procured.

      4) Identification in the procurement documents of the documentation to be prepared, maintained, and submitted to the purchaser prior to use, such as:

         (a) drawings, specifications, procedures

(b) inspection and fabrication plans

(c) inspection and test records

(d) personnel and procedure qualifications

(e) chemical and physical test results of material

(f) the company's right of access to the vendor's facilities and records for surveillance to procurement specifications.

5) Assuring that changes and revisions to procurement documents receive reviews and approval at least equivalent to those of the original documents.

6) Control of procurement documents for spare and replacement parts such that the technical requirements are equal to or better than the original and that all current QA Program requirements are satisfied.

7) Controls for procurement of commercial grade items (CGI) to be used in safety class applications such that appropriate assurance of quality is achieved.

8) Inclusion of 10CFR21 reporting requirements in procurement documents when applicable.

9) Provisions to satisfy Regulatory Guide 1.123, Revision 1 (ANSI Standard N45.2.13 - 1976), as it pertains to procurement document control.

3. The Plant Engineering Department shall be responsible for:

a. Review of purchasing specifications which detail the technical requirements for material, equipment and service purchases.

b. Reviewing and specifying technical requirements for material, equipment, and service purchases.

c. Evaluation of commercial "off-the-shelf" items for suitability for use in safety classified systems, components or structures prior to use.

4. All departments shall be responsible for adhering to the procurement procedures established per 2.c.

V. INSTRUCTIONS, PROCEDURES, AND DRAWINGS

A. SCOPE

This section establishes measures to assure that activities affecting quality are prescribed and implemented by instructions, procedures or drawings appropriate to the circumstances.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for evaluation of instructions, procedures, and drawings.

2. The Operational Support Department shall be responsible for establishing procedures which prescribe preparation and use of, and adherence to procedures.

3. The Plant Engineering Department shall be responsible for establishing procedures which prescribe preparation and implementation of design change installation instructions and drawings, including changes.

4. All departments shall be responsible for:

   a. Preparing and implementing instructions and procedures associated with activities affecting quality including computer programs controlled by Maine Yankee.

   b. Assuring that specifications, instructions, procedures and drawings include appropriate quantitative and qualitative acceptance criteria, as applicable, for determining that activities have been satisfactorily accomplished.

VI. DOCUMENT CONTROL

A. SCOPE

This section establishes measures to assure that proper documents, such as procedures, instructions and drawings, are available for use in activities affecting quality. The measures provide for review, approval, issuance and control of documents, including revisions thereto.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation and/or audit of document control systems at Maine Yankee and vendors.

   b. Review and approval of all Quality Assurance implementing procedures (0-series).

   c. Review of maintenance, modification and inspection procedures for inclusion of quality assurance requirements.

2. The Administration Department shall be responsible for establishing document control procedures which prescribe:

   a. Sequence of actions and responsibilities for review, approval, and control of procedures.

   b. Review of procedures by appropriately qualified personnel.

   c. Establishment of distribution lists.

   d. Action to be taken for obsolete or superseded documents.

   e. Review and approval of document changes by the same organizations that performed the original review and approval or by other responsible organizations delegated by Maine Yankee.

   f. Inclusion of approved changes in procedures and other applicable documents prior to placing the system in operating status.

   g. Availability of proper and current documents at the location where the activity is to be performed prior to commencing the work.

h. Establishment, revision, and distribution of a master list or equivalent to identify the current revision number of procedures, specifications, or other quality assurance documents as applicable.

i. Identification of documents to be controlled which shall include, as a minimum:

1) Design documents, including calculations, drawings, specifications and analyses.

2) Design, manufacturing, construction, and installation drawings

3) Procurement documents

4) Operational Quality Assurance Program and Manual and maintenance and operating procedures

5) Maintenance, modification, inspection and test instructions

6) Test documents

7) Design change requests

8) FSAR

9) Nonconformance reports

3. The Plant Engineering Department and/or YNSD shall be responsible for:

a. Controlling the issuance of engineering drawings, general specifications, welding and nondestructive examination procedures.

b. Revision and distribution of welding and nondestructive examination procedures.

c. Maintenance and distribution of general specifications, controlled drawings and installation instructions.

d. Establishing procedures which prescribe the receipt, distribution, revision and use of Vendor Instruction Manuals.

4. All departments shall be responsible for adhering to the document control procedures established per 2, above.

VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

A. SCOPE

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

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Performing audits of vendor quality programs, via YNSD Quality Assurance Department, based on one or more of the following:

      1) Vendor's capability to comply with the applicable criteria of 10CFR50 Appendix B and/or ANSI N18.7.

      2) Review of vendor's previous records and performances.

      3) Surveillance of vendor's facilities/services and QA Program to determine vendor's ability to produce the item to the purchase specifications.

      4) Review of the supplier's current quality records supported by qualitative and quantitative information which can be objectively evaluated. The evaluation may include review and evaluation of the supplier's Quality Assurance Program, Manual and Procedures, as appropriate.

   b. Planned vendor surveillances, in conjunction with YNSD-QA, which provide for:

      1) Specification of processes to be witnessed or verified, the surveillance method and documentation required, and personnel responsible for performing the surveillance.

      2) Assurance that the vendor complies with the quality requirements by surveillance of in-process work at intervals consistent with the importance, complexity and quality of the item.

   c. Documentation and maintenance of the results of vendor audits and surveillances, including a listing of qualified vendors, in conjunction with YNSD-QA.

d. Surveillance of material and/or services control.

e. Surveillance of bids to assure adequacy of QA requirements.

f. Receipt inspection of vendor furnished material to assure:

1) Material is identified and conforms with receiving documentation.

2) Material and documentation are inspected in accordance with predetermined instructions or recognized standards and are determined acceptable prior to use.

3) Inspection, test and other records (or certificates of conformance testing to material acceptability) are on-site prior to use.

Certificates of conformance shall contain as a minimum:

(a) Identification of purchased material or equipment, such as by the purchase order number.

(b) Specific procurement requirements met by the purchased material or equipment, such as codes, standards and other specifications.

(c) Purchase requirements not met and the resolution of the nonconformance.

(d) Attested to by a person responsible for the quality assurance function including their title.

4) Items are identified as to their inspection status prior to release for controlled storage, installation or further work.

g. Verifying the validity of supplier certificates of conformance.

h. Establishing procedures, in conjunction with YNSD-QA, to satisfy Regulatory Guides 1.38, Revision 2 (ANSI Standard N45.2.2 - 1972) and 1.123, Revision 1 (ANSI Standard N45.2.13 - 1976), as pertains to vendor audit and surveillance and to receipt inspection.

2. The Materials Management Section shall be responsible for:

   a. Control of material and equipment until issued.

   b. Establishing procedures to satisfy Regulatory Guides 1.38, Revision 2 (ANSI Standard N45.2.2 - 1972) and 1.123, Revision 1 (ANSI Standard N45.2.13 - 1976), as pertains to control of purchased material, equipment and services.

3. All departments shall be responsible for:

   a. Control of material and equipment after issuance from Stores.

   b. Bid evaluation as applicable.

   c. Evaluation of purchased services during and/or after completion of the service.

Title: Section VIII. Identification & Control of Material, Parts and Components

Page: 1 of 1

Rev. No.: 6

Date: 11/19/90

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

A. SCOPE

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

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation, audit and/or inspection of the control and issuance of materials, parts, and components covered by the Operational Quality Assurance Program.

   b. Review of vendor Quality Assurance Programs 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 Materials Management Section shall be responsible for establishing procedures for the identification and control of materials, parts, and components, including partially fabricated subassemblies and consumables, to prevent the use of incorrect, defective or outdated items. The procedures shall require the following:

   a. Identification is maintained either on the item, in a location and with a method which does not affect its fit or function, or on records traceable to the item.

   b. Maintenance of traceability of materials and parts to the appropriate documentation such as drawings, specifications, purchase orders, manufacturing and inspection documents, deviation reports, and physical and chemical mill test reports.

   c. Identification of materials, parts, and components is verified and documented prior to release for use.

3. All departments shall be responsible for adhering to the identification and control procedures established per 2, above.

IX. CONTROL OF SPECIAL PROCESSES

A. SCOPE

This section establishes measures to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria and other special requirements.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation, audit and/or inspection of the control of special processes.

   b. Performance and/or evaluation of certain nondestructive tests in accordance with Yankee Nuclear Services Division Welding and Nondestructive Examination Procedures.

   c. Training, qualification, and requalification of Maine Yankee personnel in nondestructive examination.

   d. Review of special process documents provided by vendors for use on-site and when otherwise specified.

2. The Plant Engineering Department shall be responsible for establishing procedures which prescribe control of special processes, including:

   a. Verification that qualification records of procedures, equipment, and personnel connected with special processes are in accordance with applicable codes, standards, and specifications as applicable.

   b. Special processes are accomplished in accordance with written process sheets or equivalent with recorded evidence of verification.

   c. Maintenance and updating of qualification records of special process procedures, equipment, and personnel as applicable.

3. The Yankee Nuclear Services Division shall be responsible for approving documents for welding, and nondestructive examinations.

4. All departments shall be responsible for:

   a. Assurance that work involving special processes is performed by qualified personnel in accordance with approved documents.

   b. Control of material used in special processes.

   c. Review of special process documents, as applicable, provided by vendors for use on-site and when otherwise specified.

X. INSPECTION

A. SCOPE

This section establishes measures for inspection of activities affecting quality, to verify conformance with approved instructions, procedures, drawings and specification for accomplishing the activities.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Review of documentation pertinent to the Inservice Inspection Program.

   b. Evaluation of inspection activities and personnel.

   c. Establishing and/or reviewing hold and/or notification points for plant activities.

   d. Establishing and/or reviewing hold and/or notification points for vendor activities.

   e. Writing and approving inspection instructions and check lists.

   f. Establishing procedures which prescribe:

      1) Independence of personnel performing the inspection from the personnel performing the activity.

      2) Use of procedures, instructions or check lists which incorporate the following as applicable:

         (a) A description of the type of inspection.

         (b) Date and results of the inspection.

         (c) Information related to conditions adverse to quality.

         (d) Inspector identification.

(e) Evidence as to acceptability of the results.

(f) Action taken to resolve any discrepancies noted.

3) Use of drawings and specifications when performing inspections.

4) Inspection of repairs and replacements in accordance with applicable design and inspection requirements or acceptable alternatives.

5) Evaluation of processing methods, equipment, and personnel when direct inspection is not possible.

6) Qualification of inspectors in accordance with applicable codes, standards, and company training programs; and maintenance of qualifications and certifications.

7) 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.

8) When inspections associated with normal operations of the plant (such as routine maintenance, surveillance, and tests) are performed by individuals other than those who performed or directly supervised the work, but are within the same group, the following controls shall be met:

(a) The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure retaining item.

(b) The qualification criteria for inspection personnel are reviewed and found acceptable by the QA organization prior to initiating the inspection.

2. All departments shall be responsible for:

a. Assuring that activities requiring quality assurance meet predetermined requirements.

XI. TEST CONTROL

A. SCOPE

This section establishes measures for a test program to demonstrate that structures, systems, and components will perform satisfactorily in service.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation of the control of the test program.

   b. Evaluation of the documentation generated during the test program.

2. The Plant Engineering Department shall be responsible for:

   a. Preparation or review of specifications, requirements, and acceptance criteria for testing following plant changes and maintenance activities.

   b. Determination of when testing is required following plant changes and maintenance activities.

   c. Establishing procedures which prescribe that test documents incorporate or reference the following, as appropriate:

      1) Purpose

      2) Test date

      3) Requirements and acceptance criteria contained in applicable design and procurement documents.

      4) Reference sources, such as vendor's literature.

      5) Instructions for performing the test.

      6) Precautions

      7) Test prerequisites, such as:

         (a) Calibrated instrumentation

         (b) Adequate and appropriate test equipment and instrumentation including accuracy requirements

         (c) Trained, qualified, and licensed/certified personnel

(d) Completeness of item to be tested

(e) Suitable and controlled environmental conditions

(f) Provisions for data collection and storage

(g) Completion of other procedures

8) Mandatory inspection hold points for witness by owner, contractor or inspector, when applicable.

9) Identification of test prerequisites that must be met.

10) Acceptance and rejection criteria.

11) Method of documenting test data and results.

12) Identity of person recording the data and approving test results.

3. The Operations Department shall be responsible for establishing procedures to satisfy the surveillance testing and inspection program provisions of ANSI Standard N18.7 - 1976 (Section 5.2.8). Documents to implement this program shall be consistent with the requirements of 2.c, above, and shall also require recording the as-found condition, corrective actions performed, if any, and as-left condition.

4. All departments shall be responsible for:

a. Supplying qualified personnel and calibrated equipment for testing.

b. Establishing test programs, procedures and acceptance criteria to satisfy the procedures established per 2.c and 3, above.

c. Scheduling and performing tests.

d. Documenting, evaluating, and approving test results.

XII. CONTROL OF MEASURING AND TEST EQUIPMENT

A. SCOPE

This section establishes measures to assure that tools, gages, instruments, and other measuring and test equipment, used in activities affecting quality, are controlled and at specified periods calibrated and adjusted to maintain accuracy within necessary limits.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for evaluation and/or audit of the established program for the control of measuring and test equipment.

2. The Maintenance Department shall be responsible for establishing procedures which prescribe:

   a. Identification of measuring and test equipment and traceability to the calibration data.

   b. Labelling or tagging of measuring and test equipment to indicate due date for calibration. (Other means may be employed provided there is adequate assurance out-of-calibration devices will not be used).

   c. Calibration of installed plant instrumentation and control systems to assure conformance with the Plant Technical Specifications.

   d. Calibration of measuring and test equipment (other than c., above) at specified intervals based on type of equipment, required accuracy, purpose, degree of usage, reliability, stability characteristics, and other conditions affecting the measurement.

   e. Traceability of reference standards to nationally recognized standards; or, documentation of the basis for calibration where national standards are nonexistent.

f. Calibration accuracy requirements shall be as follows:

1) Measuring and test equipment shall be of equal or greater accuracy as the installed instrumentation.

2) In general, the inaccuracy of the reference standards shall contribute no more than one fourth of the allowable measuring and test equipment tolerance. However, when the actual inaccuracy of the measuring and test equipment is less than one fourth of the installed plant equipment tolerance, the requirement of one fourth the tolerance between the reference standards and measuring and test equipment may not be necessary.

3) Reference standards shall be calibrated against standards of equal or greater accuracy.

When the foregoing accuracy requirements cannot be attained, the rationale for deviating from these requirements shall be justified and documented and authorized by responsible management. The management authorized to perform this function shall be identified.

g. Documentation and maintenance of the status of all items under the calibration system.

h. Documentation of measures taken to determine the validity of previous inspections performed when measuring and test equipment is found to be out of calibration.

3. All departments shall be responsible for:

a. Developing implementing documentr for control of measuring and test equipment including identification and calibration for equipment under their control.

b. Providing calibrated tools, gages and instruments.

c. Maintaining calibration records.

d. Preparing and reviewing specifications for measuring and test equipment, to applicable requirements.

e. Adhering to the measuring and test equipment control procedures established per 2, above.

XIII. HANDLING, STORAGE AND SHIPPING

A. SCOPE

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

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation, audit and/or inspection of the handling, storage and shipping of materials, parts, and components.

   b. Evaluation and/or audit of handling, storage, and shipping documents.

   c. Review of engineering specifications and procurement documents to assure that proper handling, storage, and shipping requirements have been specified.

2. The Materials Management Section shall be responsible for establishing procedures which prescribe:

   a. Specification and accomplishment of special handling, preservation, storage, cleaning, packaging, and shipping requirements by suitably trained individuals in accordance with predetermined work and inspection instructions for critical, sensitive, perishable or high value items.

   b. Preparation of instructions in accordance with design and specification requirements to 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.

   c. Provisions for the storage of chemicals, reagents (including shelf life), lubricants, and other consumable materials under their control.

   d. Provisions to satisfy Regulatory Guide 1.38, Revision 2 (ANSI Standard N45.2.2 - 1972), as pertains to handling, storage and shipping.

   e. Provisions for a Preventive Maintenance Program for materials, items and components, as applicable, under their control.

3. The Chemistry Section is responsible for establishing procedures which prescribe provisions for the storage of chemicals and reagents (including shelf life) under their control.

4. All departments shall be responsible for:

   a. Developing implementing documents for handling, storage and shipping of materials and equipment to satisfy the procedures established per 2, above as necessary.

   b. Providing suitable facilities and equipment for handling, storage, and shipping of materials as necessary.

   c. Inspecting and testing special handling tools and equipment.

   d. Providing and controlling special handling tools and equipment to ensure safe and adequate handling.

XIV. INSPECTION, TEST AND OPERATING STATUS

A. SCOPE

This section establishes measures for indicating the status of items undergoing inspections and tests (via tags, labels, log books, 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 Quality Programs Department shall be responsible for the evaluation of inspection, test and operating status of systems and components throughout fabrication, installation, and test.

2. The Operations Department shall be responsible for:

   a. The status of operating equipment or systems removed from service for maintenance, test, inspection, repair, or change.

   b. Periodic review and update of standing orders.

   c. Periodic review, updating and cancellation of special orders.

   d. Periodic review to evaluate plant operations and plan future activities. The important elements of the reviews shall be documented.

   e. Establishing procedures to satisfy the equipment control provisions of ANSI Standard N18.7 - 1976 (Section 5.2.6).

3. All departments shall be responsible for:

   a. Informing the Operations Department of the current status of equipment or systems removed for repair, maintenance, test, inspection, or change.

   b. Designating personnel who are responsible for the status of equipment and systems.

XV. NONCONFORMING MATERIALS, PARTS, AND COMPONENTS

A. SCOPE

This section establishes measures to control items, services or activities which do not conform to requirements.

B. RESPONSIBILITIES

1. The Plant Manager shall be responsible for reviewing significant nonconformance reports.

2. The Quality Programs Department shall be responsible for:

   a. Evaluation of the system for controlling nonconforming material, parts and components.

   b. Review and concurrence of dispositions and corrective actions of nonconformance reports provided by the applicable department.

   c. Establishment of measures to provide for the documented control of nonconforming materials, parts, and components in order to prevent their inadvertent use or installation.

   d. Followup and closeout of nonconformances.

   e. Establishing procedures which prescribe:

      1) Identification, documentation, disposition, inspection and segregation of nonconforming items.

      2) Identification of those individuals or groups delegated the responsibility and authority for the disposition and written approval of nonconforming items.

      3) Inspection and test of reworked or repaired items which require reinspection and retest to original methods or methods equivalent thereto.

4) Inclusion of nonconformance reports dispositioned "accept as is" or "repair" as part of the inspection records furnished to the plant.

5) Periodic analysis of nonconformance reports to show quality trends with the results reported to management for review and assessment.

6) Documentation of the identification, description, disposition, inspection and signature approval of the disposition for nonconformances in a nonconformance report.

3. The Plant Engineering Department shall be responsible for:

a. Review of nonconforming items which cannot be corrected by vendor action.

b. Preparation or approval of implementing documents for repair and/or rework of nonconforming items.

4. The Materials Management Section shall be responsible for establishment of a feedback system between Maine Yankee and Vendor Representatives in regard to nonconforming material.

XVI. CORRECTIVE ACTION

A. SCOPE

This section establishes measures to assure that conditions adverse to quality are promptly identified and corrected. For significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and documented, and corrective action taken is to preclude repetition.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation and/or audit of plant activities which identify, review and correct conditions adverse to quality.

   b. Evaluation and/or review of documentation of corrective action.

   c. Establishing procedures which prescribe:

      1) Identification and correction of conditions adverse to quality.

      2) Significant conditions adverse to quality, the cause, and action taken to preclude repetition are documented and reported to management.

2. The Plant Engineering Department shall be responsible for:

   a. Reviewing significant or recurring design deficiencies to determine the cause.

   b. Instituting appropriate changes in the design process to prevent similiar deficiencies from recurring.

3. All departments shall be responsible for:

   a. Identification and correction of conditions adverse to quality.

   b. Identification and documentation of the cause and preparation of recommendations to preclude repetition of significant conditions adverse to quality.

c. Implementation of corrective action including, as appropriate, action to preclude repetition.

d. Documentation of corrective action taken.

XVII. QUALITY ASSURANCE RECORDS

A. SCOPE

1. This section establishes measures for maintenance of records which provide documentary evidence of the quality of items and of 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 plant history; operating logs; principal maintenance; design change activities; reportable occurrences; nonconformance reports; results of reviews, inspection, tests, audits and material analyses; monitoring of work performance; qualification of personnel, procedures and equipment; drawings; specifications; procurement documents; calibration documents and reports; corrective action reports; and other records required by Technical Specifications.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Evaluation and/or audit of quality assurance record review, control and retention.

   b. Maintenance of audit, evaluation, inspection, and vendor surveillance records generated by the Quality Assurance Department.

2. The Yankee Nuclear Services Division shall be responsible for:

   a. Maintenance of audit, inspection and vendor surveillance records generated by YNSD.

   b. Maintenance of design documents generated by YNSD and not retained by Maine Yankee.

3. The Administration Department shall be responsible for:

   a. Providing for the receipt, storage, preservation, safekeeping, retrieval and final disposition of QA records.

b. Maintaining facilities for the permanent and temporary storage of records to prevent destruction of the records by fire, flooding, theft, and deterioration caused by a combination of extreme variations in temperature and humidity conditions. Duplicate records shall be stored in a separate remote location when the type of document is not included in the record storage facility.

c. Establishing procedures to satisfy Regulatory Guide 1.88, Revision 2 (ANSI Standard N45.2.9 - 1974).

4. All departments shall be responsible for:

a. Adhering to the records controls procedures established per 3.c, above.

b. Identifying department QA records and establishing retention periods in accordance with R.G. 1.88, Rev. 2 (ANSI N45.2.9-1974) and Maine Yankee Technical Specifications.

XVIII. AUDITS

A. SCOPE

This section establishes measures for a system of planned and documented audits to verify compliance with all aspects of the Program and to assess the effectiveness of the Program.

B. RESPONSIBILITIES

1. The Quality Programs Department shall be responsible for:

   a. Providing approved audit procedures or check lists for audit of activities encompassed by the 18 criteria of 10CFR50 Appendix B, ANSI N18.7 and Plant Technical Specifications.

   b. Providing for training of audit personnel.

   c. Scheduling and coordinating of the In-plant Audit Program.

   d. Preparing, reviewing and/or approving implementing documents for In-plant audits which prescribes:

      1) Documentation of audit results and review with management having responsibility in the area audited.

      2) Necessary action to be taken by responsible management to correct deficiencies revealed by the audit.

      3) Inclusion of an objective evaluation of quality-related practices, procedures and instructions and the effectiveness of implementation in the audit.

      4) Inclusion of an objective evaluation of work areas, activities, processes and items and the review of documentation in the audit.

      5) Reaudit of deficient areas until corrections have been accomplished to preclude repetition of the deficiencies, as appropriate.

6) Performance of audits where the requirements of Appendix B to 10CFR Part 50 and ANSI N18.7 are being implemented.

7) Performance of audits as required by the Plant Technical Specifications.

8) Scheduling of audits regularly on the basis of the status and safety importance of the activities being performed.

9) Regularly scheduled audits shall be supplemented by audits as determined by the Manager, Quality Programs for one or more of the following conditions:

(a) When significant changes are made in functional areas of the quality assurance program such as significant reorganization or procedure revisions.

(b) When it is suspected that the quality of the item is in jeopardy due to deficiencies in the quality assurance program.

(c) When a systematic, independent assessment of program effectiveness is considered necessary.

(d) When necessary to verify implementation of required corrective action.

10) Independence of the auditors from direct responsibility for the area being audited and independence from reporting to a management representative of the area being audited.

e. Conducting, reporting and following up on audits to satisfy Regulatory Guide 1.144 - January 1979 (ANSI Standard N45.2.12 - 1977).

f. Preparing information regarding the In-plant Audit Program for review by the Nuclear Safety Audit and Review Committee.

g. Performing random informal evaluation of plant activities.

h. Providing for audits of vendors.

2. The Manager of each audited organization shall be responsible for:

   a. Providing reasonable and timely access of audit personnel to facilities, documents and personnel.

   b. Evaluation and approval of recommended corrective action for In-plant Audit deficiencies.

3. All departments shall be responsible for:

   a. Investigation and response to audit deficiencies.

   b. Implementation of corrective action approved by management.

QUALIFICATION REQUIREMENTS FOR THE MANAGER, QUALITY PROGRAMS

The Manager, Quality Programs must meet the below listed qualification requirements:

EDUCATION: Bachelor Degree in Engineering or related science, or the equivalent in practical experience.

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

An additional year of quality assurance program implementation experience may be substituted for 6 months experience within a quality assurance organization.

1. Vice President - Yankee Nuclear Services Division (YNSD)

Reports directly to the President.

The Vice President (YNSD) is responsible for:

a. Providing review of designated activities via the Nuclear Safety and Audit Review Committee (NSARC), as required by the technical specifications or requested by Maine Yankee.

b. Monitoring responses to NSAR committee and Maine Yankee Project Manager recommendations and bringing all safety related disputes, disagreements, or discrepancies, which cannot be resolved at a lower level, to the attention of the Maine Yankee President.

c. Providing personnel to perform independent audits of the Maine Yankee Operational Quality Assurance Program implementation as requested by Maine Yankee.

d. Providing personnel to perform independent engineering reviews of safety class design changes as requested by Maine Yankee.

e. Providing personnel to develop and maintain special process procedures, such as NDE, Welding, and Heat Treating.

f. Providing personnel for technical, engineering, licensing, compliance, operational, and quality assurance support as requested by Maine Yankee.

g. Providing personnel to perform audits, evaluations, inspections, and vendor surveillances as requested by the Vice President, Licensing and Engineering.

h. Providing emergency preparedness, environmental, fuel management, and nuclear engineering support as requested by Maine Yankee.

i. Providing personnel to develop and maintain Yankee Nuclear Services Division General Specifications.

j. Providing a Fire Protection Engineer to review design changes to fire protection systems and components.

2. Vice President, Operations

Reports to the President.

The Vice President, Operations is responsible for:

a. Reviewing changes to the Operational Quality Assurance Program.

b. Review of and compliance with Federal and State regulations and standards for nuclear power facilities.

c. Providing, by assignment of responsibility to an appropriate organizational element, for review and approval of training programs.

d. Reviewing and approving all design changes.

e. Enforcing company quality assurance policies.

f. Advising the Plant Operations Review Committee (PORC) and the Nuclear Safety and Audit Review Committee (NSARC) in engineering, operations, and training, when requested.

g. Training and qualifying personnel assigned to the Maine Yankee Plant, the Safety Engineering and Operational Support Department, and the Training Department.

3. Vice President, Licensing and Engineering

Reports to the President.

The Vice President, Licensing and Engineering is responsible for:

a. Ensuring that the Operational Quality Assurance Program is implemented and maintained for his areas of responsibility.

b. Reviewing changes to the Operational Quality Assurance Program that concern Licensing or Engineering.

c. Enforcing company quality assurance policies in the area of responsibility.

d. Training and qualifying personnel assigned to Licensing and Engineering.

e. Control and maintenance of quality assurance records associated with his areas of responsibility.

f. Control of all design changes.

g. Provide liaison with Vice President (YNSD).

4. Vice President, Finance and Administration

Reports to the President.

The Vice President Finance and Administration is responsible for:

a. Ensuring that the Operational Quality Assurance Program is implemented for his areas of responsibility.

b. Reviewing changes to the Operational Quality Assurance Program that concern material management and administration.

c. Establishing company policy for materials management and administration.

d. Training and qualifying personnel assigned to Finance and Administration.

5. Treasurer

Reports to the Vice President, Finance and Administration

The Treasurer is responsible for:

a. Processing and control of requisitions for purchase orders.

b. Control and identification of material and equipment upon receipt, storage and issuance by Stores.

c. Control and temporary storage of quality assurance documentation of purchased materials.

d. Control and maintenance of the plant spare parts inventory system.

e. Selection of qualified vendors for purchasing material from the Approved Vendor's List or stipulation of additional controls from Quality Programs Department when an approved vendor is not utilized.

f. Accurate translation of quality requirements to purchase documents.

g. Training and qualifying personnel assigned to Finance.

6. Plant Manager

Reports to the Vice President, Operations.

The Plant Manager is responsible for:

a. Overall plant activities.

b. Reviewing all changes to the Operational Quality Assurance Program.

c. Execution of the administrative controls and quality assurance program at the plant to assure safety.

d. Compliance with all State and Federal license conditions, rules and regulations through the operating staff and supporting organizational elements.

e. Advising the NSARC in the areas of maintenance, operation, testing and training when requested.

f. Coordinating between Maine Yankee and Yankee Nuclear Services Division for site activities under his responsibility.

g. Resolving and implementing recommendations to industry operating problems.

h. Coordinating activities necessary to support plant reporting requirements.

i. Coordinating plant activities necessary to support the plant environmental surveillance program.

j. Training and qualifying personnel assigned to the Operations, Technical Support and Maintenance Departments.

7. Manager, Quality Programs

Reports to the President.

The Manager, Quality Programs is responsible for:

a. Maintaining the Operational Quality Assurance Program to the requirements of 10 CFR 50, Appendix B, and ANSI N18.7 - 1976.

b. Revising the program as standards, regulations, and experience dictate.

c. Reviewing design changes, material purchase requests, nonconformances, and maintenance control documents for quality requirements.

d. Providing personnel for audit, inspection and surveillance of contractor and vendor activities at the plant to assure compliance with the applicable criteria of 10 CFR 50, Appendix B, and ANSI N18.7 - 1976.

e. Inspection, evaluation and/or audit of activities affecting the quality of structures, systems and components important to safety.

f. Auditing of in-plant QA Program implementation.

g. Establishing requirements for and implementing the In-plant Audit Program.

h. Reviewing and approving changes to the Operational Quality Assurance Program.

i. Reviewing and approving changes to Quality Assurance implementing procedures.

j. Coordinating quality assurance activities among the Company, Yankee Nuclear Services Division, and outside agencies.

k. Documenting and maintaining department quality assurance records.

l. Stopping unsatisfactory work and controlling further processing, delivery, or installation of a nonconforming item.

m. Management overview and overall direction and coordination of quality assurance and quality control activities performed by the Quality Programs Department personnel located at the plant.

n. Training and qualifying personnel assigned to the department.

o. Preparing periodic reports to management.

p. Auditing of the Operational Quality Assurance Program is performed annually or at his option more frequently if circumstances warrant by personnel not having direct responsibility in the areas audited.

q. Ensuring that personnel performing Quality Assurance functions have sufficient authority and organizational freedom to identify quality problems, to initiate, recommend, or provide solutions, and to verify implementation of solutions.

9. Manager, Plant Engineering

Reports to the Vice President, Licensing and Engineering.

The Manager, Plant Engineering is responsible for:

a. Coordinating the development, review, and implementation of design changes.

b. Establishing and maintaining the Plant Inservice Inspection Program.

c. Providing personnel to review material purchase requests, nonconformances, corrective actions, maintenance and repair activities.

d. Maintaining and disseminating information regarding engineering codes, standards, criteria and guidelines to applicable personnel.

e. Coordinating plant engineering activities among Maine Yankee, Yankee Nuclear Services Division, and outside agencies.

f. Providing personnel to perform surveillance programs and test programs assigned by the Vice President, Licensing and Engineering.

g. Advising PORC and NSARC in the plant engineering area when requested.

h. Providing technical support to the plant.

i. Documenting and maintaining quality assurance records associated with plant engineering.

j. Training and qualifying personnel assigned to the department.

k. Establishing and maintaining procedures which prescribe control of special processes.

l. Establishing and maintaining documentation which designates the safety classification of plant systems.

10. Manager, Safety Engineering and Operational Support

Reports to the Vice President, Operations.

The Manager, Safety Engineering and Operational Support is responsible for:

a. Advising PORC and NSARC in regulatory compliance areas when requested.

b. Documentation and maintenance of department quality assurance records.

c. Coordinate certain operational compliance activities among the company, Yankee Nuclear Services Division, and outside agencies.

d. Provide an independent and direct Nuclear Safety overview of plant operation through the Nuclear Safety Engineer position.

e. Coordinating the review of industry operating events to minimize occurrence at the plant.

f. Providing personnel for operational support to the plant.

g. Training and qualifying personnel assigned to the department.

11. Manager, Training

Reports to the Vice President, Operations.

The Manager, Training is responsible for:

a. Developing and implementing general employee training.

b. Providing direct support for operations, skill, ~chnician, and professional training activities.

c. Advising management of any practices, circumstances, deficiencies or personnel problems which impact on the quality, quantity, or availability of training.

d. Advising management on developments in training techniques, industry standards, and regulations which impact on Maine Yankee training policies and practices.

e. Developing and maintaining Maine Yankee training policy and procedures.

f. Coordinating with outside agencies for training matters.

g. Maintaining the training documentation system.

h. Training and qualifying personnel assigned to the department.

12. Manager, Maintenance

Reports to the Plant Manager.

The Manager, Maintenance is responsible for:

a. The quality of work performed by the Maintenance Department.

b. Scheduling and directing maintenance activities.

c. Preparing and implementing maintenance procedures, utilizing sound engineering policies and practices, for the repair of existing and the installation of new material, equipment and spare parts.

d. Establishing and maintaining programs for preventive maintenance and calibration and test equipment in conformance with approved procedures.

e. Implementing a surveillance program as required by Technical Specifications.

f. Maintaining Maintenance Department quality assurance records.

g. Training and qualification of Maintenance Department personnel.

13. Manager, Operations

Reports to the Plant Manager.

The Manager, Operations is responsible for:

a. Conducting plant operations in accordance with approved documents and specifications.

b. Conducting Operations Department systems surveillance and operational testing.

c. Verifying system and/or component operability following maintenance, or changes using approved test procedures containing acceptance criteria as specified in applicable design documents.

d. Safe handling of core and reactor components during refueling operations.

e. Preparing and maintaining quality assurance records of Operations Department activities.

f. Developing, controlling and maintaining operating and emergency operating procedures.

g. Training and qualifying personnel assigned to the department.

14. Manager, Technical Support

Reports to the Plant Manager.

The Manager, Technical Support is responsible for:

a. Documenting and maintaining quality assurance records in chemistry, radiological controls, and computer via the applicable group.

b. Controlling and maintaining plant computer systems.

c. Preparing and maintaining procedures associated with radiological, chemistry and computer via the applicable group.

d. Supervising and coordinating the Hazardous Waste Program.

e. Supervising and coordinating the Fire Protection and Housekeeping Programs.

f. Training and qualifying personnel assigned to the department.

15. Manager, Administration

Reports to the Vice President, Finance and Administration.

The Manager, Administration is responsible for:

a. Controlling distribution of the Operational Quality Assurance Program.

b. Controlling distribution, storage and retrieval of quality assurance records.

c. Controlling distribution of Quality Assurance Manual procedures.

d. Controlling distribution of vendor procedures used at the plant that affects safety classified structures systems and components.

e. Administration of the Security Plan.

f. Training and qualifying personnel assigned to the department.

16. Manager, Planning & Scheduling Department

Reports to the Plant Manager.

The Manager, Planning & Scheduling is responsible for:

a. Implementing those aspects of the Maine Yankee Quality Assurance Program which relate to planning and scheduling activities.

b. Scheduling and planning for normal operations and outages both scheduled and unscheduled.

c. Assisting in the development of plant procedures, instructions, schedules and programs as necessary to assure safe and dependable operation of the facility.

d. Documenting and maintaining Planning & Scheduling Department quality assurance records.

e. Training and qualification of personnel assigned to the department.

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CLASSIFICATION OF STRUCTURES, COMPONENTS AND SYSTEMS

APPLICABILITY

This Appendix lists the sytems and structures which are subject to QA Program controls. Items added to the list will be subject to QA Program control beginning on the date the addition is approved.

I. STRUCTURES

Containment (Including penetrations) - Safety Class 2

II. ELECTRICAL SYSTEMS AND COMPONENTS

Electrical and Instrumentation systems and components designed in accordance with IEEE Standard 279, "Criteria for Protection Systems for Nuclear Power Generating Stations" and IEEE Standard 308, "Criteria for Class IE Electric Systems for Nuclear Power Generating Stations" have been classified as safety class, and are listed below:

A. 4160 Volt Switch gear (Engineered Safety Features Buses)
B. 4160 - 480 Volt Transformers (Associated with Engineered Safety Features)
C. 4000 and 460 Volt Motors (Associate with Engineered Safety Features)
D. 480 Volt Switch gear (Engineered Safety Features Buses)
E. 480 Volt Motor Control Centers (Associated with Engineered Safety Features)
F. 125 Volt DC Batteries (Associated with Engineered Safety Features)
G. Battery Chargers (Associated with Engineered Safety Features)
H. Inverters, 125 Volt DC to 120 Volt AC (Vital Instrument Buses)
I. Vital Instrument Bus Panels
J. Regulated Instrument Buses Panels (240/120 Volts AC Single Phase)
K. 125 Volt DC Power Panels (Associated with Engineered Safety Features)
L. Transformers, dry type, 280-120/240 Volt (Associated with Regulated Instrument Buses)
M. Power Cables (Associated with Engineered Safety Features System)
N. Instrumentation and Control Cables (Associated with Engineered Safety Feature System)
O. AC Control Room Lighting

P. Diesel Generators (DG-1A, DG-1B)
Q. Diesel Generator Control Panels (for DG-1A, DG-1B)
R. Heat Tracing for Boric Acid Injection
S. Reactor Protective Systems
T. Engineered Safety Features Actuation Systems
U. Emergency Feedwater Pump Motors

SECTION II NOTES:

1. For those electrical and instrumentation systems designated above, Quality Assurance electrical and instrumentation program requirements are applicable only to those portions of systems defined in Section IV as necessary to perform the system safety function.

2. Instrumentation components included within each instrumentation system include power supply, sensors, relays, wiring and final operating device (solenoid, relay, etc.) as necessary to perform the system safety function.

3. Electrical components included within each electrical system include power source, breaker, control circuit, cable, relaying and operating device (motor, solenoid, heater, relay, etc.) as necessary to perform the system safety function.

4. Certain components are excluded from the QA program requirements if they meet the criteria described in Section III.

III. ELECTRICAL AND INSTRUMENTATION SYSTEM COMPONENT EXCLUSION CRITERIA

1. Any component of an electrical or instrumentation system (Section II) is excluded from the QA Program requirements if it meets the following criteria:

   a. A failure of the component by the electrical shorting, open circuiting, grounding or mechanical failure would not render the system incapable of performing its intended safety function.

   b. A failure of the fluid pressure boundary of the component would not render the system incapable of performing its intended safety function.

   c. It is not used to operate or control a device required by Technical Specifications.

2. Small spare parts having no traceability, such as commercial off the shelf items, may be purchased as non-safety related and then accepted for use in equipment requiring Quality Assurance. Examples of such items are resistors, capacitors, switches, indicators, coils, wire, connectors, solid state devices and miscellaneous hardware.

IV. MECHANICAL SYSTEMS AND COMPONENTS

Mechanical systems and components have been nuclear safety classified in accordance with ANSI Standard N18.2, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants".

Instruments, controls, motors, sensors, etc. associated with the nuclear safety classified components which assist the components in performing a safety function are in the same safety class as the component to which they are associated except as noted in Section II above.

Corresponding component supports that provide a safety function are in the same safety class as the components for which they provide support.

Component safety class designations are listed in the attached Table C.1.

V. OTHER ITEMS REQUIRING QUALITY ASSURANCE

Items which require a degree of quality between non-nuclear safety class, and IE or safety class 1, 2 or 3, shall be designated as QA Related (QAR). QAR materials and components shall be in compliance with those parts of the QA program necessary to achieve the desired intermediate level of quality. A partial list of QA Related items follows:

1. Fuel Assemblies
2. Boric Acid
3. Diesel Fuel Oil (For the Emergency Diesel Generators)
4. Weld Rod
5. Chemicals
   a. Lithium Hydroxide
   b. Hydrogen
   c. Nitrogen
   d. Morpholine
   e. Hydrazine
   f. Resins
6. Reagents
   a. Those reagents used in performance of analyses required by Technical Specifications.

7. Packaging of radioactive material for transport. (As required by 10CFR71)
8. Control Element Assemblies
9. Core Support Structure
10. Structures (Seismic only)*
    a. Primary Auxiliary Building (PAB)
    b. Fuel Building
    c. Service Building
    d. Containment Spray Building
11. Fixed fire protection systems such as piping, valves and sprinkler heads for safety related areas per YA-GEN-9
12. Special Nuclear Material
13. Calibration Services for Controlled Measuring and Test Equipment
14. Liquid penetrant materials
15. Nonmetallic thermal insulation used on safety class austenitic stainless steel
16. Nuclear Grade Paint
17. Containment Ventilation/Purge Filter System

* Limited to the portion of each structure designed to safely resist hypothetical earthquake loads.

TABLE C.1
(Sheet 1 of 4)

MECHANICAL SYSTEMS AND COMPONENTS CLASSIFICATION LIST

COMPONENT	SAFETY CLASS
Reactor Coolant System	
Reactor Vessel	1
Full Length Control Rod Drive Mechanism Housing	1
Part Length Control Rod Drive Mechanism Housing	1
Steam Generator (tube side)	1
(shell side)	2
Pressurizer	1
Reactor Coolant Piping and Fittings	1
Reactor Coolant Surge Pipe and Fittings	1
Pressurizer Safety Valves	1
Pressurizer Relief Valves	1
Valves to Reactor Coolant System Boundary	1
Reactor Coolant Pump Casing and Cover	1
Feedwater System	
Emergency Feedwater Piping and Valves	3/2
Emergency Feedwater Pumps	3
Demineralized Water Storage Tank	3
Feedwater Piping (inside containment and outside containment to feed REG Isolation Valve)	2
Auxiliary Feedwater Piping and Valves	3/0
Auxiliary Feedwater Pumps	3
Service Water System	
Service Water Pumps	3
Valves and Piping	3
Containment Spray System	
Spray Chemical Addition Tank	2
Containment Spray Pumps	2

TABLE C.1
(Sheet 2 of 4)

COMPONENT	SAFETY CLASS
Chemical and Volume Control System	
Regenerative Heat Exchanger	2
Letdown Heat Exchanger (tube side)	2
(shell side)	2
Reactor Coolant Purification Demineralizers	2
Reactor Coolant Filter	2
Charging Pumps Centrifugal	2
Auxiliary Charging Pumps	2
Seal Water Supply Filters	2
Seal Water Return Filter	3
Seal Water Heat Exchanger (tube side)	3
(shell side)	3
Boric Acid Storage Tank	3
Boric Acid Transfer Pumps	3
Boric Acid Filter	3
Boric Acid Mix Tank	3
Volume Control Tank	2
Letdown Flow Control Valves	2
Safety Injection System	
Refueling Water Storage Tank	2
Safety Injection Tanks	2
Low Pressure Safety Injection Pumps	2
Residual Heat Removal System	
Residual Heat Exchangers (tube side)	2
(shell side)	3
Radioactive Gaseous Waste System	
Waste Gas Compressor	3
Waste Gas Surge Tank	3
Gas Decay Drums	3

TABLE C.1
(Sheet 3 of 4)

COMPONENT	SAFETY CLASS
Component Cooling Water System	
Component Cooling Water Pump	3
Component Cooling Water Surge Tank	3
Component Cooling Water Heat Exchangers	3
Main Steam System	
Main Steam Piping (from Steam Generator up to and including non-return valves)	2
Safety Valves	2
Atmospheric Dump Valve	2
Steam Generator Blowdown System	
Piping (up to and including isolation valve)	2
Emergency Diesel Generator System	
Diesel Fuel Day Tank	3
Diesel Engines	3
Diesel Fuel Oil Transfer System	3
Diesel Fuel Supply Tank	3
Emergency Diesel Generator Starting Air System	
Diesel Generator Air Tanks	3
Piping and Fittings	3
Valves	3
Filter Housings	3
Instrument Air System	
Back-up air supply to Containment Purge and Isolation Valves (downstream of check valves)	3
Isolation air supply to Emergency Feedwater System Flow Control Valves (downstream of check valves)	2
Isolation air supply to Emergency Feedwater System Isolation Valves (downstream of check valves)	3

TABLE C.1
(Sheet 4 of 4)

COMPONENT	SAFETY CLASS
Spent Fuel Pool Cooling and Cleanup System	
Spent Fuel Pool Cooling Pumps	3
Spent Fuel Pool Heat Exchanger	3
Spent Fuel Pool Cooling Loop Valves	3
Spent Fuel Pool Cooling Loop Piping	3
Spent Fuel Pool Purification Pump	3
Handling Equipment for Fuel and Reactor Vessel Internals	
Fuel Transfer Tube Outer Sleeve	2
Expansion Joints	2
Fuel Transfer Tube and Flange	2
Equipment Drainage System	
High Pressure Drain Cooler	2
Primary Drain Tank	3
Primary Drains Degasifier	3
Primary Drain Pumps	3
Hydrogen Recombiner Taps	
Piping	3
Valves	3
Ventilation Filter Systems	
Spent Fuel Pool Deep Bed Filters	3
Control Room Breathing Air System	3
Control Room Recirculating Air System	3