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Dominion

Memorandum

NO-02-0024
January 29, 2002

TO: Quality Assurance Program Topical Report - Controlled Copy Owners

FROM: Dorothy Bruce, QAP Coordinator
Nuclear Oversight, Ext. 3185

SUBJECT: **Quality Assurance Program (QAP) Topical Report - Millstone Power Station Revision 23, Change 6 (Document No. MP-02-OST-BAP01)**

Enclosed please find Quality Assurance Program (QAP) Topical Report - Millstone Power Station, Revision 23, Change 6. The purpose of this change is to re-align the Millstone Station organization to more closely align and integrate with the existing Dominion Nuclear Business Unit organization. The station will be aligned under one Site Vice President, and two Nuclear Station Directors, the Director - Nuclear Station Operations & Maintenance and the Director - Nuclear Station Safety & Licensing.. Several departments also report to offsite organizations, with a matrixed relationship to a site Director or to the Site Vice President. The change fully complies with 10CFR50 Appendix B requirements, and does not create any reduction in commitment in accordance with 10CFR50.54(a).

Please note that the effective date of Revision 23, Change 6, is **January 30, 2002**. Please replace the entire contents of QAP 1.0, 2.0, 6.0, 7.0, 16.0 and 18.0, and Appendices B, D, F, and G with the enclosed sections. If you have any questions, contact D. Bruce at X3185.

Attachments: Summary of Changes for Rev. 23, Change 6

Enclosure:
Quality Assurance Program Topical Report - Millstone Power Station, Revision 23, Change 6

DSB/dsb

Summary of Changes to QAP Rev. 23 Incorporated as Change 06

Section	Summary Description of Changes	Reference
Section 1.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization "Vice President and Senior Executive Nuclear Executive" site responsibilities transferred to the Site Vice President. (1.3.1 and throughout the QAP) Director - Nuclear Station Operations & Maintenance (O&M) acquires operations responsibilities, including decommissioning, previously held by the VP- Nuclear Operations/Millstone. O&M includes Nuclear Maintenance, Nuclear Site Services and Nuclear Outage and Planning responsibilities (1.3.2). Director - Nuclear Station Safety and Licensing acquires responsibility for Nuclear Organizational Effectiveness (formerly "Performance Improvement"), Nuclear Procedures & Document Administration (formerly under Support Services) and Radiological Protection & Chemistry (former responsibility of Operations and Chemistry). (1.3.3) Manager - Nuclear Operations assumes the operations responsibilities formerly assigned to Director - Nuclear Operations and Chemistry, including Nuclear Operations Support and Radwaste. Also assumes Nuclear Operations Work Control. Assistant Manager - Operations is replaced with "Supervisor - Nuclear Shift Operations" (1.3.6 and 1.3.7) Radiological Protection & Chemistry carries out chemistry and health physics functions. The Supervisor - Health Physics fulfills the "Health Physics Manager" position qualifications and ANSI standards for Radiation Protection Manager. 1.3.11 Nuclear Organizational Effectiveness includes Corrective Actions as well as Independent Safety Engineering Group (ISEG), Operations Experience (OE) and STA responsibilities and is matrixed to the Director, Organizational Effectiveness (Corporate).1.3.12 Nuclear Protection Services (1.3.14) includes Emergency Preparedness (same roles and responsibilities described in Section 1.3.13, previously under "Emergency Planning"), the former "Protective Services" (Fire Protection and Security, previously under Support Services) and Industrial Safety (formerly under Operations) and reports to Director - Nuclear Protection Services and Emergency Preparedness (Corporate) and is matrixed to Director - S&L Nuclear Training reports to Director - Nuclear Training and is matrixed to Director - S&L Nuclear Engineering reports to Director - Nuclear Engineering and is matrixed to Director - S&L Figure 1.0, 1.1. and 1.2 were modified to reflect the organizational changes. Offsite positions/organizations are shadowed and matrixed relationships are indicated with a dotted line.	**Request 02-01**

Summary of Changes to QAP Rev. 23 Incorporated as Change 06

Section	Summary Description of Changes	Reference
Section 2.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Section 6.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Section 7.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Section 16.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Section 18.0	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Appendix B	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Appendix D	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Appendix F	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**
Appendix G	Realigned Millstone Station to align with existing Dominion Nuclear Business Unit Organization, changes made to reflect changes to organization.	**Request 02-01**

1.0 ORGANIZATION

1.1 INTRODUCTION

This section describes the organizations involved in the operation and technical support of Millstone Power Station (MPS). In addition, this section describes the responsibilities governed by the Quality Assurance Program (QAP) Topical Report. Qualifications for key personnel are found in the unit Technical Specifications and Appendix B of this QAP, "Qualification and Experience Requirements."

NOTE

In the remainder of QAP 1.0, the text describes functions that support Millstone Power Station, unless otherwise specified. Units 2 and 3 are operational. Unit 1 is defueled and in a decommissioning mode. Applicable regulations and standards are addressed throughout the QAP as appropriate.

1.2 ORGANIZATION

The Chief Executive Officer - Dominion Nuclear Connecticut, Inc. has ultimate responsibility and overall authority for the Dominion Nuclear Connecticut, Inc. nuclear program, and has delegated the necessary responsibility and authority for all nuclear operations to the President and Chief Operating Officer - Dominion Nuclear Connecticut, Inc. who has delegated the necessary responsibility and authority to the Senior Vice President - Nuclear Operations and Chief Nuclear Officer (SVP/CNO) - Dominion Nuclear Connecticut, Inc.

1.3 KEY MANAGEMENT RESPONSIBILITIES AND AUTHORITY

1.3.1 *Site Vice President - Millstone*

The ***Site Vice President - Millstone*** has been delegated by the SVP/CNO - Dominion Nuclear Connecticut, Inc. the necessary responsibility and authority for the management and direction of all activities related to the operation of Millstone Power Station. The ***Site Vice President - Millstone*** has overall responsibility for construction, operation, maintenance, modification, quality assurance and implementation of this QAP at Millstone Power Station. The following licensing basis positions report directly to ***Site Vice President - Millstone***:

- ***Director - Nuclear Station Operations & Maintenance***
- ***Director - Nuclear Station Safety & Licensing***

1.3.2 *Director - Nuclear Station Operations & Maintenance*

Director - Nuclear Station Operations & Maintenance is responsible for establishing common policies and standards pertaining to the operating units, the safe operation and maintenance of the units, including the decommissioning and related activities for Unit 1, for services in support of the station, and implementation of this QAP. The ***Director - Nuclear Station***

Operations & Maintenance is responsible for maintaining compliance with requirements of the Operating License and Technical Specifications as well as applicable federal, state and local laws, regulations and codes. The following departments report directly to the ***Director - Nuclear Station Operations & Maintenance***:

- ***Nuclear*** Operations
- ***Nuclear Maintenance***
- ***Nuclear Site Services***
- ***Nuclear Outage and Planning***

In addition, the Director - Nuclear Station Operations & Maintenance is responsible for Unit 1 Decommissioning Activities.

Nuclear Training and Supply Chain Management are matrixed to the Director - Nuclear Station Operations & Maintenance.

1.3.3 ***Director - Nuclear Station Safety & Licensing***

Director - Nuclear Station Safety & Licensing is responsible for implementation of this QAP. The following departments report directly to the ***Director - Nuclear Station Safety & Licensing***:

- ***Nuclear Procedures & Document Administration***
- ***Radiological Protection & Chemistry***
- ***Nuclear Organizational Effectiveness***

Emergency Preparedness, Protection Services and Information Technology are matrixed to the Director - Nuclear Station Safety & Licensing.

Nuclear Training, Emergency Preparedness, and Protection Services all report to the Vice President - Nuclear Support Services in the Nuclear Business Unit. Security and Fire Protection are part of Protection Services. Nuclear Engineering reports to the Vice President - Nuclear Engineering and Services in the Nuclear Business Unit.

1.3.4 Manager - Nuclear Oversight

The Manager - Nuclear Oversight reports to the Director - Nuclear Oversight. Manager - Nuclear Oversight is responsible to the Director- Nuclear Oversight for the effective performance of Nuclear Oversight. The Manager - Nuclear Oversight acts as advisor to the ***Site Vice President - Millstone*** and the SVP/CNO - Dominion Nuclear Connecticut, Inc. on items related to nuclear quality and safety at the station. Overall responsibility for the QAP has been delegated to the Manager - Nuclear Oversight by the SVP/CNO - Dominion Nuclear Connecticut, Inc. The Manager - Nuclear Oversight has the necessary authority and responsibility for the following:

- Direction of the quality assurance program

- Development and implementation of policies, plans, requirements, procedures, and audits
- Verification to assure compliance with 10CFR50 Appendix B and other regulatory requirements
- Verification of the implementation of the QAP Topical Report requirements
- Preparation and issuance of the QAP Topical Report
- Identification of quality problems
- Recommendations for solutions to quality problems and verification of the implementation of the solutions

Verification is performed through a planned program of audits, surveillances and inspections by Nuclear Oversight. The Manager - Nuclear Oversight provides objective evidence to management of the performance of quality activities independent of the individual or group directly responsible for performing the specific activity.

The Manager - Nuclear Oversight has the authority and organizational freedom to verify activities affecting quality. This is performed independent of undue influences and responsibilities for schedules and costs.

In order to implement these responsibilities, the Manager - Nuclear Oversight is provided "Stop Work" authority whereby he/she can suspend unsatisfactory work and control further processing or installation of non-conforming materials. The authority to stop work is assigned to Nuclear Oversight personnel and delineated in an approved procedure.

1.3.5 ***Nuclear*** Maintenance

Nuclear Maintenance is responsible for on-line maintenance, cost and scheduling, installation, maintenance, alterations, adjustment and calibration, replacement and repair of plant electrical and mechanical equipment, and instruments and controls. Responsibilities include scheduling of surveillances required by Technical Specifications, establishing standards and frequency of calibration for instrumentation and ensuring instrumentation and related testing equipment are properly used, inspected and maintained.

1.3.6 ***Nuclear*** Operations

Nuclear Operations is responsible for operations. The ***Manager - Nuclear Operations*** is responsible for the safe and efficient operation of the units including Unit 1, which is in a decommissioned mode. During accident situations, if currently holding an active license on the unit (Senior Reactor Operator (SRO) for Unit 2 or 3, or Certified Fuel Handler (CFH) for Unit 1), the ***Manager - Nuclear Operations*** may relieve the Shift Manager of the responsibility of directing the licensed Control Room operators. The following ***groups*** report to the ***Manager - Nuclear Operations***:

- Unit ***Nuclear Operations***
- ***Nuclear Operations*** Support

- ***Nuclear Operations Work Control***

1.3.7 Unit ***Nuclear Operations***

The Unit ***Nuclear Operations*** groups report to the ***Manager - Nuclear Operations.*** Each group includes the following key supervisory positions:

- ***Supervisor - Nuclear Shift Operations***
- Shift Manager(s)
- Unit Supervisor(s)

Unit 2 ***Nuclear Operations*** is responsible for operations regarding the Unit 1 Spent Fuel Pool Island and auxiliary systems. A Certified Fuel Handler augments the Unit 2 ***Nuclear Operations*** staff to meet Unit operations responsibilities. The transfer of Unit 1 operations responsibility to Unit 2 ***Nuclear Operations*** will not impact the capability of Unit 2 Operators to perform their duties, including day-to-day functions and accident and transient mitigation.

1.3.7.1 ***Supervisor - Nuclear Shift Operations***

The ***Supervisor - Nuclear Shift Operations*** provides general supervision for the operation of the respective unit, and coordinates unit operations with maintenance, work management, and other groups. As stipulated in Technical Specifications or in Appendix B, either the ***Manager - Nuclear Operations*** or the ***Supervisor - Nuclear Shift Operations*** holds an appropriate license on the Unit (SRO for Unit 3 and SRO and CFH for Unit 2). Unit 2 Operations is responsible for operations regarding the Unit 1 Spent Fuel Pool Island and auxiliary systems. The ***Supervisor - Nuclear Shift Operations*** assures the safe and efficient operation of the assigned unit in accordance with applicable licenses, operating instructions and procedures, emergency procedures and safety rules and regulations. During accident situations, if currently holding an active license on the unit (SRO for Unit 3 and Unit 2, CFH for Unit 2 responsibilities for Unit 1 Spent Fuel Pool and related systems), the ***Supervisor - Nuclear Shift Operations*** may relieve the Shift Manager of the responsibility of directing the licensed Control Room operators.

1.3.7.2 Shift Managers

The Shift Managers report to the ***Supervisor - Nuclear Shift Operations*** and are responsible for the Control Room command function. The Shift Manager holds an appropriate license on the unit (SRO for Unit 3; SRO and CFH for Unit 2). The Shift Manager directs and supervises the operation of the unit. Administrative functions that detract from or are subordinate to the management responsibility for assuring the safe operation of the plant are delegated to other operational personnel not on duty in the Control

Room. Unit 2 Control Room provides control and supervision of Unit 1 activities.

During accident situations, unless properly relieved, the Shift Manager remains in the Control Room and directs the activities of the licensed operators. The Shift Manager has direct authority to shut down the respective unit if, in the Shift Manager's opinion, serious abnormal conditions exist. A Unit 3 Shift Manager fulfills the facility staff requirements of the Shift Supervisor for the Unit 3 Technical Specifications.

1.3.7.3 Unit Supervisor

The Unit Supervisor holds an appropriate license on the unit (SRO) and supervises the operators in the Control Room. The Unit Supervisor directs activities of the licensed Control Room operators, and may operate the controls of equipment and piping systems from the Control Room, or alternate station control location. Unit 2 Control Room provides control and supervision of activities on Unit 1.

1.3.7.4 Control Operators

Control Operators for Millstone Units 2 and 3 hold a Reactor Operator or Senior Reactor Operator license on the unit. The Control Operators are responsible to perform the following duties:

- Start up, operate, and shut down nuclear plant equipment including, but not limited to, as applicable to the Unit's status, reactor, reactor auxiliaries, turbine generator unit and its auxiliaries as necessary to satisfy system requirements or station conditions. (Unit 1 is decommissioned.)
- Test, as scheduled, control room instruments and controls. Unit 1 is decommissioned.
- Maintain required logs and calculations, observe these logs for indications of faulty operation, and notify the on-duty Unit Supervisor or the Shift Manager of abnormal plant conditions

1.3.7.5 Plant Equipment Operators

Plant Equipment Operators are responsible to perform the following duties:

- Start up, operate, inspect, adjust, and shut down all auxiliary and other various plant equipment
- Perform or assist with scheduled operational tests
- Make minor repairs

1.3.8 ***Nuclear Outage & Planning***

Nuclear Outage & Planning is responsible for planning, online-maintenance and outage activities.

1.3.9 ***Nuclear Site Services***

Nuclear Site Services is responsible for project support of the station, including project construction and project controls.

1.3.10 ***Nuclear Procedures & Document Administration***

Nuclear Procedures & Document Administration is responsible for nuclear records management and procedures.

1.3.11 Radiological Protection ***& Chemistry***

Radiological Protection ***& Chemistry*** carries out ***chemistry and*** health physics functions and reports to the ***Director - Nuclear Station Safety and Licensing. This reporting relationship*** provides radiation protection functions with sufficient organizational freedom and independence from operating pressures as required by the unit Technical Specifications. The ***Supervisor - Health Physics*** fulfills the "Health Physics Manager" position qualifications required by the unit Technical Specifications. Radiological Protection ***& Chemistry*** includes the following:

- scheduling and conducting radiological surveys including contamination sample collection
- determining contamination levels and assigning work restrictions through radiation work permits
- maintaining records and reports on radioactive contamination levels
- administering the personnel monitoring program and maintaining required records in accordance with federal and state codes
- ***Chemistry***

1.3.12 ***Nuclear Organizational Effectiveness***

Nuclear Organizational Effectiveness is responsible for the Corrective Actions Program, the Independent Safety Engineering Group, the Operating Experience Program ***and Shift Technical Advisors. Nuclear Organizational Effectiveness reports directly to the Director - Nuclear Station Safety and Licensing, and is matrixed to the Director - Organizational Effectiveness.***

1.3.13 ***Emergency Preparedness***

Emergency Preparedness is responsible for development and maintenance of the on-site radiological emergency plan and the development and coordination of required off-site radiological emergency response plan. Emergency Preparedness reports to the

Director - Protective Services & Emergency Preparedness and is matrixed to the Director - Nuclear Station Safety & Licensing.

1.3.14 ***Nuclear Protection Services***

Nuclear Protection Services is responsible for station protective services, including security and fire protection. Nuclear Protection Services reports to the Director - Protective Services & Emergency Preparedness (corporate) and is matrixed to the Director - Nuclear Station Safety & Licensing.

1.3.15 Nuclear Training

Nuclear Training is responsible for operator and technical training. The operator training group ***reports to the Director - Nuclear Training (corporate) to*** provide sufficient organizational freedom and independence from operating pressures as required by the unit Technical Specifications. ***Nuclear Training is matrixed to the Director - Nuclear Station Operations and Maintenance.***

1.3.16 Nuclear Engineering

Nuclear Engineering reports to the Director - Nuclear Engineering. Nuclear Engineering is responsible for design engineering functions, supporting activities, engineering programs, configuration management including design and configuration control and engineering assurance, engineering technical support and systems engineering, including material engineering. ***The Director - Nuclear Engineering reports to the Vice President - Nuclear Engineering (corporate) and is matrixed to the Site Vice President.***

Nuclear Fuel Engineering reports to the Director - Dominion Nuclear Analysis and Fuel. ***The group is responsible for engineering activities in safety analysis and nuclear fuel, including probabilistic risk assessment and reactor and radiological engineering. Nuclear Fuel Engineering is matrixed to the Director - Nuclear Engineering.***

1.3.17 Supply Chain Management (SCM)

Supply Chain Management (SCM) is responsible for procurement. Responsibilities include approval and oversight of vendors that provide quality-related material and services including source and receipt inspection. Supply Chain Management (SCM) reports to the Director - Dominion Supply Chain Management (Generation), ***and is matrixed to the Director - Nuclear Station Operations & Maintenance.***

1.3.18 Information Technology

Information Technology is responsible for the Quality Assurance Software

Program. Information Technology reports to the Director - Dominion Information Technology Business Account (Generation), ***and is matrixed to the Director - Nuclear Station Safety & Licensing.***

1.4 QUALITY-RELATED RESPONSIBILITIES COMMON TO ALL DEPARTMENT HEADS

The head of each department performing quality activities is responsible for:

- Administering those activities within their organization which are required by this QAP;
- Ensuring implementation of the Quality Assurance Program;
- Establishing and clearly defining the duties and responsibilities of personnel within their organization who perform quality activities;
- Planning, selecting, and training personnel to meet the requirements of the QAP Topical Report; and
- Performing and coordinating quality activities within their department and interfacing with the Nuclear Oversight department.

Each individual performing or verifying activities affecting quality is responsible to conduct those activities in accordance with the requirements of this QAP and implementing procedures. These individuals shall have direct access to such levels of management as may be necessary to perform this function.

The responsibility, authority, and organizational relationship for performing quality activities within each organization is established and delineated in the Dominion Nuclear Connecticut, Inc. organizational charts, policy statements, and written job or functional descriptions.

Vendors may be delegated the execution of quality assurance functions; however, the licensee shall retain responsibility for this Quality Assurance Program.

1.5 ANNUAL MANAGEMENT QUALITY ASSURANCE REVIEW

The Senior Vice President - Nuclear Operations and Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. is responsible for the assessment of the scope, status, implementation, and effectiveness of the QAP. To meet this responsibility, a team of qualified individuals is appointed to perform an annual Management Quality Assurance Review. The team is made up of individuals knowledgeable in quality assurance, quality activities, auditing, management responsibilities, and the QAP Topical Report. This review is:

- A systematic evaluation;
- pre-planned toward the objective of determining the adequacy of the QAP and its compliance with Appendix B to 10 CFR 50 and other regulatory requirements; and

- capable of identifying, communicating, and tracking any required corrective action.

The Senior Vice President - Nuclear Operations and Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. has delegated the responsibility for the Management Quality Assurance Review to the Manager - Nuclear Oversight.

1.6 SPECIFIC QAP RESPONSIBILITIES

The Senior Vice President - Nuclear Operations and Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. resolves all disputes related to the implementation of the QAP for which resolution is not achieved at lower levels within the organization.

1.7 SUCCESSION OF RESPONSIBILITY FOR OVERALL PLANT OPERATION

The succession of responsibility for overall plant instructions or special orders, in the event of absences, incapacitation of personnel or other emergencies, is as follows:

- ***Site Vice President - Millstone***
- ***Director - Nuclear Station Operations & Maintenance***
- Manager - ***Nuclear*** Operations
- Licensed ***Supervisor - Nuclear Shift Operations*** designated by ***Site Vice President - Millstone***
- Shift Manager (SRO)
- Licensed Unit Supervisor (SRO)

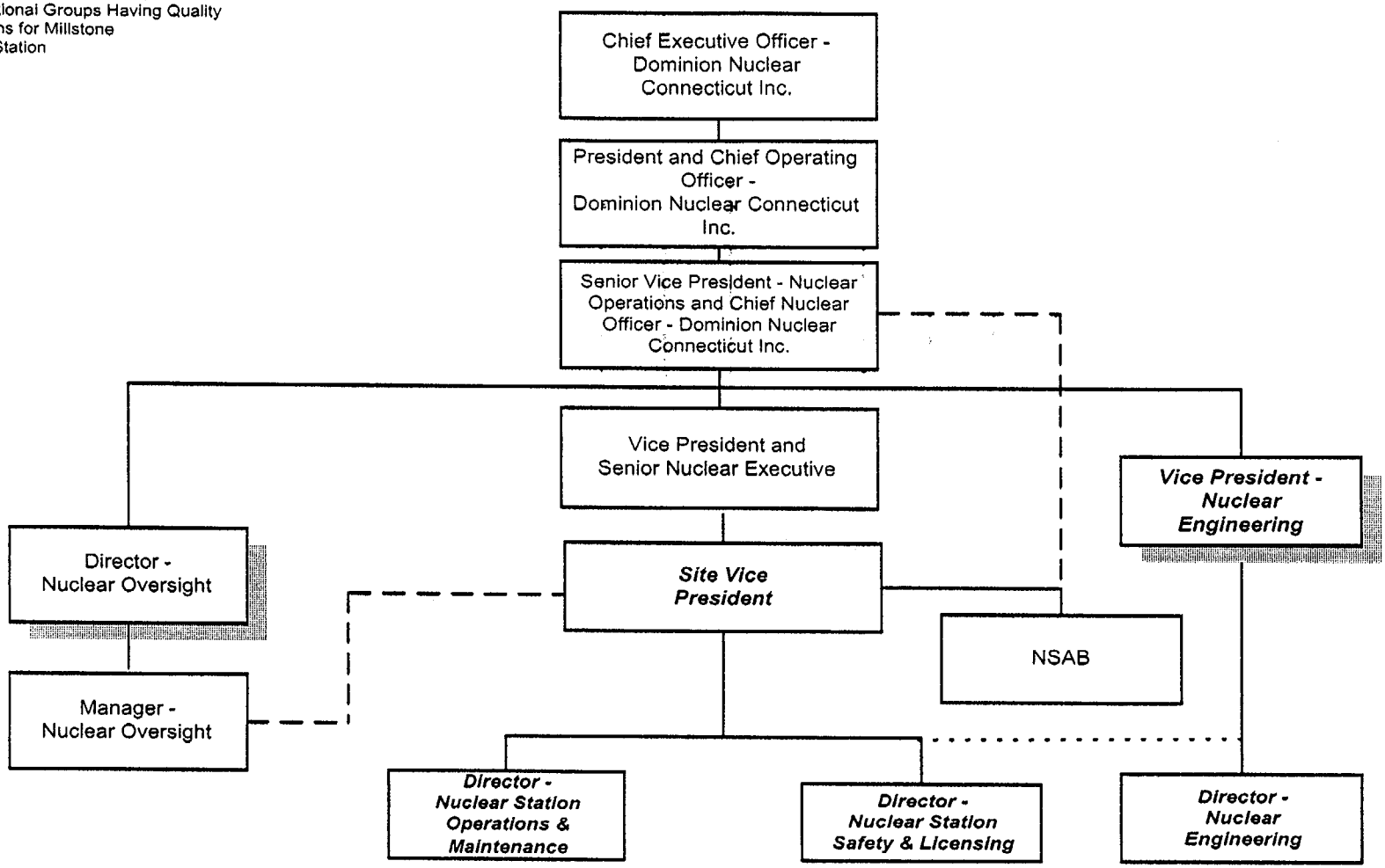
1.8 ORGANIZATION CHARTS

NOTE

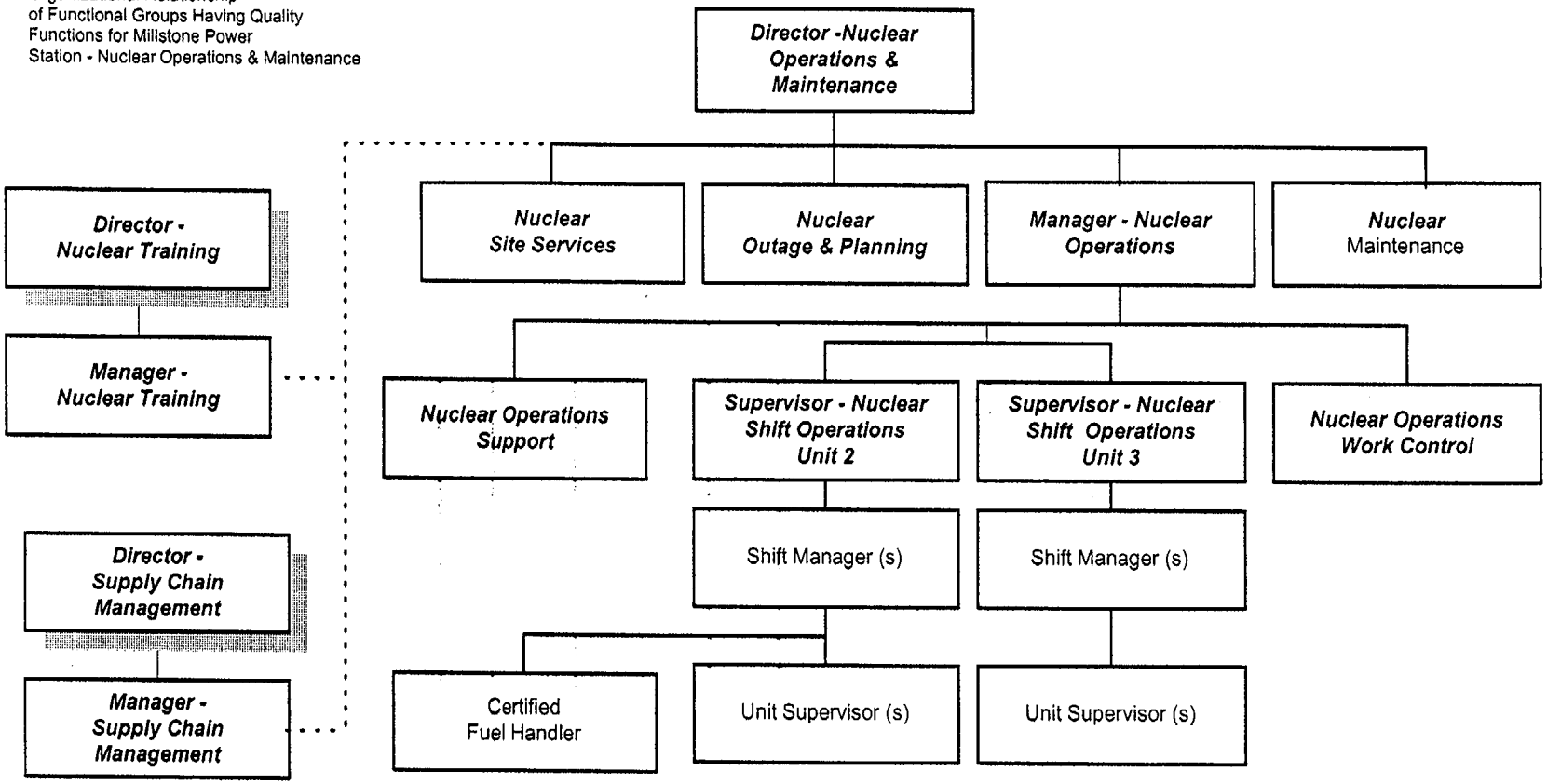
The following organization charts are incorporated by reference in the Emergency Plan - Millstone Power Station. Changes to these organization charts require an effectiveness review in accordance with 10 CFR 50.54 (q).

Offsite Vice President/ Directors are shadowed to denote corporate reporting positions. Dotted lines represent matrixed relationships for site related communication and administrative purposes.

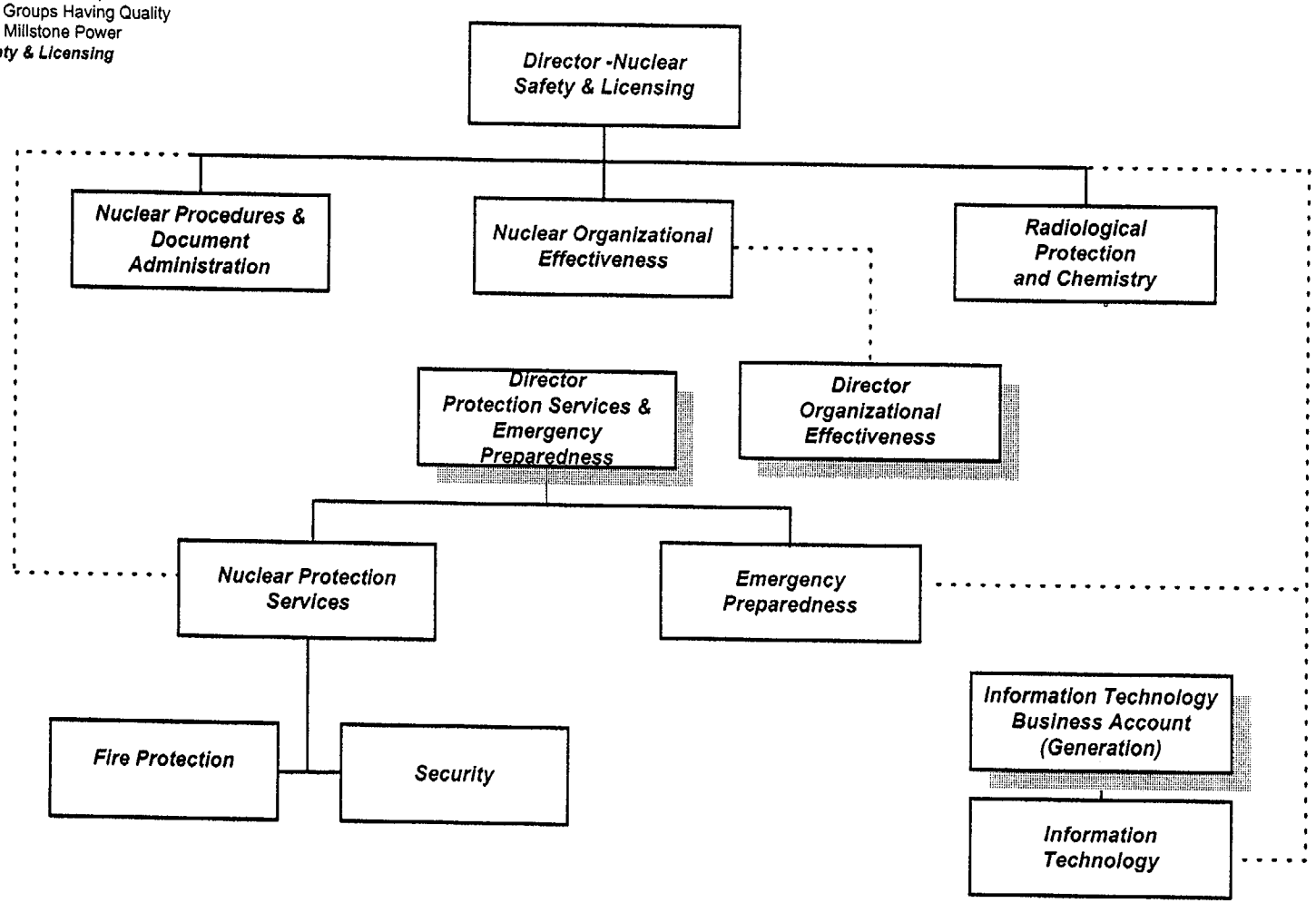
Organizational Relationship
of Functional Groups Having Quality
Functions for Millstone
Power Station



Organizational Relationship
of Functional Groups Having Quality
Functions for Millstone Power
Station - Nuclear Operations & Maintenance



Organizational Relationship
of Functional Groups Having Quality
Functions for Millstone Power
Station - ***Safety & Licensing***



2.0 QUALITY ASSURANCE PROGRAM

2.1 GENERAL REQUIREMENTS

The licensee has established a Quality Assurance Program (QAP) for the Millstone Power Station which complies with the criteria of 10CFR50, Appendix B, and follows the regulatory documents and their endorsed ANSI/IEEE standards identified in Appendix C with exceptions as identified in Appendix E. The quality assurance requirements set forth in the attached Policy Statement, supplemented by quality assurance procedures, provide the primary basis of this program and the licensee's policy with regard to quality assurance for the Millstone Power Station nuclear units. This QAP Topical Report is established to accomplish the required level of quality in activities carried out throughout the life of the Station's operating nuclear power plants and the decommissioning of Unit 1.

This QAP applies in its entirety to all activities affecting the safety-related functions of structures, systems and components of the Millstone Power Station nuclear units. Safety-Related structures, systems and components for Millstone Units 2 and 3 are functionally identified in Appendix A of this QAP and are designated Category I by the licensee. Applicability of Appendix A to each FSAR is addressed by existing Nuclear Unit specific Design Bases and Licensing commitments, and also as specifically identified in each FSAR addressing Section 3.2.1 of Regulatory Guide 1.70. Millstone Unit 1 Safety-related structures, systems and components are defined in the DSAR. This QAP is also applicable in its entirety to materials, equipment, parts, consumables and services designated Category I.

This QAP applies to other quality programs including Anticipated Transient Without Scram (ATWS) Quality Assurance, which is applicable to MP-2 only (MP-3 commits to Generic Letter 85-06), and to Electrical Equipment Qualification (EEQ), as defined by licensee commitments. Portions of this QAP are also applicable to Fire Protection Quality Assurance (FPQA), Station Blackout Quality Assurance (SBOQA) and Radwaste Quality Assurance (RWQA) which are delineated in applicable procedures.

The Materials, Equipment, and Parts List (MEPL) Program provides instructions to identify structures, systems, components, materials, equipment, parts, consumables, quality software and activities that need to be identified as safety-related or augmented quality. For quality software, the Software Quality Assurance (SQA) Program provides instructions to classify software and describe the appropriate level of documentation that is warranted for software used to support those functions of structures, systems, and components that are affected by the QAP.

The requirements of this QAP are implemented by the licensee which operates Millstone Power Station, and their vendors performing activities affecting quality structures, systems, and components of the Station's nuclear power plants.

Procedures define the required indoctrination and training of personnel performing activities affecting quality, as necessary, to assure that suitable proficiency is achieved and maintained.

Training sessions are documented. The content of the training sessions is described, attendees and attendance date indicated, and the results (e.g., examination results) of the training sessions recorded, as applicable.

Periodic program review of the status and adequacy of this QAP is accomplished by Nuclear Oversight audits, surveillances and inspections, by Nuclear Safety Assessment Board (NSAB) reviews, and by the independent review team which performs the annual Management Quality Assurance Review described herein and in QAP 1.0, "Organization", Section 1.5. Organizations outside the licensee are required to review the status and adequacy of that part of this QAP for which they have been delegated responsibility.

2.2 IMPLEMENTATION

2.2.1 GOALS AND OBJECTIVES

The goals of this QAP are to maintain quality levels in an effective and efficient manner and to assure a high degree of functional integrity and reliability of Station nuclear power plant quality structures, systems, and components. To meet these goals, the following objectives of this QAP have been defined:

a. Define, through procedures, the quality activities that apply to design, fabrication, procurement, construction, testing, operation, refueling, repair, maintenance and modification of the Station nuclear power plants;

b. Establish, assign, and document the responsibilities for the conduct of those activities affecting quality structures, systems, and components;

c. Establish confidence that (a) quality activities for the Station nuclear power plants are performed consistent with the licensee's policies and (b) quality activities are performed by qualified personnel, and are verified through a system of audits, surveillances, and inspections of those organizations with quality responsibilities;

d. Apprise the ***Site Vice President*** - Millstone and the Senior Vice President - Nuclear Operations & Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc of unresolved problems and trends which could have a significant effect on nuclear power plant safety.

2.2.2 PROGRAM DOCUMENTATION

This QAP defines the licensee's nuclear policies, goals, and objectives, and is used as guidance for the development of the various division, department, branch, or section procedures. Revisions to this QAP shall be made as needed to reflect current requirements and descriptions of

activities prior to implementation. These revisions shall be made in accordance with a licensee Procedure.

Revisions to this QAP, which reduce commitments previously accepted by the NRC, are submitted to the NRC for review and approval prior to implementation.

Revisions which do not reduce previously accepted commitments are periodically submitted to the NRC as required by 10 CFR 50.54 (a)(3); 10 CFR 50.55 (f)(3); and 10 CFR 50.71(e) and (f).

Quality procedures are developed by the departments performing quality activities. These procedures are reviewed for concurrence by the departments which are responsible for implementing portions of these procedures and are approved by the initiating department. Nuclear Oversight reviews other department quality procedures for compliance with this QAP and concurs with such procedures as described in QAP 5.0, "Procedures, Instructions and Drawings". Changes to procedures are subjected to the same degree of control as that utilized in the preparation of the original document.

Each Vice President and Director is responsible for implementation of this QAP within their organization which includes individual departmental procedure requirements applicable only to their respective activities. In addition, they are responsible for the preparation, approval, and distribution of those instructions, operating procedures, testing procedures, or other instructions where further guidance is necessary.

2.2.3 STRUCTURES, SYSTEMS AND COMPONENTS

This QAP applies to all activities affecting the safety-related functions of the structures, systems and components as addressed in the Safety Analysis Reports (SARs). Safety-Related structures, systems, and components are functionally identified in Appendix A for Units 2 and 3 and also as specifically identified in each FSAR addressing Section 3.2.1 of NRC Regulatory Guide 1.70. Unit 1 Safety-Related structures, systems, and components are defined in the DSAR.

For structures, systems and components covered by the ASME Code, the licensee's procedures describe the measures taken to assure that the quality assurance requirements contained in the code are supplemented by the specific guidance of the applicable regulatory guides and endorsed ANSI standards listed in Appendix C.

For structures, systems and components, regulatory commitments and the licensee's procedures describe the measures taken to assure that the quality assurance requirements are met.

The degree of control over activities affecting quality structures, systems, and components is consistent with their importance to safety. Such controls include use of appropriate equipment, establishment of suitable environmental conditions, and assurance that all prerequisites for a given activity have been satisfied. This QAP provides controls over special processes and skills necessary to attain the required quality, and the need for verification of quality by inspection and test.

Nuclear Oversight and applicable licensee technical organizations jointly determine and identify the extent quality assurance controls are applied to quality structures, systems, and components. The quality assurance controls are in conformance with this QAP, which complies with the 18 criteria set forth in Appendix B to 10 CFR 50.

2.2.4 PARTICIPATING ORGANIZATIONS

The organization for Millstone Power Station activities affecting the quality of structures, systems, and components is identified in QAP 1.0, "Organization", which also briefly describes assigned responsibilities.

Nuclear Oversight is responsible for: a) the development, coordination, and administrative control of this QAP including coordination of Nuclear Oversight procedure review and approval; b) assuring issuance of this QAP Topical Report as a controlled document (as described in QAP 6.0, 'Document Control", and; c) the review and concurrence with quality procedures and revisions written by other departments. Procedure reviews shall be performed in accordance with QAP 5.0, "Procedures, Instructions, and Drawings".

The licensee requires that its approved vendors performing quality activities invoke upon their subvendors, via purchase orders/contracts, requirements for a quality assurance program to meet the applicable criteria of Appendix B to 10 CFR 50, including the applicable elements of the regulatory guides and their endorsed ANSI/IEEE standards identified in Appendix C. However, the licensee retains overall responsibility for the Millstone Power Station Quality Assurance Program. The specific quality activities performed by these organizations are specified in the procurement documents. Supply Chain Management (SCM) is responsible for the review and approval of these vendors' quality assurance programs prior to initiation of contracted activities.

The object of the review is to verify that these vendors have an adequate quality assurance program to meet applicable requirements of 10 CFR 50, Appendix B.

In addition to the initial review, Supply Chain Management (SCM) is responsible for the subsequent performance, as appropriate, of audits, surveillances, and inspections of approved vendor's quality assurance programs to assure continued implementation of quality requirements.

Supply Chain Management (SCM) assures that the quality assurance programs of vendors that perform quality activities are periodically reviewed to assure that the vendors are implementing adequate programs. Evaluation, review, and monitoring of vendor quality programs is conducted in accordance with section QAP 7.0, "Control of Purchased Material, Equipment and Services".

Vendors may be delegated the execution of quality assurance functions by Contract. These Contracts are reviewed and approved in accordance with this QAP. These vendors may be contracted to perform quality activities under their approved quality assurance program or directly under the requirements of this QAP.

2.2.5 INDOCTRINATION AND TRAINING

A program is established and maintained for quality assurance indoctrination and training which provides confidence that the required level of personnel competence and skill is achieved and maintained in the performance of quality activities. Quality procedures delineate the requirements for an indoctrination program to assure that personnel responsible for performing quality activities are instructed in the purpose, scope, and implementation of quality procedures and that compliance to these documents is mandatory. Each Department is responsible for assuring assigned personnel who perform quality activities have been appropriately indoctrinated and trained.

Nuclear training programs shall be developed and implemented to provide training for all individuals attached to or associated with the Station nuclear power plants. Additional guidance is established in the licensee's procedures.

Procedures describe the nuclear training program requirements which assure that:

a. Documentation of formal training and qualification programs includes the objective, content of the program, attendees, date of attendance; and results (e.g., examination results), as applicable.

b. Proficiency of personnel performing and verifying activities affecting quality is established and maintained. Personnel proficiency is established and maintained by training, examination/testing, and/or certification based upon the requirements of the activity. Acceptance criteria are developed to determine if individuals are properly trained and qualified;

c. Certificates or other documentation of qualification clearly delineate the specific functions personnel are qualified to perform and the criteria used to qualify personnel in each function.

This program also requires the head of each department to be responsible for a training plan which assures that personnel performing quality activities are trained in the principles and techniques of the activity being performed.

2.2.6 MANAGEMENT PARTICIPATION

Millstone Power Station Vice President and ***Directors*** are responsible for implementing this QAP within their organization. The Manager - Nuclear Oversight will assist in development, coordination, and review of the program.

The Senior Vice President - Nuclear Operations & Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. assures that a management review of this QAP is conducted on an annual basis by an independent team to assess the scope, status, implementation, and effectiveness, and to assure compliance with NRC licensing commitments. Senior Vice President - Nuclear Operations & Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. has delegated the responsibility for the management review to the Manager - Nuclear Oversight.

Actions considered by the Management Quality Assurance Review may include, but are not limited to:

a. Review of selected procedures and documents;

b. Verification of the implementation of selected procedural requirements;

c. Review of past audit results and other inspection/review results such as those from previous Management Quality Assurance Reviews, the NRC or other departments.

The Management Quality Assurance Review's findings of deficiencies and recommendations for program improvement are forwarded to the Senior Vice President - Nuclear Operations & Chief Nuclear Officer - Dominion Nuclear Connecticut, Inc. who shall assure appropriate corrective action is taken.

6.0 DOCUMENT CONTROL

6.1 GENERAL REQUIREMENTS

This QAP provides measures to assure controlled distribution of documents pertinent to quality activities performed for the Millstone Power Station nuclear units in accordance with quality procedures.

Documents such as procedures, instructions, drawings, specifications and reports are prepared, reviewed for appropriate qualitative and quantitative acceptance criteria, and approved by authorized personnel in the affected organization. Approved controlled documents are distributed to affected locations in accordance with controlled distribution lists. Changes to controlled documents are reviewed and approved by the same organization which performed the original review and approval, unless otherwise specified in the applicable procedures. Measures are provided for controlling documents to preclude the possibility of use of outdated documents.

6.2 IMPLEMENTATION

6.2.1 RESPONSIBILITY

The licensee procedures and instructions delineate the measures for controlling documents including direction for the review for adequacy, approval by authorized personnel, distribution of controlled documents and verification that changes are promptly incorporated and implemented. These control measures apply to documents affecting quality structures, systems and components during the performance of quality activities for the Station nuclear power plants and include documents such as:

a. Design Specifications;

b. Design, Manufacturing, Construction and Installation Drawings;

c. As-Built Documents;

d. Quality Assurance Program Manuals, Procedures and Instructions;

e. Manufacturing, Inspection and Testing Instructions;

f. Test Procedures;

g. Calculations;

h. Engineering Record Correspondence;

i. Design Basis Documentation Summaries (DBDS)

j. Final Safety Analysis Reports;

k. Procurement Documents;

l. Design Change Records;

m. Topical Report;

n. Nonconformance Reports;

o. Computer Codes.

The licensee procedures describe the measures taken by Nuclear Oversight or individuals other than the person who generated the document but qualified in quality assurance for the control of documents to assure review and concurrence, as necessary, for such documents listed above with regards to quality assurance aspects.

The requirements for control of procurement documents are contained in QAP 4.0, "Procurement Document Control". It is the responsibility of each organization issuing controlled documents to employ document control procedures. The issuing organization is additionally responsible for distribution of the documents to appropriate locations. There shall be provisions to assure that approved changes are included in instructions, procedures, drawings and other documents prior to implementation of the changes.

Any vendors utilized to perform quality activities for the Station nuclear power plants are responsible for implementing measures for review, approval, control and distribution of controlled documents to assure they are effectively complying with the requirements for document control. Audits, surveillances, and inspections are performed, as appropriate, to verify that these vendors are effectively complying with their quality assurance program requirements for document control.

6.2.2 DISTRIBUTION OF CONTROLLED DOCUMENTS

The licensee procedures specify in what manner controlled documents, and revisions thereof, are distributed to appropriate locations prior to commencing the work.

6.2.3 DRAWING CONTROL

Nuclear Procedures and Document Administration is responsible to implement a program, through applicable procedures, for the retention and retrieval of drawings and records submitted by cognizant licensee personnel. ***Nuclear Procedures and Document Administration*** maintains a drawing status file which includes drawings newly issued or revised with the latest revision and current status.

Vendors utilized to perform quality activities for the Station nuclear power plants may be delegated the function of drawing control and must furnish periodic status reports listing the revisions of applicable drawings which they issue.

Audits, surveillances, and inspections are performed, as appropriate, to verify that these vendors are effectively complying with their quality assurance program requirements for control of drawings.

6.2.4 PROCEDURE AND INSTRUCTION CONTROL

Nuclear Oversight performs audits, surveillances, and inspections, as appropriate, to verify that licensee processes are effectively complying with this QAP and procedural requirements, for control of procedures and instructions. Audits, surveillances, and inspections are performed, as appropriate, to verify vendors utilized to perform quality activities are effectively complying with their quality assurance program requirements for control of procedures and instructions.

The originating department is responsible for establishing adequate control over quality procedures and instructions issued by them. The responsible organization also issues status reports or revised indices listing the latest revision of applicable controlled documents issued by them.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

7.1 GENERAL REQUIREMENTS

This QAP provides measures for the control of purchased material, equipment, parts and services utilized in quality activities for the Millstone Power Station nuclear units to assure conformance to procurement documents. These measures include provisions for source evaluation and selection, submission of objective evidence by the vendor or subvendors, inspection at the vendor facility, and acceptance inspection and testing of the product upon delivery. Control of quality by vendors and their subvendors is assessed for effectiveness at intervals consistent with the importance, complexity and quantity of the product or service.

7.2 IMPLEMENTATION

The evaluation and selection of vendors is performed in accordance with procedures, which specify that procurement source evaluation and selection measures are performed to determine vendor capability and delineate responsibilities of qualified personnel involved in the evaluation and selection process.

7.2.1 VENDOR QUALIFICATIONS

Supply Chain Management (SCM) utilizes one or more of the following methods in evaluating the qualifications of a potential vendor:

a. Audits performed by Nuclear Oversight and/or Supply Chain Management (SCM) coordinated review of potential vendor utilizing one or more departments (i.e., Nuclear Engineering, ***Nuclear Site*** Services, ***Nuclear*** Maintenance, ***Nuclear*** Operations);

b. Other utility vendor audits and evaluations;

c. Nuclear Procurement Issues Committee (NUPIC) audits;

d. ASME N, NA, NPT, NV, or MM/ MS Certificate of Authorization;

e. ASME Certificate of Accreditation for Authorized Inspection Agencies;

f. Commercial grade surveys and/or coordinated review of a potential vendor utilizing one or more departments, (i.e., ***Nuclear Engineering, Nuclear Site Services, Nuclear Operations, Supply Chain Management***);

g. Source inspection/surveillance.

Evaluations assure that vendors providing quality material, equipment, parts and services employ a quality assurance program that conforms to applicable portions of this QAP.

Supply Chain Management (SCM) is responsible for assuring that documented evidence of the evaluation and acceptance of the vendor's quality assurance program is maintained. The determination of vendor approval is based on such factors as prior performance, quality performance data, audits, commercial grade surveys, surveillances and evaluations of the vendor's quality assurance program.

Vendor Certificates of Conformance are periodically evaluated by audits, commercial grade surveys, surveillances, independent inspections and tests, to assure they are valid. This verification of Certificates of Conformance is documented.

7.2.2 SOURCE INSPECTION

Supply Chain Management (SCM) is responsible for the performance of source inspections at vendor facilities to assure that the requirements of a purchase order/contract have been met.

Source inspections are performed in accordance with procedures which provide for the method of inspection, the extent of documentation required and those responsible for implementing those instructions.

Inspection of items occurs either when verifications of procurement requirements cannot be determined upon receipt or the vendor quality assurance program has not been accepted by Supply Chain Management (SCM).

7.2.3 RECEIPT INSPECTION

Receipt inspection for procured items is performed by Supply Chain Management (SCM) in accordance with quality procedures which delineate requirements and responsibilities necessary to perform inspection functions. The exception to this is ***Nuclear Fuel Engineering*** performing receipt inspection for new fuel assemblies in accordance with quality procedures. Contractual obligation fulfillment and specified requirements are verified during receipt inspections.

Receipt inspection of vendor-furnished material, equipment, and parts is performed to assure that these items and acceptance records are examined in accordance with predetermined inspection instructions prior to acceptance, installation and operation. Receipt inspections include, as appropriate:

a. Measures for verifying that the shipment is complete, properly identified, undamaged and corresponds with the required documentation;

b. Measures for inspection of the item's critical characteristics and review of supporting documentation (e.g., mill test reports, NDE reports) as required by the procurement documents;

c. Measures for inspection and acceptance of items in accordance with predetermined methods;

d. Measures for identifying and controlling acceptable items including identification of inspection status prior to release from the receiving inspection area;

e. Measures for identifying, segregating and handling nonconforming items;

f. Measures to ascertain that inspection records or Certificates of Conformance are acceptable prior to release for installation;

g. In cases involving purchased services, the responsible engineer or department head shall designate the means by which services may be accepted, and is given the authority to accept services in accordance with methods defined in licensee procedures.

7.2.4 VENDOR FURNISHED RECORDS

Records required to be furnished by the vendor are specified in the procurement documents. Certifications or documentation provided by the vendor which attests to conformance, identifies that all the specific procurement requirements have been met (either by reference to the purchase order or by delineation).

The vendor must furnish the following records as a minimum for nuclear grade purchases:

a. Documentation that identifies the purchased material, equipment, or parts and the specific procurement requirements (e.g., codes, standards and specifications) which have been met by the items;

b. Documentation that identifies any procurement requirements which have not been met, together with a description of those Nonconformances dispositioned "accept as is" or "repair."

The responsible Supply Chain Management (SCM) and/or Nuclear ***Fuel*** Engineering and other appropriate department personnel shall review for acceptability those documents which pertain to the requirements in the procurement document, in accordance with this QAP and applicable procedures.

The department that is contracting onsite quality assurance services shall be responsible for the review and acceptability of vendor personnel/equipment certifications prior to the start of work. Nuclear Oversight shall provide oversight of these activities via surveillance, or inspection, as appropriate, to verify compliance with this requirement.

7.2.5 COMMERCIAL DEDICATION

The licensee procedures address the measures taken to assure that for commercial grade items, where specific quality assurance controls for nuclear applications cannot be imposed in a practicable manner, that special dedication requirements are established and implemented.

These measures follow the guidance in Regulatory Guide 1.144, paragraph C. 3. b (1) and Regulatory Guide 1.123 and applicable paragraphs of Section 10 of ANSI N45.2.13.

These measures include appropriate requirements for special categorization and identification within the procurement document, receiving inspection, and additional controls during the installation and testing process to be performed by Supply Chain Management (SCM), other licensee processes, or other appropriate groups.

16.0 CORRECTIVE ACTION

16.1 GENERAL REQUIREMENTS

This QAP requires that an effective corrective action program be established to assure that conditions adverse to quality at the Millstone Power Station are promptly identified, corrected, and documented in accordance with procedures. These procedures include measures for reporting to appropriate levels of management and determining the root cause and corrective action to preclude recurrence for conditions evaluated as significant conditions adverse to quality.

16.2 IMPLEMENTATION

16.2.1 PROGRAM

Procedures define personnel responsibilities and establish various measures for identification, documentation, review, engineering evaluation, disposition and correction of conditions adverse to quality. The means to identify conditions adverse to quality are available to all licensee and vendor personnel assigned to the Millstone Power Station and other personnel involved with Station quality activities.

16.2.2 CORRECTIVE ACTION AND FOLLOW-UP

Procedures describe the measures taken to evaluate if conditions adverse to quality exist and to determine the need for immediate corrective action or disposition. Vice Presidents are responsible for assuring their assigned personnel and their vendors working onsite comply with the corrective action program and for assuring that corrective action is adequate and properly implemented in a timely manner within their organization. ***Nuclear Oversight*** performs audits and surveillances, as appropriate, to verify that licensee departments are effectively complying with this QAP and procedural requirements for the corrective action program and that corrective action is adequate and properly implemented in a timely manner. Audits, surveillances, and inspections, are performed, as appropriate to assure that vendors comply with their corrective action program and that corrective action is adequate.

The ***Site Vice President - Millstone*** has the final authority in the event that agreement on the action to be taken is not reached at lower levels of the nuclear organization.

16.2.3 RECURRENCE CONTROL

Procedures identify responsibility and provide direction for determining appropriate significance level based on actual or potential consequences for conditions adverse to quality.

The significance level determines the need for a root cause determination and for establishing the necessary action to prevent recurrence. In cases of significant conditions adverse to quality, the immediate corrective action, the cause, and recurrence control actions must be documented. Procedures establish the responsibilities and measures taken to accomplish these actions.

An analysis of adverse conditions is performed and trends which identify program/procedure problems are periodically reported to upper management, including the senior onsite and offsite nuclear officers and the senior manager responsible for measuring the effectiveness of the quality assurance program for review. Adverse trends concerning specific vendor performance shall be reported to the affected vendor for resolution and recurrence control, as appropriate.

18.0 AUDITS

18.1 GENERAL REQUIREMENTS

This QAP requires that a comprehensive system of planned and periodic audits shall be carried out to verify that quality activities for Millstone Power Station nuclear units are performed in compliance with this QAP and to determine the effectiveness of the program.

Audits are conducted in accordance with written procedures or checklists by appropriately trained personnel not having direct responsibilities in the areas being audited.

Audit results are documented and reviewed by management having responsibility in the area audited and the responsible management takes the necessary action to address any audit findings revealed by the audit.

18.2 IMPLEMENTATION

18.2.1 PROGRAM

The audit program requires audits of Corporate and Station nuclear power plant quality activities under the oversight of the Nuclear Safety Assessment Board. Audits are performed on activities where the requirements of 10 CFR 50, Appendix B and respective nuclear unit Technical Specifications are being implemented. In addition to those activities, audits are performed on areas associated with indoctrination and training programs, interface control among the licensee and vendors, vendor quality programs and the Supply Chain Management (SCM) procurement function. Audits are regularly scheduled on the basis of the status and safety importance of the activities being performed. Regularly scheduled audits are supplemented by audits 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.

Schedules for the audit of Corporate and Station, quality activities are originated and maintained by Nuclear Oversight. Schedules for vendor quality assurance activities are maintained by Supply Chain Management (SCM) and Nuclear Oversight, as appropriate.

Audits are performed as specified in procedures by qualified personnel, using an audit plan prepared by the auditing organization. Audits may include evaluation of the work areas, activities, processes, items, and review of documents and records to determine the effectiveness of implementation and conformance to this QAP.

Approved vendors utilized to perform quality activities for the Station nuclear power plants are responsible for developing and implementing a system of planned and periodic audits to verify compliance with and to determine the effectiveness of all aspects of their quality assurance program. Supply Chain Management (SCM) is responsible for verifying the acceptability of vendor audit programs. Audits, are performed as appropriate, to verify that these vendors are effectively complying with their quality assurance requirements.

In addition to the audits, other methods, such as surveillances and inspections are used to assure that quality activities are in compliance with this QAP.

18.2.2 REPORTING OF AUDIT RESULTS

Audit results are reviewed, approved, and reported in accordance with Nuclear Oversight and Supply Chain Management (SCM) procedures, as applicable. The audit reports are issued to the appropriate management of the area audited to assure appropriate and/or timely corrective action is taken to address conditions adverse to quality identified by the audit findings. In addition, audit data and reports are accumulated as part of the review for quality trends and assessed to assure the effectiveness of this QAP.

Audit reports and follow up of audit item reports will be distributed to the Senior Vice President/Chief Nuclear Officer (SVP/CNO) - Dominion Nuclear Connecticut, Inc., the Vice President and Senior Nuclear Executive - Millstone, ***the Site Vice President - Millstone*** and the Director - Nuclear Oversight.

18.2.3 REVIEW, ACTION, AND FOLLOW-UP OF AUDIT FINDINGS

Audit findings that involve conditions adverse to quality are reviewed and investigated by the management having the responsibility for the area audited. The responsible management is required to take the necessary action to address any conditions adverse to quality identified by the audit and: report the results of such reviews and investigations, take the necessary actions to correct problems reported, and report the completion of corrective action within specified time frames.

Follow-up of audit findings involving conditions adverse to quality is performed by the auditing organization as necessary to verify appropriate actions have been taken to resolve audit findings. Items which cannot be resolved by affected management are submitted for resolution to the ***Site Vice President*** and the Director - Nuclear Oversight.

18.2.4 RECORDS/REPORTS OF AUDITS

Audit records, reports, and associated documentation are retained in the licensee records retention facilities, as specified in applicable procedures.

APPENDIX B

QUALITY ASSURANCE PROGRAM (QAP)
TOPICAL REPORT - MILLSTONE POWER STATION

QUALIFICATION AND EXPERIENCE REQUIREMENTS

This appendix consolidates specific qualification and experience requirements for several key positions within the licensee organization. Much of this material was relocated from the Unit 3 Final Safety Analysis Report.

MANAGER - NUCLEAR OVERSIGHT

The Manager - Nuclear Oversight shall satisfy the following requirements:

Graduate of a four-year accredited engineering or science college or university, plus fifteen (15) or more years of industrial experience including five years in positions of leadership, such as lead engineer, project engineer, Audit team leader, etc. At least two years of this experience should be associated with nuclear Quality Assurance Activities, and at least one year of this experience is in a Quality Assurance Organization. A masters degree in engineering or business management is considered equivalent to two years of experience.

Note: The education and experience requirements should not be treated as absolute when similar training or an outstanding record provides reasonable assurance that a person can perform the required tasks.

ANSI N18.1-1971 Requirements

As stated in Appendix C, education and experience requirements for Millstone Station personnel are established by ANSI N18.1 as endorsed by Regulatory Guide 1.8-1977, subject to the exceptions in Appendix E. The table below identifies ANSI N18.1 requirements applicable to specific positions at Millstone Power Station.

Table B-1

Position	Applicable ANSI N18.1-1971 Requirements
Site Vice President	Plant Manager (4.2.1)*
Supervisor - Nuclear ***Chemistry***	Radiochemistry (4.4.3)
Supervisor - ***Health Physics***	Radiation Protection (4.4.4) - See Note 1
Manager - ***Nuclear*** Operations ***Supervisor - Nuclear Shift Operations***	Operations Manager (4.2.2) - See Note 2
Shift Managers, Unit Supervisors	Supervisors Requiring AEC Licenses (4.3.1) See Note 3
Control Operators	Operators Requiring AEC Licenses (4.5.1) See Note 3
Plant Equipment Operators	Operators (4.5.1)
Supervisor - Nuclear Maintenance (Electrical/I&C/GTS)	Instrumentation & Control (4.4.2)
Manager - Nuclear Maintenance ***Supervisor - Nuclear Maintenance***	Maintenance Manager (4.2.3)
Mechanics, Electricians, Technicians (repairmen)	Repairmen (4.5.3)
Manager - ***Nuclear Site Engineering*** Manager - ***Nuclear Engineering*** Manager - ***Nuclear Design Engineering*** Manager - ***Nuclear Fuel Engineering*** Manager - ***Nuclear Site Services*** Manager - ***Nuclear*** Outage and Planning	Technical Manager (4.2.4)
Supervisor - Reactor Engineering	Reactor Engineering and Physics (4.4.1)

* Numbers in () refer to section numbers in ANSI N18.1-1971.

Notes:

1. For the position of Manager - Radiological Protection, the qualifications considered as minimum acceptable substitutes for a bachelor's degree equivalent are: a high school diploma or its equivalent and four years of applied managerial experience at a nuclear facility in the area of radiation protection.

2. If the Manager - ***Nuclear*** Operations does not hold an SRO license for Unit 3, then the Manager - Operations shall have held an SRO license at a pressurized water reactor (PWR), and the ***Supervisor - Nuclear Shift Operations*** shall hold an SRO license for Unit 3.

   If the Manager - ***Nuclear*** Operations does not hold an SRO license for Unit 2, then the Manager - Operations shall have held an SRO license at a PWR, and an individual serving in the capacity of the ***Supervisor - Nuclear Shift Operations*** shall hold an SRO license for Unit 2.

3. As of November 1, 2001, applicants for reactor operator and senior reactor operator qualification shall meet or exceed the education and experience guidelines of Regulatory Guide 1.8, Revision 3, May 2000.

APPENDIX D

QUALITY ASSURANCE PROGRAM (QAP)
TOPICAL REPORT - MILLSTONE POWER STATION

GLOSSARY OF QUALITY ASSURANCE TERMS

Accept As Is - (also known as "Use-As-Is") A disposition which may be imposed for a nonconformance when it can be established that the discrepancy will result in no adverse conditions and that the item under consideration will continue to meet all engineering functional requirements including performance, maintainability, fit and safety.

Approved Vendors - Vendors approved to provide material, equipment, parts or services under their quality assurance program.

As-Built Documents - Documents which accurately describe the condition actually achieved in a system, structure, or component. These documents include: material certification and test data; reports of inspections, examinations, and test results; drawing, specifications, procedures, and instructions; and records of nonconformance and their resolution.

Audit - A formal, documented activity performed in accordance with written procedures or checklists to verify by evaluation of objective evidence that a quality assurance program has been developed, documented, and implemented in accordance with applicable requirements.

Augmented Quality - Nonsafety-related items for which a design basis or regulatory commitment has been made. The augmented quality items are included within the scope of Quality Assurance Program. These items fall under nuclear indicators such as FPQA (Fire Protection Quality Assurance), RWQA (Radwaste Quality Assurance), ATWS (Anticipated Transient Without Scram) and SBOQA (Station Blackout Quality Assurance).

Calibration - The process by which measuring and test equipment are checked against standards of known higher accuracy and adjusted as necessary to assure their compliance with designated specifications.

Category I - Designation given to safety-related structures, systems, and components (SSC) of a licensee nuclear power plant and material, equipment, parts, consumables, and services applicable to the safety-related functions of these SSCs.

Category 1 Structures, Systems and Components - For Units 2 and 3, defined in each unit FSAR and functionally described in Appendix A. For Unit 1, defined in the DSAR.

Cleaning - Those actions performed to maintain an item in accordance with cleanliness requirements.

Commercial Grade Item (CGI) - A commercial grade item per 10CFR21 is a structure, system, or component, or part thereof that affects its safety function that was not designed and manufactured as a basic component. Commercial grade items do not include items where the design and manufacturing process require in-process inspections and verifications to assure that defects or failures to comply are identified and corrected (i.e., one or more critical characteristics of the item cannot be verified).

Commercial Grade Survey - Activities conducted by the purchaser to ascertain and verify that a supplier or manufacturer of commercial grade items, controls the technical and quality characteristics determined to be critical for satisfactory performance of specifically designated commercial grade items, as a method to accept those items for safety-related use.

Condition Adverse to Quality - Failures, malfunctions, deficiencies, deviations, defective materials and equipment, abnormal occurrences and nonconformances.

Contractor - Any organization under contract for furnishing items or services.

Corrective Action - Action taken to correct an identified condition adverse to quality.

Deficiencies - Departures from specified requirements.

Department - The use of the word "Department" throughout this QAP can refer to any portion of the licensee organization (i.e., Group, Division, Department, Branch, Section, or Unit, as applicable).

Design - The technical and management process which leads to and includes the issuance of design output documents such as drawings, specifications, and other documents defining technical requirements of structures, systems, and components.

Design Changes - Changes in drawings and specifications that define the design of structures, systems, and components of nuclear power plants.

Design Documents - The drawing, calculation, specification, or other document(s) that define the technical requirements of structures, systems, or components.

Dominion Energy - The company which owns Dominion Nuclear Connecticut, Inc.

Dominion Nuclear Connecticut, Inc. - The subsidiary of Dominion Energy responsible for the operation of the Millstone Power Station nuclear units. (also referred to as "licensee")

Engineering Service Organization - Organizations that provide services such as analysis, computer software, testing, and inspection.
Group - The use of the word "group" in Section 1.0 of this QAP refers to a portion of the licensee organization as applicable (i.e., Department, Unit, Branch).

Handling - An act of physically moving an item by hand or by mechanical machinery, but not including transport modes.

Identification - A means by which material, equipment and parts can be traced to their associated documentation through the use of heat numbers, lot numbers, part numbers, serial numbers, or other appropriate means.

Item - Any level of unit assembly, including structures, systems, subsystems, subassembly, component, part, or material.

Inspection - A phase of quality control which, by means of examination, observation, or measurement, determines the conformance of material, supplies, components, parts, appurtenances, systems, processes, structures, or services to predetermined quality requirements.

Inspection Status - Identification of material, equipment, and parts that have completed inspection, either acceptable or unacceptable.

Licensing Basis - The set of requirements that includes the applicable NRC regulations, plant - specific NRC requirements, plant - specific design basis and regulatory commitments that are docketed and in effect.

Life Records - Those quality documents that are maintained for the lifetime of an in-service nuclear power plant (the duration of the operating license) or for the life of the particular component or part. Life records are those which would be of significant value in meeting one or more of the following criteria:

(1) demonstrating capability for safe operation.

(2) maintaining, reworking, repairing, replacing or modifying the item.

(3) determining the cause of an accident or malfunction of an item.

(4) providing required base line data for in-service inspection.

Licensee - Dominion Nuclear Connecticut , Inc., current License holder.

Material Request - A formal electronic request for the purchase of material, equipment, parts and/or services.

Measuring and Test Equipment - Those instruments, gages, tools, fixtures, reference and transfer standards, nondestructive test equipment, and measuring devices used during inspection and testing to determine that the measuring and test parameters comply with appropriate requirements in specifications and drawings.

Nonconformance - A deficiency in characteristic documentation or procedure which renders the quality of an item unacceptable or indeterminate.

Non-Life Records - Those quality documents that are maintained for a specific period of time other than the lifetime of the in-service nuclear power plant or the particular component or part.

Nuclear Grade - The procurement classification applied to all materials and services intended for items listed as Category I (CAT I) in the MEPL. These may require validating documentation such as Certificate of Material Test Report, Certificate of Conformance, Certificate of Compliance, personnel qualifications, etc., as specified by codes or standards, and have been designed/qualified for a nuclear application. Nuclear Grade items are manufactured/qualified under a 10CFR50, Appendix B program with the vendor responsible for 10CFR21. The vendor should be an "Approved Vendor".

Nuclear Procedures and Document Administration - The organization responsible for establishing the Nuclear Plant Records Program which is implemented at licensee records retention facilities.

Objective Evidence - Any statement of fact, information, or record, either quantitative or qualitative, pertaining to the quality of an item or service based on observation, measurements, or tests which can be verified.

Preservation - Those actions performed to maintain an item in its original and usable condition.

Procedures and Instructions - Documents that specify how an activity is to be performed. They may include methods to be employed; material, equipment, or parts to be used; and a sequence of operations.

Procurement Documents - Purchase requisitions/material requests, purchase orders, contracts, drawings, specifications or instructions used to define requirements for purchase.

Product Acceptance Test - Activities conducted as part of the receiving or source inspection process to verify acceptability of one or more critical characteristics of the item being inspected.

Purchased Material, Equipment, and Parts (MEP) - Items procured for installation in the Millstone Station nuclear power plants quality structures, systems, and components, and items procured as spare MEP for potential installation in those structures, systems, and components.

Purchased Services - Services provided by vendor when requested under a QA Material Request and performed under a quality assurance program other than this QAP. (Synonymous with "Services" and "Quality Services" in this QAP.)

Quality Activities - All activities affecting the safety functions of structures, systems, and components; these activities include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, and modifying. Quality activities also include those activities associated with Augmented Quality (including Radwaste Packaging and Shipping) and other regulated programs to which this QAP is applicable.

Quality Assurance Records - Any record pertaining to the quality of material, equipment, parts, processes, or operations relating to structures, systems, and components which are founded on observations, measurements, or tests which can be fully checked or verified. Such statements may be recorded on a written or preprinted document or tag. The statements are authorized with a signature or stamp identifiable to the person making the statement of fact.

Quality Assurance Program (QAP) - Millstone Power Station - Consists of this QAP Topical Report, Nuclear Oversight procedures and other Licensee Group/Division/Department/Branch/ Section/Unit quality procedures.

Quality Structures, Systems and Components - Structures, systems, and components (SSC) including Safety-Related SSCs, Augmented Quality items, and items under other regulated programs to which this QAP is applicable.

Quality Procedures - Those Nuclear Oversight Department and other department procedures which implement the requirements of this QAP.

Repair - A disposition applied to nonconforming material, equipment, and parts that are unsuitable for their intended purpose which are modified by the use of additional operations and/or processes so that they are suitable for their intended purpose but may not meet all specified requirements.

Reportable Item - An event or condition that could affect nuclear plant safety and must be reported to the NRC in accordance with regulatory requirements such as 10CFR50.72, 10CFR50.73, or 10CFR50.9(b).

Responsible Engineer - A licensee employee assigned the responsibility to coordinate the engineering activities addressed in QAP. The responsible engineer may be designated as the project engineer.

Retest - A test conducted prior to operation following installation inspections of work associated with maintenance and refueling to verify that structures, systems, and components will function satisfactorily when in operation. A retest may also be performed when original test results are invalidated.

Return to Vendor - A disposition applied to nonconforming material, equipment, and parts that are unsuitable for their intended purpose but which are feasible to repair or rework at a vendor's facility.

Rework - A disposition applied to nonconforming material, equipment, and parts that are unsuitable for their intended purpose due to incomplete operations or variations from original engineering requirements but which are modified through the use of additional operations or processes to meet all specified requirements.

Safety-Related Structures, Systems and Components - Those structures, systems and components that are relied on to remain functional during and following design basis (postulated) events to assure:

1) The integrity of the reactor coolant pressure boundary;
2) The capability to shut down the reactor and maintain it in a safe shutdown condition; and
3) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in 10CFR50.34(a)(1) or 10CFR100.11 as applicable.

Significant Condition Adverse to Quality - A condition adverse to quality involving actual or potential consequences that have a serious impact on public or personnel health and safety or plant operations, and requiring a root cause evaluation to determine corrective action to prevent recurrence.

Special Processes - Processes for which the desired level of quality can only be assured through the use of additional process controls, and where control through direct inspection alone is inadequate, impossible, or disadvantageous. These processes are performed under controlled conditions in accordance with special requirements utilizing qualified procedures, equipment, and personnel. Special processes may include, but are not limited to welding, brazing, soldering, cleaning, heat treating, and nondestructive testing.

Station Blackout - The complete loss of alternating current electric power to the essential and non-essential switchgear buses in a nuclear power plant as defined in 10CFR50.2. It involves the loss of offsite power concurrent with turbine trip and failure of the onsite emergency ac power system, but not the loss of available ac power to buses fed by Station batteries through inverters or the loss of power from alternate ac sources.

Storage - The act of holding an item at the site in an area other than its permanent location in a plant.

Surveillance - A documented record of the observation of work operations performed at the Millstone Power Station or vendor's site to assure compliance with applicable codes, standards, specifications, procedures, drawings, and procurement documents. Surveillance may be performed with a prepared checklist.

Test and Operating Status - Identification of material, equipment, and parts that are ready for test or operation, or an existing stage of a test operation.

Testing - The determination or verification of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

Vendors - Organizations that provide material, equipment, parts, computer software, or services. This includes contractors, engineering service organizations, and consultants. (Synonymous with "Supplier" in this QAP)

Work Procedures and Work Documents - Procedures, instructions, and documents used to control and document maintenance and modification work performed on Millstone Station nuclear plant structures, systems, and components.

APPENDIX F
QUALITY ASSURANCE PROGRAM (QAP)
TOPICAL REPORT - MILLSTONE POWER STATION

ADMINISTRATIVE CONTROLS[1]

NOTE:
1. "Technical Specification" numbers refer to the unit specific Technical Specifications as identified.

INDEPENDENT SAFETY ENGINEERING GROUP (ISEG)

Function

The ISEG shall function to advise Vice President and Senior Nuclear Executive - Millstone and ***the Site Vice President - Millstone*** on matters related to nuclear safety. The ISEG shall include, as part of its function, examination of unit operating characteristics, NRC issuances, industry advisories, Licensee Event Reports, and other sources of unit design and operating experience information, including units of similar design, which may indicate areas for improving unit safety. The ISEG shall make detailed recommendations for revised procedures, equipment modifications, maintenance activities, operations activities, or other means of improving unit safety to appropriate station/corporation management.

The ISEG reports to management who is not in the direct chain of command for power production. This relationship provides for access to a high-level, technically oriented, management position such that the required authority and organizational freedom to perform assessment is not influenced by cost and schedule when opposed to nuclear safety considerations. The ISEG is directly involved in meeting the requirements of NUREG-0737 for item I.B.1.2 for Millstone Units 2 and 3. The ISEG is independent of the SORC and the NSAB.

Composition

The ISEG shall be composed of at least five full-time personnel located on site to perform the functions described above for Millstone Units 2 and 3. Each person shall have either:

(1) A bachelor's degree in engineering or related science and at least 2 years of professional level experience in his field, at least 1 year of which experience shall be in the nuclear field, or,

(2) At least 10 years of professional level experience in his field, at least 5 years of which experience shall be in the nuclear field.

A minimum of 50% of these personnel shall have the qualifications specified in (1) above.

Responsibilities

The ISEG shall be responsible for maintaining surveillance of unit activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

Records

Records of activities performed by the ISEG shall be prepared and maintained, and quarterly reports of completed evaluations will be made to the SVP/CNO - Dominion Nuclear Connecticut, Inc., the Vice President and Senior Nuclear Executive - Millstone, ***and the Site Vice President - Millstone***.

*Not responsible for sign-off function

REVIEW AND AUDIT

Site Operations Review Committee (SORC)

Function

The SORC shall function to advise the ***Site Vice President - Millstone*** on all matters related to nuclear safety for Millstone Power Station The ***Site Vice President - Millstone*** shall advise the SVP/CNO - Dominion Nuclear Connecticut, Inc. and Vice President and Senior Nuclear Executive - Millstone on all matters related to nuclear safety requiring higher level of responsibility and authority.

Composition

The SORC shall be composed of a minimum of eleven members. Members shall collectively have experience and expertise in the following areas:

Plant Operations
Engineering
Reactor Engineering
Maintenance
Instrumentation and Controls
Radiation Protection
Chemistry
Work Planning
Quality Assurance

Each SORC member shall meet the following minimum qualifications:

1) Have an academic degree in an engineering or physical science field, and have a minimum of five years technical experience in their respective field of expertise,

or

2) Hold a management position, and have a minimum of five years technical experience in their respective field of expertise.

The members of SORC shall be appointed in writing by the ***Site Vice President - Millstone***. The SORC Chairperson and two Vice Chairpersons shall be drawn from the members and shall be appointed in writing by the ***Site Vice President - Millstone.***

Alternates

Alternate members shall be appointed in writing by the SORC Chairperson to serve on a temporary basis. Each alternate shall meet the minimum qualifications described above for SORC members, and shall have the same area of expertise as the member being replaced.

Meeting Frequency

The SORC shall meet at least once per calendar month and as convened by the SORC Chairperson.

Quorum

A quorum of the SORC shall consist of the Chairperson or Vice Chairperson and five members or designated alternates. However, no more than two alternates may vote at any one time.

For any SORC decision affecting site-wide issues, the Chairperson shall ensure appropriate representation.

Responsibilities

The SORC shall be responsible for:

a. Review of 1) all procedures required by Unit 2/3 Technical Specification 6.8 or Unit 1 Technical Specification 5.5 and changes thereto, 2) all programs required by Unit 2/3 Technical Specification 6.8 or Unit 1 Technical Specification 5.6 and changes thereto, 3) any other proposed procedures, programs, or changes thereto as determined by the SVP/CNO - Dominion Nuclear Connecticut, Inc., Vice President and Senior Nuclear Executive - Millstone , or ***Site Vice President - Millstone*** to affect site nuclear safety. Programs and procedures required by Unit 2/3 Technical Specification 6.8 or Unit 1 Technical Specification 5.5 and 5.6 that are designated for review and approval by the Station Qualified Reviewer Program do not require SORC review.

b. Review of all proposed changes to Technical Specifications.

c. Review of all proposed tests and experiments that affect nuclear safety.

d. Review of all proposed changes or modifications to systems or equipment that affect nuclear safety.

e. Render determinations in writing or meeting minutes if any item considered under (a) through (d) above, as appropriate and as provided by 10CFR50.59 or 10CFR50.92, requires a license amendment or requires a significant hazards consideration determination.

f. Performance of special reviews and investigations and reports as requested by the Chairperson of the Nuclear Safety Assessment Board.

g. Review of the fire protection program and implementing procedures.

h. Investigations of all violations of Technical Specifications, including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, to the ***Site Vice President - Millstone***, SVP/CNO - Dominion Nuclear Connecticut, Inc., Vice President and Senior Nuclear Executive - Millstone, and to the Chairperson of the Nuclear Safety Assessment Board;

i. Review of all Millstone Power Station REPORTABLE EVENTS;

j. Review of facility operations to detect potential safety hazards;

k. Review of Unit 3 Turbine Overspeed Protection Maintenance and Testing Program and revisions thereto.

Authority

The SORC shall:

a. Recommend to the ***Site Vice President - Millstone*** written approval or disapproval in meeting minutes of items considered under Responsibilities (a) through (k) above. The ***Site Vice President - Millstone*** will report to the Vice President and Senior Nuclear Executive - Millstone and the SVP/CNO - Dominion Nuclear Connecticut, Inc., any issues that require higher level of authority.

b. Provide immediate written notification or meeting minutes to the Vice President and Senior Nuclear Executive - Millstone, the SVP/CNO - Dominion Nuclear Connecticut, Inc. and the Chairperson of the Nuclear Safety Assessment Board of disagreement between the SORC and the ***Site Vice President - Millstone***; however, the Vice President and Senior Nuclear Executive - Millstone shall have responsibility for resolution of such disagreements pursuant to Unit 2/3 Technical Specification 6.1.1 and Unit 1 Technical Specification 5.1.1.

Records

The SORC shall maintain written minutes of each meeting and copies shall be provided to the ***Site Vice President - Millstone***, the Vice President and Senior Nuclear Executive - Millstone and Chairperson of the Nuclear Safety Assessment Board. Minutes regarding investigations of violations of Tech Specs and disagreements addressed by SORC shall also be provided to the SVP/CNO - Dominion Nuclear Connecticut, Inc.

Nuclear Safety Assessment Board (NSAB)

Function

The minimum qualifications of NSAB members are as follows:

a. The Chairperson and NSAB members shall have:

   1. An academic degree in an engineering or physical science field, or hold a senior management position, and

   2. A minimum of five years technical experience in their respective field of expertise.

b. The NSAB shall have experience in and shall function to provide independent oversight review and audit of designated activities in the areas of:

1. Nuclear power plant operations;
2. Nuclear engineering;
3. Chemistry and radiochemistry;
4. Metallurgy;
5. Instrumentation and control;
6. Radiological safety;
7. Mechanical and electrical engineering; and
8. Quality assurance practices.

The NSAB serves to advise the ***Site Vice President - Millstone*** on matters related to nuclear safety and notify the SVP/CNO - Dominion Nuclear Connecticut, Inc., Vice President and Senior Nuclear Executive - Millstone, and ***the Site Vice President - Millstone*** within 24 hours of a safety significant disagreement between the NSAB and the organization or function being reviewed.

Composition

The ***Site Vice President - Millstone*** shall appoint, in writing, a minimum of seven members to the NSAB and shall designate from this membership, in writing, a Chairperson and a Vice Chairperson. The membership shall function to provide independent review and audit in the areas listed in Function (b) above.

Alternates

All alternate members shall be appointed, in writing, by ***Site Vice President - Millstone***; however, no more than two alternates shall participate as members in NSAB activities at any one time.

Meeting Frequency

The NSAB shall meet at least once per calendar quarter.

Quorum

The quorum of the NSAB shall consist of a majority of NSAB members including the Chairperson or Vice Chairperson. No more than a minority of the quorum shall have line responsibility for operation of a Dominion Nuclear Connecticut, Inc. nuclear unit. No more than two alternates shall be appointed as members at any meeting in fulfillment of the quorum requirements.

Review Responsibilities

The NSAB shall be responsible for the review of:

a. The evaluations for changes to the facility and procedures, and tests or experiments completed under the provisions of 10 CFR 50.59, to verify that such actions did not require a license amendment as defined in 10 CFR 50.59;

b. Proposed changes to the facility or procedures that require a license amendment as defined in 10 CFR 50.59;

c. Proposed tests or experiments that require a license amendment as defined in 10 CFR 50.59;

d. Proposed changes to Technical Specifications and the Operating License;

e. Violations of applicable codes, regulations, orders, license requirements, or internal procedures having nuclear safety significance;

f. All Licensee Event Reports required by 10 CFR 50.73;

g. Indications of significant unanticipated deficiencies in any aspect of design or operation of structures, systems, or components that could affect nuclear safety;

h. Significant accidental, unplanned, or uncontrolled radioactive releases, including corrective actions to prevent recurrence;

i. Significant operating abnormalities or deviations from normal and expected performance of equipment that could affect nuclear safety;

j. The performance of the corrective action program; and

k. Audits and audit plans.

Reports or records of these reviews shall be forwarded to the Vice President and Senior Nuclear Executive - Millstone and the ***Site Vice President - Millstone*** within 30 days following completion of the review.

Audit Program Responsibilities

The NSAB audit program shall be the responsibility of Nuclear Oversight. NSAB audits shall be performed at least once per 24 months in accordance with administrative procedures and shall encompass:

a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions;

b. The training and qualifications of the unit staff;

c. The implementation of all programs required by Units 2/3 Technical Specification 6.8 and Unit 1 Technical Specification 5.6;

d. The Fire Protection Program and implementing procedures.

e. The fire protection equipment and program implementation utilizing either a qualified offsite license fire protection engineer or an outside independent fire protection consultant.

f. Actions taken to correct deficiencies occurring in equipment, structures, systems, components, or method of operation that affect nuclear safety; and

g. Other activities and documents as requested by the ***Site Vice President - Millstone, the*** Vice President and Senior Nuclear Executive - Millstone or SVP/CNO - Dominion Nuclear Connecticut, Inc.

Records

Written records of reviews and audits shall be maintained. As a minimum these records shall include:

a. Results of the activities conducted under the provisions of this NSAB Section;

b. Deleted

c. Deleted

Station Qualified Reviewer Program

Function

The designated manager, designated officer, ***Site Vice President - Millstone*** may establish a Station Qualified Reviewer Program whereby required reviews of designated procedures or classes of procedures required by SORC, Responsibilities item (a) are performed by Station Qualified Reviewers and approved by designated managers [Responsible Individual(s) for the procedure(s)]. These reviews are in lieu of reviews by the SORC. However, procedures which require a 10 CFR 50.59 evaluation must be reviewed by the SORC.

Responsibilities

The Station Qualified Reviewer Program shall:

a. Provide for the review of designated procedures, programs, and changes thereto by a Qualified Reviewer(s) other than the individual who prepared the procedure, program, or change.

b. Provide for cross-disciplinary review of procedures, programs, and changes thereto when organizations other than the preparing organization are affected by the procedure, program, or change.

c. Ensure cross-disciplinary reviews are performed by a Qualified Reviewer(s) in affected disciplines, or by other persons designated by cognizant manager or director as having specific expertise required to assess a particular procedure, program, or change. Cross-disciplinary reviewers may function as a committee.

d. Provide for a screening of designated procedures, programs and changes thereto to determine if an evaluation should be performed in accordance with the provisions of 10 CFR 50.59. This screening will be performed by personnel trained and qualified in performing 10CFR50.59 screenings.

e. Provide for written recommendation by the Qualified Reviewer(s) to the responsible manager for approval or disapproval of procedures and programs considered under SORC Responsibilities item (a), and that the procedure or program was screened by a qualified individual and found not to require a 10 CFR 50.59 evaluation.

If the responsible manager determines that a new program, procedure, or change thereto requires a 10 CFR 50.59 evaluation, that manager will ensure the required evaluation is

performed to determine if the new procedure, program, or change requires a license amendment. The new procedure, program, or change will then be forwarded with the 10 CFR 50.59 evaluation to SORC for review.

Personnel recommended to be Station Qualified Reviewers shall be designated in writing by the designated Director, Manager, or ***Site Vice President - Millstone*** for each procedure, program, or class of procedure or program within the scope of the Station Qualified Reviewer Program.

Temporary procedure changes shall be made in accordance with Unit 2/3 Technical Specification 6.8.3 and Unit 1 Technical Specification 5.5.5 with the exception that changes to procedures for which reviews are assigned to Qualified Reviewers will be reviewed and approved as described in Responsibilities (a) through (e) above.

Records

The review of procedures and programs performed under the Station Qualified Reviewer Program shall be documented in accordance with administrative procedures.

Training and Qualification

The training and qualification requirements of personnel designated as a Qualified Reviewer in accordance with the Station Qualified Reviewer Program shall be in accordance with administrative procedures. Qualified reviewers shall have:

a. A Bachelors degree in engineering, related science, or technical discipline, and two years of nuclear power plant experience;

OR

b. Six years of nuclear power plant experience;

OR

c. An equivalent combination of education and experience as approved by a Manager or Director.

SAFETY LIMIT VIOLATION - Units 2 and 3

The SVP/CNO - Dominion Nuclear Connecticut, Inc., Vice President and Senior Nuclear Executive - Millstone, ***Site Vice President - Millstone,*** and the Chairperson of the NSAB shall be notified within 24 hours in the event a Safety Limit is violated.

The Safety Limit Violation Report shall be submitted to the Commission, the Chairperson of the NSAB, SVP/CNO - Dominion Nuclear Connecticut, Inc., the Vice President and Senior Nuclear Executive - Millstone, ***and the Site Vice President - Millstone*** within 14 days of the violations.

RECORD RETENTION - Units 1 and 2

(1) The following records shall be retained for at least five years:

a. Records and logs of facility operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.

c. All REPORTABLE EVENTS.

d. Records of surveillance activities, inspections, and calibrations required by these technical specifications.

e. Records of reactor tests and experiments.

f. Records of changes made to operating procedures.

g. Records of radioactive shipments.

h. Records of sealed source leak tests and results.

i. Records of annual physical inventory of all sealed source material of record.

(2) The following records shall be retained for the duration of the facility operating license:

a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories.

c. Records of facility radiation and contamination surveys.

d. Records of radiation exposure for all individuals entering radiation control areas.

e. Records of gaseous and liquid radioactive material released to the environs.

f. Records of transients or operational cycles for those facility components designed for a limited number of transients or cycles.

g. Records of training and qualification for current members of the plant staff.

h. Records of inservice inspections performed pursuant to the Technical Specifications.

i. Records of quality assurance activities required by the QA Manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR Part 50.59.

k. Records of meetings of the NSAB and the SORC.

l. Records of Environmental Qualification (which are covered under the provisions of Technical Specification 6.13. for Unit 2)

m. Records of reviews performed for changes made to the Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMODCM) and the Process Control Program.

RECORD RETENTION - Unit 3 Only

(1) In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

(2) The following records shall be retained for at least five years:

a. Records and logs of unit operation covering time interval at each power level;

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety;

c. All REPORTABLE EVENTS;

d. Records of surveillance activities, inspections, and calibrations required by Technical Specifications;

e. Records of changes made to the procedures required by Technical Specification 6.8.1;

f. Records of radioactive shipments;

g. Records of sealed source and fission detector leak tests and results; and

h. Records of annual physical inventory of all sealed source material of record.

(3) The following records shall be retained for the duration of the unit Operating License:

a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report;

b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories;

c. Records of radiation exposure for all individuals entering radiation control areas;

d. Records of gaseous and liquid radioactive material released to the environs;

e. Records of transient or operational cycles for those unit components identified in Technical Specification Table 5.7-1.

f. Records of reactor tests and experiments;

g. Records of training and qualification for current members of the unit staff;

h. Records of inservice inspections performed pursuant to the Technical Specifications;

i. Records of quality assurance activities required by the Quality Assurance Topical Report not listed in (2) a. through (2) h. above;

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR Part 50.59;

k. Records of meetings of the NSAB and the SORC;

l. Records of the service lives of all hydraulic and mechanical snubbers required by Technical Specification 3.7.10 including the date at which the service life commences and associated installation and maintenance records;

m. Records of secondary water sampling and water quality; and

n. Records of analyses required by the Radiological Environmental Monitoring Program that would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.

o. Records of reviews performed for changes made to the Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMODCM) and the Process Control Program.

[1] Relocation of Technical Specification Administrative Controls Related to Quality Assurance in Response to AL 95-06.

APPENDIX G
TECHNICAL SPECIFICATION POSITION CROSS REFERENCE

MILLSTONE UNIT 1

T.S. SECTION	T.S. POSITION	STATION ORGANIZATION POSITION
Responsibility		
5.1.1	Designated Officer Designated Manager	***Site Vice President*** ***Director - Nuclear Station Operations & Maintenance***
5.1.2	Shift Manager	Unit 2 Shift Manager
5.1.3, 5.2.1.b	Quality Assurance Topical Report	Quality Assurance Program
Organization		
5.2.1b Offsite and onsite organizations	Designated Manager	***Director - Nuclear Station Operations & Maintenance***
5.2.1c Offsite and onsite organizations	Designated Officer	***Site Vice President***
5.2.2	Shift Manager	Unit 2 Shift Manager
Staff Qualifications		
5.3.1	Operations Manager or Assistant Operations Manager	***Manager - Nuclear Operations*** Unit 2 ***Supervisor Nuclear Shift Operations***
5.3.1.2	Health Physics Manager	***Supervisor - Health Physics***
Procedures		
5.5.2	Designated Manager Designated Officer Designated Senior Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President*** Vice President and Senior Nuclear Executive - Millstone
5.5.3	Designated Manager Designated Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President***
5.5.4	Designated Manager Designated Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President***
5.5.5c	Designated Manager Designated Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President***
5.5.6; 5.5.7	Individual from the Radiological Branch or Production Laboratory (POSL)	Individual from Nuclear Fuel ***Engineering*** or designee

T.S. SECTION	T.S. POSITION	STATION ORGANIZATION POSITION
Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMODCM)		
5.6.1	Designated Officer	***Site Vice President***

Notes:
Generic position titles are as approved by Amendment No. 105 to the Unit 1 Technical Specifications.

MILLSTONE UNIT 2

T.S. SECTION	T.S. POSITION	STATION ORGANIZATION POSITION
Responsibility		
6.1.1	Designated Officer Designated Manager	***Site Vice President*** ***Director - Nuclear Station Operations & Maintenance***
Organization		
6.2.1b Offsite and onsite organizations	Designated Manager	***Director - Nuclear Station Operations & Maintenance***
6.2.1c Offsite and onsite organizations	Designated Officer	***Site Vice President***
Facility Staff Qualifications		
6.3.1a	Operations Manager Assistant Operations Manager	***Manager - Nuclear*** Operations ***Unit 2 Supervisor Nuclear Shift Operations***
6.3.1c	Health Physics Manager	***Supervisor - Health Physics***
Procedures		
6.8.2a	Designated Manager Designated Officer Designated Senior Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President*** Vice President and Senior Nuclear Executive - Millstone
6.8.2b	Designated Manager Designated Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President***
6.8.5	Individual from the Radiological Branch or Production Laboratory (POSL)	Individual from Nuclear Fuel Engineering
High Radiation Area		
6.12.1c	Health Physics Manager	***Supervisor - Health Physics***
Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMODCM)		
6.15b	Designated Officer	***Site Vice President***

Notes:
Generic position titles are as approved by Amendment No. 235 to the Unit 2 Technical Specifications

MILLSTONE UNIT 3

T.S. SECTION	T.S. POSITION	STATION ORGANIZATION POSITION
Responsibility		
6.1.1	Designated Officer Designated Manager	***Site Vice President*** ***Director - Nuclear Station Operations & Maintenance***
Organization		
6.2.1b Offsite and onsite organizations	Designated Manager	***Director - Nuclear Station Operations & Maintenance***
6.2.1c Offsite and onsite organizations	Designated Officer	***Site Vice President***
Facility Staff		
6.2.2	SS - Shift Supervisor	Shift Manager
Facility Staff Qualifications		
6.3.1a	Operations Manager Assistant Operations Manager	***Manager - Nuclear*** Operations ***Unit 3 Supervisor Nuclear Shift Operations***
6.3.1c	Health Physics Manager	***Supervisor - Health Physics***
Procedures		
6.8.2a	Designated Manager Designated Officer Designated Senior Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President*** Vice President and Senior Nuclear Executive - Millstone
6.8.2b	Designated Manager Designated Officer	***Director - Nuclear Station Operations & Maintenance*** ***Director - Nuclear Station Safety & Licensing*** ***Site Vice President***
6.8.5	Individual from the Radiological Branch or Production Laboratory ***(POSL)***	Individual from Nuclear Fuel Engineering or designee
High Radiation Area		
6.12.1c	Health Physics Manager	***Supervisor - Health Physics***

Notes:
Generic position titles are as approved by Amendment No. 171 to the Unit 3 Technical