TOPICAL
QATR-1, REV. 2

QUALITY ASSURANCE PROGRAM TOPICAL REPORT FOR NINE MILE POINT NUCLEAR STATION OPERATIONS

December, 1986

NIAGARA MOHAWK POWER CORPORATION
Syracuse, N.Y.

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NIAGARA MOHAWK POWER CORPORATION

QUALITY ASSURANCE PROGRAM

TOPICAL REPORT

NINE MILE POINT NUCLEAR STATION UNITS 1 AND 2

OPERATIONS PHASE

Approved: _____
Vice President Quality Assurance

Concurrence: _____
Senior Vice President

_____
Senior Vice President

_____
Senior Vice President

_____
Senior Vice President

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QUALITY ASSURANCE PROGRAM TOPICAL REPORT

NINE MILE POINT NUCLEAR STATION UNITS 1 AND 2

OPERATIONS PHASE

INTRODUCTION

This Quality Assurance Program Topical Report fulfills the requirement for a description of the quality assurance program for the operations phase of the Nine Mile Point Nuclear Station Units 1 and 2. This Topical Report supersedes the previous Quality Assurance Program for Nine Mile Point Unit 1 and Chapter 17 of the Nine Mile Point Unit 2 FSAR relating to the operating phase.

The Quality Assurance Program Topical Report applies to organizations performing work that affects the operation, maintenance or modification of safety-related structures, systems or components. As stated in Niagara Mohawk Power Corporation's Quality Assurance Policy, accountability for the quality of safety-related work rests with the performer whereas accountability for verifying the quality of that work rests with the verifying organizations.

This Topical Report provides for performing operation, maintenance and modifications of both Units 1 and 2 consistent with ANSI/ASME NQA-1 and ANSI/ANS-3.2. This provision permits the preparation and use of a single set of procedures that apply to quality assurance functions at and on behalf of both units.

In the event of a conflict between non-QA programmatic controls contained in this QA Program Topical Report and related commitments contained in Nine Mile Point Units 1 and 2 FSAR's, the latter shall take precedence.

Questions with respect to the content or applicability of the Quality Assurance Program Topical Report should be referred to the Vice President Quality Assurance.

QUALITY ASSURANCE POLICY

TITLE: Quality Assurance **Policy** 7.1.11

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PURPOSE: The purpose of this policy is to summarize the Company's position governing Quality Assurance responsibilities and accountabilities.

POLICY: The Company policy regarding Quality Assurance matters is that:

I. Organizations with quality-affecting responsibilities shall be structured, managed and operated in compliance with approved Quality Assurance Programs, procedures and instructions in direct support of generation, transmission and distribution projects and operations to achieve the following objectives:

- o To strive to perform assigned work correctly the first time.
- o To provide facilities which are designed, constructed, tested and operated to high standards of excellence, with high assurance against failure or malfunctions, and without undue risks to the health and safety of the public.
- o To ensure early and timely identification and resolution of actual and potential problem areas in design, procurement, construction, testing, operations, maintenance and modification of facilities.
- o To comply effectively with government regulations and established NMPC policies and procedures, applying a systematic, disciplined and uniformed approach to Quality Assurance.

II. Accountability for the quality of generation, transmission and distribution structures, systems, components and services rests with the organizations and persons performing the quality attaining functions of design, construction and operation.

III. Accountability for determining that the generation, transmission and distribution structures, systems, components and services do, in fact, meet the stated requirements rests with the organizations and persons performing quality verification functions, such as design review, document review, inspection, surveillance and audits.

	Signature	Department	Date
AUTHORIZED:	James A. Perry	Quality Assurance	12/9/85
APPROVED:		President	12/10/85

Third Revision: 12/10/85
Original: 5/28/80

1.0 ORGANIZATION

1.1 POLICY

Niagara Mohawk Power Corporation (NMPC) is responsible for establishing and implementing the quality assurance program for the operations phase of the Nine Mile Point Nuclear Station. Although authority for development and execution of specified parts of the program may be delegated to others, such as contractors and consultants, NMPC retains overall responsibility.

This section of the Quality Assurance Program Topical Report identifies the NMPC organizations responsible for activities affecting the operation, maintenance or modification of safety-related structures, systems, or components, and describes the assigned authorities and duties for quality-attaining functions and for quality verification functions. Each organizational unit, including Nuclear Operations, Purchasing, Materials Management, Meter and Test, Meter and Laboratory Services, and the Quality Assurance Department, is responsible for the quality of its own work.

Quality assuring functions include establishing the quality assurance program and verifying that activities affecting the quality of safety-related structures, systems, components, and services are performed in accordance with quality assurance program requirements. Quality assuring functions are performed by personnel within the Quality Assurance Department and other organizational units. The Quality Assurance Department, independent from impacts of cost and schedule, has direct access to management levels to assure the ability to identify quality problems; initiate, recommend or provide solutions; and verify implementation of solutions. The size of the QA Department is determined by the scope of operations activities and their importance to safety.

1.2 IMPLEMENTATION

1.2.1 Responsibility and Authority

The President of Niagara Mohawk Power Corporation has ultimate responsibility for safe operation of the Nine Mile Point Nuclear Station. Authority and responsibility for establishing and implementing the quality assurance program for station operations, maintenance, and modifications is delegated by the President to the Senior Vice President responsible for Nuclear Operations, the Vice President Quality Assurance, the Senior Vice President responsible for Purchasing and Materials Management and heads of other participating departments. The NMPC organization is shown in Figure 1-1. Departmental responsibilities are summarized in the Responsibility Matrix, Figure 1-2.

1.2.2 Nuclear Division Responsibilities

A. The Senior Vice President responsible for Nuclear Operations reports to the President and is responsible for the overall management of Engineering, Licensing, operation, maintenance and modification of the Nine Mile Point Nuclear Station.

B. The Vice President - Nuclear Generation reports to the Senior Vice President responsible for Nuclear Operations and is responsible for safe and efficient operation, maintenance and modification of the Nine Mile Point Nuclear Station. See figure 1-2 for primary and supporting quality assurance program element responsibilities.

1. The General Superintendent-Nuclear Generation reports to the Vice President - Nuclear Generation and is responsible for safe and efficient operation, maintenance and modification of the nuclear power station in compliance with station licenses, applicable regulations, and the quality assurance program. The General Superintendent delegates to the Station Superintendents and other appropriate personnel authority for performance in accordance with the quality assurance program. Activities performed under the responsibility of the General Superintendent-Nuclear Generation include:

   a. Controlling the preparation, review and approval of procedures and instructions;

   b. Ensuring that technical, operations and maintenance personnel are appropriately qualified for their duties;

   c. Providing the necessary corrective action, evaluation, processing and reporting of nonconforming conditions; and

   d. Providing for timely identification and corrective action of conditions adverse to quality.

2. The Station Superintendents, Units 1 and 2 report to the General Superintendent - Nuclear Generation. They are responsible for:

   a. Safe and efficient station operation;

   b. Coordinating station maintenance and modifications;

   c. Establishing and enforcing compliance with operating procedures;

   d. Maintaining equipment status control;

   e. Performing startup and operational testing; and

   f. Processing, packaging and disposal of radioactive waste.

3. The Site Superintendent Maintenance - Nuclear reports to the General Superintendent - Nuclear Generation and is responsible for:

   a. Originating requests for procurement of maintenance and repair materials and equipment.

b. Supervising the welding program in accordance with Administrative Procedures.

c. Equipment testing for maintenance (electrical, structural, mechanical), repair, and modification;

d. Supervision of maintenance, repair, and assigned modifications;

e. Control of Maintenance Department measuring and test equipment;

f. Receipt inspection of nuclear fuel; and

g. Providing for intermediate storage and protection of safety-related equipment awaiting disposition after removal from service, assuring preservation of identification until final disposition.

4. The Technical Superintendent - Nuclear Generation reports to the General Superintendent - Nuclear Generation and is responsible for:

a. Reactor engineering, reactor core management, and nuclear fuel accountability, storage, utilization, and disposition;

b. Instrument and control function - calibration and maintenance;

c. Operation and maintenance of computer-related services;

d. Technical support services;

e. Coordination of inservice inspection and testing program ;

f. Fire protection;

g. Administrative services and records management; and

h. Planning and surveillance scheduling.

5. The Superintendent - Chemistry and Radiation Management reports to the General Superintendent - Nuclear Generation and is responsible for chemistry, radiochemistry, radiation protection, environmental protection, ALARA program and emergency planning including control of measuring and test equipment for these activities.

6. The Superintendent - Training Nuclear reports to the General Superintendent - Nuclear Generation and is responsible for conducting training and maintaining records thereof.

C. The Manager Nuclear Engineering and Licensing reports to the Senior Vice President responsible for Nuclear Operations and has overall responsibility for nuclear engineering support and licensing services including 10CFR Part 21 final reportability determinations. See figure 1-2 for primary and supporting quality assurance program element responsibilities.

1. The Manager Nuclear Engineering reports to the Manager Nuclear Engineering and Licensing and is responsible for providing engineering services for the safe, reliable and economic operation of the Nine Mile Point Nuclear Station Units 1 & 2, including adherence to applicable regulatory requirements. Responsibilities include:

   a. Engineering services;

   b. Modification design and management;

   c. Preparing purchase requisitions;

   d. Dispositioning nonconformances; and

   e. Providing for timely identification and corrective action of conditions adverse to quality.

2. The Manager Nuclear Technology reports to the Manager Nuclear Engineering and Licensing and is responsible for managing and directing activities associated with nuclear fuel management, plant performance improvement, nuclear plant licensing, corporate health physics and consulting services.

3. The Manager Nuclear Compliance and Verification reports to the Manager Nuclear Engineering and Licensing and is responsible for verifying that Nuclear Operations Division commitments are accurately stated and accomplished within the committed time period.

4. The Manager Nuclear Staff Services reports to the Manager Nuclear Engineering and Licensing and is responsible for providing support services to the Nuclear Engineering and Licensing Department including:

   a. Records Management;

   b. Training; and

   c. Procedure development.

1.2.3 Support Department Responsibilities

A. The Vice President - Purchasing and Materials Management reports to a Senior Vice President and is responsible for formulating, establishing, and enforcing compliance with procurement requirements. See figure 1-2 for primary and supporting quality assurance program element responsibilities.

1. The Manager-System Purchasing reports to the Vice President, Purchasing and Materials Management. The staff includes the Manager - Nuclear Purchasing, Supervisory Buyer and Senior Contract Administrator. This organization is responsible for preparing, issuing and administering purchase orders after verifying that safety-related purchase requisitions are signed by the requester and a Quality Assurance Department representative.

2. The Manager - System Materials Management reports to the Vice President - Purchasing and Materials Management. Included on the staff and reporting to the Manager - System Materials Management through the Assistant Manager - Nuclear Materials Management is the Supervisor - Nuclear Generation Storeroom. The Supervisor-Nuclear Generation Storeroom is responsible for reviewing site-generated requests for materials and equipment, preparing purchase requisitions, and for receipt and storage of materials and equipment in accordance with Nine Mile Point Nuclear Station Administrative Procedures and Materials Management Procedures.

B. The Vice President - Regional Operations reports to a Senior Vice President and is responsible for formulating, establishing and enforcing Meter and Test activities. See figure 1-2 for primary and supporting quality assurance program element responsibilities.

1. The General Manager - Central Region reports to the Vice President - Regional Operations. The staff includes the Superintendent Meter and Test who is responsible for the following safety-related functions.

   a. Testing and maintaining power systems protective devices and metering equipment;

   b. Reviewing and advising on changes to electrical protective logic, metering and associated equipment; and

   c. Performing verification testing associated with the above equipment and circuits.

C. The Vice President - System Electric Operations reports to a Senior Vice President and is responsible for formulating, establishing and enforcing off-site Meter and Laboratory Facilities Department activities. See figure 1-2 for primary and supporting quality assurance program element responsibilities.

1. The Manager Meter and Laboratory Facilities reports to the Vice President - System Electric Operations. The staff includes Supervisor Standards Laboratory who is responsible for maintaining a facility for calibrating reference standards and for calibration and maintenance of portable measuring and testing equipment (M&TE).

D. The Vice President - Engineering reports to a Senior Vice - President and has responsibility for formulating, establishing, and enforcing policies and procedures for the construction services unit of the project management section.

1. The Superindendent, Nuclear Construction, reports to the Manager Construction Services, who reports to the Manager Project Management, and supports Nuclear Generation with supervision and control of construction contractors as well as Niagara Mohawk construction forces when required at the Nine Mile Point Nuclear Station. Responsibilities associated with provision of this support include coordination with plant, engineering and quality assurance organizations, schedule performance, cost performance, administrative procedures and adherence to contractual requirements.

1.2.4 Quality Assurance Department Responsibilities

A. The Vice President Quality Assurance reports to the President and is responsible for formulating, directing, implementing and controlling policies and procedures related to verifying the overall quality of station design, construction, operation, maintenance and modification activities. The Vice President's position may delegate to personnel under its jurisdiction appropriate portions of responsibilities, together with proportionate authority for fulfillment. See figure 1-2 for primary and supporting quality assurance program element responsibilities. Responsibilities include:

1. Reviewing documents and directing the management of investigations, surveys, audits and reports concerning activities related to the quality of design, procurement, fabrication, materials management, installation, inspection, test, operation, modification, repair and maintenance of safety-related systems, structures, components and services;

2. Recommending to appropriate management courses of corrective action, when required, including initiation of stop work orders. This "stop work" authority is delineated in writing;

3. Verifying the operations of suppliers, contractors and corporate departments performing safety-related work to ensure compliance with applicable regulations, procedures, specifications, codes or other standards;

4. Directing the supervision of administrative functions within the department, including training, document control and procedures manual development; and

5. Preparing periodic and special reports to keep management informed of the quality assurance program status.

6. Providing for timely identification and corrective action of conditions adverse to quality.

7. Resolving with other levels of management any escalated disputes involving quality, arising from a difference of opinion between QA personnel and other department personnel.

B. The Manager Nuclear Quality Assurance Operations reports to the Vice President Quality Assurance and exercises control and direction of the nuclear quality assurance program. Responsibilities include:

1. Interpretation and implementation of the nuclear quality assurance policy and procedures;
2. Advising the Vice President Quality Assurance of nuclear quality activities;

3. Reviewing Quality Assurance Department procedures;

4. Reviewing and concurring with various documents and other department procedures, where applicable, which implement this Quality Assurance Program Topical Report;

5. Recommending to appropriate management courses of corrective action, when required, including initiation of stop work orders. This "stop work" authority is delineated in writing;

6. Directing the QA Program Manager in the following activities:

   a. Developing QA project budgets/decisions on QA involvement on specific projects (plant outages-modifications)
   b. Utilizing matrix management concept to secure:
      - Engineering QA functions
      - Procurement QA functions
      - Installation QA functions
   c. Establishing QA project schedules and interfaces
   d. Monitoring assigned projects and issuing status reports
   e. Coordinating project QA problem resolution
   f. QA closeout of projects;
   g. Site Operations Review Committee QA representative

7. Directing the Quality Engineering Supervisor in the following activities:

   a. Corrective action trending
   b. CAR coordination

c. NRC correspondence and comment coordination
d. Internal/external reporting
e. Training coordination
f. Site quality engineering in Mechanical, Electrical, and I&C disciplines to perform:
   - Procedure reviews
   - Procurement document reviews
   - On-site contractor monitoring
   - Assisting source inspection
   - Modification support
   - Material Review Board member (NCRs)
   - Modification package record review;
g. Work Request Processing

8. Directing the Operations Surveillance Supervisor in the following QA Surveillance areas:

   a. Tech. Spec. - Operations
   b. Refueling
   c. Chemistry
   d. Radiation control
   e. Training
   f. Emergency preparedness
   g. Fire Protection
   h. Environmental Control;

9. Directing the Quality Control Supervisor in the following areas:

   a. Inspection - Mechanical, Electrical, I&C discipline
   b. Maintenance support
   c. Receipt inspection
   d. Management of QC associated with selected outage work
   e. Assisting in Source Inspection
   f. Training/certifying QC inspectors
   g. NDE procedure development and qualification
   h. Section XI - In-Service Inspection
   i. Maintenance procedure review
   j. Inspection procedures and checklist development; and

10. Assuring that representatives of the Quality Assurance organization on-site routinely attend and participate in work schedule and status meetings to keep abreast of day-to-day work assignments throughout the plant and to adequately cover and carry out QA assignments.

C. The Manager Corporate Quality Assurance reports to the Vice President Quality Assurance and provides a support function for the Quality Assurance Department. Responsibilities include:

1. Preparing, controlling and implementing Quality Assurance Department documents including the Quality Assurance Topical Report and Quality Assurance Department policies and procedures;

2. Advising the Vice President Quality Assurance and the Manager Nuclear Quality Assurance Operations of nuclear quality activities;

3. Initiating or delegating action in assigned areas of responsibility including training, supplier evaluation, audit, and trend analysis; and

4. Recommending to appropriate management courses of corrective action, when required, including initiation of stop work orders. This "stop-work" authority is delineated in writing.

D. The Manager Quality & Reliability Engineering reports to the Vice President Quality Assurance and provides technical support to the Nuclear QA Operations Section. Responsibilities include:

1. Reviewing plant modification design documents for inspectability; developing quality planning to support installation of plant changes and coordinating the technical aspects of QA Modification package implementation during plant shutdowns.

2. Providing for control of purchased equipment through the contractor qualification program, source surveillance and the preparation of receiving inspection planning (for implementation by Nuclear QA Operations personnel).

3. Providing materials engineering support in the areas of material selection, welding, corrosion prevention, non-destructive examination, and fuels quality assurance.

4. Advising the Vice President Quality Assurance and the Manager, Nuclear QA Operations of nuclear quality activities.

5. Providing reliability engineering support for the equipment qualification program; establishment of system and equipment availability goals; follow-up with suppliers on achievements of equipment reliability requirements; and performance of studies on extending equipment life.

6. Reviewing and concurring with various documents and other department procedures, where applicable, which implement this Quality Assurance Program Topical Report, and

7. Recommending to appropriate management courses of corrective action, when required, including initiation of stop work orders. This "stop work" authority is delineated in writing.

E. Quality Assurance Supervisors supervise the Quality Assurance Department staff. Supervisory and staff responsibilities include:

1. Supervising, directing, and coordinating the Quality Assurance Department staff within the framework of established policies and Quality Assurance Department procedures;

2. Reporting status of quality activities to the responsible manager;

3. Conducting inspections, audits and surveillances to verify quality assurance program implementation within NMPC and outside suppliers and contractors;

4. Preparing and implementing Quality Assurance Department procedures and instructions;

5. Recommending "stop work" action when appropriate. This authority is delineated in writing;

6. Reviewing quality-related documents including procedures, purchase requisitions and suppliers' quality assurance programs;

7. Documenting and verifying correction of conditions adverse to quality;

8. Reviewing, preparing and filing quality assurance department records;

9. Conducting training programs; and

10. Maintaining the Nondestructive Examination Procedures Manual.

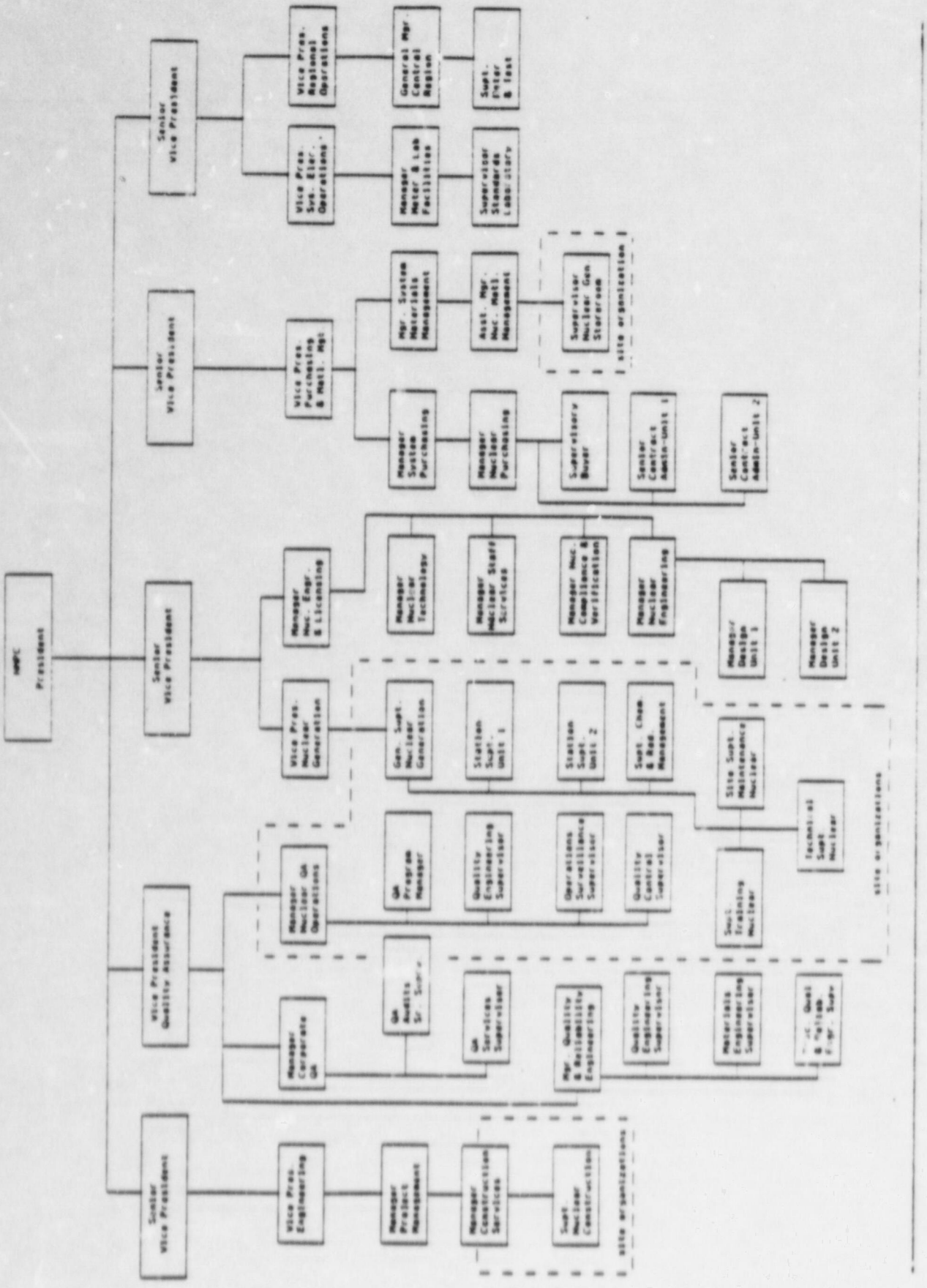
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Power Station - Units 1 and 2
Operational Phase
Organization
NMPC
President
Senior Vice President
Vice Pres. Nuclear Generation
Gen. Supt. Nuclear Generation
Station Supt. Unit 1
Station Supt. Unit 2
Supt. Chem. & Rad. Management
Site Supt. Maintenance Nuclear
Technical Supt. Nuclear
Supt. Training Nuclear
Manager Nuclear Engineering
Manager Design Unit 1
Manager Design Unit 2
Manager Nuc. Compliance & Verification
Manager Nuclear Staff Services
Manager Nuclear Technology
Manager Nuc. Engr. & Licensing
Senior Vice President
Vice President Quality Assurance
Manager Nuclear QA Operations
QA Program Manager
Quality Engineering Supervisor
Operations Surveillance Supervisor
Quality Control Supervisor
Manager Corporate QA
QA Audits Sr. Supervisor
QA Services Supervisor
Mgr. Quality & Reliability Engineering
Quality Engineering Supervisor
Materials Engineering Supervisor
Senior Vice President
Vice Pres. Engineering
Manager Project Management
Manager Construction Services
Supt. Nuclear Construction
site organizations
Senior Vice President
Vice Pres. Purchasing & Matl. Mgt
Manager System Purchasing
Manager Nuclear Purchasing
Mgr. System Materials Management
Asst. Mgr. Nuc. Matl. Management
Supervisor Buyer
Senior Contract Admin-Unit 1
Senior Contract Admin-Unit 2
Supervisor Nuclear Gen. Storeroom
site organizations
Senior Vice President
Vice Pres. Regional Operations
Vice Pres. Sys. Elec. Operations
General Mgr. Central Region
Manager Meter & Lab Facilities
Supervisor Standards Laboratory
Supt. Meter & Test

Figure 1-1

QUALITY ASSURANCE PROGRAM RESPONSIBILITY MATRIX

REGULATORY REQUIREMENTS 10CFR50 APP.B		NQA-1	ANS-3.2	NMPC DEPARTMENTS NG	NE	PUR	MM	MT	ML	QA
I.	Organization	1,1-S1.	1 3.1 3.3 3.4.2	P	P	P	P	P	P	P
II.	QA Program	2, 2S-1 2S-2 2S-3	3.1 3.3 5.1 5.3 3.4.2 3.5	S	S	S	S	S	S	P,R
III.	Design	3, 3S-1	5.2.7.2	S	P	S				R
IV.	Procurement	4,4S-1	5.2.13.1	P	P	S	P			R
V.	Procedures	5	5.2.7 5.3	P	P	P	P	P	P	P,R
VI.	Doc. Control	6, 6S-1	5.2.15	P	P	P	P	P	P	P,R
VII.	Purch. Items	7, 7S-1	5.2.13.2	P	P	S	P			R
VIII.	Item Control	8, 8S-1	5.2.13.3	P	S		P			R
IX.	Special Proc.	9, 9S-1	5.2.18 5.2.12	P	P					R
X.	Inspection	10, 10S-1	5.2.17	P	S		S	S		P,R
XI.	Testing	11, 11S-1	5.2.19	P	P		S	S		R
XII.	M&TE	12, 12S-1	5.2.16	P				S	P	R
XIII.	Hand. & Stg.	13, 13S-1	5.2.13.4	P	S		P			R
XIV.	Operating Status	14	5.2.6 5.2.14	P						R
XV.	Nonconform.	15, 15S-1	5.2.14	P	P	S	S			R
XVI.	Corr. Action	16	5.2.11	P	P	S	S	S	S	P,R
XVII.	Records	17, 17S-1	5.2.12	P	P	S	S	S	S	S,R
XVIII.	Audit	18, 18S-1	4.5	P						P

NMPC DEPARTMENT

NG - Nuclear Generation
NE - Nuclear Engineering
PUR - Purchasing
MM - Materials Management
MT - Meter and Test
ML - Meter and Laboratory Services
QA - Quality Assurance

PROCEDURAL COVERAGE REQUIRED

P - Primary Responsibility
S - Support Responsibility
R - Review, Audit or Surveillance Responsibility

Figure 1-2

2.0 QUALITY ASSURANCE PROGRAM

2.1 POLICY

The Niagara Mohawk Power Corporation (NMPC) quality assurance program for the Nine Mile Point Nuclear Station operations phase is established by this Quality Assurance Program Topical Report and applies to safety-related activities, i.e. activities that affect the operation, maintenance or modification of safety-related systems, structures or components. The quality assurance program includes policies, procedures, instructions and other documents that implement the provisions of this Topical Report. The quality assurance program fulfills the requirements of the regulatory documents to which NMPC has committed.

The quality assurance program provides for safety-related activities to be performed under suitably controlled conditions, including the use of appropriate equipment, maintenance of proper environmental conditions, assignment of qualified personnel and assurance that applicable prerequisites have been met.

Quality assurance program status, scope, adequacy and compliance with 10CFR50 Appendix B are regularly reviewed by NMPC management through reports, meetings, review of audit results, and documented assessments performed by management teams.

2.2 IMPLEMENTATION

2.2.1 General organizational responsibilities are outlined in Section 1.0, ORGANIZATION.

2.2.2 This Quality Assurance Program Topical Report, organized to present the NMPC quality assurance program in the order of the 18 criteria of 10CFR50 Appendix B, states NMPC policy for each of the criteria and describes how the controls pertinent to each are carried out. See Appendix C Matrix for a listing of each of the criteria of 10CFR50 Appendix B vs. corresponding sections of this Topical Report and the related Quality Assurance Procedures. Any changes made to this Topical Report that do not reduce the commitments previously accepted by the Nuclear Regulatory Commission (NRC) shall be submitted to the NRC at least annually. Any changes made to this Topical Report that do reduce the commitments previously accepted by the NRC will be submitted to the NRC and shall receive NRC approval prior to implementation. The submittal of the changes described above will be made in accordance with the requirements of 10CFR50.54.

2.2.3 The Corporate Quality Assurance Policy authorized by the Vice President Quality Assurance and approved by the President states, "Organizations with quality-affecting responsibilities shall be structured, managed,

and operated in compliance with approved quality assurance programs, procedures and instructions...". That statement makes the quality assurance program described herein and in the implementing procedures mandatory and requires compliance by participating organizations and individuals.

2.2.4 The quality assurance program is implemented by organizations responsible for attaining quality and by organizations responsible for verifying quality (see Section 1.0, ORGANIZATION).

2.2.5 The qualification requirements for the Vice President Quality Assurance are as follows:

Education

Bachelor's degree in engineering or physical science from an ac redited institution.

Experience

a. Fifteen (15) years of experience in technical fields such as quality control/assurance, engineering, manufacturing, operations, or construction; and

b. Five (5) years of experience in nuclear quality control/assurance; and

c. Five (5) years of experience in responsible managerial positions.

NOTE: The experience requirements may be met on a concurrent basis.

2.2.6 Quality Assurance Department Managers and Supervisors are required to have demonstrated their management competence through prior assignments of increasing responsibility in addition to the following qualifications:

Education

Bachelor's degree or equivalent in engineering or physical science.

Experience

a. Seven (7) years in quality assurance, design, manufacturing, construction, plant operations, or equivalent activities; and

b. Three (3) years in nuclear quality assurance.

Note: Experience requirements may be met on a concurrent basis.

2.2.7 The operations phase quality assurance program applies to activities affecting the operation and the quality of structures, systems, components, and services during plant operation, maintenance, testing and modifications. Safety-related structures, systems, and components are identified in Q-Lists, which are developed and maintained for each unit, and are consisent with the FSAR commitments.

Appropriate elements of the Quality Assurance Program Topical Report are applied to emergency plans, radiation protection procedures and radioactive waste shipment programs for the nuclear station.

2.2.8 Those elements of the Quality Assurance Program Topical Report which apply to radioactive waste handling activities include:

a. Audits or surveillances on approximately 10% of radioactive waste shipments.

b. Annual audits of the radioactive waste handling program.

c. Audits identified in a. and b. are performed by Quality Assurance Department personnel who are trained in Department of Transportation (DOT) and Nuclear Regulatory Commission radioactive waste handling requirements.

2.2.9 Departmental procedures specify the methods and controls for implementing operational phase activities. These include:

a. Nuclear Generation Department - Nine Mile Point Nuclear Station Administrative Procedures;

b. Nuclear Engineering and Licensing Department - Engineering Procedures;

c. Purchasing Department - Purchasing Procedures;

d. Materials Management Department - Materials Management Procedures;

e. Meter and Test Department - Measuring and Test Equipment Control Procedures;

f. Meter and Laboratory Facilities Department - Calibration Procedures; and

g. Quality Assurance Department - Quality Assurance Procedures.

2.2.10 The programmatic Regulatory Guides and ANSI Standards, and their applicable revisions, to which NMPC commits with regard to quality assurance matters and appropriate explanations of interpretations and exceptions are tabulated in Appendices A and B of this Topical Report.

2.2.11 The scope of the program and the extent to which its controls are applied are established as follows:

a. NMPC uses the criteria specified in Engineering Procedures for identifying structures, systems and components to which the quality assurance program applies;

b. This identification process results in a Q-list which identifies safety-related items for each unit. The Q-list is a controlled document. Safety-related items are determined by engineering analysis of the function(s) of plant structures, systems and components in relation to safe operation and shutdown;

c. The controls specified in the quality assurance program described in this Topical Report are applied to safety-related items.

2.2.12 Safety-related activities are accomplished under controlled conditions. Preparations for such activities include confirmation that prerequisites have been met, such as:

a. Assigned personnel are qualified;

b. Work is planned in accordance with the proper revisions of applicable engineering and/or technical specifications;

c. Specified equipment and/or tools, if any, are on hand to be used;

d. Equipment and materials are in an acceptable status;

e. Systems or structures on which work is to be performed are in the proper condition or operational mode for the task;

f. Current and approved instructions or procedures for the work are available for use;

g. Items and facilities that could be damaged by the work have been protected as required; and

h. Provisions have been made for special equipment, environmental conditions, skills, controls, processes, tests and verification methods.

2.2.13 Development, control and use of computer programs affecting nuclear power plant safety-related design and operation are subject to appropriate controls.

2.2.14 Responsibility and authority for planning and implementing indoctrination and training programs are delegated to each department. The training and indoctrination program provides for the following as appropriate:

a. Personnel responsible for performing and verifying activities that affect quality are familiar with the activities and the requirements identified in applicable quality-related manuals, instructions and procedures.

b. Proficiency tests are utilized where appropriate to determine that individuals can perform their assigned tasks.

c. Personnel who perform inspection, examination, test, audit and special process activities are trained and qualified in accordance with applicable requirements. Certificates of qualification (where required) designate specific areas of qualification and the bases for the qualification.

d. Provisions are included for retraining, re-examination and recertification (where certification is required) to ensure that proficiency is maintained.

e. Training content and attendance records, and required qualification and certification records are maintained.

2.2.15 The management of Niagara Mohawk Power Corporation (NMPC) at the presidential or chief executive officer level assesses the scope, status, adequacy, and compliance of the quality assurance program for the nuclear stations at a predetermined regularity. Management at this level employs the following means to assess the program:

a. The Vice President Quality Assurance is responsible for annually reporting in writing to the President of NMPC on the status, adequacy and effectiveness of the NMPC quality assurance program.

b. The Vice President Quality Assurance regularly attends corporate staff meetings, board meetings and cotenant meetings, and makes verbal presentations regarding quality-related matters. Minutes of these meetings are generally documented.

Certain actions of the Safety Review and Audit Board and of the Site Operations Review Committee result in audits and/or reports by which members of these offsite and onsite review committees are made aware, on a regular basis, of the effectiveness of the quality assurance program.

2.2.16 The Safety Review and Audit Board (SRAB) is a standing committee responsible to the Manager Nuclear Engineering and Licensing and to the Vice President Nuclear Generation regarding designated quality assurance functions at the Nine Mile Point Nuclear Station.

2.2.17 The Site Operations Review Committee (SORC) is an independent review committee responsible to the General Superintendent, Nuclear Generation and transmits reports to the Safety Review and Audit Board. The Site Operations Review Committee responsibilities include:

a. Reviewing reportable events;

b. Reviewing facility operations to detect potential safety hazards;

c. Performing special reviews, investigations or analyses and reports thereof as requested by the Chairman of the Safety Review and Audit Board;

2.2.18 The Quality First Program (QIP) provides NMPC and contractor employees an opportunity to communicate their quality concerns regarding operation, maintenance or modification while keeping their identity confidential, if they desire, and to receive feedback regarding the results of investigations with respect to their concerns. Quality concerns determined to be valid are acted upon by the responsible organization and the actions are verified by QIP personnel prior to closeout.

3.0 DESIGN CONTROL

3.1 POLICY

Station modifications are accomplished in accordance with approved designs and procedures. The controls apply to preparation, review and revision of design documents, including the correct translation of applicable regulatory requirements and design bases into design, procurement and procedural documents. The controls apply to design work performed by contractors as well as by NMPC engineering and technical organizations.

3.2 IMPLEMENTATION

3.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

3.2.2 Nuclear Engineering and Licensing Department responsibilities include the preparation, review and approval of such things as:

a) system descriptions;

b) design input and criteria;

c) drawings, specifications, procedures; and

d) engineering analyses and associated computer programs.

3.2.3 Computer programs used in safety-related design and station operation are appropriately documented, verified, certified for use and controlled in accordance with procedures.

3.2.4 Materials, parts and processes are selected and specified, based on the requirements of applicable codes and standards or on known, successful use under similar conditions. The adequacy of the selected materials, parts, and processes is assured through the required design verifications or approvals. Alternatively, materials, parts, and processes may be qualified for use through qualification testing.

3.2.5 Exceptions, waivers to, or deviations from engineering requirements are required by procedure and by contract, when applicable, to be documented and controlled.

3.2.6 When modifications involve design interfaces between internal or external design organizations or across technical disciplines, these interfaces are controlled. Procedures delineate the review, approval, release, distribution and revision of documents involving design interfaces. Controls are provided to ensure that structures, systems and components are compatible geometrically and functionally with processes and environment. Lines of communication are established for controlling the flow of needed design information across design interfaces, including changes to the information as work progresses. Decisions and problem resolutions involving design interfaces are made by the Nuclear Engineering organization.

3.2.7 Design drawings and specifications are checked to verify the dimensional accuracy and completeness.

3.2.8 Modification design document packages are subject to audit by the Quality Assurance Department to verify that the documents therein have been prepared, reviewed, and approved in accordance with procedures and that they contain the necessary quality assurance requirements. These requirements include any inspection and test requirements, quantitative and/or qualitative acceptance criteria and the requirements for documenting inspection and test results.

3.2.9 The extent of and methods used for design verification are documented. Methods for design verification include evaluation of the applicability of standardized or previously proven designs, alternate calculations, qualification testing and design reviews. These methods may be used singly or in combination, depending on the needs for the design under consideration.

When design verification is done by evaluating standardized or previously proven designs, the applicability of such designs is confirmed. Any differences from the proven design are documented and evaluated for the intended application.

Design reviews are performed by single individuals or by interdisciplinary or multi-organizational groups, as appropriate. Unless otherwise stated, the verification of design addresses the information conveyed by the design document. When the verification is limited to certain areas or features, the scope or extent and any limitations on the verification are documented.

3.2.10 Qualification testing of prototypes, components or features is used when the ability of an item to perform an essential safety function cannot otherwise be adequately substantiated. This testing is performed before plant equipment installation where possible, but always before reliance upon the item to perform a safety-related function. Qualification testing is performed under conditions that simulate adverse design conditions as determined by analysis, considering relevant operating modes. Test requirements, procedures and results are documented. Results are evaluated to assure that test requirements have been satisfied. Modifications are made if shown to be necessary through testing. Following modification, any necessary retesting or other verification is performed. Scaling laws are established and verified, when applicable. Test configurations are documented.

3.2.11 Persons representing applicable technical disciplines are assigned to perform design verifications. These persons are qualified by appropriate education or experience and are not directly responsible for the design being verified. This verification may be performed by the originator's supervisor, provided that:

1. The supervisor did not specify a singular design approach or rule out certain design considerations, and
2. The supervisor did not establish the design inputs used in the design.

OR

1. The supervisor is the only individual in the organization competent to perform the verification, and
2. The supervisor receives written approval by the appropriate Engineering Manager.

3.2.12 When designs must be released for use before they have been completed or before they have been verified, the incomplete or unverified parts of the design and the hold point to which work may proceed are identified, and design output documents based on unverified data are identified and controlled. This hold point occurs before the work becomes irreversible or before the item is relied on to perform a safety-related function. Justification for such early release is documented.

3.2.13 Design output documents, and revisions thereto, are controlled by the design office (architect-engineer, vendor, contractor, consultant or Nuclear Engineering) responsible for the design work. Each design organization controls design documents in accordance with approved procedures that provide for review, approval, distribution and revision.

3.2.14 Changes to design output documents, including field changes, are controlled in a manner commensurate with that used for the original design. Information on approved changes is transmitted to affected organizations.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 POLICY

Procurement documents define the characteristics of items or services to be procured, identify applicable regulatory and industry codes or standards requirements, and specify supplier quality assurance program requirements to the extent necessary to assure adequate quality.

4.2 IMPLEMENTATION

4.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

4.2.2 Procurement requisition packages are reviewed and approved prior to submittal to the Purchasing Department. Review includes verification by the Quality Assurance Department that the necessary quality requirements are specified.

4.2.3 The responsible project engineer or requester performs bid evaluations.

4.2.4 Supplier and contractor selection is described in Section 7.0.

4.2.5 The contents of procurement documents vary according to the item(s) being purchased and its function(s) in the plant. Procurement documents include the following as applicable:

a. Scope of work to be performed;

b. Technical requirements, with applicable drawings, specifications, codes and standards identified by title, document number and revision and date, with any required procedures such as special process instructions identified in such a way as to indicate source and need;

c. Regulatory, administrative and reporting requirements, including 10CFR21 requirements;

d. Quality requirements appropriate to the complexity and scope of the work, including necessary tests and inspections;

e. A requirement for a documented quality assurance program, subject to Quality Assurance Department review and written concurrence;

f. A requirement for the supplier to invoke applicable quality requirements on subtier suppliers;

g. Provisions for access to supplier and subtier suppliers' facilities and records for inspections, surveillances and audits;

h. Identification of documentation to be provided by the supplier (see paragraph 4.2.6);

i. Provisions for documentation and dispositioning of nonconformances.

4.2.6 Purchase documents require suppliers to furnish the following records as applicable:

a. Drawings and/or related engineering documentation that identify the purchased item and the specific procurement requirements (e.g., codes, standards, as-built/as-designed drawings and specifications) met by the item;

b. Documentation identifying any procurement requirements that have not been met;

c. A description of those nonconformances from the procurement requirements dispositioned "use as is" or "repair."

The Quality Assurance Department evaluates the acceptability of these documents during source and/or receipt inspection.

4.2.7 The Quality Assurance Department performs and documents reviews of procurement requisition packages to assure that:

a. Quality requirements (see paragraph 4.2.5) are correctly stated, inspectable, and controllable;

b. Acceptance and rejection criteria are included; and

c. The procurement documents have been prepared, reviewed, and approved in accordance with applicable procedures.

4.2.8 Changes to the technical or quality requirements in procurement documents are controlled in a manner commensurate with that used for the original requirements.

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 POLICY

Activities affecting the quality of safety-related structures, systems, components and services are accomplished using instructions, procedures and drawings (including vendor manuals) appropriate to the circumstances. These documents include appropriate acceptance criteria.

ANSI/ASME NQA-1 and ANSI/ANS-3.2 commitments contained in Appendix A of this QA Topical Report have been translated into procedural matrices to assure that implementing procedures cover the QA commitments.

5.2 IMPLEMENTATION

5.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

5.2.2 Instructions, procedures, drawings, or vendor manuals incorporate (1) a description of the activity to be accomplished and (2) appropriate quantitative (such as tolerances and operating limits) and qualitative (such as workmanship standards) acceptance criteria.

5.2.3 The procedures used to control activities include the departmental procedures listed in Section 2. They provide for implementation of the requirements contained in the committed standards. They describe responsibilities, controls and activities to be accomplished in carrying out commitments. When appropriate, they specify methods and techniques for performing required work.

5.2.4 Measures are provided to assure that correct procedures are available and that they are used in the performance of safety-related activities.

6.0 DOCUMENT CONTROL

6.1 POLICY

Documents are controlled, issued and changed according to established procedures. Documents such as instructions, procedures, and drawings, including changes thereto, are reviewed for adequacy, approved for release by authorized personnel, and are distributed and used at the location where a prescribed activity is performed.

Changes to controlled documents are reviewed and approved by the same organizations that performed the original review and approval or by the organizations designated in accordance with the procedures governing these documents.

6.2 IMPLEMENTATION

6.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

6.2.2 Procedures are established for review, approval, issue, change and use of documents in the following categories:

a. Design documents (e.g., calculations, drawings, specifications, analyses) including documents related to computer codes;

b. As-built drawings, procedures and related documents;

c. Procurement documents;

d. Instructions and procedures for activities such as fabrication, construction, modification, installation, inspection, test, and station maintenance and operation;

e. Procedures that implement the quality assurance program;

f. Final Safety Analysis Report;

g. Reports of nonconformances;

h. Unit Technical Specifications;

i. Quality Assurance Program Topical Report.

6.2.3 Procedures which govern the review, approval, issue, change and use of documents include as appropriate:

a. Establishment of criteria to ensure that adequate technical and quality requirements are incorporated prior to implementation;

b. Identification of the organizations responsible for review, approval, issue, and revision;

c. Performance and documentation of a review for concurrence with quality assurance related aspects by the Quality Assurance Department;

d. Review of changes to documents by the same organizations that performed the initial review and approval or by the organizations designated in accordance with the applicable procedures.

6.2.4 Controlled documents, including changes, are issued and distributed so that:

a. The documents are available as required at the work location prior to commencing work; and

b. Obsolete or superseded documents are removed from work areas and replaced by applicable revisions in a timely manner.

6.2.5 Master lists or equivalent means are used to identify the current revision of controlled documents. When master lists are used, they are updated and distributed to designated personnel who are responsible for maintaining current copies of the lists.

6.2.6 As-built drawings and related documents are prepared in a timely manner consistent with the needs of the user organization.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 POLICY

Activities that implement approved procurement requests for material, equipment, and services are controlled to assure conformance with procurement document requirements. Controls include a system of supplier evaluation and selection, source inspection, examination and acceptance of items and documents upon delivery, and periodic assessment of supplier performance.

7.2 IMPLEMENTATION

7.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

7.2.2 When contractors perform work under their own quality assurance programs, those programs are reviewed for compliance with the applicable requirements of 10CFR50 Appendix B and the contract and are accepted by the Quality Assurance Department.

7.2.3 NMPC qualifies suppliers (excluding suppliers of commercial grade items) by performing a documented evaluation of their capability to provide items or services specified by procurement documents. Other means of evaluating supplier qualifications include objective evidence of suppliers' current quality performance, surveys performed by consultants, other utilities or other organizations such as CASE or ASME survey teams.

NMPC qualified suppliers involved in active procurements are surveyed every three years to maintain their qualified status except as follows. Supplier three year surveys are not necessary to maintain qualification when the items or services supplied are determined and documented by Nuclear Engineering and Licensing and Quality Assurance Departments to satisfy each of the following conditions:

a. Relatively simple and standard in design, manufacture and test; and

b. Adaptable to standard or automated inspections or tests of the end product to verify quality characteristics after delivery; and

c. Such that receiving inspection does not require operations that could adversely affect the integrity, function, or cleanness of the item.

In the above cases, source and/or receipt inspection provides the necessary assurance of an acceptable item or service.

7.2.4 Supplier activities that affect quality are verified in accordance with written procedures that provide the method of verifying (such as audit, surveillance, or inspection) and documenting the verification results.

7.2.5 Spare and replacement parts are procured in accordance with the following provisions to assure that their performance and quality are at least equivalent to those of the parts that will be replaced:

a. Specifications and codes referenced in procurement documents for spare or replacement items are the same or equivalent to those for the original items or to reviewed and approved revisions.

b. Where quality requirements for the original items cannot be determined, requirements and controls are established by engineering evaluation.

c. Any additional or modified design criteria, imposed after previous procurement of the item(s), are identified and incorporated.

7.2.6. Commercial grade items to be used in safety-related applications are purchased in accordance with Nuclear Engineering Procedures that provide controls to assure that the items satisfy design requirements.

7.2.7 Receipt inspections are performed to verify that items are undamaged and properly identified and that required supplier-furnished documentation is available and correct. In addition, depending upon the nature, complexity and importance of the item and amount of source inspection or surveillance, selected characteristics may be examined or tested on a sampling basis to verify conformance to procurement requirements. Items inspected are identified as to their acceptance status prior to storage or release for installation or use.

7.2.8 Suppliers' certificates of conformance are reviewed for completeness and accuracy and are supplemented by receipt inspection to verify conformance to purchase requirements.

7.2.9 Documentation supporting the conformance of material and equipment with the procurement documents is to be available at the site prior to installation whenever possible. In those instances when equipment and material are received without the required documentation, installation may be accomplished if:

a. The installation is controlled in accordance with the requirements of Sections 15 and 16 of this Quality Assurance Program Topical Report; and

b. The installed items are readily removable or more readily protected by installation than by segregated storage; and

c. The supporting documentation is reasonably expected to arrive prior to the use of the equipment or material.

In no case shall material or equipment be relied upon for its safety function without receipt of proper documentation.

8.0 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS

8.1 POLICY

Materials, parts, and components (items) are identified and controlled to prevent their inadvertent use. Identification of items is maintained either on the items, their storage areas or containers, or on records traceable to the items.

8.2 IMPLEMENTATION

8.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

8.2.2 Controls provide for the identification and control of materials (including consumables), parts and components (including partially fabricated assemblies).

8.2.3 Items are identified by physically marking the items, storage area, or containers or by maintaining records traceable to the items. The method of identification is such that the quality of the items is not degraded.

8.2.4 Items are traceable to applicable drawings, specifications, or other pertinent documents to ensure that only correct and acceptable items are used. Verification of traceability is performed and documented prior to release for fabrication, assembly, or installation except as provided in Section 7.0.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 POLICY

Special processes are controlled and are accomplished by qualified personnel using qualified procedures and equipment in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

9.2 IMPLEMENTATION

9.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

9.2.2 Processes subject to special process controls are those for which the results are highly dependent on the control of the process or the skill of the operators, or both, and in which the specified quality cannot be readily determined by inspection or test of the product. Such processes include welding, heat treating, chemical cleaning, application of protective coatings, and nondestructive examination (NDE).

9.2.3 Requirements for control of special processes involve one or more of the following methods, each of which is approved by qualified personnel:

a) Written instructions on the drawing or specification for the piece or assembly;

b) Written procedure(s) including the specific application involved;

c) Reference to a recognized code or standard published by a national society or institute; and

d) Combinations of above with addenda, exceptions, or alternates clearly indicated and in terminology familiar to personnel involved in planning, performing the process and evaluating the results.

9.2.4 Special process procedures are prepared by personnel with expertise in the discipline involved. The procedures are reviewed for technical adequacy by other personnel with the necessary technical competence, and are qualified by testing, as necessary.

9.2.5 Special process personnel qualification is determined by individuals authorized to administer the pertinent examinations. Certification of qualification is based in part on examination results. Personnel certification is kept current by performance of the special process(es) and/or reexamination at time intervals specified by applicable codes, specifications and standards. Unsatisfactory performance or, where applicable, failure to perform within the designated time intervals requires requalification and recertification.

9.2.6 For special processes that require qualified equipment, such equipment is qualified in accordance with applicable codes, standards and specifications.

9.2.7 Qualification records and records of satisfactory special process performance are maintained in accordance with Section 17.

9.2.8 The Quality Assurance Department performs audits, inspection and surveillance of special processes to assure they are satisfactorily performed when specified by applicable inspection planning and/or site procedures. Such inspections, surveillances and audits include verification that process data are recorded as required, are within specified limits and are performed in accordance with applicable requirements.

9.2.9 NMPC specifies in procurement documents which records are to be kept by vendors and/or forwarded to NMPC. The document retention policy and requirements are stated in Section 17. Qualifications of procedures, personnel, and equipment will be filed and reviewed periodically, and when required by governing codes or standards, the qualification records will be updated or revised as appropriate.

Examples of typical records that may be specified are:

a) Procedure, personnel and equipment qualification test results in accordance with applicable codes or standards;

b) Special process procedures, signed and dated by authorized personnel;

c) Results of special inspections with results of tests, any corrective action taken, retest if required, and the dated acceptance signature. The results document must identify the part, assembly, and/or section of the system with its own number or code for future identification and reference. Supporting evidence or documentation such as radiographs, photos, sketches or other descriptive material must bear the same number or code;

d) Charts of the heat cycle in heat treating operations showing test equipment numbers, temperatures, and time; or certified documents by authorized personnel attesting to test equipment numbers, temperature, and time used in the heat treating cycle.

10.0 INSPECTION

10.1 POLICY

Inspections of items or activities are performed to verify their conformance with specified requirements. The inspections for certifying acceptance are performed by people other than those who perform or supervise the work being inspected. Direct inspection, process monitoring, or both, are used as necessary. Hold points and/or witness points are used as necessary to ensure that inspections are accomplished at the correct points in the sequence of work activities.

10.2 IMPLEMENTATION

10.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

10.2.2 Inspections are applied to procurement, maintenance, modification, testing, fuel handling, operation and inservice inspection to verify that items and activities conform to specified requirements. Inspection planning documents are prepared or reviewed by the Quality Assurance Department in accordance with procedures. Documentation of inspection planning identifies the following as applicable:

a. Characteristics and activities to be inspected;

b. Inspection organization;

c. Accept/reject criteria;

d. Hold points and/or witness points;

e. Methods;

f. Provisions for recording objective evidence of inspection results;

g. Specify measuring and test equipment of the necessary accuracy for performing inspection.

Inspection is performed on selected operations where it is deemed necessary to verify conformance with specified requirements.

Process monitoring is used where direct inspection alone is impractical or inadequate. Both inspection and process monitoring are performed when control is inadequate without both.

10.2.3 Training and qualification programs for personnel who perform inspection, including nondestructive examination, are established, implemented and documented in accordance with Section 2.0. These programs meet the requirements of applicable codes and standards.

Qualifications and certifications of inspection and nondestructive examination (NDE) personnel are maintained as quality records in accordance with Section 17.

10.2.4 Hold points are designated as mandatory inspection points when confirmation is needed that the work at that point is acceptable before additional work can proceed. Hold point inspections are performed, and work is released for further processing or use, by designated inspection personnel. Hold points may be waived only by designated personnel.

10.2.5 Witness points require notification of the Quality Assurance Department prior to performance of the specified activity. Work may proceed upon sufficient notice to QA of the impending witness point.

10.2.6 Inspections are performed and documented in accordance with written procedures. The results are evaluated and documented by qualified personnel in order to verify the acceptability of the item or work.

10.2.7 Inservice inspection and testing is performed and documented in accordance with a program of examinations, tests, and inspections of plant components and systems. An Authorized Nuclear Inservice Inspector (ANII) is employed to verify that the program is conducted in accordance with requirements.

10.2.8 Inspections are normally performed by Quality Assurance Department personnel. Inspections associated with normal operations of the plant (such as routine maintenance, surveillance, and test) may be performed by individuals within the same group other than those who performed or directly supervised the work, provided the following requirements are met:

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

b. The qualification criteria for inspection personnel are reviewed by the Quality Assurance Department.

10.2.9 Inspection records contain the following where applicable:

a. Item inspected;

b. The date of the inspection;

c. Inspector or data recorder identification;

d. Type of observation;

e. Results or acceptability;

f. Reference to information on action taken on nonconformances to resolve any discrepancies noted.

11.0 TEST CONTROL

11.1 POLICY

Testing is performed to demonstrate that items will perform satisfactorily in service. The testing is performed in accordance with written procedures that incorporate specified requirements and acceptance criteria. The test program includes qualification, acceptance, pre-operational, start-up, surveillance and post-maintenance tests. Test parameters, including any prerequisites, instrumentation requirements and environmental conditions, are specified and met. Test results are documented and evaluated.

11.2 IMPLEMENTATION

11.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

11.2.2 Tests are performed in accordance with procedures and criteria that designate when tests are required and how they are to be performed. Such testing includes the following:

a. Qualification tests, as applicable, to verify design adequacy in accordance with Section 3.0;

b. Tests of equipment and components to assure their proper operation prior to delivery or pre-operational tests;

c. Pre-operational tests to assure proper and safe operation of systems and equipment prior to start-up tests or operations;

d. Start-up tests, including precritical, criticality, low-power and power ascension tests performed after fuel loading to assure proper and safe operation of systems and equipment;

e. Surveillance tests to assure continuing proper and safe operation of systems and equipment; and

f. Maintenance tests after preventive or corrective maintenance.

11.2.3 Test procedures and instructions include provisions for the following, as applicable:

a. The requirements and acceptance limits contained in applicable design and procurement documents;

b. Test prerequisites such as calibrated instrumentation, required test equipment, degree of completeness of the item to be tested, suitable and controlled environmental conditions and provisions for data collection and storage;

c. Verifying that test prerequisites have been met;

d. Instructions for performing the test;

e. Any witness and hold points;

f. Acceptance criteria;

g. Documenting or recording test data and results; and

h. Verification of completion.

11.2.4 Test procedures and instructions are reviewed by the applicable organizations for technical content and by the Quality Assurance Department for quality assurance requirements.

11.2.5 The Quality Assurance Department verifies that test results are documented, evaluated and accepted by responsible personnel.

11.2.6 Test records contain the following where applicable:

a. Item tested and type of observation;

b. The date and results of the test;

c. Information related to conditions adverse to quality;

d. Data recorder identification;

e. Evidence as to the acceptability of the results; and

f. Action taken to resolve any deviations noted.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 POLICY

Measuring and test equipment is identified, controlled, calibrated and adjusted at specified intervals to maintain accuracy within prescribed limits.

12.2 IMPLEMENTATION

12.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

12.2.2 Procedures are established for calibration, maintenance and control of measuring and test equipment utilized in the operation, measurement, inspection or monitoring of items. These procedures describe calibration technique, frequency, maintenance and control of installed as well as portable equipment.

12.2.3 Measuring and test equipment is uniquely identified and is traceable to its calibration test data.

12.2.4 Labels are attached to measuring and test equipment to display the next calibration due date. Where labels cannot be attached, a control system is used that identifies to potential users any equipment beyond the calibration due date.

12.2.5 Measuring and test equipment is calibrated at specified intervals. These intervals are based on the amount of use, stability, characteristics and other conditions that could adversely affect the required measurement accuracy. Reference and secondary calibration standards are traceable to nationally recognized standards where they exist. Where national standards do not exist, provisions are established to document the basis for calibration.

12.2.6 Where practical, reference standards that have at least four times the required accuracy of the item being calibrated are used to calibrate secondary standards. When this accuracy is not possible, these standards shall have an accuracy that assures that the equipment being calibrated will be within required tolerance. In such cases the basis of acceptance is documented and is authorized by responsible management personnel.

12.2.7 Secondary standards normally have a greater accuracy than the equipment or installed plant instrumentation being calibrated. Standards with the same accuracy may be used when shown to be adequate for specific calibration requirements. The basis for this acceptance is documented and is approved by responsible management.

12.2.8 When measuring and testing equipment used for inspection and test is found to be out of calibration, evaluations are conducted to determine the validity of the results obtained since the most recent calibration. The results of evaluations are documented. Retests or reinspections are performed on suspect items as necessary.

13.0 HANDLING, STORAGE AND SHIPPING

13.1 POLICY

Activities with the potential for causing contamination or deterioration that could adversely affect the ability of an item to perform its intended function and activities necessary to prevent damage or loss are identified and controlled. Controls are achieved through the use of appropriate procedures.

13.2 IMPLEMENTATION

13.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

13.2.2 Procedures are used to control the cleaning, handling, storing, packaging, preserving and shipping of materials, components and systems in accordance with design and procurement requirements. These procedures include the following functions:

a. Cleaning, to assure that required cleanliness levels are achieved and maintained;

b. Packaging and preservation, to protect against damage or deterioration. When necessary, these procedures provide for special environments such as inert gas atmospheres, specific moisture content levels and temperature levels;

c. Handling, to preclude damage or safety hazards. Routine inspection of handling equipment is included;

d. Storing, to minimize the possibility of loss, damage or deterioration of items in storage, including consumables such as chemicals, reagents and lubricants. Storage procedures also provide methods to assure that items having limited shelf life are not used after their expiration date; and

e. Marking and labeling of items for packaging, shipment, and storage is to be adequate to identify the shipment and to indicate the need for special environments and special control.

14.0 INSPECTION, TEST AND OPERATING STATUS

14.1 POLICY

Systems are established which ensure that the inspection, test and operational status of items is known and controlled. Non-operational status of systems and components for inspection, maintenance and tests is indicated by tagging, marking, logging or other specified means under procedural controls to prevent inadvertent use.

14.2 IMPLEMENTATION

14.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

14.2.2 For modification activities; including item fabrication, construction, installation and test; procurement documents, service contracts and procedures specify the degree of control required for the indication of inspection and test status of items.

14.2.3 Application and removal of status indicators such as tags, markings, labels, etc. are controlled by procedures.

14.2.4 The sequence of inspections, tests and other operations, and changes thereto, are controlled by procedures. Changes in the approved sequence are controlled in accordance with applicable procedures.

14.2.5 The status of inoperable systems, components, and supporting structures is known and controlled from the control room in accordance with procedures which are kept up-to-date to preclude unintentional operations.

14.2.6 The status of nonconforming, inoperable or malfunctioning items is identified and documented in accordance with Section 15 to prevent inadvertent use.

15.0 NONCONFORMING MATERIALS, PARTS OR COMPONENTS

15.1 POLICY

Materials, parts, components or services as applicable (including computer codes) that do not conform to requirements are controlled in order to prevent their inadvertent use. Nonconforming items are identified, documented, segregated when practical and dispositioned. Affected organizations are notified of nonconformances.

15.2 IMPLEMENTATION

15.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

15.2.2 Nonconformances are documented on Nonconformance Reports, Surveillance Reports, and Inspection Reports, are dispositioned, and notification is made to affected organizations. Nonconforming items are reviewed for reportability. Personnel authorized to disposition, conditionally release and close out nonconformances are designated.

a. Nonconforming items are identified by marking, tagging or segregating or by administrative controls. Documentation describes the nonconformance, the disposition of the nonconformance and the inspection requirements. It also includes signature approval of the disposition;

b. The Quality Assurance Department reviews nonconformance documents to assure completeness and control over nonconforming items. In addition, QA controls, distributes and closes out nonconformance reports, inspection reports and surveillance reports.

c. Items that have the disposition of "repair" or "use-as-is" require documentation by Engineering justifying acceptability; and

d. Repaired, reworked, and replacement items are inspected and tested in accordance with the original inspection and test requirements or alternatives that have been documented as acceptable by the responsible functional organization.

15.2.3 Dispositions of conditionally released items are closed out before the items are relied upon to perform their safety-related functions.

15.2.4 Prior to the initiation of preoperational testing on an item, nonconformances are corrected or evaluated for possible impact upon the item or the testing program.

15.2.5 The Quality Assurance Department analyzes nonconformance reports to identify quality trends. Trend reports, which highlight significant results, are issued periodically to upper management for review and assessment.

15.2.6 When appropriate, cause of nonconforming conditions is determined and corrective action implemented to prevent recurrence.

16.0 CORRECTIVE ACTION

16.1 POLICY

Program and hardware conditions adverse to quality are identified promptly and corrected as soon as practical.

16.2 IMPLEMENTATION

16.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

16.2.2 Controls are established to assure that conditions adverse to quality such as malfunctions, errors, deficiencies, or nonconformances are identified and documented and that appropriate corrective action is taken. QA controls, distributes, verifies and closes out conditions adverse to quality that are documented on Corrective Action Requests (CARs). The controls also assure that corrective action is implemented in a timely manner. Verification is required on adequacy and implementation of corrective action.

16.2.3 For significant conditions adverse to quality, corrective action includes determining the cause and extent of the condition and taking appropriate action to minimize similar problems in the future. These identified conditions, their causes and corrective actions taken are reported to appropriate levels of management for review and assessment.

16.2.4 Conditions adverse to quality are evaluated for reportability.

17.0 QUALITY ASSURANCE RECORDS

17.1 POLICY

Quality assurance records are records that furnish documentary evidence of the quality of items and services. Such documents are prepared by the originator and maintained by designated organizations. They are accurate, complete and legible and are protected against damage, deterioration or loss. They are identifiable and retrievable.

17.2 IMPLEMENTATION

17.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

17.2.2 Documents that furnish evidence of quality of items and services are generated and controlled in accordance with the procedures that govern those activities. Such documents are considered records upon completion. These records include:

a. Results of reviews, inspections, surveillances, tests, audits and material analyses;

b. Qualification of personnel, procedures and equipment;

c. Operating Logs;

d. Maintenance and modification procedures and related inspection results;

e. Reportable occurrences;

f. Records required by the stations' Technical Specifications;

g. Nonconformance reports;

h. Corrective action reports; and

i. Other documentation such as drawings, specifications, procurement documents, calibration procedures and reports.

17.2.3 A document becomes a record when completed. At that time it is designated as a permanent or nonpermanent record and is transmitted to file. Nonpermanent records have specified retention times. Permanent records are maintained for the life of the item and/or plant as appropriate.

17.2.4 In-process documents are controlled by the originator until completed and transmitted to file.

17.2.5 Records may be original documents or legible copies.

17.2.6 Authorized personnel may issue corrections or supplements to records. Procedures address acceptable methods of making corrections to records.

17.2.7 Traceability between the record and the item or activity to which it applies is provided.

17.2.8 Except for records that are stored as originals, such as radiographs and certain strip charts, records are stored in remote, dual facilities to prevent damage, deterioration or loss due to natural or unnatural causes. When only the single original can be retained, appropriate fire-rated facilities or features are used.

18.0 AUDITS

18.1 POLICY

Audits are carried out to provide an independent evaluation of compliance and effectiveness of the quality assurance program, including those elements of the program implemented by suppliers and contractors. Audits are performed in accordance with written procedures or checklists by qualified personnel not having direct responsibility in the areas audited. Audit results are documented and are reviewed by management. Follow-up action is taken where indicated.

18.2 IMPLEMENTATION

18.2.1 General organizational responsibilities are described in Section 1.0, ORGANIZATION.

18.2.2 Quality Assurance Department audits are performed:

a. To provide a comprehensive independent verification and evaluation of quality-related procedures and activities; and

b. To verify and evaluate the quality assurance programs, procedures, and activities of suppliers.

18.2.3 Audits are performed in accordance with established schedules. Applicable QA Program elements are audited at least once every two years.

18.2.4 Safety Review and Audit Board audits are performed as specified in the unit Technical Specifications.

18.2.5 Regularly scheduled audits are supplemented by special audits when appropriate. Conditions which may warrant special audits include:

a. Significant changes are made in the quality assurance program;

b When it is suspected that quality has been adversely affected; or

c. When an independent assessment of program effectiveness is considered appropriate.

18.2.6 Audits include an objective evaluation of quality-related practices, procedures, instructions, activities, items, documents and records to confirm that the quality assurance program is effective and properly implemented. The following activities are included:

a. Indoctrination and training programs;

b. Interface control between NMPC organizational units and between NMPC and its principal contractors;

c. Corrective action;

d. M&TE calibration;

e. Nonconformance control;

f. FSAR commitments;

g. Activities associated with computer codes; and

h. Activities associated with design verification performed by designers' immediate supervisor.

18.2.7 Audit procedures and the scope, plans, checklists and results of individual audits are documented.

18.2.8 Personnel selected for auditing assignments have experience or are given training commensurate with the needs of the audit and have no direct responsiblities in the areas audited.

18.2.9 Lead auditors are qualified and certified in accordance with approved procedures.

18.2.10 Audit data are analyzed to identify any quality deficiencies and assess the effectiveness of the quality assurance program. Audit reports are distributed to the responsible management of both the audited and auditing organizations.

18.2.11 Management of the audited organization takes appropriate action to correct observed deficiencies and to identify the cause and prevent recurrence of any conditions adverse to quality. Follow-up is performed by the Quality Assurance Department to ensure that the appropriate corrective action is taken and is effective. Such follow-up includes reaudits when necessary.

APPENDIX A

REGULATORY COMMITMENTS

Niagara Mohawk Power Corporation commits to the requirements of the regulations and industry standards identified in Appendix A subject to the stated interpretations and exceptions in Appendix B.

DOCUMENT	REVISION/ DATE	TITLE
1. 10CFR50 Appendix B		Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.
2. ANSI/ANS-3.2	1982	Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.
3. Reg. Guide 1.28	1985 R3	Quality Assurance Program Requirements (Design and Construction) - (Endorses ANSI/ANS NQA-1).
4. ANSI/ASME NQA-1	1983 including 83 Addenda	Quality Assurance Program Requirements for Nuclear Facilities.
5. ANSI/ASME NQA-2	1983	Quality Assurance Requirements for Nuclear Power Plants.
6. Reg. Guide 1.37	1973 R0	Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants. (endorses ANSI N45.2.1)
7. ANSI N45.2.1	1973	Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants
8. IEEE 336	1971	Installation, Inspection and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations.

9.	Reg. Guide 1.94	1976 R1	Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants. (endorses ANSI N45.2.5)
10.	ANSI N45.2.5	1974	Supplementary QA Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants.

APPENDIX B

INTERPRETATIONS AND EXCEPTIONS OF APPENDIX A DOCUMENTS

DOCUMENT	INTERPRETATION/EXCEPTION
1. 10CFR50 Appendix B	None
2. Reg. Guide 1.28	
a. Introduction	Requirement - This regulatory guide applies to design and construction of nuclear power plants. Guidance for operations phase QA programs will be addressed in separate regulatory guides. Interpretation - ANSI/ASME NQA-1 is included by reference in ANSI/ANS-3.2, which applies to operations phase QA programs. Therefore, Niagara Mohawk is committing to ANSI/ASME NQA-1 for operations phase activities.
b. Para. 3.1	Requirement - Applicable elements of an organization's QA Program should be audited at least annually ... Exception - During the operations phase, applicable elements of the QA program will be audited at least once every two years, in accordance with ANSI/ANS-3.2.
3. ANSI/ANS-3.2	
a. General	Requirement - ANSI/ASME NQA-1-1979 is referenced throughout ANSI/ANS-3.2. Exception - In lieu of the referenced standard NMPC is committed to ANSI/ASME NQA-1-1983 including 1983 addenda.
b. Para. 1.1	Requirement - This paragraph refers to "...all activities affecting those functions important to safety..." Exception - NMPC is committed to a program based on controls applied to safety-related systems, components and services.

c. Para. 3.4.2

Requirement - This paragraph establishes requirements for the qualifications of the Onsite Operations organization.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

d. Para. 4.0

Requirement - These paragraphs establish requirements for reviews and audits.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs, the related technical specifications and Section 18.0 of this Topical Report.

e. Section 5 General

Requirement - Reference is made within this section to the ANSI/ANS-3.2 Appendix for typical activities which should be covered by written procedures.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

f. Para. 5.2.1.6

Requirement - This section provides rules for the maximum number of hours at a duty station.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

g. Para. 5.2.2

Requirement - Portions of this paragraph specify approvals for temporary procedure changes.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

h. Para. 5.2.7
Para. 5.2.16

Requirement - These paragraphs require the use of ANSI/IEEE-336-1980.

Implementation - In lieu of the referenced standard Appendix A of this Topical Report commits to IEEE-336-1971.

i. Para. 5.2.8

Requirement - A surveillance testing and inspection program ... shall include the establishment of a master surveillance schedule reflecting the status of all planned inplant surveillance tests and inspections.

Interpretation - Independent master schedules may exist for different programs such as in-service inspection (ISI), pump and valve testing, and Technical Specification surveillance testing.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

j. Para. 5.2.9

Requirement - Procedures shall be developed to supplement features and physical barriers designed to control access to the plant and, as appropriate, to vital areas within the plant.

Implementation - This item is addressed in the Security Plan.

k. Para. 5.2.13.2

Requirement - Where required by law, regulation or contract requirements, documentary evidence that items conform to procurement requirements shall be available at the nuclear power plant site prior to installation or use of such items.

Interpretation - NMPC requires that the required documentary evidence be available at the site prior to use, but not necessarily prior to installation. This allows installation to proceed under specified conditions while any missing documents are being obtained, but precludes dependence on the item for safety purposes.

l. Para. 5.2.7
Para. 5.2.13.4

Requirement - These paragraphs refer to ANSI N45.2.8-1975, and ANSI/ASME N45.2.2-1978.

Exception - In lieu of the referenced standards NMPC is committed to ANSI/ASME NQA-2-1983 parts 2.2 and 2.8 for nuclear safety related permanent plant modifications and maintenance activities.

m. Para. 5.2.7

Requirement - This paragraph refers to ANSI/ASME D3843-80.

Exception - In lieu of this referenced standard, NMPC will comply with the protective coating controls described in applicable sections of the Nine Mile Point Units 1 and 2 FSARs.

n. Para. 5.2.15

Requirement - This paragraph establishes administrative controls for the review, approval and control of procedures.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

o. Para. 5.2.16

Requirement - Records shall be made and equipment suitably marked to indicate calibration status.

Exception - In some instances size or locations of installed plant instrumentation precludes attaching calibration labels directly on the instrument. In such cases, the label may be placed adjacent to the instrument or the instrument shall be uniquely identified and traceable to its calibration records. (See also item 3h)

p. Para. 5.3

Requirement - This paragraph establishes administrative controls for written procedures.

Implementation - In lieu of these controls NMPC will comply with those controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs and the related technical specifications.

q. Para. 5.3.9.3

Requirement - This paragraph suggests ANSI/ANS 3.7.1-1979, ANSI/ASME 3.7.2 and ANSI/ANS 3.7.3-1979 for additional guidance in preparation of Emergency Plan Implementing Procedures.

Exception - In lieu of ANSI/ANS 3.7.1, .2, and .3 described in ANSI/ANS 3.2, NMPC will comply with the emergency preparedness controls described in applicable sections of the Nine Mile Point Units 1 and 2 FSARs.

4. ANSI/ASME NQA-1

a. Supplement 2S-2

Requirement - The American Society of Nondestructive Testing Recommended Practice No. SNT-TC-1A, June 1975 Edition and its applicable supplements shall apply as requirements to NDE personnel covered by this Supplement.

Exception - In lieu of the referenced standard NMPC is committed to ASNT Recommended Practice No. SNT-TC-1A, June 1980 and its applicable supplements.

b. Supplement 2S-3

Requirement - Personnel who participate in quality assurance program audits shall be qualified in accordance with ANSI/ASME NQA-1 supplement 2S-3.

Exception - Personnel who perform audits for the Safety Review and Audit Board (SRAB) are not required to be so qualified, since these audits are outside the scope of the audit program described in section 18 of this Topical Report.

c. Supplement 7S-1
Para. 8.1

Requirement - Where required by code, regulation or contract requirement, documentary evidence that items conform to procurement document requirements shall be available at the nuclear facility site prior to installation or use.

Interpretation - NMPC requires that the required documentary evidence be available at the site prior to use, but not necessarily prior to installation. This allows installation to proceed under specified conditions while any missing documents are being obtained, but precludes dependence on the item for safety purposes.

d. Supplement 7S-1
Para. 8.2.4

Requirement - ... post-installation test requirements shall be mutually established by the purchaser and supplier.

Interpretation - In exercising its ultimate responsibility for its QA program, NMPC establishes post-installation test requirements, giving due consideration to supplier recommendations.

e. Supplement 17S-1
Para. 4.4.2

Requirement - The following are acceptable alternatives to the criteria of 4.4.1 above for a single facility:...

(b) 2 hr. fire rated class B file containers meeting the requirements of NFPA 232-1975;...

Exception - One hour fire rated file containers may be used for intermediate storage of Q.A. records from the time of completion of the record until the time such record is processed into the permanent plant file.

5. ANSI/ASME NQA-2

a. General

Applicable parts of this standard will be applied to nuclear safety related activities pertaining directly to permanent plant modifications only, except for item 3. 1. of this Appendix B.

b. Part 2.1

Requirement - this section gives QA requirements for cleaning of fluid systems and associated components.

Exception - In lieu of the referenced NQA-2 Section, NMPC is committed to Reg. Guide 1.37 (see Appendix A item 6)

c. Part 2.5

Requirement - this section gives QA requirements for installation, inspection and testing of structural concrete, structural steel, soils and foundations.

Exception - In lieu of the referenced NQA-2 section, NMPC is committed to Reg. Guide 1.94 (see Appendix A item 9)

d. Part 2.15

Requirement - This section gives QA requirements for hoisting, rigging and transportation of items for nuclear power plants.

Exception - In lieu of the referenced NQA-2 section, NMPC is committed to the requirements of applicable heavy load reports for Nine Mile Point Units 1 and 2 that have been approved by the NRC. Unit 2's reports are a part of the FSAR (Question and Answer section), Unit 1's are a separate report.

e. Part 2.20

Requirement - This section outlines QA requirements for subsurface investigations for nuclear power plants.

Exception - In lieu of the referenced NQA-2 section, NMPC will comply with the subsurface controls described in the applicable sections of the Nine Mile Point Units 1 and 2 FSARs.

6. Reg. Guide 1.37

a. General

Applicable parts of this Reg. Guide will be applied to nuclear safety-related activities pertaining to major plant modifications only (i.e. those under the direction of Nuclear Engineering).

b. Para. C.3

Requirement - The water quality for final flushes... ...shall be at least equivalent to the quality of the operating system water.

Exception - NMPC is committed to the stated requirement except for the oxygen content.

c. Para. C.4

Requirement - This paragraph gives precautions on chemical compounds that could contribute to intergranular cracking or stress corrosion cracking in austenitic stainless steel and nickel based alloys.

Exception - Expendable materials, i.e., inks and related products, temperature indicating sticks, tapes, gummed labels, wrapping materials (other than polyethylene), water soluble dam materials, lubricants, NDT penetrant materials, and couplants that contact stainless steel or nickel alloy surfaces are in accordance with the Nine Mile Point Unit 2 FSAR position for Regulatory Guide 1.38, Revision 2.

7. ANSI N45.2.1-1973
   a. Section 3.1.2

Requirement - this section gives the requirements for Class B cleanness.

Exception - Upgraded piping systems and components constructed of carbon steel materials will meet Class B cleanness requirements except for final flushing/cleaning which may exhibit rust staining in accordance with Class C cleanness requirements.

   b. Section 3.2

Requirement - This section gives water quality requirements for cleaning.

Exception - Due to seasonal conditions, freshwater from Lake Ontario will have an allowable upper pH limit of 8.5.

8. IEEE-336

Applicable parts of this standard will be applied to activities as stated in ANSI/ANS-3.2 paragraphs 5.2.7 and 5.2.16 (see item 3h of this appendix).

9. Reg. Guide 1.94

No Exceptions

10. ANSI N45.2.5-1974
   a. General

Applicable parts of this standard will be applied to nuclear safety-related activities pertaining to major plant modifications only (i.e. those under the direction of Nuclear Engineering).

   b. Para. 5.3

Requirement - This paragraph gives the requirements for assembly and erection.

Exception - Bolt holes generally will not be burned (oxygen cut). If holes must be burned, the following criteria will be followed: a) after cutting, the edges of the cut will be ground or reamed back a minimum of 1/32 in., and b) the final bolt hole dimensions will not exceed those given in the Specification for Structural Joints Using ASTM A325 or A490 bolts.

   c. Para. 5.4

Requirement - This paragraph establishes the criterion for determining correct bolt length as at least two threads extending beyond the face of the nut.

Exception - For NMPC the criterion established for correct bolt length is one thread extending beyond the face of the nut.

d. Para. 5.5

Requirement - This paragraph gives requirements for welding inspection.

Exception - All reinforcing bar splices made by arc welding, except those splices welded to metal embedments, will be selected on a random basis for radiography and inspected in accordance with AWS D12.1. Splices welded to metal embedments will be inspected in accordance with AWS 12.1.

e. Para. 6.2.2

Requirement - This paragraph gives the requirements for evaluating mechanical (Cadweld) splice test results.

Exception - Exceptions regarding mechanical splicing of safety-related reinforcing bars are in accordance with the Nine Mile Point Unit 2 FSAR position for Regulatory Guide 1.10.

APPENDIX C

MATRIX OF 10CFR50 APPENDIX B CRITERIA VS. NMPC QATR-1 AND QA PROCEDURES

10 CFR 50, APPENDIX B QA CRITERIA		NIAGARA MOHAWK POWER CORPORATION	
		QA PROGRAM TOPICAL REPORT SECTIONS	QA PROCEDURES BY NUMBER
I	Organization	1	QAP 1.01
II	QA Program	2	QAP 2.01, QAP 2.02, QAP 2.10, QAP 2.30, QAP 2.60
III	Design Control	3	QAP 6.20
IV	Procurement Document Control	4	QAP 4.01, QAP 4.10
V	Instructions, Procedures and Drawings	5	QAP 5.01, QAP 5.02
VI	Document Control	6	QAP 6.01, QAP 6.20
VII	Control of Purchased Material	7	QAP 7.20
VIII	Identification and Control of Materials and Parts	8	QAP 4.10, QAP 10.03, QAP 10.30
IX	Control of Special Processes	9	QAP 9.01
X	Inspection	10	QAP 10.02, QAP 10.03 QAP 10.30
XI	Test Control	11	QAP 10.03, QAP 10.30
XII	Calibration of Equipment	12	QAP 12.10
XIII	Handling, Storage and Shipping	13	QAP 10.03, QAP 10.30,
XIV	Inspection, Testing & Operating Status	14	QAP 10.30, QAP 15.01
XV	Nonconforming Material	15	QAP 15.01
XVI	Corrective Action	16	QAP 16.03, QAP 16.04, QAP 16.20, QAP 16.70
XVII	QA Records	17	QAP 17.10
XVIII	Audits	18	QAP 18.10