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SUBJECT: Forwards response to 840521 request for info re QA program. Revised FSAR writeups & updated organizational charts to be incorporated in next FSAR amend.

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NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

July 31, 1984
(NMP2L 0118)

Mr. A. Schwencer, Chief
Licensing Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Nine Mile Point Unit 2
Docket No. 50-410

Dear Mr. Schwencer:

This letter is provided in response to your request for information dated May 21, 1984.

Revised FSAR writeups and updated organizational charts are attached. This information will be incorporated in the next FSAR amendment.

Very truly yours,

C. V. Mangan
Vice President
Nuclear Engineering & Licensing

MWS:ja
Attachment
Project File (2)

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CHAPTER 17

QUALITY ASSURANCE

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INTERNAL CORRESPONDENCE

NIAGARA MOHAWK

DISTRICT System

FROM J. G. Haehl, Jr.

DATE June 5, 1984 FILE CODE

TO Officers, Department Heads, Superintendents and Managers

SUBJECT Authority of Quality Assurance Department

The Niagara Mohawk Quality Assurance Department is charged with the establishment and administration of the Quality Assurance Program. The Director of Quality Assurance shall report directly to the President of the Corporation. This department has the responsibility and is delegated requisite authority to observe, investigate, survey, audit, and report concerning activities directly or indirectly related to the quality of design, procurement, fabrication, materials management, construction, installation, inspection, test, operation, modification, repair and maintenance. These functions may be performed by internal Niagara Mohawk departments, including the Quality Assurance Department where applicable, or by outside contractors/vendors.

The purpose of the Quality Assurance Department's activities is to:

1. Inform appropriate management personnel, possessing authority, to take corrective action wherever such action is needed, and/or

2. Take direct action where deemed necessary by the Director of Quality Assurance (or his authorized delegate).

The responsibility of the Quality Assurance Department includes, but is not limited to, a charge to assure senior management that the Company's activities comply with approved procedures and prescribed codes, standards and criteria (including nuclear standards), as applicable, thereby assuring that these activities and facilities are safe, reliable and economical.

All employees affected by this delegation of authority are directed to cooperate with Quality Assurance Department personnel in the discharge of their responsibilities.

J G Haehl Jr.

17.1 QUALITY ASSURANCE PROGRAM DURING OPERATION

Appendix D to the Unit 2 PSAR defines the NMPC QA program used for the design and construction phase of Unit 2. This section describes the QA program to be used during the operations phase of Unit 2.

17.1.1 Organization

17.1.1.1 General Organizational Structure

The QA Department is a corporate department under the direction of the Director of Quality Assurance (See Figure 17.1-1) who reports on quality matters to the President. Further definition of the administrative and functional organizations is included in the procedures developed to implement specific parts of this program. Table 17.1-1 contains tabular cross-references from 10CFR50 Appendix B to the applicable NMPC procedures. The QA Department regularly reviews the status and adequacy of the QA program, including a quality compliance review of all contractors and a self-appraisal.

The organization of the Safety Review and Audit Board (SRAB) and the Site Operations Review Committee (SORC) is discussed in Section 13.4.

QA-related activities are performed by other individuals and groups in accordance with the requirements of the NMPC QA program manuals and Appendix B to 10CFR50. The NMPC organizations that perform these activities for Unit 2 include:

1. Nuclear Engineering and Licensing.
2. Nuclear Construction.
3. Purchasing.
4. SRAB (Technical Specifications).
5. SORC (Technical Specifications).
6. Site Maintenance Superintendent Nuclear and Staff.
7. Technical Superintendent Nuclear and Staff.
8. Superintendent Chemical and Radiation Management.
9. Superintendent Training Nuclear.

10. Station Superintendent and Staff.

11. Manager System Materials Management and Staff.

17.1.1.2 Program Responsibility

Total responsibility for the QA program is retained by NMPC. The QA Department is responsible to the President for execution and implementation of the QA program. This program includes control measures, such as audit, surveillance, and review and/or approval, to assure QA compliance for the design, procurement, fabrication, storage, construction, test, operation, and maintenance of the facility or any modifications.

Within this program, those individuals and organizations assigned specific QA functions, as described herein, have the responsibility for assuring the establishment of specific criteria for measurement and verification of the correctness of work performed against these criteria. Additionally, the size of the QA Department will be determined by the scope of the design, construction, and operations activities and their importance to safety.

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:

- The Director of Quality Assurance normally attends Chief Executive Officer's staff meeting attended by appropriate members of executive management (C.E.O. and/or President and/or Administrative Assistant) as well as by the senior vice presidential level. The Director of Quality Assurance is expected to provide oral presentations or furnish an assessment of quality assurance matters.

- The Director of Quality Assurance is listed on the agenda of the corporate monthly operating review meetings and normally presents an oral capsule assessment of QA matters to the executive management level and to other attendees.

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 QA program. The action of these committees and their reporting on a regular basis to the Director of Quality Assurance and other specified vice presidential levels is described in Section 13.4.2.

Management above the QA organization utilities, on at least an annual basis, the services of a combined utility assessment team and/or the contracted services of qualified QA assessors. The combined utility assessment team is composed of appropriately qualified auditors from a consortium of nuclear utilities.

17.1.1.2.1 Director of Quality Assurance

The Director of Quality Assurance reports directly to the President and is responsible for the overall control and implementation of the Quality Assurance program. The Director of Quality Assurance is organizationally independent from the various functional groups and has the freedom to deal independently with matters concerning quality activities performed by those groups. To ensure that the Director of Quality Assurance may deal with quality problems effectively, the Director of Quality Assurance has the authority to take direct action concerning matters affecting quality. Direct action includes the initiation of an order to "Stop Work" or consultation with Niagara Mohawk Power Corporation corporate management concerning unresolvable quality problems.

The Director of Quality Assurance effects overall Quality Assurance policy through approval of the content of this document and through approval of the Quality Assurance Department Procedures, as delegated.

In addition, the requirements exist for the Director of Quality Assurance or his designee to review top level procedures of other departments, and to indicate, in writing, acceptance of (concurrence with) these procedures which cover quality related activities. This must be accomplished prior to implementation and applies equally to changes to these procedures. This requirement makes it possible for the Director of Quality Assurance to achieve an acceptable level of control over all activities which relate to quality.

The Director of Quality Assurance exercises the control and direction of Niagara Mohawk Power Corporation's Quality Assurance program from:

(a) This being the highest Niagara Mohawk Power Corporation corporate position totally and exclusively concerned with quality activities.

(b) This position reporting to the President.

(c) This position exercising total functional control over the Quality Assurance Organization.

(d) This position having the responsibility and authority to formulate and establish Quality Assurance policy for Niagara Mohawk Corporation.

(e) This position having the responsibility to approve Quality Assurance Department procedures.

(f) This position having the responsibility to indicate acceptance prior to implementation of other procedures which contain quality provisions. Such procedures are certain of those dealing with operation, design, repair, maintenance, modification and, procurement.

(g) This position directing the audit/follow-up program mof the Quality Assurance Organization.

(h) This position having the authority to indicate or delegate initiation of "stop work" action and maintain control to completion of acceptable corrective action.

17.1.1.2.2 Quality Assurance Supervisors/Managers

Quality Assurance Supervisors/Managers have the responsibility for supervision of the members of their staffs assigned to evaluate and coordinate necessary QA functions. More specifically, some of their activities include:

1. Supervising, directing, and coordinating the staff personnel and consultants within the framework of established policies and QA Department procedures.

2. Bringing unresolved quality-related problems to the attention of the Director of Quality Assurance.

3. Coordinating and evaluating necessary audit functions.

4. Implementing QA Department procedures and instructions regarding safety-related modification and refueling operations.

5. Implementing all required quality control activities in accordance with applicable QA procedures and instructions.

6. Regularly reporting to the Director of Quality Assurance the status of quality activities being performed.

5 7. Initiating "stop work" action at the site, when appropriate. This is further described in Section 17.1.10.2.1.

The QA Supervisors maintain the necessary independence to perform QA activities by reporting directly to the Director of Quality Assurance. Organizational independence from those performing actual work will be maintained.

Personnel performing verification of conformance to established requirements are members of the Quality Assurance Department or their designee. This department is headed by 5 the Director of Quality Assurance, who reports directly to the President of NMPC.

Personnel performing the work being verified (nuclear engineering, nuclear generation, Purchasing, Materials Management, etc) report to other vice presidents.

17.1.1.2.3 Quality Assurance Staff

The QA staff for Unit 2 consists of those members of the QA Department who are assigned by the QA Supervisors/Managers. Some of the duties of the staff include:

1. Conducting audits of the various NMPC departments, architect-engineers, contractors and subcontractors, including QA groups within these organizations.

2. Preparing and updating policy manuals, certain procedures, and instructions necessary to implement the QA program.

3. Reviewing the procedures, programs, and results of the various organizations performing the quality 5 activities within or for NMPC, including the incorporation of hold or "witness" points therein.

4. Trending of quality-related problems.

generated by the Nuclear Division relating to modification and refueling.

b. Reviewing and accepting procurement documents, specifications, and drawings relating to maintenance, repair, inspections, and tests conducted at the site.

8.a. Surveillance/auditing of NMPC and vendor activities relating to modification and refueling.

b. Surveillance of site activities regarding modifications, maintenance, repair, fuel handling operations, inspections, and tests.

9. Preparing reports for the Director of Quality Assurance, as assigned.

10. Performing other duties delineated in subsequent sections of this document and in the appropriate QA Department procedures.

11. Performing or assuring performance of the independent inspections associated with corrective maintenance, receipt inspections, and modifications.

QA staff personnel have expertise in various disciplines such as mechanical, nuclear, electrical, structural, NDE, and metallurgical.

The responsibility for the inservice inspection resides with the Nuclear Generation staff. The QA Department provides surveillance and inspection of this function as part of the Audit program.

The QA staff has the responsibility and authority to audit any organization, both within and outside NMPC performing quality-related activities. This allows the QA Department to evaluate/investigate the performance of applicable QA groups and to provide additional assurance of proper accomplishment of activities affecting quality.

Additionally, the QA staff is responsible to assist the QA Department Supervisors through regular audits, reviews, surveillances, and other assigned functions.

variety of disciplines and backgrounds in power plant technology. Support in plant chemistry, health physics, fueling and refueling operations, and maintenance support, as required in nuclear, mechanical, structural, electrical, thermal-hydraulic, and instrument and control engineering are provided. Specific headquarters support group descriptions are discussed in Chapter 13.

Most design-related requests (after commercial operation) are relayed from the Station Superintendent through the Manager Nuclear Engineering, who assigns appropriate engineering support groups the design responsibility and/or hires a vendor or contractor to perform the work. Conceptual designs are formulated and sent to the site for approval after engineering approval. Conceptual site approval is made by the Station Superintendent after review by the appropriate site discipline. Final design is provided by Engineering for review by the appropriate site discipline, the Station Superintendent, and the SORC, and is approved by the General Superintendent Nuclear Generation and reviewed by the SRAB.

Any design-related activities not performed as described above are performed onsite or controlled onsite. Such activities are controlled in a similar manner except that technical review and approval and procurement are maintained by site personnel, with Engineering acting as a consultant if requested by the Station Superintendent.

17.1.1.2.5 Nuclear Construction

The Project Director has the overall responsibility for project management of Unit 2. The project organization is shown on Figure 13.1-2. The project management efforts include management of construction, design, preliminary testing, support for turnover of plant equipment and systems to Nuclear Generation for preoperational and startup testing (fuel load). These activities are governed by the Project Manual and procedures for Unit 2.

17.1.1.2.6 Purchasing

The Vice President Purchasing reports directly to a Senior Vice President and is responsible for formulating, establishing, and enforcing compliance with procurement requirements. The Vice President Purchasing and his staff are responsible to ensure that all applicable procurement documents and changes are reviewed and accepted by the QA Department.

17.1.1.2.7 Safety Review and Audit Board (SRAB)

The SRAB is responsible to the Vice President Nuclear Engineering and Licensing and the Vice President Nuclear Generation. In addition to other specified duties, this board reports its observations regarding Unit 2 QA functions to the previously mentioned Vice Presidents and the Director of Quality Assurance. The organization and functions of the SRAB are discussed in Chapter 13.

17.1.1.2.8 Site Operations Review Committee (SORC)

The SORC is responsible to the General Superintendent Nuclear Generation and transmits reports to the SRAB. In addition to other specified duties, the SORC reviews all initial and revised procedures utilized at the site by the Nuclear Generation Department. The organization and functions of the SORC are discussed in Chapter 13.

17.1.1.2.9 General Superintendent Nuclear Generation

The General Superintendent Nuclear Generation reports directly to the Vice President Nuclear Generation. The General Superintendent is responsible for implementing NMPC QA policies as applicable to operation, maintenance, modification, and repair conducted at the site. He is responsible for formulating, establishing, and enforcing compliance with all Nuclear Generation Department procedures implemented at the site.

The General Superintendent is authorized to approve all site Nuclear Generation Department procedures, to continually analyze site operations to detect potential safety problems, and to implement "stop work" action at his discretion and when requested by the QA Department in accordance with applicable procedures.

17.1.1.2.10 Maintenance Superintendent Nuclear and Staff

The Site Maintenance Superintendent Nuclear and his staff report to the General Superintendent Nuclear Generation. This superintendent is primarily concerned with:

1. Originating procurement documents for maintenance, modification, and repair.

2. Welding.

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

NMPC and by those supplying materials, equipment, and services to NMPC. In making this evaluation, QA personnel audit or conduct surveillance of quality activities in all of the above-mentioned areas. QA personnel are responsible to assure the identification of quality problems, to initiate or recommend solutions to these problems, to verify corrective actions relative to these problems, and to verify that quality instructions are implemented. The Director of Quality Assurance regularly informs the President and the appropriate Senior Vice President as to findings.

17.1.1.3.3 "Stop Work"

To ensure that the Director of Quality Assurance may deal with quality problems effectively, he has authority to take direct action concerning matters affecting quality. Direct action includes the initiation of an order to stop work or consultation with NMPC senior executives concerning unresolved quality problems. Sections 17.1.1.2.9 and 17.1.10.2.1 identify other personnel who have the authority to initiate "stop work" action.

17.1.1.4 Quality Assurance Interfaces

The QA communications interfaces established are described below:

1. The interfacing groups are knowledgeable about the scope of each others' activities affecting quality by exchanging controlled documents as required.

2. For the life of certain modification projects, interfaces, including QA interfaces, are identified in appropriate documents furnished to major project participants including contractors.

Examples of comunications interfaces are:
QA/QC nuclear operations organization personnel will attend informal planning sessions with the maintenance department. These are generally held daily.

During normal operation, QA/QC may attend plant operation meetings. These are generally held weekly.

QA/QC may attend site operational review committee meetings as a nonvoting member. These are generally held weekly.

QA/QC will review all Class I work requests prior to the initiation of work and all modification requests.

QA/QC hold points are established or being established in appropriate maintenance procedures for corrective maintenance of Class I equipment, components, etc. This activity is, or

will be, established in the appropriate site administrative procedures for Unit 2. This ensures proper acceptance criteria.

QA/QC, in accordance with administrative procedure, is required to be notified prior to the start of all preoperational tests. 9

QA/QC staffing and qualification requirements will be based on identified needs from Unit 1 projections for the Unit 2 organization, with qualification requirements derived from appropriate ANSI, ASME, etc, code and standard requirements.

17.1.2 Quality Assurance Program

17.1.2.1 Program Development

The NMPC QA program was developed in accordance with the requirements of Appendix B to 10CFR50.

Degree of compliance to applicable QA regulatory guides is provided in Table 17.0-1.

17.1.2.2 Quality Assurance Program Applicability

The structures, systems, and components covered by the QA program are listed in Table 3.2-1. Activities affecting structures, systems, and components important to safety will be subject to the applicable controls of the QA Program.

17.1.2.3 Program Implementation

The QA program relates to activities performed by the entire QA staff, as well as to quality-related activities in the task-oriented groups involved. These task-oriented organizations are required to operate in accordance with properly approved written procedures when performing activities relating to safety-related systems and/or components. This QA program will be initiated during the initial testing program to ensrue the continuity of QA activities in accordance with 10CFR50 Appendix B. The QA organization and program for initial testing thru fuel load are shown in Figures 17.1-1 and 17.1-2. The operational QA program will be fully implemented at least 90 days prior to fuel loading. Further explanation concerning preparation, review, and approval of such procedures is included in Sections 17.1.5 and 17.1.6.

17.1.2.4 Communication of Program Requirements

Administrative controls assure that QA program policies, procedures, and instructions, including changes thereto, are distributed and implemented in a timely manner and are controlled in accordance with Section 17.1.6. A listing of applicable QA procedures and instructions is provided in Table 17.1-1.

17.1.2.5 Policies, Goals, and Objectives

Exhibit 17.0-1 provides the corporate QA policies, goals, and objectives. Additionally, Chapter 17 in its entirety defines the program to implement these established responsibilities. Quality-related concerns are resolved in accordance with applicable QA procedures.

17.1.2.6 Training

The indoctrination and training program that has been established for personnel performing QA-related activities consists of:

1. Familiarization with the content of:

   a. Regulatory criteria such as Appendix B to 10CFR50.

   b. NMPC QA policy and procedures.

   c. Regulatory guides.

   d. Safety analysis reports.

17.1.2.8 Program Development

Copies of NMPC and contractors' QA procedures, instructions, or manuals are available for reference in the NMPC QA organization offices or at the contractors' offices. The procedures require provision for controlled conditions when carrying out activities affecting quality. These procedures require the use of appropriate equipment in suitable environments and verification that quality prerequisites have been achieved.

17.1.2.9 Program Assessment

The Director Quality Assurance periodically assesses the implementation and effectiveness of the QA program

through review of reports concerning audits and surveillances conducted by the QA organization. The QA Department regularly performs audits and surveillances of the activities of the various organizations performing QA-related activities (Section 17.1.18). Copies of the reports of audits/surveillances are sent to the Director Quality Assurance, who in turn reports significant findings/problems to the President. The audits of the SRAB are conducted and reports distributed as indicated in Section 17.1.18.

The QA programs and the QA manuals for contractors and vendors involved in repair, maintenance, inservice testing, and modifications to, and the refueling of, Unit 2 are reviewed and accepted by QA personnel under the direction of a Quality Assurance Manager/Supervisor. Documentation of the review and acceptance action is audited by the QA group.

17.1.2.10 QA Interfaces During Initial Testing

The QA interfaces are described in Section 17.1.1.4. This will include interfaces between architect-engineers, NSSS, and other NMPC groups to assure successful transition and implementation of the QA program.

17.1.2.11 Review and Approval of Program Manuals/Procedures

The frequency of audits and surveillance is commensurate with the safety significance of the activities performed. The audit frequency is sufficient (Section 17.1.18) to provide QA Department management, and in turn, NMPC corporate management, with means to continually evaluate the QA program.

All QA Department policies and procedures that are used by the QA Department require the approval of the Director of Quality Assurance or his designee. QA Department procedures are originated by QA Department staff personnel, reviewed by the QA Department Supervisors, and approved by the Vice President Quality Assurance or his designee.

The QA program description will be kept current by annual review and update of the FSAR as required by 10CFR50. Substantive changes to the accepted QA program will be submitted to the NRC for review and concurrence before implementation. Additionally, the NRC will be notified of organization changes within 30 days of announcement.

Assurance that similar procedures are established and implemented in other departments is obtained by audit and surveillance by the QA department.

The Quality Assurance department reviews all engineering and site administrative procedures for QA-related aspects. Concurrence by the QA Manager is required before implementation. Concurrence is indicated by signature and date on the title page of the procedure. 9

17.1.5.2.1 Document Procedures

Procedures for directing quality-related activities will be prepared to comply with each of the 18 criteria within 10CFR50, Appendix B.

17.1.5.2.2 Preparation of Procedures, Instructions, and Drawings

All quality-related activities shall be performed in accordance with properly approved instructions, procedures, and drawings. The preparation of necessary written procedures and instructions is the responsibility of the department or group performing the activity. Required procedures, instructions, and drawings are prepared in accordance with controlling procedures that include requirements for review, approval, and issuance of the documents involved.

All NMPC QA Department procedures are reviewed and approved by the Director Quality Assurance or his designated representative. Certain other procedures including NMPC Engineering procedures, the Nine Mile Point site adminis-

trative procedures, and certain controlling procedures of the Nuclear Construction Department, Materials Management, and Purchasing Departments require the concurrence prior to issuance of the Director Quality Assurance or his designated representative for quality-related content.

17.1.5.2.3 Requirements

NMPC imposes on their architect-engineers, vendors, and contractors, the requirement for utilizing approved written procedures and instructions, as appropriate. The architect-engineers, vendors, and contractors are obligated to impose applicable requirements on their suppliers and subsuppliers.

17.1.6 Document Control

17.1.6.1 Document Issuance Maintenance and Control

The purpose of this section is to assure the implementation of programs for establishing and maintaining control over documents that affect the quality and safe operation of Unit 2. This policy is implemented through written procedures. It is imposed upon contractors, suppliers, and subsuppliers, when appropriate, through contractual arrangements.

The measures that control the issuance and revision of these documents require:

1. Review of controlled documents for accuracy.

2. Approval of controlled documents by authorized personnel prior to release.

3. Distribution of controlled documents to the points of use.

4. Use of controlled documents where the prescribed activity is carried out.

5. Changes and alterations to documents affecting quality are made by subjecting the revised document to the same controls (review, approval for release, distribution, and use) as the document that it replaces, changes, or alters. The changes are reviewed and approved by the same organizations that performed the original review and approval. Document control provides that changes are included in a timely manner, when applicable. Unit 2 will maintain marked-up copies of all drawings to

identify those mandatory inspection hold points beyond which work may not proceed until inspected by a designated inspector.

17.1.10.2.1 "Stop Work" Policy

The Director Quality Assurance or his designated representative has the authority to initiate "stop work" action. Where normal station operation or maintenance work is involved, the General Superintendent Nuclear Generation is also authorized to issue "stop work" action. He may designate that certain of his personnel have the authority to issue "stop work" actions. For major repairs or modifications delegated to it, the Design Office is also authorized to issue "stop work" action. | 9

When a process on a safety-related system fails to meet established criteria due to noncompliance with specifications, procedures, or drawings, unsatisfactory workmanship, or deviation from operational standards, authorized personnel may deem it necessary to issue "stop work" instructions. When safety-related station changes or modifications are involved, either the NMPC Design Office or the General Superintendent Nuclear Generation (as previously described) shall issue "stop work" instructions to:

1. Forbid the use of materials, equipment, or workmanship that do not conform to specifications, or that would cause improper installation relative to specifications.

2. The cause of the condition is determined and prompt corrective action is implemented.

3. Determination of corrective action is made by cognizant and responsible personnel.

4. Follow-up action is taken to provide implementation, verification, and closure of the documentation by the appropriate QA Department supervisory personnel.

It is the responsibility of the particular QA Department Supervisor to control the deficiency and corrective action reporting system in his area of responsibility. He shall determine which of those reported conditions are significant conditions adverse to quality, and shall ensure that they are immediately reported to appropriate management levels including the Director of Quality Assurance. Corrective action for significant deficiency reports is handled in a manner consistent with their importance to safety. Corrective action includes preventive measures to preclude recurrence of the condition.

The appropriate manager/supervisor of the organization upon which a deficiency citation has been prepared is responsible for determining the corrective action to be applied, preparing any procedures required, and ensuring that the corrective action is implemented.

Contractors involved in station modification, repair, or services are required to have procedures that require that nonconformance and corrective action documentation and reporting be implemented. The QA Department is responsible for ensuring that such requirements are stated in procurement documents by review, and for ensuring implementation by surveillance and/or audit.

The Director of Quality Assurance maintains overall responsibility for, and control of, the deficiency and corrective action reporting system. He has the approval authority for all procedures and changes thereto involved in the Nonconformance Reports system. He maintains control by means of audits, surveillance, and reviews of Nonconformance Reports by personnel of the QA staff. Procedures require that a copy of any report indicating a significant condition adverse to quality be transmitted to the Director of Quality Assurance or his designee.

17.1.16.3 Analysis

Reports indicating quality problems are reviewed by the QA Department for trend analysis. The QA Department staff is also required by procedures to document and report adverse trends, QA program breakdowns, or other significant deficiencies to the Director of Quality Assurance or his designee. He has the authority, through reporting to corporate management, to ensure that proper corrective and preventive measures are undertaken to satisfy the requirements of the applicable safety criteria.

17.1.16.4 NRC Notification of Problem Areas

Procedures are established regarding the reporting of failures to comply or defects to the NRC, as required by 10CFR21. Procedures provide for internal reporting and analysis of deviations and require the imposition of the requirements of 10CFR21 on suppliers as part of procurement documents.

17.1.16.5 Records

The QA Department shall maintain a file of records generated relating to this section as delineated in Section 17.1.17.

17.1.17 Quality Assurance Records

17.1.17.1 General

It is the policy of NMPC to maintain a record retention system which contains an easily retrievable quality history for each safety-related item. All records must be consistent with applicable codes, standards, specifications, and contracts. This policy requires that station operating and maintenance records be maintained. Design offices, vendors, and contractors are required to generate and provide to NMPC records covering the period of design, manufacture, and installation. The purpose of this system is to permit reconstruction of the significant events that cause any given part to be located where it is, in regard to physical position and operating status, at any particular point in time. These records can be used for such purpose as analysis of failures, maintenance programs, and replacement frequency.

The following are examples of records to be maintained: procurement documents, calibration procedures and results, nonconformance reports, operating logs, refueling records,

17.1.18.8 Audits/Surveillances by the Quality Assurance Department Staff

Independent audits as well as surveillances shall be conducted by the QA Department staff. These include, but are not limited to:

1. Operation, maintenance, receipt inspection, testing, modification, installation, repair, technical services, training, and chemical and radiation management.

2. Engineering, Project Management, Purchasing, and Materials Management.

3. Audits of records of SORC and SRAB.

4. Contractors' activities, design offices, shops, and field erection.

5. Corrective action and nonconformance content.

6. FSAR commitments.

7. Compliance with regulatory requirements.

8. Calibration facilities.

9. Activities associated with computer programs.

Audits and surveillances are scheduled at appropriate intervals to ensure that all safety-related activities, procedures, and programs are in compliance with their intended functions and regulatory requirements. Checklists shall be prepared in advance when appropriate.

Audit and surveillance reports are distributed, as applicable, to:

1. Director Quality Assurance.

2. QA Department Managers and Supervisors.

3. General Superintendent Nuclear Generation or SRAB chairman.

4. Station Superintendent.

5. QA Department files.

6. Organizations involved in audit/surveillance.

All audits include an objective evaluation of quality-related practices, procedures, instructions; activities and items; and review of documents and records to ensure that the QA program is effective and properly implemented in accordance with procedures.

17.1.18.9 Audits by the Safety Review and Audit Board

NMPC corporate management utilizes the services of the SRAB to audit QA-related activities at the site, as well as within applicable portions of the QA and Nuclear Departments.

The SRAB conducts audits in the areas and at the frequency specified in the Technical Specifications using checklists prepared in advance. SRAB audits of QA-related activities are conducted under the immediate direction of a board member or consultant who has no direct responsibilities in the areas being audited. He may invite the participation of a member of the QA Department and/or other concerned groups as observers. The scope of audits conducted by the SRAB is of such nature as to appraise the QA program policies, activities, and procedures. These policies, activities, and procedures are evaluated against the criteria of Appendix B to 10CFR50. Deficiencies observed in the QA program policies, activities, and procedures are described in the audit report. Ensuing corrective-action is verified on subsequent audits by the SRAB.

An annual summary of SRAB audits performed is reported. The distribution of this report is, as a minimum, to the Vice President Nuclear Generation, the Vice President Nuclear Engineering and Licensing, the Chairman of the SRAB, the Director of Quality Assurance, and the NMP2 Project Director.

17.1.18.10 Records

Audit reports are maintained as delineated in Section 17.1.17.

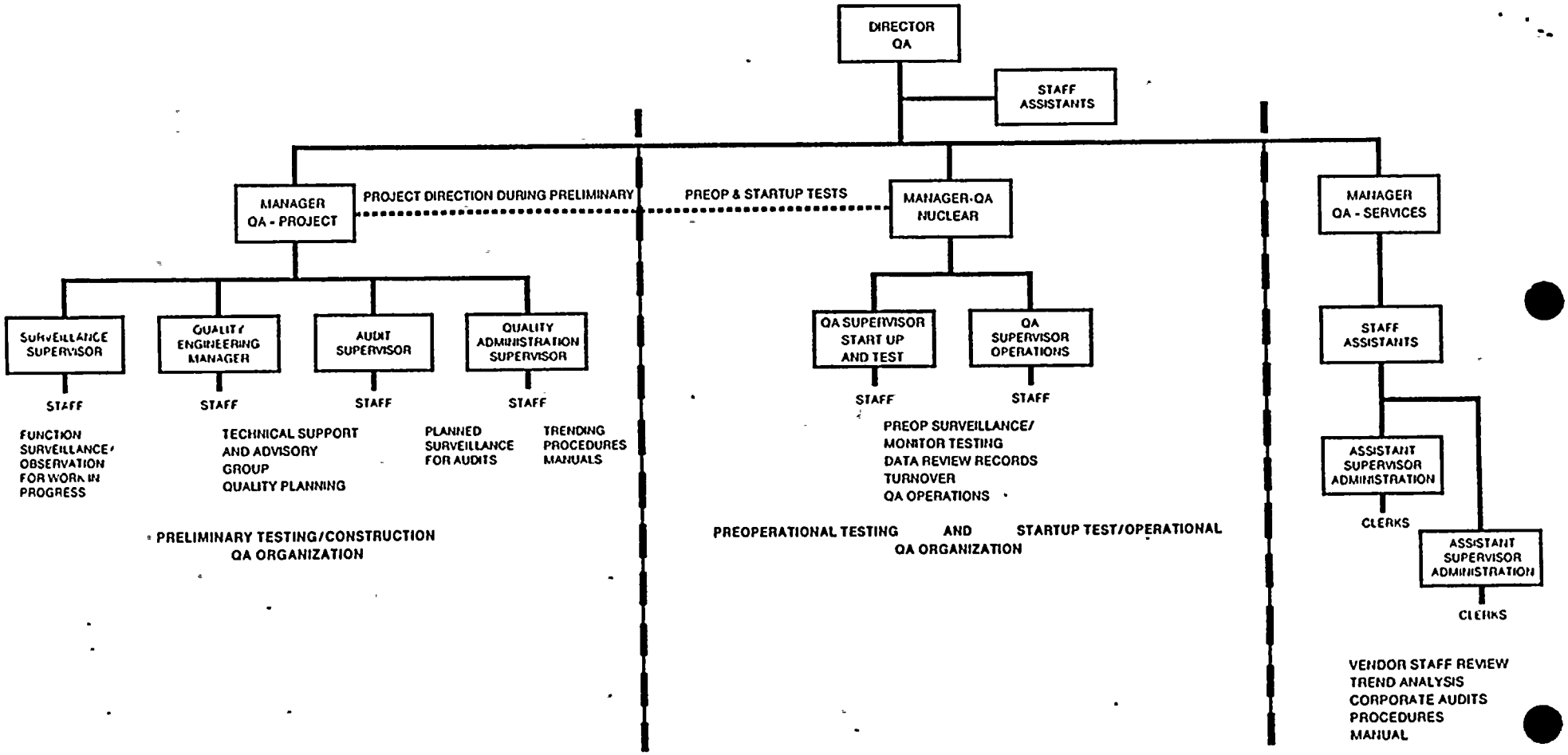

FIGURE 17.1-1

QA ORGANIZATION DURING PRELIMINARY TESTING/CONSTRUCTION, PREOPERATIONAL TESTING AND STARTUP TESTING/OPERATIONS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
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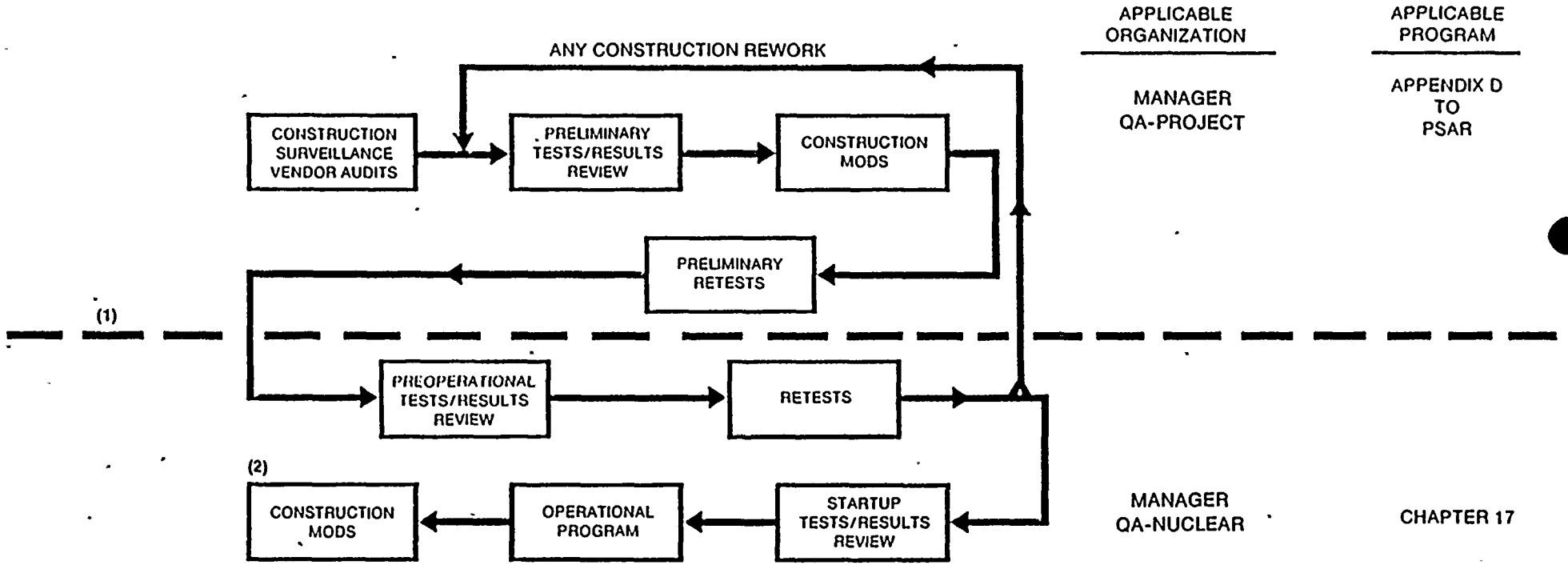

NOTES:

1. THIS LINE DESIGNATES THE APPLICABLE QA MANAGER AND QA PROGRAM.
2. EITHER PERFORMED UNDER CHAPTER 17 BY NMPC OR UNDER CONSTRUCTION PROGRAM IN ACCORDANCE WITH THE APPENDIX D PROGRAM.

FIGURE 17.1-2

APPLICABLE QA PROGRAM AND ORGANIZATION USED DURING PRELIMINARY TESTING/CONSTRUCTION, PREOPERATIONAL TESTING AND STARTUP TESTING/OPERATIONS

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as tested in the preliminary phase will not be retested in the preoperational testing phase. The preoperational test phase ends at the commencement of fuel loading; however, it is possible that some preoperational testing may be completed after fuel loading has occurred.

During the conduct of the preoperational test phase, two types of tests are performed: preoperational tests and acceptance tests. A preoperational test is defined using Regulatory Guide 1.68. The tests are listed on Table 14.2-1. Acceptance tests are similar to preoperational tests but are performed on nonsafety-related systems not specified in Regulatory Guide 1.68 (Table 14.2-1). Testing and/or direction of all preoperational tests will be conducted by NMPC testing operations personnel.

14.2.1.3 Initial Startup Test Phase

The initial startup test phase of the test program commences with preparation for fuel loading and extends through 100-percent rated power/100-hr warranty demonstration. The initial startup phase of testing is divided into five areas: fuel loading, open vessel, initial heatup, power ascension, and rated power warranty run. Testing performed during this phase of the program ensures that fuel loading is accomplished in a safe manner, confirms the plant design basis, demonstrates that the plant can withstand anticipated transients and postulated accidents, and ensures that the plant can be safely brought to rated power and sustain power operation.

14.2.2 Organization and Staffing

The Unit 2 organization for testing and interface between Niagara Mohawk, SWEC, and General Electric is shown in Figure 14.2-7 for the preoperational and preliminary testing phase and startup and testing.

The staffing plan for personnel assigned during the preoperational and startup testing phases is shown in figure 14.2-6.

14.2.2.1 Principal Testing Personnel

The principal testing personnel have overall responsibility for the administrative and technical control and conduct of the test program. Testing and/or direction of testing will be performed by testing personnel. Principal testing personnel also have responsibility for development and writing of test procedures. These efforts are directed by the

Station Superintendent, who reports directly to the General Superintendent Nuclear Generation. The Station Superintendent has the responsibility and authority to conduct the test program in conformance with the Unit 2 Project Manual and related documents associated with accomplishing the Startup and Test Department objectives. He has the authority to implement an organization to undertake the responsibilities assigned to start up and test the plant. Reporting directly to the Station Superintendent is the Supervisor of Operations and the Startup Manager.

The station organization for testing is divided into two internal groups: the startup and test group and the plant operations group. These two groups are responsible for all matters relating to preliminary/preoperational, acceptance, startup testing and operation of NMP2. Additionally, under the direction and control of the Startup Manager, the SWEC Advisory Operations Personnel have authority for the completion of preliminary testing. Both groups consist of personnel drawn from various organizations such as SWEC, GE, outside consultants, NMPC Nine Mile Point Nuclear Site departments, and corporate engineering groups.

The test group consists of the Startup Manager, Test Group Managers, Test Engineers, and technical staff as required (Figure 14.2-7). The operations group includes the Supervisor of Operations, Assistant Supervisor Operations, Station Shift Supervisors, Assistant Station Shift Supervisors, and operators, as discussed in Chapter 13 (Figure 13.1-5).

14.2.2.1.1 Station Superintendent

The Station Superintendent is responsible for the conduct of the Startup and Test program and the operation of the station. Chapter 13 describes the Station Superintendent's operational responsibilities. The Station Superintendent manages the testing effort through the Startup Manager. The Station Superintendent is responsible for the technical adequacy of the test program and compliance to NRC regulations and NRC licensing commitments.

14.2.2.1.2 Startup Manager

The direct responsibilities of the Startup Manager are:

1. Review and approve all staffing within the Startup and Test Department and appropriate procedures associated with the preliminary, preoperational, and initial startup test phases of the test program.

2. Report test program status and problems to the Project Director and Station Superintendent.

3. Serve as manager of the Unit 2 Testing Staff and provide liaison with other NMPC departments.

4. Coordinate with station department heads in job assignments of plant staff to accomplish test program objectives.

5. Ensure Startup and Test Department conformance to the Unit 2 quality assurance plan.

6. Serve as Chairperson of the Joint Test Group (JTG).

7. Direct the turnover of structures, systems and components to NMPC for preoperational testing.

14.2.2.1.3 - Test Group Managers

The Test Group Managers direct responsibilities include:

1. Manager preliminary and preoperational and test phases.

2. Permanent member of the JTG.

3. Supervise the Startup and Test Program staff.

4. Coordinate training and qualification of NMPC test group personnel.

5. Evaluate test results.

6. Obtain necessary review and approval of test results.

7. Provide support as necessary during startup test phase.

8. Direct the activities of test engineers.

14.2.2.1.4 Test Engineers

The direct responsibilities of the Test Engineers are:

1. Develop testing activity milestones, target dates, and manpower requirements. Prepare Level III test schedule.

2. Follow construction process to support test program requirements.

3. Ensure that preliminary, preoperational, and, as directed, startup test precedures are available for review and approval.

4. Identify special or temporary equipment or services needed to support testing.

5. Assure that testing identification tags are implemented to support testing and turnover.

6. Supervise test activities.

7. Evaluate test results.

14.2.2.1.5 Supervisor Operations

The direct responsibilities of the Supervisor Operations and operating staff are provided in Chapter 13.

14.2.2.2 NMPC Station Staff

The Unit 2 station staff consists of those employees who staff, maintain, and operate Unit 2. Chapter 13 details their duties and general responsibilities. The station staff, under the technical direction of the Station Superintendent, supports the test program by operating and maintaining all structures, systems, and components following turnover to NMPC. The station staff, to the maximum extent practicable, provides technical and manpower support to the Startup and Test Department during the test program. Following receipt of the operating license, the station staff assumes complete control and responsibility for the total operation and maintenance of the plant.

14.2.2.3 SWEC Advisory Operations Support

14.2.2.3.1 Project Advisory Engineer

The Project Advisory Engineer (PAE) is responsible to the startup Manager and the SWEC Project Manager with technical support and liaison from

the SWEC Advisory Operations Division. Specific responsibilities for the preliminary test phase include:

1. Manage performance of the preliminary test program.
2. Direct the activities of Test Engineers during preliminary testing.
3. Supervise the SWEC Advisory Operations Engineers.
4. Review and approve test procedures.
5. Serve as a permanent member of the JTG.
6. Report the Preliminary test program status to the Startup Manager and SWEC Project Manager.
7. Serve as liaison with other SWEC disciplines on testing matters.
8. Coordinate with SWEC construction department repair/rework required to support preliminary testing.
9. Coordinate with NMPC principal test personnel construction turnback of structures, systems, or components for repair/rework.
10. Coordinate with the SWEC construction department for equipment, component, and structure turnover and turnback for repair/rework.

14.2.2.3.2 SWEC Advisory Operations Engineers

The SWEC Advisory Operations Engineers are directly responsible for:

1. Writing assigned test procedures.
2. Reviewing test procedures.
3. Supervising and performing testing as required.

14.2.2.4 General Electric Company

14.2.2.4.1 GE Site Operations Manager

The GE Site Operations Manager (SOM) is responsible to the Station Superintendent for technical directions during the preoperational and initial startup phases of the test program. Specific responsibilities are: 1

1. Act as liaison with GE on testing matters involving GE-supplied equipment.

2. Review preoperational and initial startup tests with emphasis on GE nuclear steam supply system (NSSS).

3. Assist in data reduction, analysis, and evaluation for preoperational and initial startup tests.

4. Act as permanent member of JTG.

5. Provide administrative support and supervision to GE onsite personnel involved in the test program.

14.2.2.4.2 Operations Superintendent

The GE Operations Superintendent is responsible to the GE Site Operations Manager for the administrative and technical supervision of GE Shift Superintendents. The Operations Superintendent works directly with the NMPC Supervisor Operations and Startup Manager and provides GE technical direction to the operating organization.

14.2.2.4.3 GE Shift Superintendents

The GE Shift Superintendents provide technical direction to the Unit 2 Shift Operations personnel in the testing and operation of GE-supplied systems. They provide 24-hr/day shift coverage as required, beginning with fuel loading. They report to the GE Operations Superintendent.

14.2.2.4.4 GE Lead Engineer Startup Test, Design, and Analysis

The GE Lead Engineer Startup Test, Design, and Analysis is responsible to the GE SOM for supervising the GE startup test, design, and analysis engineers; for verifying core physics parameters and characteristics; and for documenting that the performance of the NSSS and its components conform to test acceptance criteria. He works with the

appropriate members of the station operating organization to coordinate and effect implementation of the startup test program instrumentation including special test equipment required to confirm these acceptance criteria.

14.2.2.4.5 GE Startup Test, Design, and Analysis Engineers

The GE startup test, design, and analysis engineers assist in the execution of the initial startup test phase of the test program.

14.2.2.5 Consultants/Contractors

Services of consultants or contractors may be acquired to provide support for the test program. Such services are under the direct control of the Station Superintendent or Startup Manager.

14.2.2.6 Joint Test Group

The JTG is the primary review and approval organization during the preliminary and preoperational test program. The JTG consists of the following members:

1. NMPC Startup Manager (chairperson).
2. SWEC PAE.
3. GE SOM.
4. NMPC Test Group Manager.
5. NMPC Quality Assurance Representative.
6. Station Technical Superintendent.
7. Supervisor Operations.

The functions and responsibilities of the JTG are as follows:

1. Conduct activities in conformance with the Unit 2 Project Manual.
2. Review and approve selected preliminary, and all acceptance and preoperational test procedures prior to testing (Section 1.10, TMI Task I.C.7).
3. Review, approve, and administer all revisions to JTG approved test procedures.

4. Review and approve the results of selected preliminary, and all acceptance and preoperational tests.

5. Determine the disposition of test deficiencies.

6. Determine retests or supplemental tests as required.

14.2.2.7 Other Review Groups' Support of Testing

Both the Site Operations Review Committee (SORC) and the Safety Review and Audit Board (SRAB) are utilized to review and approve Startup Test activities. The responsibilities and authorities of these groups are described in Chapter 13.

14.2.2.8 Qualification

The staffing and qualifications of the station staff are detailed in Chapter 13. The minimum qualifications of principal testing personnel involved in the preliminary test phase are in accordance with Regulatory Guide 1.58, (Tables 14.2-401 through 14.2-403).

14.2.3 Test Procedures

14.2.3.1 Preliminary Test Procedures

The Unit 2 Project Test Program Directives (PTPD) establish the methods for preparing, receiving, approving, revising, and controlling preliminary test procedures. The PTPD specifies procedure content, format, and style guidelines.

14.2.3.2 Acceptance and Preoperational and Initial Startup Test Procedures

The Unit 2 Startup Administrative Procedures (SAP) manual establishes the method for preparing, reviewing, approving, revising, and controlling acceptance and preoperational test procedures. The SAP manual specifies procedure content, format, and style guidelines. The Site Administrative Procedures (APN's) provide similar controls over the startup test procedures.

Test procedures are developed by the responsible Test Engineers and operations personnel. Each test procedure is prepared using pertinent reference material such as design and test specifications from GE, design documents from SWEC, safety analysis report, technical specifications, and applicable regulatory guides. Figure 14.2-1 shows the review cycle for selected preliminary and all preoperational

and acceptance test approval. Figure 14.2-2 shows the review cycle of initial startup test procedures.

14.2.4 Conduct of Test Program

14.2.4.1 Conduct of Preliminary Phase Testing

Preliminary phase testing begins after construction installation has been completed on systems or subsystems. Testing and administrative control of the preliminary testing program is in accordance with the Project Test Program Manual (PTPM). The PTPM consists of Project Test Program Directives (PTPDs) for the control of all aspects of the preliminary testing phase. PTPDs and tests and procedures are controlled documents. These preliminary test procedures are generic in nature such that step-by-step testing details are determined by the test engineer during the conduct of the test. Such testing details are reviewed with the test results. Test results obtained during the preliminary testing phase may be used in place of retesting during the preoperational test phase provided that the preliminary test procedures and test results have been reviewed and approved in accordance with Figures 14.2-1 and 14.2-3, respectively. Such preliminary testing shall be identified in the preoperational test procedure.

To ensure that the preliminary test results are valid at the time of preoperational testing, work on equipment during the preliminary test phase will be authorized by the PAE and controlled in accordance with the PTPM. Control will be accomplished by the use of two mechanisms, a work-controlled document and equipment tagging. The work-controlled document, which requires the PAE to be one of the reviewers, establishes the scope, inspection, and testing required by the additional work. Equipment tagging will ensure that personnel are alerted that work performed affecting this equipment will require PAE's authorization.

14.2.4.2 Conduct of Preoperational Phase Testing

Preoperational phase testing commences after preliminary testing on individual components, systems, and subsystems is complete. Testing is performed by the Startup and Test Department under administrative controls established in the SAP manual. Testing is performed in strict adherence to approved written test procedures. The test procedures and the SAP manual are controlled documents.

and Test Department under administrative controls established in the Site Administration Procedures. Testing is performed in strict adherence with written approved test procedures. 1

Approved initial startup test procedures can be revised in accordance with approved administrative procedures. Modifications to test procedures are classified as major or minor changes. A major change to an approved test procedure is one that changes the intent of the test procedure and requires development of a revision to the procedure. Such a revision requires the approval of the organizations that originally approved the test procedure. If a test is in progress and a major change of the test procedure is required, the test is held at that point, the system is placed in a stable condition, and the necessary approvals are obtained prior to continuing the test. 1

Minor changes do not change the intent of the test procedure and may be made with the concurrence of the duty NMPC Shift Supervisor at the time the test is run. Minor changes to procedures are made using approved administrative control procedures that govern the method of entry of the change and the required approval signatures. 1

Master checklists are used to ensure that prerequisites for initial fuel loading and the beginning of initial startup testing are fulfilled. In addition, each individual initial startup test procedure specifies prerequisites that must be validated prior to test performance. It is the responsibility of the duty NMPC Shift Supervisor and respective Test Engineers to ensure that all prerequisites are satisfied prior to performance of any initial startup test.

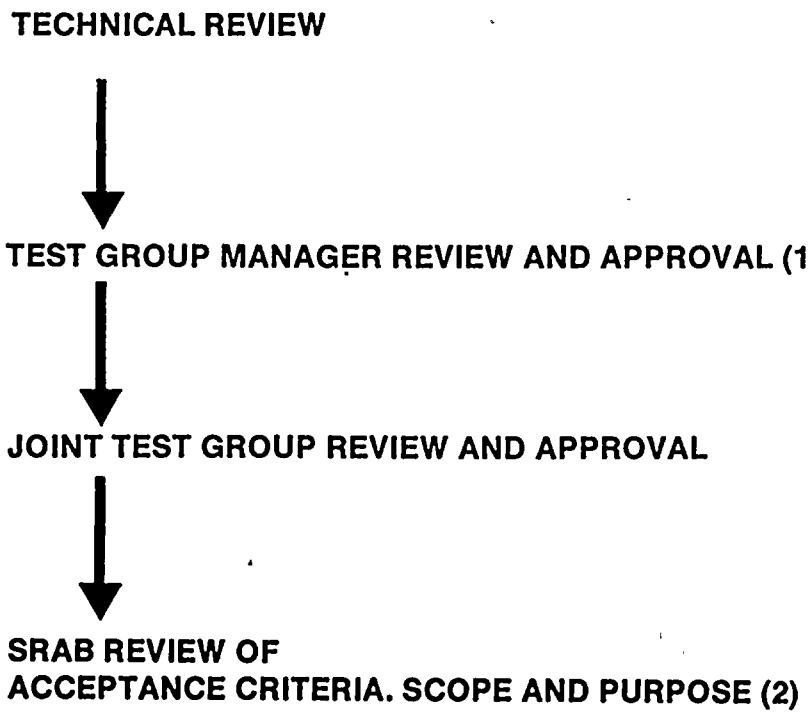
14.2.4.4 Modification to Systems and Equipment during Preoperational and Startup Testing Phase 1

Modifications to systems and components are conducted in accordance with approved written procedures, approved documented instructions, or approved drawings that comply with the requirements of ANSI N18.7, 1976 Administrative Controls for Nuclear Power Plants. Modifications to systems or equipment may be generated as a result of unsatisfactory test results, improved system or equipment design, or changes in regulatory requirements. Modifications to systems and components undergo the same review and approval chains that the original design engineering documents received.

TABLE 14.2-401

QUALIFICATIONS OF NMPC PRINCIPAL TESTING PERSONNEL

Title	Minimum Qualifications
Startup Manager	See ANSI N45.2.6-1978 Section 3
Test Group Manager	See ANSI N45.2.6-1978 Section 3
Test Engineers	See ANSI N45.2.6-1978 Section 3



1. FINAL STEP FOR SELECTED PRELIMINARY TESTS.

2. SRAB REVIEWS SAFETY-RELATED ACCEPTANCE AND PREOPERATIONAL TESTS AS DETERMINED BY JOINT TEST GROUP.

FIGURE 14.2-1

REVIEW CYCLE FOR SELECTED PRELIMINARY AND ALL ACCEPTANCE AND PREOPERATIONAL TEST PROCEDURES

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NINE MILE POINT-UNIT 2
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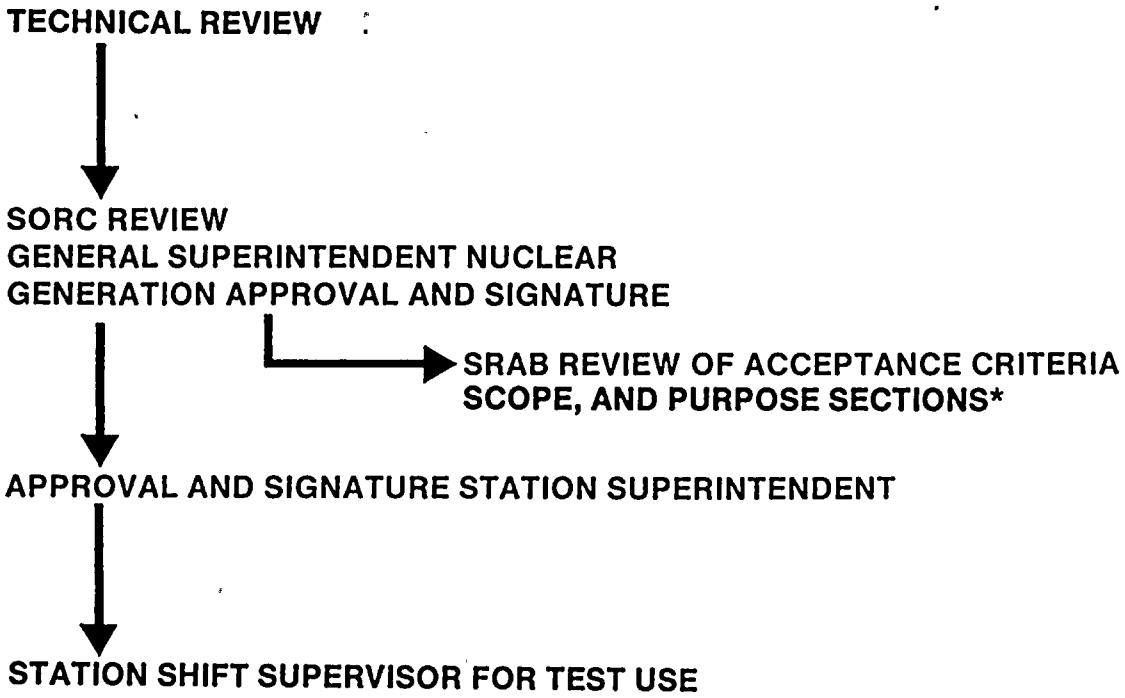

* NOTE THAT THE TEST IS NORMALLY EXECUTED AFTER SRAB CONCURRENCE

FIGURE 14.2-2

REVIEW CYCLE FOR INITIAL
STARTUP TEST PROCEDURES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
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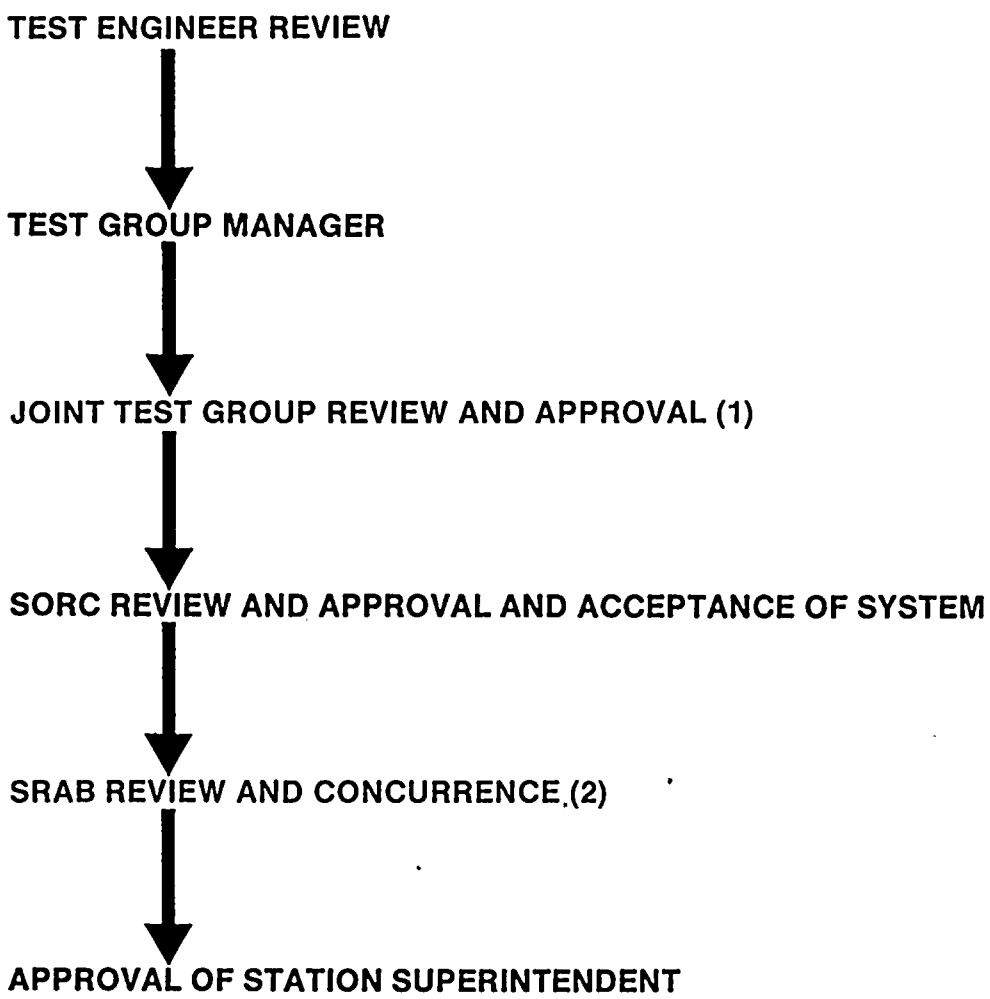

1. FINAL STEP FOR SELECTED PRELIMINARY TEST RESULTS

2. NOTE THAT SRAB REVIEWS THE PURPOSE, SCOPE, ACCEPTANCE CRITERIA, RESULTS, AND EXCEPTIONS OF SAFETY-RELATED PREOPERATIONAL TESTS.

FIGURE 14.2-3

SELECTED PRELIMINARY AND ALL ACCEPTANCE AND PREOPERATIONAL TEST RESULTS REVIEW

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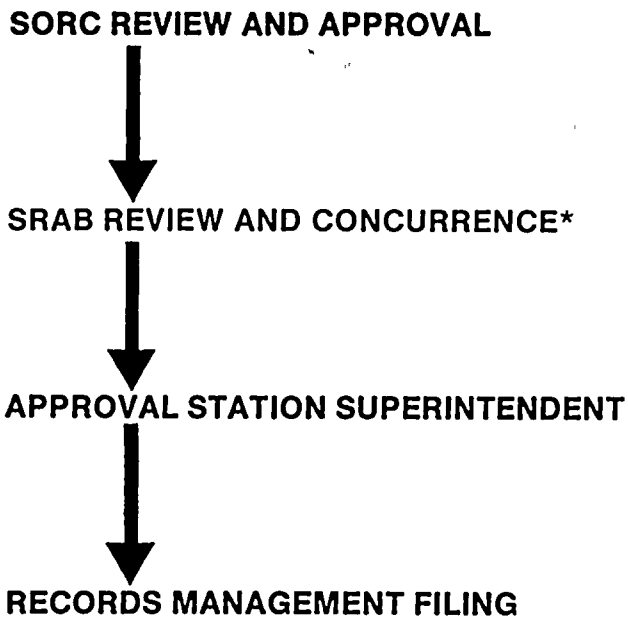

* NOTE THAT SRAB REVIEWS THE PURPOSE, SCOPE, ACCEPTANCE CRITERIA, RESULTS, AND EXCEPTIONS.

FIGURE 14.2-4

INITIAL STARTUP TEST
RESULTS REVIEW

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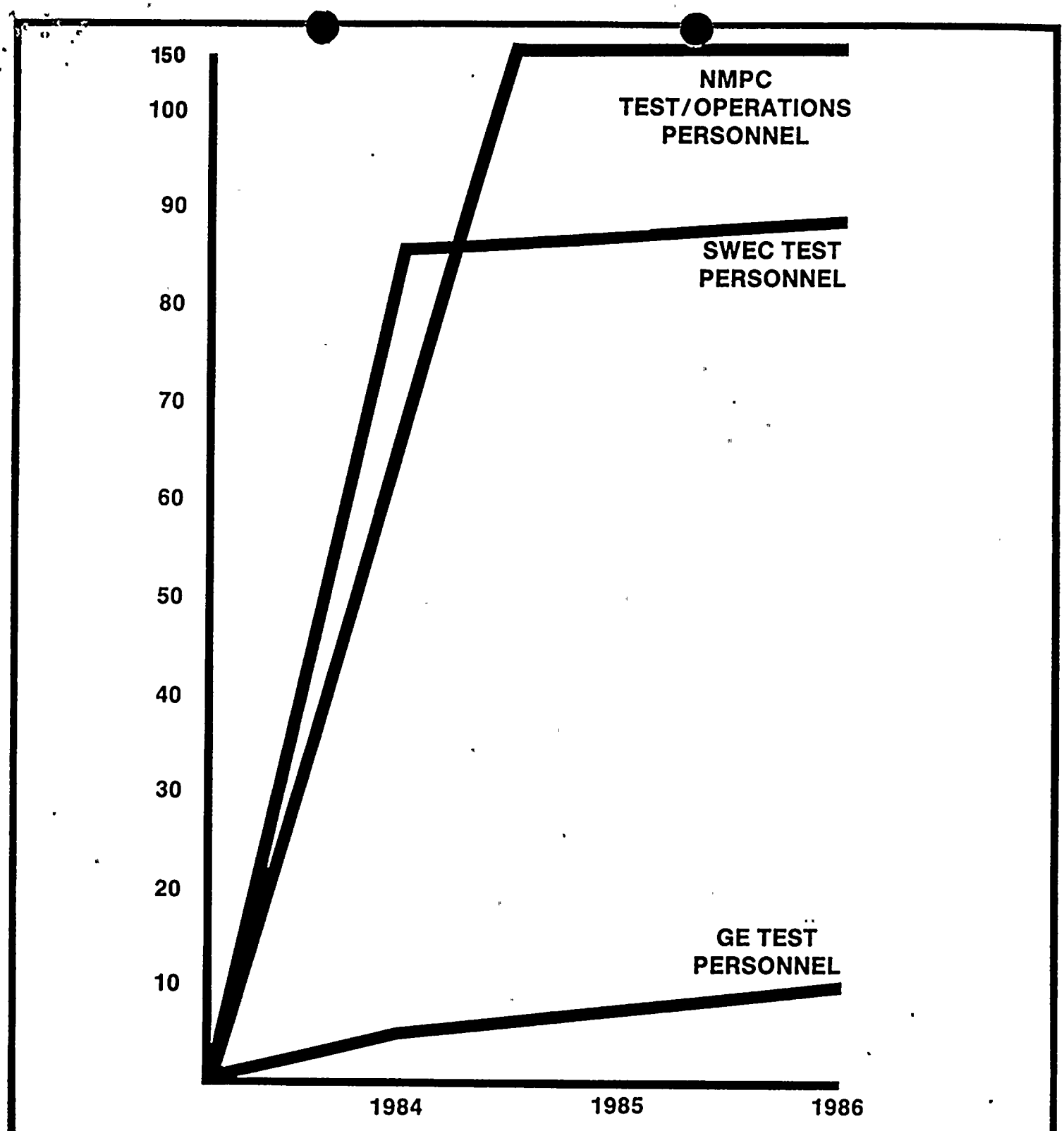

FIGURE 14.2-6

PERSONNEL ASSIGNED DURING
PREOPERATIONAL TESTING
AND STARTUP TESTING

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NINE MILE POINT-UNIT 2
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6. Review and approval of material and component specifications was 90 percent complete as of January 1983. All remaining hardware specifications are scheduled for release during 1983. These specifications relate to inservice inspection and miscellaneous instrumentation.

7. Procurement of materials and equipment was 90 percent complete as of January 1983. All equipment is scheduled for delivery at least 4 months prior to fuel loading.

8. Management control and review of construction activities are currently and have been exercised routinely during construction of the plant.

13.1.1.2 Organizational Arrangement

NMPC is a privately owned utility with over 20 yr experience in the operation, design, and construction of nuclear power plants. Figure 13.1-1 shows the corporate upper management and the functions of the senior vice presidents. The upper management organization is depicted on Figure 13.1-1a, which shows four corporation organizations responsible for the nuclear generation program at NMPC. The Executive Director, Nuclear Operations reports to the President and is responsible for nuclear operations design and construction, including all nuclear-related work except quality assurance. The Director - Quality Assurance reports to the President and is responsible for the quality assurance program. The Vice President Nuclear Generation has responsibility for plant operations, maintenance, testing, and other operations functions. The Vice President Nuclear Engineering and Licensing has responsibility for performing engineering analysis, design, licensing, and fuel design services. The Project Director has responsibility for project management and design and construction of Unit 2. The first three responsible organizations are shown on Figure 13.1-2. Unit 2 is constructed close enough to Nine Mile Point Unit 1 to be connected by an enclosed passage. Therefore, the operation of Unit 2 will be under the same management as is presently in effect for Unit 1.

Nuclear Generation

The Vice President Nuclear Generation has overall responsibility for the safe and reliable operation of Units 1 and 2 (Figure 13.1-3). The organization responsible for these activities is under the direct responsibility of the General Superintendent Nuclear Generation (Sections 13.1.2 and 13.1.3). See Figure 14.2-6 for the

Nuclear Construction

The Project Director has the overall responsibility for project management of Unit 2: The project organization is shown on Figure 13.1-2. The project management efforts include management of construction, design, support for preoperational and startup testing, and turnover of plant equipment and systems to Nuclear Generation for operation. These activities are governed by the Project Manual and procedures for Unit 2.

The technical staff will be used in the initial test program to the extent practical. Participants in the test program (i.e., Test Engineers) will receive training in plant specifics, systems, and indoctrination in administrative controls of the test program.

The Test Engineers will participate in preliminary and preoperational test phases. In the preliminary test phase they will write the preliminary test and help to direct the testing. In the preoperational test phase they will help to write the preoperational test and participate in the actual testing.

After commercial operation, the construction organization will be assimilated into other areas of the operation, such as Quality Assurance, Engineering, and Operations. The Construction Engineers will provide coordination support for 9 Contractors engaged in the installation and checkout of plant modifications. Support to Contractors will include the provision of equipment, such as welding machines, trailers, and special tools that may be required by the Contractor personnel during the performance of the contracted services.

13.1.1.3 Qualifications

General responsibilities and activities of the above support groups are described in appropriate corporate documents including Administrative Procedures, the Project Manual, and Engineering Procedures. Contract support for Unit 2 is utilized in the same general manner as contract support at Unit 1. After commercial operation, ultimate responsibility for contractor performance onsite rests with the General Superintendent Nuclear Generation.

The support group department heads are generally employees with 8 to 25 yr experience who have operations-related experience from the more than 20 yr of NMPC's nuclear power generation, construction, and design.

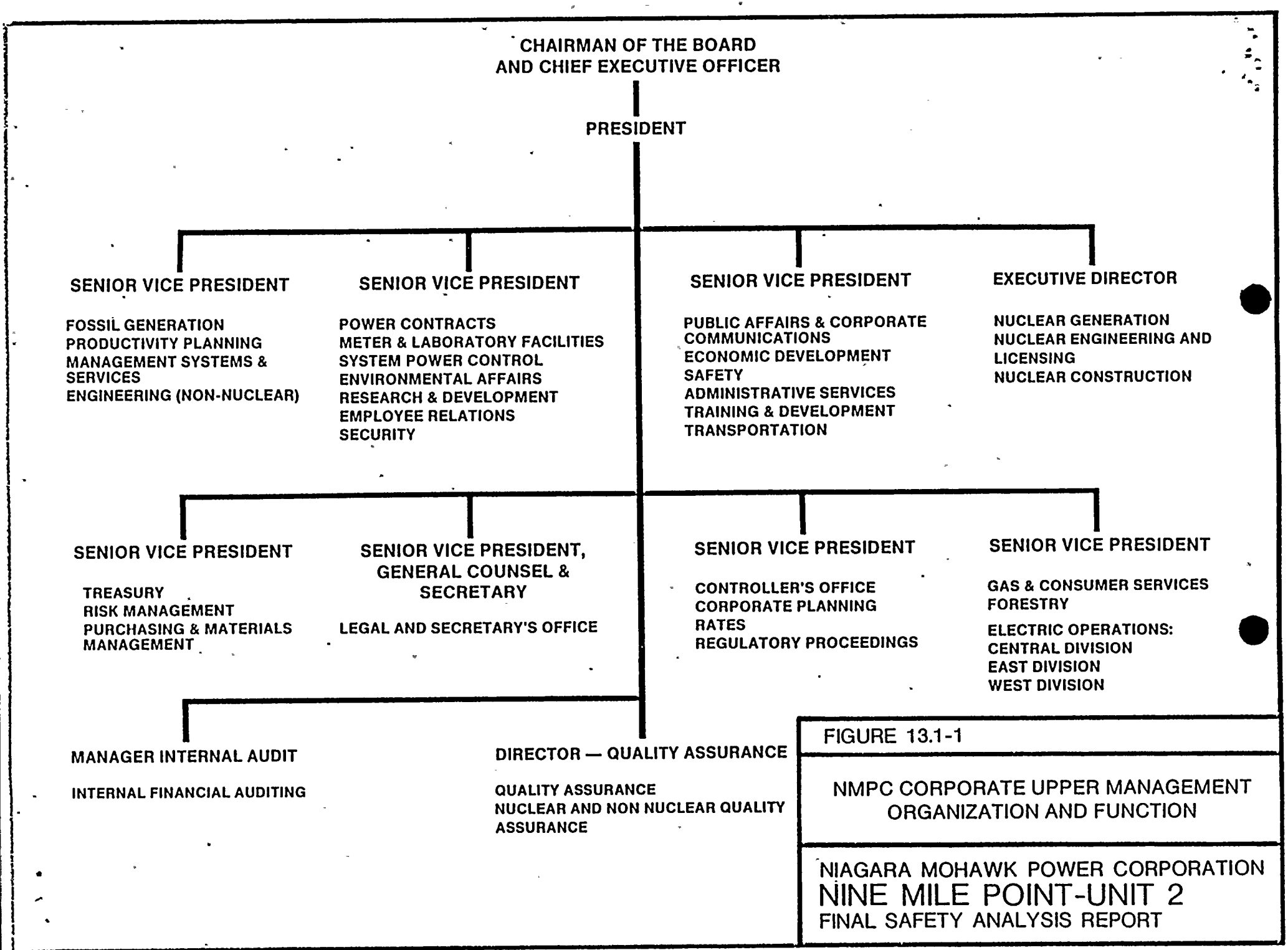

FIGURE 13.1-1

NMPC CORPORATE UPPER MANAGEMENT ORGANIZATION AND FUNCTION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
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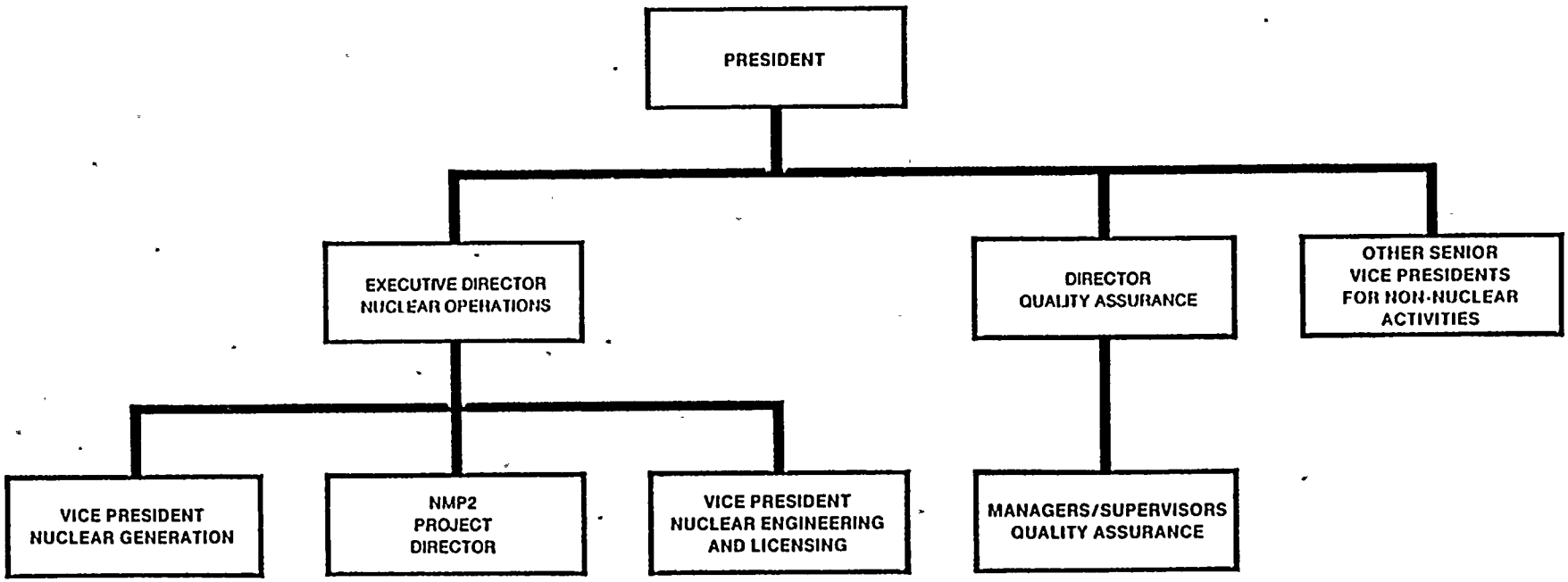

FIGURE 13.1-1a

NMPC UPPER MANAGEMENT
NUCLEAR ORGANIZATION

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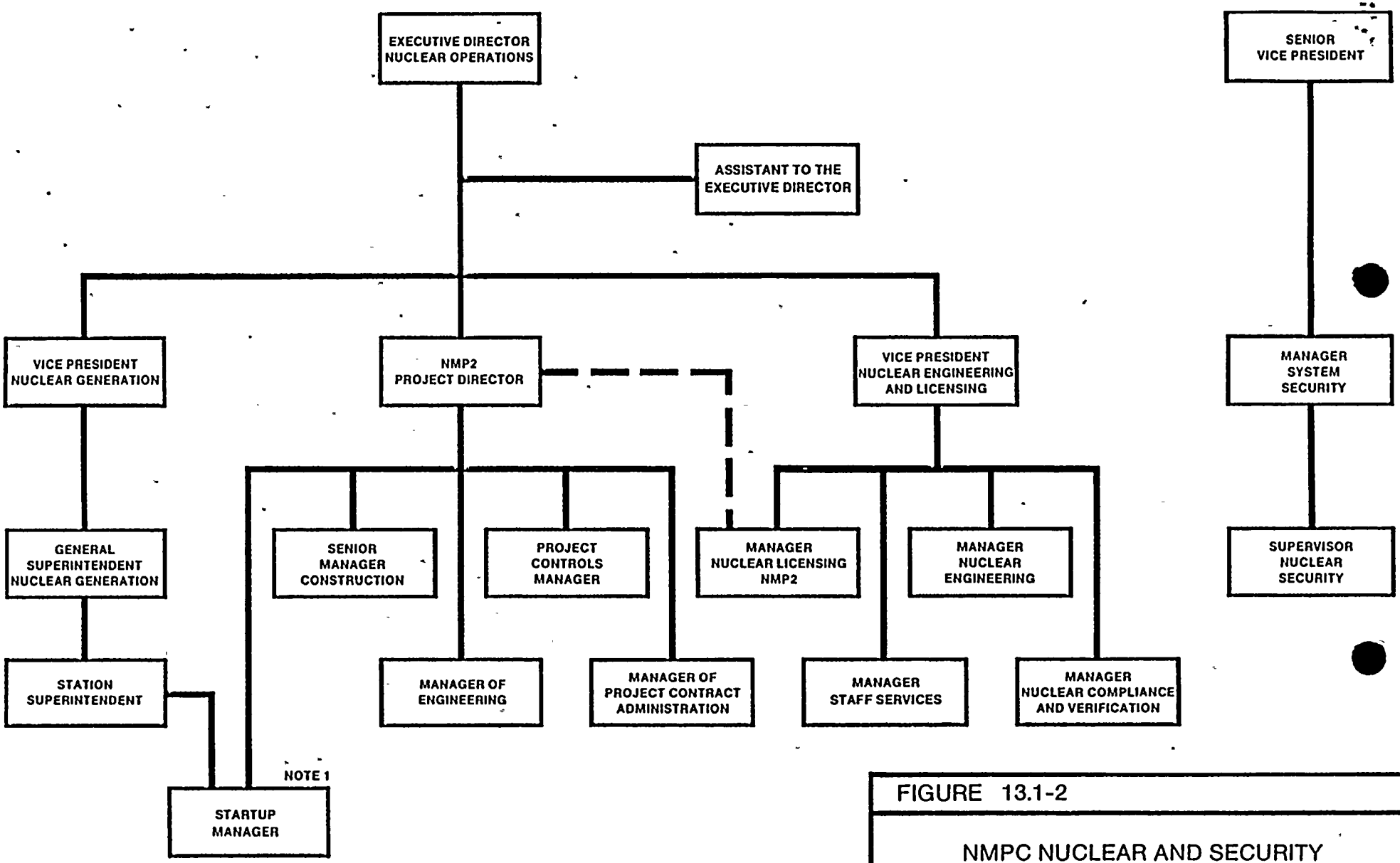
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NOTE 1:
THE STARTUP MANAGER REPORTS TO THE NMP-2 PROJECT DIRECTOR ON CONSTRUCTION SCHEDULE AND BUDGETING ASPECTS AND TO THE STATION SUPERINTENDENT ON THE TESTING PROGRAM.

FIGURE 13.1-2

NMPC NUCLEAR AND SECURITY ORGANIZATION

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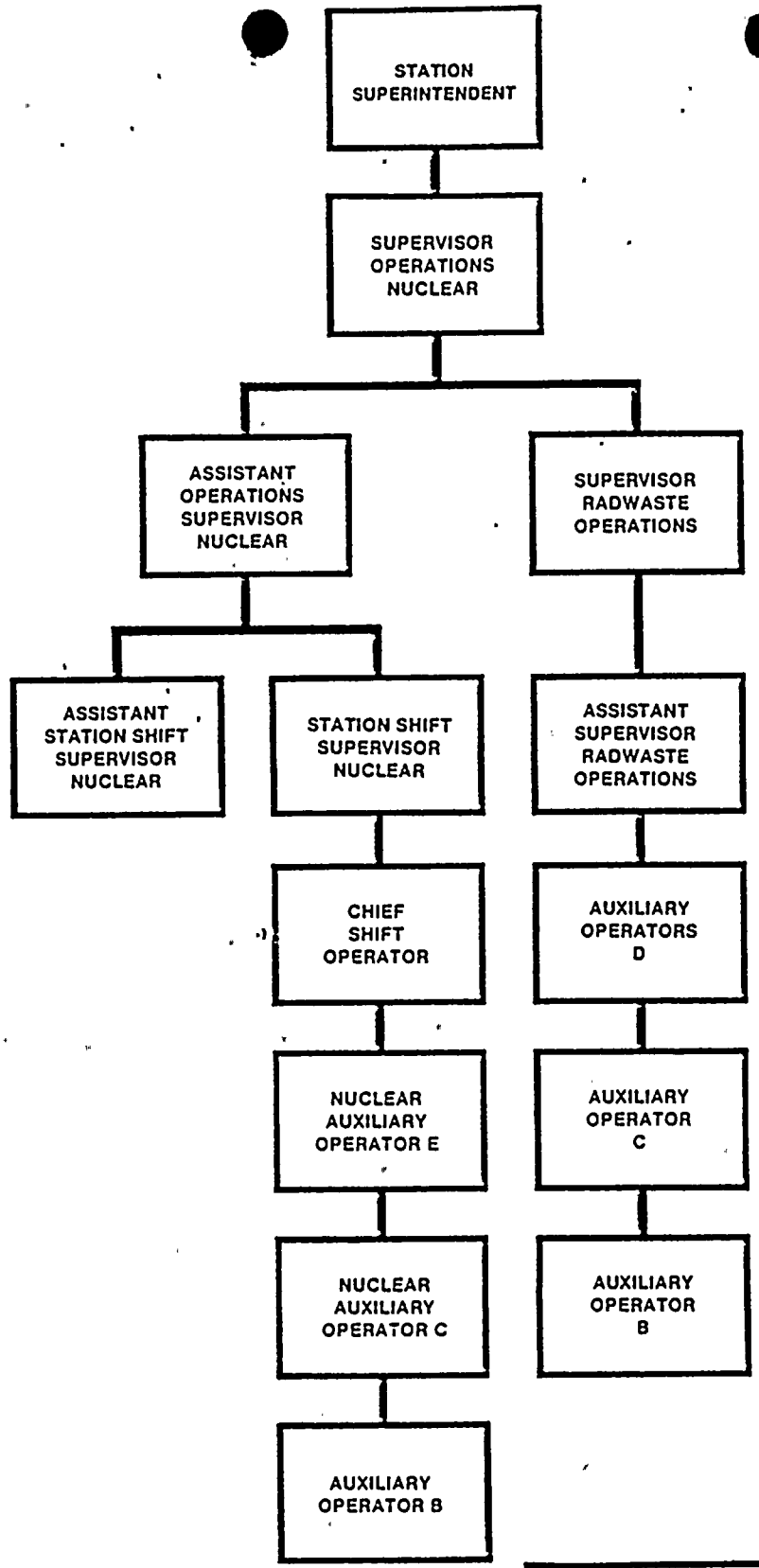

FIGURE 13,1-5

UNIT 2 SITE ORGANIZATION CHART-PRODUCTION

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NINE MILE POINT-UNIT 2
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THIS FIGURE HAS BEEN DELETED

FIGURE 13.1-5(a)

NIAGARA MOHAWK POWER CORPORATION
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