

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	
ROCHESTER GAS AND ELECTRIC)	Docket No. 50-244
CORPORATION (R. E. Ginna)	
Nuclear Power Plant)	
Unit No. 1))	

AMENDMENT NO. 9
TO
APPLICATION TO CONVERT PROVISIONAL OPERATING
LICENSE TO FULL-TERM OPERATING LICENSE

Rochester Gas and Electric Corporation, Applicant in the above-captioned proceeding, hereby files Amendment No. 9 to its Application to Convert Provisional Operating License to Full-Term Operating License. This amendment transmits Revision 5 to Supplement IV to Applicant's Technical Supplement Accompanying Application for a Full-Term Operating License. Revision 5 further revises Supplement IV, filed with the Commission on July 1, 1974 and revisions to the Supplement, filed August 23, 1974, November 1, 1974, January 30, 1976 and December 21, 1978, respectively. These further revisions to Supplement IV were made in response to a request from the Commission for additional information on changes to the Applicants program contained in Revision 4. This amendment will also clarify the stated purposes for Revision 4, as described

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in Amendment 8 which is revised to read:

"These further revisions to Supplement IV reflect minor changes in the Ginna Station, Management and Quality Assurance Organizations, clarification of responsibilities of nonconformances, supplier evaluations and records processing; and endorsement of NRC Regulatory Guides and quality assurance ANSI Standards to which the program conforms."

WHEREFORE, Applicant prays as in its original application.

ROCHESTER GAS AND ELECTRIC
CORPORATION

By Leon D. White, Jr.
Leon D. White, Jr.
Vice President
Electric and Steam Production

Subscribed and sworn to before
me this 16th day of April, 1979.

Sharon G. Cavaleri
Notary Public

SHARON G. CAVALERI
NOTARY PUBLIC, State of N. Y., Monroe County
My Commission Expires March 30, 1981

INSTRUCTIONS FOR MAKING PAGE CHANGES

The following is a listing of material furnished as Revision 5 to serve as a check list for entering new pages. Enter the new pages as listed, discarding any superseded material.

File this instruction sheet in the front of Supplement IV as a record of change.

CONTENTS OF REVISION

Cover Page	IV-17 ✓
IV-vB - new page	IV-17a - new pg.
IV-vi ✓	IV-19 ✓
IV-3 ✓	IV-20 ✓
IV-4 ✓	IV-21 ✓
IV-6 ✓	IV-24 ✓
IV-9 ✓	IV-24a - new pg.
IV-9a - new pg.	IV-26 ✓
IV-10 ✓	IV-28 ✓
IV-11 ✓	IV-32 ✓
IV-11a - new pg.	IV-33 ✓
IV-12 ✓	IV-34 ✓
IV-15 ✓	IV-35 ✓
IV-15a - new page.	IV-40 ✓
IV-16 ✓	IV-42 ✓



THE
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WATER RESOURCES DIVISION
SALT LAKE CITY, UTAH

WATER RESOURCES DIVISION

WATER RESOURCES DIVISION



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50-244

Superseded pages per
Revision 5 to Suppl 4
to Technical Supplement
accompanying Appl. for full term
TABLE OF CONTENTS Operating License.

<u>Section</u>	<u>Title</u>	<u>Page</u>
	QUALITY ASSURANCE PROGRAM FOR STATION OPERATION	
IV.1	Quality Assurance Program	IV-1
IV.2	Organization	IV-4
IV.3	Design Control	IV-8
IV.4	Procurement Document Control	IV-10
IV.5	Instructions, Procedures and Drawings	IV-11
IV.6	Document Control	IV-13
IV.7	Control of Purchased Material, Equipment and Services	IV-15
IV.8	Identification and Control of Materials, Parts and Components	IV-17
IV.9	Control of Special Processes	IV-18
IV.10	Inspection	IV-19
IV.11	Test Control	IV-20
IV.12	Control of Measuring and Test Equipment	IV-21
IV.13	Handling, Storage and Shipping	IV-22
IV.14	Inspection, Test and Operating Status	IV-23
IV.15	Nonconforming Materials, Parts and Components	IV-24
IV.16	Corrective Action	IV-25
IV.17	Quality Assurance Records	IV-26
IV.18	Audits	IV-28

- 4 | company personnel or outside organizations. Reviews will be conducted every six months during the first two years that the program is implemented.

The quality assurance program is designed to meet the requirements of Title 10 of the Code of Federal Regulations, Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants." The program conforms to the following NRC Regulatory Guides and ANSI Standards:

- 4 | a. NRC Regulatory Guide 1.8, Revision 1, "Personnel Selection and Training," and regulatory staff comments and supplementary guidance contained in the document entitled "Guidance on Quality Assurance Requirements During the Operations Phase of Nuclear Power Plants," Revision 0 dated October 1973 (Orange Book - Revision 0)
- 4 | b. NRC Regulatory Guide 1.28, Revision 1, "Quality Assurance Program Requirements (Design and Construction)," and regulatory staff comments and supplementary guidance contained in the document entitled "Guidance on Quality Assurance Requirements During Design and Procurement Phase of Nuclear Power Plants," Revision 1 dated May 1974 (Gray Book - Revision 1)
- 4 | c. AEC Regulatory Guide 1.30, "Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment."
- 1 | d. AEC Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," and regulatory staff comments and supplementary guidance contained in the document entitled "Guidance on Quality Assurance Requirements During the Operations Phase of Nuclear Power Plants," Revision 0 dated October 1973 (Orange Book - Revision 0)
- e. AEC Regulatory Guide 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants."
- f. AEC Regulatory Guide 1.38, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants."
- g. AEC Regulatory Guide 1.39, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants."
- h. AEC Regulatory Guide 1.58, "Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel."
- i. AEC Regulatory Guide 1.64, "Quality Assurance Requirements for the Design of Nuclear Power Plants."

- j. AEC Regulatory Guide 1.74, "Quality Assurance Terms and Definitions."
- 3| k. AEC Regulatory Guide 1.88, "Collection, Storage and Maintenance of Nuclear Power Plant Records."
- 3| 2| 1| Note: When record storage facilities are not designed in accordance with the requirements of Regulatory Guide 1.88, duplicate records are kept in two separate storage locations in separate buildings which are physically isolated from each other.
- 1. NRC Regulatory Guide 1.116, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems."
- 4| m. NRC Regulatory Guide 1.123, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants."
- 3| n. ANSI N45.2.12, "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants."

IV.2 Organization

3| The major organizations participating in the quality assurance program are the Purchasing, Engineering, Ginna Station, General Maintenance, Electric Meter and Laboratory Department; Quality Assurance and Quality Control Groups; the Plant Operations Review Committee; and the Nuclear Safety Audit and Review Board. Figure IV.2-1 is an organizational chart showing these organizations and their relationship to the corporate organization.

Positions responsible for the principal elements of the quality assurance program are:

- 2| Chairman of the Board
- 2| Vice President, Electric and Steam Production
- 4| 3| Chief Engineer
- 4| 3| Manager, Quality Assurance
- 4| 3| Quality Assurance Engineer, Operations
- 4| 3| Quality Assurance Engineer, Design
- 3| Welding and Nondestructive Examination Engineer
- 3| Purchasing Agent
- 3| Ginna Station Superintendent
- 3| Ginna Station Quality Control Engineer
- 3| Superintendent, Electric Meter and Laboratory
- 3| Superintendent, General Maintenance
- 4| 3| General Maintenance Quality Control Coordinator
- 4| Director, Strategic and Fuel Planning

the requirements of 10CFR50, Appendix B, and for keeping the total program updated. He is responsible for assuring that all the planned and systematic actions necessary to provide adequate confidence that Ginna Station will operate safely and reliably are established and followed. He provides management with objective information concerning quality, independent of the individual or group directly responsible for performing the specific activity. He has the authority and organizational freedom to assure all necessary quality affecting activities are performed. He is responsible for maintaining a quality assurance staff, Figure IV.2-2, and for directing its activities and for establishing and implementing a comprehensive audit program.

3| The Manager, Quality Assurance is a graduate engineer with at least six years of responsible experience, of which two years is in quality assurance and three years in the design or operation of nuclear or fossil fuel power plants.

The Quality Assurance Engineer, Operations, is responsible for supervising the operational quality assurance program for Ginna Station. This includes writing quality assurance policies and procedures and coordinating supplier qualification and surveillance. He is responsible for staying current in all applicable regulatory and code quality assurance requirements and providing guidance and assistance to the Ginna Station Superintendent, the Superintendent, Electric Meter and Laboratory, the Ginna Station Quality Control Engineer, and other affected personnel on these requirements.

The Quality Assurance Engineer, Design, is responsible for interpreting the requirements of 10CFR50, Appendix B and applicable regulatory and code requirements related to plant modifications and providing guidance and assistance to engineering and station personnel on these requirements. He writes quality assurance policies and procedures related to design activities and interfaces between Engineering and other departments. He is responsible for reviewing engineering and procurement documents originated by Engineering and Fuel Planning to assure that quality assurance requirements are incorporated.

4| 3| The Welding and Nondestructive Examination Engineer is responsible for the development and qualification of procedures utilized for special processes. He is also responsible for assuring that personnel are trained and qualified for activities involving nondestructive examination and for providing guidance and assistance to the Superintendent, General Maintenance, in applicable regulatory and code quality assurance requirements. He is responsible for establishing the inservice inspection program.

- 2 | Engineering is responsible for the design and control of
design activities (including design interfaces) for major
4 | modifications of structures, systems or components and those
minor modifications referred from Ginna Station.

- 4 | Ginna Station is responsible for the design and control of
design activities for minor modifications of structures,
systems, or components. Ginna Station is also responsible
for classifying station originated modifications as either
Major or Minor.

- Design control is implemented by means of procedures which
include: design considerations, design review requirements;
internal and external interface control considerations;
design document review, approval, distribution, control, and
revision requirements; and corrective action. Design con-
siderations include, as appropriate: physics, stress,
materials, thermal, hydraulic, radiation and accident analysis;
3 | appropriate design bases, codes, standards and regulations;
acceptability for operation, maintenance and repair; acceptance
4 | and rejection criteria; quality standards and other quality
assurance requirements. Design verification utilizes various
methods such as formal design reviews, alternate calculations,
or tests as appropriate to assure the adequacy of the design.

- 3 | The design of plant modifications is verified by an engineer
other than the one who performed the original design. This
may be done by Rochester Gas and Electric design engineers
or consulting engineers as requested.

Spare or replacement parts must at least meet the original
equipment technical and quality requirements. For plant
modifications, standard "off-the-shelf" commercial or pre-
viously approved materials, parts, and equipment are selected
and reviewed for suitability of application by the design
engineer.

Design changes, including field changes, are reviewed and
approved in accordance with the same procedures as the
original design. In general, design changes are reviewed
and approved by the organizations or individuals that per-
formed the original design, review, and approval. Where
this is not practical, other responsible design organiza-
tions or individuals are designated, provided they have
access to pertinent background information and are competent
in the specific design area.

- 3 | Design documents are collected, stored, and maintained in
accordance with Section IV.6 and IV.17, as appropriate.
Design documents include design criteria, analyses, speci-
fications, drawings, design review records, and changes
thereto.

3 | Quality Assurance is responsible for assuring that design control procedures, whether the work is done by Rochester Gas and Electric or by other organizations, are prepared and implemented and incorporate appropriate design control practices, checks, and reviews. Design control procedures are reviewed to assure that an independent verification is performed.

3 | Engineering is responsible for the timely approval and updating of specifications and drawings, as well as changes or deviations thereto, utilized for purchase or installation of materials, parts, or components. Any other design documents, specifications, drawings, installation requirements, and changes thereto, are approved in the same manner.

4 | Significant errors and deficiencies detected in the design process are documented as conditions adverse to quality and controlled in accordance with the corrective action requirements of Section IV.16.

4 3 | Quality Assurance and Station Quality Control through preparation assistance and/or review assure the proper inclusion of quality standards in the design of major and minor modifications, respectively. Quality Assurance is also responsible for assuring that adequate inspection requirements are included in specifications.

3 | Plant modifications are controlled by means of applicable Ginna Station, Engineering and Quality Assurance procedures. These procedures provide for the preparation, review, and approval of design documents, safety analyses, and plant modification procedures. Proposed plant modifications are reviewed by the Plant Operations Review Committee and Nuclear Safety Audit and Review Board as required by Section 6.0, Technical Specifications.

IV.4 Procurement Document Control

Procurement document control applies to the control of procurement documents for materials, parts, components, and services required to perform quality affecting activities. Such documents may be prepared by Rochester Gas and Electric or by a contractor and include purchase requisitions, purchase orders, service agreements, contracts, specifications, and drawings.

3 | Procurement of materials, parts, components, and services is initiated by department staff personnel. Procurement procedures require that organizations preparing procurement documents consider and include, as appropriate, the items listed in Table IV.4-1.

3 Procurement documents, including those requesting spare or replacement parts, initiated at Ginna Station and General Maintenance are reviewed by Quality Control and approved by the department superintendent or his designated representative. Procurement documents initiated in Engineering and Quality Assurance are reviewed by Quality Assurance and approved by the Chief Engineer, or designees. Procurement documents for nuclear fuel are initiated by the fuel management staff, reviewed by Quality Assurance and approved by the Director, Strategic and Fuel Planning.

3 Procurement documents initiated at Electric Meter and Laboratory are reviewed by Quality Assurance and approved by the department superintendent or designated alternate.

Evidence of review and approval of procurement documents is recorded on the documents or on the attached control form. These documents are maintained by Purchasing, by the originating department, and/or by the receiving locations as appropriate, until the procurement is completed.

3 After purchase requisitions, service agreements, contracts, specifications, and drawings have received the required reviews and approvals, a purchase order is issued to a qualified supplier and controlled as described in Section IV.7. Under no circumstances are purchasing requirements altered (except for quantity or pricing) during order placement unless review and concurrence is obtained from those who were required to review, concur with, and approve the original documents as described above. Changes or revisions to procurement documents are subject to the same review and approval requirements as the original documents.

4 | Originating department technical review of procurement documents includes verification of applicable regulatory, code and design requirements. Quality Assurance/ Quality Control review of the above includes checks to verify proper inclusion of quality standard, quality assurance program requirements and applicable acceptance criteria. Quality Control also reviews procurement documents for spare or replacement parts for adequacy of quality requirements and to determine similarity, compatibility, and the inclusion of the quality requirements and acceptance criteria of the original design.

IV.5 Instructions, Procedures, and Drawings

2 | Each Rochester Gas and Electric company organization is responsible for developing, reviewing, approving, and implementing procedures as required to implement the quality assurance program. These procedures cover activities such as document control, training of personnel, and responsibilities and duties of personnel. Quality Assurance reviews and concurs with these procedures. Table IV.1-1 provides a

summary of the subject matter contained in the procedures which are used to implement the quality assurance program. Procurement documents require suppliers and contractors to have appropriate instructions, procedures, specifications, and drawings.

3 | Ginna Station is responsible for providing and implementing instructions and procedures associated with operation, maintenance, repair, in-service inspection, refueling, modification, testing and inspection. This includes instructions and procedures listed in USAEC Regulatory Guide 1.33 for administrative control; general plant operation; startup, operation, and shutdown of safety related systems; correction of abnormal, offnormal, or alarm conditions, combat of emergencies and other significant events; radioactivity control; control of measuring and test equipment; chemical and radiochemical control; and fuel handling and refueling. Ginna Station is responsible for the preparation and implementation of quality control inspection procedures utilized for detailed station inspection activities. Ginna Station is also responsible for appropriate changes to such documents upon receipt of regulatory directives, instructions from Rochester Gas and Electric management, or the completion of plant modifications.

3 | General Maintenance is responsible for providing and for implementing instructions and procedures associated with the routine maintenance and inspection of cranes and handling equipment as well as shop work required to support Ginna Station maintenance, repair and modification activities. Special process procedures are provided by Quality Assurance. General Maintenance is also responsible for the preparation and for the implementation of quality control inspection procedures utilized for detailed inspection activities at their facilities.

Electric Meter and Laboratory is responsible for the preparation and implementation of relay inspection and testing procedures as required to direct detailed inspections and testing activities for which they are responsible. Electric Meter and Laboratory also assists in the preparation of routine relay maintenance and testing procedures used by their personnel in the annual Ginna Station protective relay surveillance program.

4 | Engineering is responsible for providing approved specifications, and drawings associated with major modifications. These documents require those performing the work to obtain, understand, and comply with appropriate procedures, specifications and drawings. Engineering has established procedures for revising drawings and specifications. These procedures cover updating of as-built drawings after plant modifications and the revision, approval, distribution, and control of all drawings and specifications.

IV.7 Control of Purchased Material, Equipment, and Services

Procurement documents, supplier selection, supplier surveillance, and receipt inspection are the four major means used in controlling purchased material, equipment, components, and services. All procurement is conducted in accordance with procurement documents as stated in Section IV-4. All reviews, inspections, surveillances, and audits are conducted by personnel who are competent in establishing whether or not a supplier is capable of providing acceptable, quality products.

- 4 | Suppliers of items, with the exception of those which are considered standard off-the-shelf, must be on an approved suppliers' list prior to being issued a purchase order.
- 3 | Supplier evaluations are performed by Quality Assurance, Engineering, Purchasing, and/or other departments responsible for the procurement of safety related items, as necessary, for the item or service involved. The depth of the supplier evaluation varies depending on the complexity and importance to safety of the item involved.

- 4 | For Engineered items, Engineering is responsible for evaluating the overall design or manufacturing capability of the supplier including his particular technical ability to produce the design, service, item, or component delineated in the procurement documents. As part of this review, the supplier's design capabilities, machinery capabilities, handling capabilities, testing facilities, service capabilities, and experience are reviewed.

- 2 | Quality Assurance is responsible for evaluating the supplier's overall quality assurance organization and program in accordance with applicable codes, standards, applicable parts of 10CFR50 Appendix B, and Rochester Gas and Electric requirements. The review includes consideration of: company organization, quality assurance personnel qualifications, review and control of design documents, manufacturing procedures, quality assurance procedures, calibration practices, acceptance criteria, required quality assurance records and their retention, and quality assurance requirements and controls imposed by the supplier on his subcontractors. Supplier evaluation is conducted by means of procedures or checklists which identify applicable regulatory or code quality assurance requirements.

- 4 | Ginna Station, General Maintenance, Quality Assurance and Electric Meter and Laboratory evaluate the suppliers of inspection, test, and calibration services which they intend to use. Ginna Station evaluates the suppliers of spare and replacement parts.
- 4 | 3

3 The departments responsible for performing supplier evaluations shall document their results in reports which discuss areas investigated, findings, and conclusions. As applicable, concurrence of Purchasing, Engineering, Quality Assurance, Ginna Station, General Maintenance, Electric Meter and Laboratory and Fuel Planning is required to place a supplier on the qualified suppliers' list. One organization can remove a supplier from the list without concurrence of the others.

Quality Assurance is responsible for determining and documenting the degree of supplier surveillance (including review, inspection, or audit) required during design, fabrication, inspection, testing, and shipping, and for providing the required surveillance. The objective of supplier surveillance is to provide a sampling review of the supplier's quality assurance program implementation and of product conformance with respect to the purchase order requirements. For complex equipment and designs, Quality Assurance and Engineering are responsible for joint development of surveillance plans in advance of surveillance trips to identify areas to be reviewed.

3 The results of the surveillance trip are documented by means of inspection sheets or trip reports which are distributed to the Manager, Quality Assurance, and the department which initiated the procurement. When a deviation from purchase order requirements is noted, the Quality Assurance representative has the authority to inform the vendor that a particular item is unacceptable, to issue a nonconformance report, or to stop work, if necessary.

4 Ginna Station Quality Control is responsible for surveillance of site contractors to assure that they meet all technical and quality requirements. The reporting and documenting of contractor surveillance is managed in a manner similar to supplier surveillance.

3 Department superintendents are responsible for receiving and storing materials, parts, and components. Upon receipt of material, the department stockkeeper logs the item, places a "hold" tag on the item, and notifies Quality Control that the item has arrived.

3 Quality Control is responsible for receipt inspection upon delivery of material, equipment, and associated services for operation, maintenance, repair, inservice inspection, modification, refueling, testing, and inspection. This inspection includes the use of written procedures or checklists to verify that the material, equipment and services conform to the procurement documents (if this has not been performed by source inspections) and that documentary evidence of conformance is available at the plant prior to installation or use. Documentary evidence sufficient to identify the codes,

4 | standards, or specifications met by the purchased material, equipment, and services is retained. In the event a final source inspection for the acceptance is conducted prior to receipt by RG&E, Quality Control performs an inspection for shipping damage or lost parts and a document check to assure that the required documentation has been reviewed and is complete. A receiving inspection checklist is completed for all items received to document the extent of the inspection performed, including the documents checked, and the inspection results.

4 | 3 | If the item and documentation are adequate, Quality Control labels the item as "Accepted," files the documentation and receipt inspection results, and returns the item to the stockroom. If the item is nonconforming or the documentation is unsatisfactory, Quality Control initiates a nonconformance report which is controlled in accordance with Section IV.15.

All items issued must bear an acceptance tag and have documentation to support the acceptability of the item. In the event the traceability is lost or the documentation review is unsatisfactory, the item becomes nonconforming and may not be released for use.

IV.8 Identification and Control of Materials, Parts, and Components

The identification and control of materials, parts, and components is accomplished in accordance with written requirements and applies to material, parts, or components in any stage of fabrication, storage, or installation. Identification and control requirements are established by either an existing procedure or requirements documents which are prepared during the planning stages of a project. The identification and control requirements cover items such as: traceability to associated documents such as drawings, specifications, purchase orders, manufacturing test data and inspection documents, and physical and chemical mill test reports; specification of the degree of identification to preclude a degradation of the item's functional capability or quality; and the proper identification of materials, parts, and components prior to release for manufacturing, shipping, construction, and installation.

4 | 2 | Engineering and Quality Assurance are responsible for assuring that drawings and specifications contain appropriate requirements for the identification and control of materials, parts, or components, as appropriate. Suppliers are required to assure that all required documentation for an item is properly identified and related to the item. Each item is required to be physically identified, either by marking on the item or by tags. Physical identification by purchase order number is used to the maximum extent possible for

- 4 | 3 | qualification of NDE personnel and procedures. Quality Assurance is responsible for the qualification of welding procedures and the training and qualification of welders. Engineering maintains records for personnel and procedures to demonstrate that required qualifications have been obtained and are kept current.
- 2 | Quality Assurance and Quality Control perform surveillance inspections, and audits of special processes performed by Rochester Gas and Electric or contractors to assure compliance with procedures.

IV.10 Inspection

- Procedures prepared for the control of activities include inspection requirements and hold points as required by drawings, instructions, requirements documents, specifications, codes, standards, or regulatory requirements.
- 4 | 3 | Instructions for conducting detailed verification inspections are contained in inspection procedures. These inspection procedures are all supporting specifications and drawings are provided to inspection personnel for use prior to performing the inspection. Inspection requirements and hold points are utilized to verify conformance of activities to the documented instructions, specifications, and drawings for accomplishing the activity. Inspection procedures include the identification of quality characteristics to be inspected, a description of the method of inspection to be used, the identification of the group responsible for performing the inspection, the acceptance and rejection criteria, the requirements for the recording of inspection results, and the requirements for providing evidence of completion and certification of the inspection activity. Verification inspections are performed by qualified inspection personnel who are independent of the personnel performing the work. Outside contractors are required by procurement documents to have and follow similar procedures and to use independent inspectors. Inspectors are sufficiently trained to adequately evaluate the activity they are inspecting.
 - 4 | Quality Control personnel are responsible for performing verification inspections, as required, during plant operation, maintenance, repair, in-service inspection, refueling, modification, and testing when the work is performed by Rochester Gas and Electric personnel. When the work is performed by outside contractors, Quality Control is responsible for surveillance of the subcontractor's inspection activities. All inspection equipment is calibrated and controlled in accordance with Section IV.12. Calibration status is verified by inspection personnel prior to performing an inspection operation.

In the event an inspection of processed material or products is impossible or impractical, indirect control by monitoring processing methods, equipment, and personnel is provided. Both inspection and process monitoring are required when control is inadequate without both.

- 4 | 3 | 2 | Quality Assurance is responsible for assuring that adequate inspection requirements are included in specifications and for establishing the requirements for the inservice inspection program.

- 4 | 3 | The Ginna Station Quality Control Engineer is responsible for assuring that adequate inspection requirements and hold points are included in maintenance, repair, refueling, modification and testing procedures. He is also responsible for the assignment of qualified inspection personnel required for inspection of quality affecting activities and for coordinating the performance of and conducting the surveillance of inservice inspection.

- 3 | The General Maintenance Quality Control Coordinator is responsible for assuring that adequate inspection requirements are included in procedures, instructions and/or checklists controlling maintenance, modification and repair activities and related fabrication processes at the General Maintenance facility.

The program for inservice inspection of the reactor coolant system and other safety related systems is contained in Section 4.2, Technical Specifications.

IV.11 Test Control

- 2 | Whenever testing is required to demonstrate that a material, part, component, or system will perform satisfactorily in service, a test program is instituted employing written and approved procedures which are in accordance with basic requirements established in Technical Specifications, drawings, instructions, procurement documents, specifications, codes, standards, and regulatory requirements. The test program requires the identification, control, and documentation of all tests, and the preparation of written procedures required for satisfactory accomplishment of the testing. Written test procedures and checklists include: necessary test equipment and calibration requirements; material requirements; test personnel requirements; prerequisite plant and equipment conditions; limiting conditions; detailed performance instructions for the testing method and test equipment instrumentation; acceptance and rejection criteria; instructions for disposition of deviations; data collection requirements; and test result approval.

The Ginna Station Superintendent is responsible for the station test program, including the surveillance test program required by Section 4.0, Technical Specifications.

Test procedures are prepared by the plant staff, reviewed by the Plant Operations Review Committee and Quality Control, and approved by the Ginna Station Superintendent. The Ginna Station Superintendent is responsible for the performance of the required tests in a correct and timely manner utilizing written and approved procedures. When contractors are employed for tests, the contractor is required to perform testing in accordance with his quality assurance program requirements. All test results are required to be documented, reviewed, and approved by those responsible for performing the test.

3 | When requested by Ginna Station, Electric Meter and Laboratory performs test activities to determine the cause of protective relay malfunctions. These test activities are performed in accordance with approved procedures by qualified personnel.

4 | 3 | Engineering and Quality Assurance are responsible for assuring that required tests for major modifications are included in specifications. Engineering assistance in the preparation of modification-related test procedures may be provided to the Ginna Station staff. Ginna Station is responsible for reviewing modification-related test results for acceptability to design requirements.

IV.12 Control of Measuring and Test Equipment

The calibration and control system for measuring and test equipment includes calibration procedures, establishment of calibration frequencies, and maintenance and control requirements of measuring and test instruments, tools, gauges, shop standards, and nondestructive test equipment which are to be used in the measurement, inspection, and monitoring of components, systems, and structures. Calibration procedures include step-by-step methods for calibration and requirements for instrument accuracy. Calibration frequency is based on required accuracy, degree of usage, stability characteristics, manufacturer's recommendations, experience, and other conditions affecting measurement capability.

Control of measuring and test equipment requires: a recall system assuring timely calibration of equipment; a system providing unique identification of equipment, traceability to calibration test data, and identification of the next calibration date on the equipment; a system providing traceability of shop standards to nationally recognized standards (where national standards do not exist, procedures contain instructions to document the basis for calibration) and periodic revalidation of shop standards; a system providing

Fuel handling operations involving fuel assemblies or other radioactive sources are identified and controlled by the use of tags, stamps, or other suitable means.

- 3 Maintenance, repair, or modification of components, systems, or structures utilizes an inspection or test status sheet to indicate acceptance or rejection for a particular component, system, or structure. Inspection or test status sheets are prepared and maintained at a designated control location to indicate the status and the completion of required inspections and tests.

- 4 3 Quality Control monitors the status change activities for their compliance to approved procedures and assures that inspection results are properly logged. Quality Control also establishes the procedures for implementing the inspection status sheets during inservice inspection.

IV.15 Nonconforming Materials, Parts, and Components

- 3 Procedures are established for the control, evaluation and disposition of deficient material, parts, and components. Materials, parts, or components which do not conform to the drawing or specification requirements are identified with a hold tag and reported on a nonconformance report. Quality Control is responsible for issuing nonconformance reports, recommending disposition, initiating repair or rework, and inspecting and approving repaired or reworked items. Prior to installation or use, nonconforming items generally remain in a Quality Control receiving inspection area until approved disposition has been received. Nonconforming items which are released for installation to meet critical fabrication schedules are controlled by Quality Control to prevent inadvertant use prior to clearance of the nonconformance. After installation or use, nonconforming items are identified and controlled until approved disposition has been received.

- 3 Nonconformances identified at a supplier's facility and reported to RG&E, which have supplier recommended dispositions of use-as-is, or repair, are normally processed by the department originating the procurement. Organizations which specify the requirement being dispositioned are responsible for reviewing and approving the supplier recommended disposition. This also applies to nonconformances discovered after receipt inspection, during handling or after installation or use.

- 4 3 Items are repaired and reworked only in accordance with approved procedures and current drawings. Quality Control assures that approved procedures and/or drawings are available for use prior to the repair or rework and reinspects all repaired or reworked items. The repair or rework must be verified as acceptable by an inspection of the affected item which is at least equal to the original inspection method.

The Plant Operations Review Committee reviews all corrective action reports initiated at Ginna Station and recommends interim corrective action if the action does not represent a change in configuration of the deficient item. The Committee recommends permanent corrective action for all conditions adverse to quality which involve operating procedures.

3 | Significant conditions adverse to quality identified in General Maintenance are processed by the Quality Control Coordinator. The General Maintenance Quality Control Coordinator has the authority to stop or limit work activities within his department.

4 | Conditions adverse to quality which involve design deficiencies or a recommended corrective action which involves a major design change are reviewed by Engineering. Engineering determines the cause of the condition and recommends corrective action to preclude repetition.

3 | Quality Assurance reviews all corrective action reports to assure that the cause of the condition has been determined and that corrective action has been taken to preclude repetition. Quality Assurance also reviews nonconformance report summaries for unsatisfactory trends and initiates a corrective action report if such a trend occurs.

2 | Completed corrective action reports are submitted to the Vice President, Electric and Steam Production to keep him aware of significant conditions adverse to quality.

IV.17 Quality Assurance Records

4 | Quality Assurance is responsible for establishing the basic requirements for quality assurance record retention and maintenance. The Ginna Station Superintendent is responsible for the retention and maintenance of plant records. Engineering is responsible for the retention and maintenance of Engineering records. Quality Assurance, Purchasing, Fuel Planning, General Maintenance and Electric Meter and Laboratory departments are responsible for assuring the maintenance and retention of records which they originate. This may be accomplished either by retaining the records in their department or by forwarding them to Ginna Station or Engineering, as appropriate. Each organization retaining records is responsible for preparation, review, approval, and implementation of specific quality assurance record procedures for their areas of responsibility in accordance with these requirements. The records which fall within quality assurance record requirements include those records required by Section 6.10 of the Technical Specifications and the quality assurance program. All records associated with the operation, maintenance, repair, inservice

4 | 3 | 2 |

IV.18 Audits

Compliance with all aspects of the quality assurance program and the effectiveness of the program is determined by audits of all organizations performing quality affecting activities. Quality Assurance is responsible for conducting audits of each organization involved in the quality assurance program on a planned, periodic basis. Audit intervals are based on the status and safety important of activities being performed.

- 3 | Audits of Ginna Station, Engineering, General Maintenance, Electric Meter and Laboratory and Purchasing organizations are performed annually. Table IV.18-1 is a list of the activities to be audited in each of the organizations. Audit frequencies are based on the level of activity in each area. Audit schedules are established to assure that each of the activities are audited at the required frequency.
- 4 | Additional audits are conducted as required by special conditions or circumstances.

Each audit requires the development of an audit plan to provide information about the audit, such as the functional areas to be audited, the names and assignments of those who will perform the audit, the scheduling arrangements, and the method of reporting findings and recommendations. The audits are performed in accordance with written procedures or checklists by appropriately trained personnel not having direct responsibilities in the areas being audited.

- 2 | Audit results are documented and reported to the person having supervisory responsibility in the area audited, the Vice President, Electric and Steam Production, and the Nuclear Safety Audit and Review Board. Within a specified period of time, the person having supervisory responsibility in the area audited is required to review the audit results, take necessary action to correct the deficiencies revealed by the audit, and document and report the corrective action.

- 2 | Quality Assurance is responsible for developing audit plans and audit checklists, designating and training audit personnel, and conducting audits.

Audits may be conducted by Quality Assurance engineers or other qualified personnel, such as technical specialists from other company departments and outside consultants.

Audits of major contractors, subcontractors, and suppliers are conducted during the early stages of design and procurement, as required, to evaluate their quality assurance program for compliance with all aspects of the procurement documents. Audits are conducted, as required, to assure that major contractors, subcontractors, and suppliers are auditing their suppliers' quality assurance programs in accordance with procurement documents. During the project,

Table IV.1-1 (cont'd)

Ginna ProceduresAppendix B
Criteria

Ginna Quality Assurance Program Implementation	I
Training of Ginna Personnel	I
Periodic Review of Quality Control Procedures	I
Ginna Organization	II
Work Start Authorization	III
Modification Control Activities	III
Control of Procurement Documents for Purchased Materials, Parts, Components and Services	IV
Plant Procedures	V
4 Plant Procedure Document Control	VI
Control of Engineering Documents	VI
Control of NRC Correspondence	VI
Receipt and Acceptance of Purchased Materials	VII
Receipt of New Fuel	VII
Supplier Qualification Technical Evaluation	VII
Control of Purchased Services	VII
Control of Accepted Material, Parts and Components	VIII
Identification and Marking of Material	VIII
Control of Welding	IX
Welding Equipment Performance Verification	IX
Nondestructive Examination	IX
Inspection and Surveillance Activities	X

Table 1V.1-1 (cont'd)

<u>Ginna Procedures</u>	<u>Appendix B Criteria</u>
Qualification of Surveillance and Inspection Personnel	X
Inservice Inspection	X
Performance of Tests	XI
Qualification of Test Personnel	XI
Calibration and Control of Test Instruments	XII
Calibration and Control of Mechanical Measuring Tools and Equipment	XII
Calibration and Control of Process System Instrumentation	XII
Control of Material Handling and Handling Equipment	XIII
4 Storage and Preservation of Materials	XIII
System or Equipment Operating Status Control	XIV
Inspection Status Control	XIV
Test Status Control	XIV
Control and Disposition of Nonconforming Materials	XV
Issue of Nonconformance Reports	XV
Corrective Action at Ginna Station	XVI
Control of Quality Assurance Records	XVIII
Record Storage Facility and Equipment	XVIII
System and Equipment Histories	XVIII
Ginna Station Response to Internal Audits	XVIII

Table IV.1-1 (cont'd)

Engineering Procedures

Appendix B
Criteria

Indoctrination and Training	I
Engineering Department Organization and Responsibilities	II
Preparation, Review and Approval of Design Input Documents	III
Preparation, Review and Approval of Design Analyses	III
Engineering Drawings	III
Preparation, Review and Approval of Specifications	III
Design Verification	III
Design Interface Control	III
Preparation, Review and Approval of Safety Analyses	III
Purchase Requisition	IV
4 Engineering Procedures	V
Engineering Procedure Deviation Request	V
Distribution and Control of Documents by the Control Number Method	VI
Control of Documents by the List of Current Revisions Method	VI
Distribution and Control of Documents by Project Correspondence Procedures	VI
Supplier Evaluation	VII
Preparation, Review and Approval of Bid Requests, Bid Evaluations and Recommendations for Award	VII
Engineering Review of Nonconforming Materials, Parts or Components	XV
Initiating and Responding to Corrective Action Reports	XVI

Table IV.1-1 (cont'd)

<u>Engineering Procedures</u>	<u>Appendix B Criteria</u>
4 Records	XVII
Engineering Response to Audits	XVIII

TABLE IV.4-1
Procurement Document Requirements

Items to be considered for inclusion in procurement documents include:

1. Scope of Work - Detailed statement of the work to be performed to include a complete identification of the goods to be provided.
- *2. Technical Requirements - by reference to specific drawings, specifications, codes and standards that describe the items or services to be furnished and the applicable inspection and test requirements with corresponding acceptance criteria.
- *3. Quality Assurance Program Requirements - which require the supplier to have a documented quality assurance program that implements portions or all of 10CFR50 Appendix B as well as applicable quality assurance program requirements of other nationally recognized codes and standards.
- *4. Right of Access - to include the facilities and records of the supplier for source inspection and audit by the Purchaser or parties designated by the purchaser.
- *5. Documentation Requirements - Submittal approval and retention requirements for documents such as quality assurance manuals, special process and test procedures, materials records, calculations and analyses.
- *6. Nonconformances - Requirements for reporting and disposition of nonconformances to procurement requirements.

* - Included in the review by Quality Assurance/Quality Control.

TABLE IV.18-1 (cont'd.)
Audit List

Functional Organization

Activities Audited

General Maintenance

Indoctrination and Training
 Maintenance and Repair
 Procurement Control
 Document Control
 Fabrication Control
 Control of Measuring and Test
 Equipment
 Special Processes

4 |

Electric Meter and Lab

Indoctrination and Training
 Procurement Control
 Document Control
 Handling and Shipping
 Control of Measuring and Test
 Equipment
 Test Control

4 |

4 |

