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Consumers Power Company

COPY

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • (517) 788-0550

August 21, 1980

Director of Nuclear Reactor Regulation
Att Mr W P Haass, Chief
Quality Assurance Branch
U S Nuclear Regulatory Commission
Washington, DC 20555

TOPICAL REPORT - CPC-1A - CONSUMERS POWER COMPANY QUALITY ASSURANCE PROGRAM - REVISION 9, MARCH 18, 1980

Transmitted are thirty-six (36) sets of Consumers Power Company Quality Assurance Program Volume I - Policies, Revision 9, March 18, 1980. Revisions are denoted by a vertical line in the margin adjacent to the changed text. Corrections have been made with an NRC July 16, 1980, letter of "Acceptance of Revision to Quality Assurance Topical Report".

This Topical Report applies to the actions that are implemented by Consumers Power Company personnel during the design, procurement, construction, fueling, testing, operation, refueling, maintenance, repair and modification of the safety-related portions of all our nuclear power plants.

David P Hoffman (Signed)

David P Hoffman
Nuclear Licensing Administrator

CC Director, Region III, NRC
NRC Resident Inspector - Palisades

Attachment (NRC only)

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 16 1980

Mr. David P. Hoffman
Nuclear Licensing Administrator
Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Dear Mr. Hoffman:

SUBJECT: NRC ACCEPTANCE OF REVISION TO QA TOPICAL REPORT

By letter dated May 1, 1980 you submitted Revision 9, consisting of revised pages to the Consumers Power Company's (CPC) Topical Report No. CPC-1-A, "Consumers Power Company Quality Assurance Program Manual For Nuclear Power Plants." The revision addresses organizational and programmatic changes.

We have evaluated the proposed changes described in Revision 9 and find that they do not change our prior conclusions. Your revised topical report meets the criteria of Appendix B to 10 CFR Part 50 and is therefore acceptable. To use the topical report in future license applications, CPC need only reference this topical report in Section 17 of the Safety Analysis Report. We do not intend to repeat our review of this topical report when it is referenced in an application unless changes occur that are applicable to the new license application.

Should regulatory criteria or regulations change such that our conclusions about this topical report are invalidated, we will notify you. You will be given the opportunity to revise and resubmit it should you so desire.

Programmatic changes by CPC to this topical report are to be submitted to the NRC for review prior to implementation. Organizational changes are to be submitted no later than 30 days after announcement.

Please replace our letter of February 12, 1980 with this letter, renumber the report as CPC-1-A, Revision 9, and submit 36 copies to the NRC. As discussed in a telephone conversation between you and W. Belke of my staff on July 15, 1980, your final submittal will include the correction to the incomplete sentence in Policy 9, page 3, paragraph 3.2, adding "preoperational testing activities." Your submittal should also identify the projects to which this revised topical report will apply.

Should you have any questions regarding our review or if we can provide assistance, please feel free to contact me or Mr. William Belke at (301) 492-7741.

Sincerely,

Walter P. Haass

Walter P. Haass, Chief
Quality Assurance Branch
Division of Engineering

dupe
8008050557

Consumers Power Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • (517) 788-0550

May 1, 1980

Director of Nuclear Reactor Regulation
Att Mr W P Haass, Chief
Quality Assurance Branch
US Nuclear Regulatory Commission
Washington, DC 20555

TOPICAL REPORT - CPC-1A - CONSUMERS POWER COMPANY QUALITY ASSURANCE PROGRAM - REVISION 9, 3/18/80

Transmitted are thirty-six (36) sets of Consumers Power Company Quality Assurance Program Volume I - Policies, Revision 9, 3/18/80. Revision 9 incorporates organizational changes identified in our letter of April 18, 1980. This is in accordance with the NRC February 12, 1980, letter of "Acceptance of Revision to Quality Assurance Topical Report".

Revisions are denoted by a vertical line in the margin adjacent to the changed text.

David P Hoffman (Signed)

David P Hoffman
Nuclear Licensing Administrator

CC JGKeppler, USNRC

Attachment (NRC only)

Dupe

REVISION 9
3/18/80

COPY NUMBER _____

ISSUED TO _____

Consumers Power Company

QUALITY ASSURANCE PROGRAM MANUAL FOR NUCLEAR POWER PLANTS

Volume I - Policies

☐ CONTROLLED COPY
(REVISIONS WILL BE PROVIDED)

☒ UNCONTROLLED COPY (REVISIONS WILL NOT BE FORWARDED TO HOLDERS OF UNCONTROLLED COPIES)

Dupe

Consumers Power Company

J. D. Selby
President

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • (517) 788-1600

SUBJECT: Statement of Authority and Responsibility Regarding the Consumers Power Company Quality Assurance Program for Nuclear Power Plants

Consumers Power Company has documented its Quality Assurance Program for Nuclear Power Plants in a corporate manual entitled, Consumers Power Company Quality Assurance Program Manual for Nuclear Power Plants. This manual outlines the actions that are implemented by Consumers Power Company personnel during design, procurement, construction, fueling, testing, operation, refueling, maintenance, repair and modification of the safety-related portions of its nuclear power plants.

The Consumers Power Company Quality Assurance Program for Nuclear Power Plants complies with the Quality Assurance Requirements contained in Appendix B of 10CFR50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants" and responds to the additional guidance contained in the ANSI N45.2 series of standards, ANSI N18.7, and corresponding Regulatory Guides.

As Chief Executive Officer of Consumers Power Company, I have the ultimate management authority for the establishment of corporate QA policy. That policy shall be to comply with the provisions of applicable laws and regulations and to commit to the requirements stated in the previous paragraph. Authority for the establishment of specific individual Quality Assurance Program Policies to comply with this overall policy is assigned to the Senior Vice President - Projects, Engineering and Construction for the design and construction phases and to the Executive Vice President - Energy Supply for the operations phase. Authority for the preparation of specific Quality Assurance Program Procedures by which to implement these Policies is assigned, in turn, as follows: to the Director, Environmental Services, Quality Assurance and Testing who reports to the Senior Vice President - Projects, Engineering and Construction; and to the Director, Quality Assurance - Nuclear Operations who reports to the Vice President - Nuclear Operations who, in turn, reports to the Executive Vice President - Energy Supply.

The Quality Assurance Program Policies and Procedures are mandatory requirements which must be implemented and enforced by all responsible organizations and individuals.

J. D. Selby
4/15/80

The Consumers Power Company Quality Assurance Program Manual for Nuclear Power Plants consists of policies and procedures which comply with current NRC regulatory requirements and industry codes and standards in effect during the design, procurement, construction, testing, operation, refueling, maintenance, repair and modification activities associated with nuclear power plants. Specific NRC and industry documents that contain the requirements, including the issue dates in effect, are identified in each nuclear power plant's Safety Analysis Report. The requirements established by these documents form the basis for the Consumers Power Quality Assurance Program, which is implemented to control those structures, systems, components and operational safety actions listed in each nuclear power plant's Quality List (Q-List). As additional and revised requirements are issued by the NRC and professional organizations involved in nuclear activities, they will be reviewed for their impact on this manual, and changes will be made where considered necessary.

CP Co 1 - Consumers Power Company QA Program Topical Report is Volume I of this manual and contains Quality Assurance Program Policies applicable during all phases of nuclear power plant design, construction and operation.

The "BASIS DOCUMENTS" listed in each policy identifies the specific codes, NRC regulatory requirements, and industry standards related to each of the eighteen (18) criteria contained in NRC Document 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants. The basic guidance document for the operations phase is ANSI N18.7 latest revision. Each Quality Assurance Program Policy defines the action that will be taken by Consumers Power or its Suppliers in response to the basis documents, and assigns responsibility for these actions to individuals or organizational units within the Company or to Suppliers. The Quality Assurance Program Policies are approved by the Vice Presidents in charge of the organizations responsible for their implementation. The Director, Environmental Services, Quality Assurance and Testing is responsible for the preparation, acquisition of approvals, distribution and revision of the Quality Assurance Program Policies.

Volumes II, IIA and III of the manual contain a series of Quality Assurance Program Procedures that describe how the commitments made in the individual Quality Assurance Program Policies are implemented. Each Quality Assurance Program Procedure identifies the organizational element responsible for a specific activity and the method of accomplishing that activity. The Quality Assurance Program Procedures are approved by the Heads of the Consumers Power Company interfacing departments responsible for their

implementation. The Director, Environmental Services, Quality Assurance and Testing is responsible for preparation, acquisition of approvals, distribution and revision of the Quality Assurance Program Procedures for Design and Construction. The Director, Quality Assurance - Nuclear Operations, is responsible for preparation, acquisition of approvals, distribution and revision of Quality Assurance Program Procedures for Operations.

The specific action taken by each Consumers Power Department to implement the requirements identified in the Quality Assurance Program Procedures is detailed in Consumers Power Department, Plant, Section or Unit Procedures. These working level procedures are prepared, maintained, controlled, issued, and implemented by the Departments, Sections, and Units responsible for implementing the Quality Assurance Program.

Consumers Power

QUALITY ASSURANCE PROGRAM MANUAL FOR NUCLEAR POWER PLANTS

VOLUME I MANUAL REVISIONS APPROVED BY REVISION NINE TO THE CONSUMERS POWER COMPANY TOPICAL REPORT

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3	2	9	3/18/80*	8	4	9	3/18/80*
3	3	9	3/18/80*	9	1	9	3/18/80*
3	4	8	2/12/80	9	2	9	3/18/80*
3	5	9	3/18/80*	9	3	9	3/18/80*
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4	2	9	3/18/80*	10	2	9	3/18/80*
4	3	9	3/18/80*	10	3	9	3/18/80*
4	4	9	3/18/80*	10	4	9	3/18/80*
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Consumers Power

QUALITY ASSURANCE PROGRAM MANUAL FOR NUCLEAR POWER PLANTS

VOLUME I MANUAL REVISIONS APPROVED BY REVISION NINE TO THE CONSUMERS POWER COMPANY TOPICAL REPORT

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13	4	9	3/18/80*
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16	4	9	3/18/80*
17	1	9	3/18/80*
17	2	9	3/18/80*
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The following terms are used in the Quality Assurance Program Policies. Definitions contained in ANSI N45.2.10, "Quality Assurance Terms and Definitions," are not repeated in this section. Additional definitions related to the associated Quality Assurance Program Procedures are defined in the individual procedures.

Abnormal Occurrence - Defined for each operating plant in its Technical Specifications.

Adjustment - Operational alterations performed on an item of test equipment prior to its use which affect its output, but which do not constitute calibration checks.

Approved Bidder - A Supplier who, by his past record or present Quality Assurance capabilities, is qualified to supply products or services to Consumers Power.

Audit - A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of a Quality Assurance Program have been developed, documented and effectively implemented in accordance with specified requirements. An audit does not include surveillance or inspection for the purpose of process control or product acceptance.

Auditor - One qualified to examine Quality Assurance practices and verify whether requirements are being met.

Balance of Plant - Nuclear power plant items and equipment not designed, furnished or installed as a part of the Nuclear Steam Supply System or its auxiliary systems.

Basis Documents - Those NRC and industry documents which contain the requirements that form the basis for the Consumers Power Company Quality Assurance Program.

Bid Package - The total of drawings, specifications, codes, standards, quality and other requirements that describe the task on which a prospective supplier will bid.

Calibration - Comparison of an item of measuring and test equipment (M&TE) with a reference standard or item of M&TE of closer tolerance to detect and quantify inaccuracies and to report or eliminate those inaccuracies by adjustment.

Calibration Standard - Any object or equipment which is used as a known reference or standard against which another piece of test equipment is calibrated.

Certified Personnel - Personnel whose qualifications have been attested to in writing.

Code - A recognized written standard or collection of rules or practices for using or processing materials, or for the skill involved in use or processing.

Construction Phase - Activities at the building site necessary to erect and verify proper installation and performance of nuclear power plant facilities prior to initial fuel loading.

Construction Tests - Those tests necessary to verify that the installation of systems is complete and complies with the applicable specifications, standards, codes, drawings and engineering information. It includes tests such as: Hydrostatic testing, megger testing, continuity testing and cleanliness testing.

Contract - A document for the procurement of services which describes the technical and Quality Assurance requirements by inclusion, reference, or attachment.

Corrective Action - Action taken to correct and preclude recurrence of significant conditions adverse to the quality of items or operations.

Corrective Maintenance - Maintenance performed to correct an abnormal or incorrect situation, such as the replacement of a faulty relay.

Design Controls - Methods for assuring that basic design requirements are formalized and translated into design documents with proper review to assure the scheduled release of a valid design.

Design Criteria - Statements of the form, function, and interface requirements within well-defined limitations.

Design Documents - Documents furnishing evidence of the quality of the design of structures, systems, or components. Includes such documents as drawings, system descriptions, specifications, standards, material lists, technical manuals, design calculations, and design analyses.

Design Input - Those criteria, parameters, bases and other requirements upon which the detailed final design is based.

Design Phase - Procurement, licensing and design activities from project initiation to initial fuel loading.

Design Requirements - Documents that set the functional requirements, operating conditions, safety requirements, performance objectives, design margins and design life. Included are any special requirements for size, weight, ruggedness, materials, fabrications or construction, testing, maintenance, operating environments, safety margins and derating factors.

Design Review - Critical review of the design in order to provide assurance that the actions leading to the design output, such as drawings, calculations, analyses, and specifications have been satisfactorily performed and the information included in the design output is correct.

Document - Instructions, procedures, drawings or other instructional-type manuals or material directly affecting a quality or safety-related activity.

Equipment - A combination of items or material in either subassembly or complete form.

Hold Point - A checkpoint in a sequential operation at which certain data are taken, inspections made, or approval required before the next sequential step can be taken.

Hot Functional Tests - Tests conducted at completion of preoperational tests. The nuclear steam supply systems and auxiliary systems where possible are brought to rated temperature and pressure to demonstrate satisfactory performance.

Inspection - Characteristic by characteristic, or step by step comparison of the as required versus "as is" condition by observation or direct measurement for the purpose of making a determination as to the acceptability or unacceptability of the item or activity under examination.

Inspection and Test Plan - A listing, with optimum sequencing, of all the inspections and tests required to be performed for a specific item, component, structure or system.

Interface Control - Methods to assure that proper interaction and communications are effected for activities. Also includes consideration that components and structures are geometrically and functionally compatible and that materials are compatible with both process and environment.

Maintenance - Tests, calibration, adjustments, and repairs performed in order to keep equipment, components, or systems in satisfactory operating condition.

Major Modifications - Those alterations that are assigned to the Generating Plant Modifications Department. Major modifications are coordinated by an assigned Engineering Supervisor in the Generating Plant Modifications Department.

Measuring and Test Equipment (M&TE) - Devices or systems used to calibrate, measure, gage, inspect or control in order to acquire research, test or operational data; to determine compliance with design, specifications or technical requirements. M&TE does not include permanently installed operating equipment or test equipment used for preliminary checks where absolute accuracy is not required; ie, circuit checking multimeters, etc.

Minor Modifications - Those alterations to the plant that are assigned to Production & Transmission. Minor modifications are coordinated by an assigned Project Engineer in the Operating Services Department - Production & Transmission and/or an assigned plant staff member.

National Standards - Systems, instruments and materials standards maintained at or issued by the National Bureau of Standards (NBS) or other designated institutions, and the values for natural physical constants and conversion factors recommended by the NBS.

Nonconformance - A deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate and which is considered significant to quality or safety. Examples include: Physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.

Nondestructive Testing (NDT) - The determination of the performance capabilities for materials, components, structures, or systems by measurement without impairing their usefulness.

Nuclear Fuel - Nuclear fuel assemblies designed and constructed by a nuclear fuel fabricator and suitable for use in a nuclear steam supply system and the associated depleted, natural or enriched uranium nitrate or uranium hexafluoride and plutonium nitrate or plutonium oxide supplied or to be supplied to the nuclear fuel fabricator for the construction of nuclear fuel assemblies.

Nuclear Steam Supply System (NSSS) - That portion of the nuclear power plant which provides steam from nuclear heat. It includes reactor, its control systems, main coolant and steam generation systems, fuel handling equipment, emergency core cooling system and other safeguards, associated electrical equipment, instrumentation, and spent fuel handling.

On Site Minor Modifications - Those design and modification activities that are performed or coordinated in whole by the plant staff under the direction of the Plant Superintendent or his designated representative.

Operations Phase - That phase in the life of a nuclear power plant which receives coverage under the QA Program for Operations. It normally begins at core loading and continues until decommissioning. It also includes those activities performed by the Production and Transmission Departments during the Design and Construction Phase in preparation for plant operations. Administrative Controls for the PE&C/P&T interfaces prior to core loading are normally identified in a Project Test Program Manual.

Operational Safety Action or Activity - A safety -related action or activity designated as such on the plant's Quality List (Q-List).

Operational Tests - Plant tests and surveillance tests performed during the operations phase of the plant to assure proper and safe operation of the plant systems.

Plant Review Committee - On-Site Advisory Review Committee made up of senior plant staff and chaired by Plant Superintendent or his designated alternate.

Preoperational Tests - Testing prior to initial fuel loading and plant operation to demonstrate the capability of structures, systems and components to meet performance requirements.

Principal Suppliers - Those organizations from whom Consumers Power has procured equipment, materials or services.

Procured Items - Purchased materials, equipment or services including design and technical services.

Procurement Documentation - Purchase Requisitions (PRs), Purchase Orders (POs), Division Purchase Orders (DPOs), Returned Material Requests (RMRs), drawings, contracts, specifications and instructions used to define requirements for the purchase of materials, equipment or services.

Purchase Requisition - The basic document describing material, equipment or services for which a specific procurement action is necessary. For services, the purchase requisition serves as a transitioral document to initiate a purchase order that references the contract.

Quality Assurance Program Policies - A series of individual documents that establish requirements and assign responsibilities for implementing elements of the Consumers Power Quality Assurance Program for Nuclear Power Plants. The Policies provide Management direction for complying with applicable regulatory requirements, industry codes and standards, and corporate policies and instructions. The Policies are approved for issue and implementation by the affected Consumers Power Vice Presidents, Executive Managers, or Executive Directors.

Quality Assurance Program Procedures - A series of individual documents that define the interdepartmental relationships and responsibilities among those departments involved in implementing the Consumers Power Quality Assurance Program for Nuclear Power Plants. The Procedures are approved for issue and implementation by the affected Consumers Power Department Managers or Directors.

Quality Assurance Record - Those records which furnish documentary evidence of the quality of items and of activities affecting quality

Quality List (Q-List) - A list of safety-related structures, systems, components, and operational safety actions or activities designated by Consumers Power to receive coverage under the Consumers Power Quality Assurance Program. The Q-List is prepared and maintained for each plant.

Quality-Related Activity - Any task performed on safety-related items during the design, construction, operation, modification or maintenance of a nuclear power plant that affects quality.

Reference Standards - Standards of the highest accuracy in a calibration program. These standards establish the basic accuracy limits for that program.

Request for Bid - Invitation to bid on a specific task made to Supplier of materials, goods or services.

Safety and Audit Review Board (SARB) - During the Operations Phase, a group responsible for maintaining a continuing critical examination of all safety-related plant activities, including observation of plant operation, evaluations of procedures and certain contemplated actions, and investigations of abnormal conditions to verify that such activities do not constitute an unreviewed safety question. Board membership, qualifications, meeting frequency, quorum, responsibilities, authority and records are in accordance with the nuclear plant's Technical Specifications.

Safety-Related - The term applied to:

Structures, systems, components, materials, services or Operational Safety Actions or Activities named on the Q-List as necessary to assure:

1. The integrity of the reactor coolant pressure boundary.
2. The capability to shut down the reactor and maintain it in a safe condition.
3. The capability to prevent or mitigate the consequences of an accident which could result in potential off-site exposures to individuals in excess of exposures specified in 10 CFR 100.
4. The operation of the facility within Technical Specifications limits and Nuclear Regulatory Requirements.

Secondary Standard - An item of measuring and test equipment (M&TE) used to calibrate other M&TE. They are periodically calibrated using Reference Standards and reserved for use in the calibration of working plant or field M&TE.

Section - A subdivision of a department, usually made along lines of a technical specialty; eg, Nuclear Licensing, Health Physics, Nuclear Fuel, etc.

Services - Work performed by an organization or department having no deliverable hardware type end item other than the results of construction, modifications, repairs, inspections, audits, reviews, etc.

Source Inspection - Inspection of an item at a Supplier's facility during its manufacture, or at completion of manufacture, to verify implementation of the procurement requirements.

Spare Part - An item available for replacement for an item in use.

Special Nuclear Material (SNM) -

1. Plutonium, Uranium 233; uranium enriched in the Isotope 233 or in the Isotope 235; and any other material which the NRC, pursuant to the provisions of Section 51 of the Atomic Energy Act of 1954 as amended, determines to be special nuclear material, but does not include source material; or
2. Any material artifically enriched by any of the foregoing, but does not include source material.

Special Process - Those metallurgical, chemical, or other processes where assurance of the process activity is dependent on the use of qualified procedures, personnel, or equipment; and where assurance of quality cannot be by direct inspection of the in-process activity or final product. These include, but are not limited to, welding, heat-treating, NDE and environmental testing of the work process.

Start-Up Tests - Precritical tests, criticality tests, low-power tests and power ascension tests, all performed after each fuel loading or refueling.

Supplier - Any individual or organization who furnishes equipment, materials or services. It includes the terms: Vendor, Seller, Contractors, Subcontractor, Fabricator, Consultant and lower tier levels of these, where appropriate.

Surveillance - Verification of the implementation of administrative controls through review of documentation and/or of work activities.

Surveillance Test - A periodic test performed to ensure the proper operation of systems and components which are essential to plant nuclear safety during all modes of operations or are necessary to prevent or mitigate the consequences of incidents or accidents.

Technical Specifications - Requirements included as part of the plant operating license and derived from the safety analysis report and amendments thereto, and other docketed information that includes safety limits, limiting safety system settings, limiting conditions for operation, surveillance requirements, design features and administrative controls.

Test - An activity for determination of the physical and functional properties of items or systems.

Test Plan - An outline, narrative description or flow diagram indicating the tests to be performed, the methods to be used and the points in the process where they are to be executed. May be a test procedure.

Traceable Calibration Standards - Standards having a known valid relationship to nationally recognized standards or accepted values of natural physical constants. If no national standard exists, the basis for calibration is documented.

1.0 GENERAL

The President of Consumers Power is responsible for the safe and efficient operation of its nuclear power plants. Consumers Power Company retains responsibility for the Quality Assurance Program although it may delegate to its Principal Suppliers, the establishment and implementation of certain portions. Authority to develop and implement the Quality Assurance Program for Nuclear Power Plants is assigned by the President, for design and construction, to the Senior Vice President - Projects, Engineering and Construction; for operations, to the Executive Vice President - Energy Supply; and, for procurement, fire protection, security services and graphic arts, as requested, to the Executive Vice President - Energy Distribution and General Services.

Responsibility is further assigned by:

a. The Senior Vice President - Projects, Engineering and Construction -

(1) For the development and implementation of the Quality Assurance Program during the design and construction phase of the Midland Plant Project, during the Palisades Steam Generator Repair Project (SGRP), and during major modifications of existing nuclear plants, to the personnel reporting to him, as follows:

(a) Midland Project Office consisting of a Vice President - Midland Project assisted by a Midland Project Manager and reporting to the Midland Project Office:

Manager - Safety and Licensing
Manager - Design Production
Manager - Quality Assurance
Site Manager

(b) Executive Manager - Transmission, Plant Modifications & Project Services, and reporting to him:

Manager - Generating Plant Modifications
Manager - Electric Transmission Engineering and Construction
Director - Project Engineering Services
Project Engineer - Palisades Steam Generator Repair Project

(c) Director - Environmental Services, Quality Assurance and Testing and reporting to him:

Section Head - Quality Assurance Engineering & Inspection

Section Head - Quality Assurance Audit & Administration

Section Head - Testing

b. The Executive Vice President - Energy Supply -

(1) For the development and implementation of the Quality Assurance Program during the operations phase, to personnel reporting to him, as follows:

(a) Vice President - Nuclear Operations, and reporting to him, to the:

General Manager/Plant Superintendent

General Superintendent - Nuclear Operations

Director - Quality Assurance - Nuclear Operations

Director - Nuclear Activities

(2) For providing quality-related support during design and construction, operation, and modification phases, to personnel reporting to him, as follows:

(a) Vice President - Systems Operations and, reporting to him, to the:

Executive Manager - Production & Transmission and, reporting to him, to the:

Manager - System Protection and Laboratory Services

(b) Vice President - Fossil Operations and, reporting to him, to the:

Director - Operating Services

Director - Maintenance and Administrative Services

(c) Director - Management and Budget (Management Services)

(3) For nuclear fuel procurement to the:

(a) Vice President - Fuel Supply and, reporting to him, to the:

Director of Nuclear Fuel Supply

c. The Executive Vice President - Energy Distribution and General Services -

(1) For providing quality-related support during design and construction, operation, and modification phases, in the areas of procurement, property protection services and graphic arts, as requested, and to

personnel reporting to him, as follows:

(a) Vice President - General Services and reporting to him, to the:

Director - Purchasing

Director - Property Protection

Manager - Administrative Services (Graphic Services)

The organization relationship of these positions are shown in Figures 1, 2, 3 & 4.

2.0 BASIS DOCUMENTS

a. NRC 10CFR50, Appendix B, Criterion 1, "Organization"

b. ANSI N45.2, Criterion 3, "Organization"

c. ANSI N18.7

3.0 POLICY

3.1 PROJECTS, ENGINEERING & CONSTRUCTION ORGANIZATIONAL RESPONSIBILITIES DURING THE DESIGN AND CONSTRUCTION PHASE

3.1.1 Environmental Services, Quality Assurance and Testing

Environmental Services, Quality Assurance and Testing is responsible for setting quality assurance standards for design and construction consistent with CP Co objectives, and for assuring the establishment and implementation of quality policies and procedures to meet these standards. Environmental Services, Quality Assurance and Testing provides technical services in the area of testing to the individual PMO, GPM, and upon request, other Consumers Power Departments. These services are applied on a selective basis in accordance with established policies, plans and procedures. Environmental Services, Quality Assurance and Testing is also responsible for the development of testing programs during design, construction, the Palisades SGRP and major modifications and is responsible for the development and implementation of testing procedures during the Palisades SGRP and major modifications.

In performing their qa responsibilities, Environmental Services, Quality Assurance and Testing personnel have no responsibility for cost and scheduling; have the authority and organizational freedom to identify quality problems, inititate, recommend or provide corrective action and verify implementation of corrective action; and are independent from the individuals or groups performing the activities being inspected, tested or audited. Additional quality assurance-related activi-

ties, as given below, are assigned to Environmental Services, Quality Assurance and Testing for work performed either by CP Co or by Principal Suppliers, major subcontractors and sub-tier suppliers, or the activities may be delegated to a Principal Supplier's corresponding organization. The decision as to whether or not these activities are to be delegated shall be made with the mutual concurrence of both the PMO and Environmental Services, Quality Assurance and Testing. Nevertheless, Environmental Services, Quality Assurance and Testing retains authority and responsibility for these activities and for assuring their adequate and timely accomplishment. The objective of the assignment of authorities and responsibilities to Environmental Services, Quality Assurance and Testing is to yield a total Quality Assurance Program resulting in the attainment of a facility which is designed in accordance with its design basis criteria and which is constructed in accordance with its drawings and specification requirements.

Figure 5 depicts the Environmental Services, Quality Assurance and Testing organization. Figures 8 & 9, depict the Section organizations.

Within Environmental Services, Quality Assurance and Testing, there are three Sections - namely: Quality Assurance Engineering & Inspection, Quality Assurance Audit & Administration and Testing. Following is a discussion of the responsibilities of each of these Sections.

3.1.1.1 Quality Assurance Engineering and Inspection Section

The Quality Assurance Engineering and Inspection Section is responsible for:

a. During the design concept activity:
   (1) Preparing the Project Quality Assurance Plan and assuring the Plan's timely issuance with the mutual concurrence of the organizations involved;

b. During the design activity:
   (1) Participating in the establishment of the Design Plan by establishing the quality assurance aspects of the Plan;
   (2) Participating, as specified by the Design Plan;

(3) Assuring the maintenance and reporting of hardware design quality and corrective action status.

c. During the hardware and services procurement activities:

(1) Establishing supplier quality assurance requirements;

(2) Performing pre-award supplier evaluations for quality assurance and quality control activities;

(3) Preparing and implementing plans and procedures for procured item inspections, nondestructive examinations and tests (within the Section's jurisdiction);

(4) Evaluating and, when necessary, approving supplier quality assurance-related documentation;

(5) Determining the acceptability or nonacceptability of hardware items;

(6) Maintaining and reporting hardware procurement quality and corrective action status.

d. During the installation and construction activity:

(1) Preparing and implementing plans and procedures for the inspections, nondestructive examinations and tests (other than checkout and major modification tests and functional tests for the establishment of in-service baseline) for installed items and determining the acceptability or nonacceptability of the items;

(2) Identifying inspection and examination problems and test problems (within the Section's test jurisdiction), and causing their timely and adequate correction;

(3) Participating in the resolution of hardware and systematic nonconformances (which are within the jurisdiction of the Section) and obtaining process corrective action;

(4) Assuring that nonconforming items are properly dispositioned;

(5) Maintaining and reporting quality and corrective action status.

e. Prior to the performance of preoperational, hot functional and functional in-service baseline tests, directly verifying the accomplishment of quality-related construction prerequisites and signing off on each such prerequisite to signify:
   (1) That there has been a turnover acceptance of the test unit(s);
   (2) That each nonconformance and deficiency, both pre-turnover and post-turnover, has been identified;
   (3) That each such nonconformance and deficiency has been adequately dispositioned;
   (4) Contributing to the identification of plant quality status by transmitting Quality Assurance Engineering and Inspection-originated NCRs to the Project Test Supervisor or Superintendent for their incorporation into the overall plant status accounting system;
   (5) Assuring the maintenance and reporting of test quality and corrective action status.

f. During the checkout, preoperational test, hot functional test and functional in-service baseline test activities for the Palisades Steam Generator Repair Project and major modifications:
   (1) Reviewing the Project Testing Program Manual with respect to compliance with the Quality Assurance Program and annotating satisfactory completion of such review by a concurrence signature;
   (2) Auditing the individual preoperational, hot functional and functional in-service baseline test procedures to assure:
      (a) The preparation of procedures in compliance with the requirements of 10CFR50, Appendix B, ANSI N45.2, quality assurance-related Regulatory Guides, codes and standards, and CP Co procedures;
      (b) The establishment of quality-related prerequisites for the performance of each test;

(c) The adequacy of the data collection format and content relative to the needs of the Quality Assurance Prograr regarding quality records.

(3) Preparing and implementing procedures for the inspection, nondestructive examination, tests(within the Section's test jurisdiction) and test verification for preventive and corrective maintenance activities;

g. At any time, prior to or during the performance of the preoperational, hot functional, major modification and Palisades SGRP tests, and other prerequisites, signifying the prerequisites actually audited by the application of a QAE&I signature for each such prerequisite.

h. During the performance of the checkout, preoperational, hot functional, major modification and Palisades SGRP tests, and functional in-service baseline tests, evaluating compliance with test procedures on an audit and surveillance basis, signifying the test procedural steps actually audited and surveilled by the application of QAE&I signatures adjacent to those steps.

i. Throughout all activities:

(1) Evaluating the implementation of the Quality Assurance Program and recommending improvements;

(2) Issuing "Stop Work Order" at any time that Quality Assurance Program commitments are violated if necessary to preclude a safety risk;

(3) Performing quality audit, as requested.

3.1.1.2 Quality Assurance Audit and Administration Section

The Quality Assurance Audit and Administration Section is responsible for:

a. Evaluating the adequacy of quality policies and procedures;

b. Evaluating the degree of compliance with quality policies and procedures;

c. Obtaining corrective action, as necessary, based on audit findings;

NOTE: Items a, b, and c, above, apply to primary suppliers as well as to "in-house" activities.

d. Performing departmental administrative functions, especially with regard to budgets, and other special assignments;

e. Providing quality assurance education, training and indoctrination;

f. Preparing, releasing and controlling inter and intra-departmental quality-related policies and procedures;

g. Issuing "Stop Work Orders" at any time that Quality Assurance Program commitments are violated, if necessary to preclude a safety risk.

3.1.1.3 Testing Section

The Testing Section is responsible for:

a. Preparation of Project Testing Program Manuals for checkout, preoperational, hot functional, Palisades SCRP and major modification testing prior to the implementation phase;

b. Providing for the preparation, review and approval of test procedures in support of the activities cited in (a) above;

c. Training and certifying qualified personnel and assembling other resources necessary to implement testing programs;

d. Implementing the Palisades SCRP and CPMD Testing Program;

e. Coordinating and providing the evaluation of test results.

3.1.2 Midland Project Management Organization

Consumers Power has established a Project Management Organization to provide effective management of the Midland Nuclear Plant Project. The Midland Project Management Organization is shown in Figure 6. The Project Management Organization is headed by a Project Management Office consisting of the Vice President - Midland Project assisted by the Midland Project Manager. The Midland Project Office has overall responsibility for all activities related to design, procurement and construction of the Midland Plant including design, obtaining appropriate licenses and permits, procurement, construction, preoperational and hot functional testing, quality assurance, cost, and schedule. These responsibilities include coordination

of the activities between the Architect-Engineer, Constructor, Nuclear Steam Supply System Supplier, and other suppliers and Consumers Power Company Departments. Within the Project Management Organization, Consumers Power overall design activities rest with the Design Production Manager; licensing activities with the Manager of Safety and Licensing; construction, preoperational and hot functional testing with the Site Manager; cost and schedule activities with the Schedule and Cost Manager; and quality assurance activities for the Midland Project with the Manager of Quality Assurance. The responsibility for overall quality assurance policy rests with the Director - Environmental Services, Quality Assurance and Testing. In performing their duties, Midland Project Quality Assurance personnel have no responsibility for cost and scheduling; have the authority and organizational freedom to identify quality problems, initiate, recommend or provide corrective action and to verify implementation of corrective action; and are independent from the individuals or groups performing the activities being verified, inspected, tested or audited. The Midland Project Quality Assurance Department retains authority and responsibility for quality assurance activities on the Midland Project. The Midland Project Quality Assurance Department receives direction with regard to overall quality assurance policy from the Director - Environmental Services, Quality Assurance and Testing. The Quality Assurance Audit & Administration Section of Environmental Services, Quality Assurance & Testing performs quality audits during the Midland Project in accordance with Section 3.1.1.2 of Policy 1. Following is a discussion of the responsibilities of the Midland Project Quality Assurance Department. Quality Assurance activities may be carried out solely by the Consumers Power Company Midland Project Quality Assurance Department or in combination with or delegation to a principal supplier's corresponding Quality organization.

3.1.2.1 Midland Project Quality Assurance Department

The Midland Project Quality Assurance Department is responsible for:

a. During the design activity:

(1) Assuring that appropriate quality assurance standards are applied to the design process;

(2) Assuring that the design process is conducted in accordance with approved procedures;

(3) Assuring the maintenance and reporting of hardware design quality and corrective action status.

b. During the hardware and services procurement activities:

(1) Establishing supplier quality assurance requirements;

(2) Performing pre-award supplier evaluations for quality assurance and quality control activities;

(3) Preparing and implementing plans and procedures for procured item inspections, nondestructive examinations and tests (within the Department's jurisdiction);

(4) Evaluating and, when necessary, approving supplier quality assurance-related documentation;

(5) Determining the acceptability or nonacceptability of hardware items;

(6) Maintaining and reporting hardware procurement quality and corrective action status.

c. During the installation and construction activity:

(1) Preparing and implementing plans and procedures for the inspections, nondestructive examinations and tests (other than checkout and major modification tests and functional tests for the establishment of in-service baselines) for installed items and determining the acceptability or nonacceptability of the items;

(2) Identifying inspection and examination problems and test problems (within the Department's test jurisdiction), and causing their timely and adequate correction;

(3) Participating in the resolution of hardware and systematic nonconformances (which are within the jurisdiction of the Department) and obtaining process corrective action;

(4) Assuring that nonconforming items are properly dispositioned;

(5) Maintaining and reporting quality and corrective action status;

(6) Assuring the effectiveness of primary quality control activities and the conformance of all construction and installation activities to the established Program Procedures through audit and overinspection.

d. Prior to the performance of preoperational, hot functional and functional in-service baseline tests, directly verifying the accomplishment of quality-related construction prerequisites and signing off on each such prerequisite to signify:

(1) That there has been a turnover acceptance of the test unit(s);

(2) That each nonconformance and deficiency, both pre-turnover and post-turnover, has been identified;

(3) That each such nonconformance and deficiency has been adequately dispositioned;

(4) Contributing to the identification of plant quality status by transmitting Midland Quality Assurance Department-originated NCRs to the Project Test Superintendent for their incorporation into the overall plant status accounting system;

(5) Assuring the maintenance and reporting of test quality and corrective action status.

e. During the checkout, preoperational test, hot functional test and functional in-service baseline test activities:

(1) Reviewing the Project Testing Program Manual with respect to compliance with the Quality Assurance Program and annotating satisfactory completion of such review by a concurrence signature;

(2) Auditing the individual preoperational, hot functional and functional in-service baseline test procedures to assure:

(a) The preparation of procedures in compliance with the requirements of 10CFR50, Appendix B, ANSI N45.2,

quality assurance-related Regulatory Guides, codes and standards, and CP Co procedures;

(b) The establishment of quality-related prerequisites for the performance of each test;

(c) The adequacy of the data collection format and content relative to the needs of the Quality Assurance Program regarding quality records.

(3) Preparing and implementing procedures for the inspection, nondestructive examination, tests (within the Department's test jurisdiction) and test verification for preventive and corrective maintenance activities;

(4) Reviewing Corrective Action Requests for adequacy of disposition and need for further quality statusing or additional part or process corrective action.

f. At any time, prior to or during the performance of the pre-operational and hot functional tests and other prerequisites, signifying the prerequisites actually audited by the application of a Midland QA Department signature for each such prerequisite.

g. During the performance of the checkout and preoperational and hot functional tests, and functional in-service baseline tests, evaluating compliance with test procedures on an audit and surveillance basis, signifying the test procedural steps actually audited and surveilled by the application of Midland QA Department signatures adjacent to those steps.

h. Throughout all activities:

(1) Evaluating the implementation of the Quality Assurance Program and recommending improvements;

(2) Issuing "Stop Work Order" at any time that Quality Assurance Program commitments are violated if necessary to preclude a safety risk;

(3) Performing quality audit, as requested;

(4) Maintaining a trend program to identify adverse repetitive quality conditions;

(5) Maintaining a tracking program to assure all quality-

related action items from NRC inspections, 50.55(e) items, etc are scheduled and completed;

(6) In accordance with Title 10 of the Code of Federal Regulations, Part 21 and 50.55(e), making the determination as to the need to report any nonconformances and test deficiencies to the NRC and reporting them;

(7) Reviewing and concurring with other Departmental Program Procedures (Midland Specific) which are quality related;

(8) Participating in problem resolution to assure that part and process corrective action are appropriate and are implemented in a timely manner;

(9) Preparing responses to NRC Construction I&E Reports;

(10) Preparing 50.55(e) reports.

3.1.3 Transmission, Plant Modifications and Project Services Department

The Executive Manager, Transmission, Plant Modifications and Project Services Department is responsible for the following departments reporting to him: Figure 7 depicts the organization.

3.1.3.1 Generating Plant Modifications Department (GPMD)

Minor modifications are the responsibility of Nuclear Operations. Major modifications are the responsibility of GPMD, except where a separate PMO has been established to manage a specific project. The responsibilities of the department include design and construction for the required modifications. Figure 10 shows the department organization.

3.1.3.2 Project Management Organization - Palisades Steam Generator Repair Project

Consumers Power Company has established a PMO to provide effective management of the Palisades SGRP. Although the PMO has primary responsibility for the project, it relies upon the corporate organization to provide personnel to the PMO and to perform certain other functions as needed. The PMO organization is shown in Figure 11. The Project Engineer has overall responsibility for project activities, except for defining and measuring the effectiveness of the QA Program and for specifying QA activities for Q-Listed items. These include cost and schedule control, coordinating the activities of the Architect-Engineer, Nuclear Steam Supply System Supplier, other suppliers and the CP Co Departments. The PMO personnel conduct their assigned activities in accordance with documented project policies and procedures.

3.1.3.3 Electric Transmission - Engineering and Construction Department

This department is responsible for:

a. Design and construction of all electric transmission lines above 46KV and substations connected thereto, communication lines and modifications to same;

b. Design and material and equipment specifications for transmission lines and substations and for all surveying work of the Company;

c. Providing engineering and construction services to other departments and provides drawing and tracing storage and retrieval for all design output documents (lines, substations, buildings and generating plants).

This department's nuclear quality assurance responsibilities are the collection, storage, maintenance and distribution of plant drawings and specifications through the Engineering Records Center. Figure 12 shows the department organization.

3.1.3.4 Project Engineering Services Department (PESD)

PESD provides design review, procurement review, testing review, licensing assistance, and special technical services to the individual PMO, GPM, and upon request, other Company departments. PESD provides design services, upon request, to PMO, GPM and other departments. These services are applied on a selective basis in accordance with established policies, plans, and procedures and are oriented toward achieving a combined overall objective of safety, reliability, maintainability, operability, licensability, and economy. To provide these services and accomplish this objective the department functions with several appropriate sections under the direction of the Director, PESD, as shown in Figure 13.

The principal quality-related responsibilities of this department include activities such as: preparing the Design Plan, preparing design documents, reviewing design documents, technically evaluating Principal Suppliers, reviewing procurement documents, developing direct procurement specifications, and providing technical expertise for engineering problems, as requested. The department has the primary responsibility for the performance and/or evaluation of design analyses such as radiological impact assessments and qualitative and quantitative reliability and maintainability analyses.

3.2 NUCLEAR OPERATIONS ORGANIZATIONAL RESPONSIBILITIES DURING THE OPERATIONS PHASE

3.2.1 Quality Assurance Department - Nuclear Operations

The Quality Assurance Department - Nuclear Operations (QA-NO) reports to the Vice President, Nuclear Operations. In the performance of their duties QA-NO personnel have no line responsibilities for cost, operations or scheduling; have authority and organizational freedom to identify quality problems, and to initiate, recommend or provide solutions; and are independent of the groups or individuals performing quality-related activities. The Quality Assurance - Nuclear Operations Department organization is shown in Figure 14.

QA-NO is responsible for assisting management in establishing Quality Assurance Policies for nuclear power plants during the operations phase and for assisting management in the implementation of those policies in the various departments and among the various technical disciplines. This includes the development and overall coordination of the Quality Assurance Program for operations, maintenance, technical support, operations testing, minor modifications, onsite quality control and operational materials procurement, including nuclear fuel. The Department assures that established Quality Assurance policies are followed, and reports to the Vice President - Nuclear Operations on the effectiveness of the Quality Assurance Program as determined by the results of the audit program. When quality problems occur, the Department has the responsibility of recommending to the appropriate levels of management in Nuclear Operations, the necessary corrective action which can include the stoppage of work or plant shutdown when an operations maintenance, minor modification or manufacturing activity fails to comply with the approved operational procedures, specifications, plans or work procedures. In addition, the Department verifies the implementation of solutions and, where necessary, initiates management action to control further operational activity, processing, delivery or installation of a nonconforming item, or deficient or unsatisfactory conditions, until proper dispositioning has occured. QA-NO is also responsible for inspections and audits of the performance and control of such special processes as welding, cleaning, nondestructive examinations, fuel handling, special maintenance operations, radiation monitoring, chemical analyses of reactor coolant and contamination control, certain key modifications, repairs, in-service inspections and suppliers' activities. The Department consists of three sections, Operations, Services, and Audit Program with responsibilities as defined below.

3.2.1.1 Operations Section

Operations Section Head is responsible for:

a. Assisting the Director, QA-NO, in the performance of his duties;

b. Supervising General Office Quality Assurance staff personnel;
c. Supervising the Plant Quality Assurance Superintendents;
d. Maintaining records of activities under his area of responsibility;
e. Preparing monthly reports for issuance to the Director, QA-NO, for inclusion in monthly reports to management, including status of Nonconformance Reports and Deviation Reports;
f. Monitoring the status of dispositioning of Nonconformance and Deviation Reports from his responsibility area;
g. Scheduling and implementing the Plant operations and source surveillance programs;
h. Acting as the focal point on matters related to day-to-day quality assurance activities at the nuclear plants.

3.2.1.2 Services Section

Services Section Head is responsible for:

a. Assisting the Director, QA-NO in the performance of his duties;
b. Supervising General Office Services Section staff personnel;
c. Maintaining records of activities under his area of responsibility;
d. Preparing monthly reports for issuance to the Director, QA-NO, for inclusion in monthly reports to management, including the status of Nonconformance Reports, Deviation Reports and Action Item Records;
e. Monitoring the status of dispositioning of all Nonconformance and Deviation Reports from his responsibility area;
f. Scheduling and implementing the General Office source surveillance program;
g. Acting as the focal point on matters related to servicing the quality assurance aspects of General Office project management, procurement, design, document control and records management, training, and, QA Program Development and review;
h. Preparing, distributing and controlling Quality Assurance Department Procedures.

3.2.1.3 Audit Program and Special Projects Section

Audit Program and Special Projects Section Head is responsible for:

a. Assisting the Director, QA-NO, in the performance of his duties, eg, performing special project assignments;
b. Functional supervision of audit staff and supervision of section staff;
c. Coordinating and administering the operations phase Quality Assurance Program audit programs;
d. Maintaining records of activities under his area of responsibility;
e. Preparing monthly reports for issuance to the Director, QA-NO, for inclusion in monthly reports to management, including status of Nonconformance and Deviation Reports from his responsibility area;
f. Acting as a focal point for activities associated with audits.

3.2.1.4 Plant Quality Assurance Superintendent

The Plant Quality Assurance Superintendent is responsible for:

a. Reviewing plant initiated procurement documents;
b. Functioning as a member of the Plant Review Committee, when requested;
c. Scheduling and implementing the plant operations and source surveillance programs;
d. Reviewing plant procedures;
e. Assuring that nonconforming items or activities are documented and appropriate corrective action is initiated and completed;
f. Preparing monthly reports on the status of Nonconformance Reports, Deviation Reports and Action Item Records;
g. Maintaining files of Plant Quality Assurance activities;
h. Supervising the Plant Quality Assurance staff;
i. Reviewing minor modification design documents for compliance with the Quality Assurance Program;
j. Monitoring the status of dispositioning of Nonconformance

Reports, Deviation Reports and Action Item Records from his responsibility area;

k. Supervising the Quality Control staff (at Big Rock Point Plant only).

3.2.2 General Manager/Plant Superintendent

The General Manager/Plant Superintendent, hereinafter referred to as the Plant Manager/Superintendent, assigned to each nuclear plant has overall responsibility to operate the plant in a safe and efficient manner. He is responsible for staffing the plant with trained and qualified personnel. For the Palisades and Midland plants, he is responsible for quality control activities in the areas of maintenance and minor modifications, operations, testing and receipt inspection of procured items and services. He is also responsible for assuring that Quality Control inspections performed are performed by personnel independent from the individual or group performing the activity being inspected, that inspection procedures, instructions and/or checklists with appropriate content are provided, that inspectors are qualified and that the head of the unit or organization responsible for performing the maintenance or minor modification is also responsible for specifying appropriate verification points in the instructions or procedures. He also specifies the group or individual assigned (e.g., operations, maintenance, quality control, System Protection and Laboratory Services) to perform the verification, after consideration of the complexity of the inspection, the inspector's qualifications or certifications required and the independence of the inspector. The Plant Manager/Superintendent at each nuclear power plant is responsible for the coordination of the in-service inspection activities (except baseline) at his plant in accordance with the In-Service Inspection Plan. He appoints one individual to coordinate, assist and manage those activities required between the Examination Agency, the Authorized Nuclear Inspector, Nuclear Activities Department, Operating Services Department and QA-NO.

3.2.3 Nuclear Activities Department

The Nuclear Activities Department is responsible for providing direct technical support of nuclear activities for the nuclear power plants during the

operating phase, including licensing support, in-reactor nuclear fuel management, health physics and reactor engineering. Its responsibilities include controlling the technical requirements and drawings for the accomplishment of procurement, repairs and operating modifications in which they are involved making sure they are properly prepared and given appropriate design checks and reviews.

The Nuclear Licensing Section is responsible for licensing activities for operating power plants, for the coordination of licensing activities for operating power plants which are undergoing major modifications, for the coordination of licensing activities for the Palisades SGRP, and for the conduct of the Special Nuclear Material Safeguards Accountability Program.

The Nuclear Activities Department organization is shown in Figure 15.

3.2.4 General Superintendent - Nuclear Operations

The General Superintendent - Nuclear Operations is responsible for functional supervision and coordination of training for operating and technical support personnel, for emergency planning and for procurement and use of plant simulators. The Section's organization is shown in Figure 20.

3.3 SUPPORT ORGANIZATIONS FOR DESIGN, CONSTRUCTION AND OPERATIONS PHASE

3.3.1 Operating Services Department

The Operating Services Department is responsible for providing direct technical support of operating phase activities for the nuclear power plants including metallurgy, welding, chemistry, electrical, mechanical and civil engineering, instrument and control, process control and special processes. The Operating Services organization provides ongoing engineering review of mechanical and electrical systems and components. Its responsibilities include assuring that the technical requirements and drawings for the accomplishment of procurement, repairs, tests, inspections and operating modifications in which they are involved are properly prepared and given appropriate design checks and reviews. Operating Services may be called upon to provide qualified personnel to conduct surveillance at the supplier's facility. They are notified of impending hold and witness points by Purchasing or QA-NO. As requested by Projects, Engineering & Construction, the Department is responsible for providing chemistry and instrumentation and control services during the checkout, preoperational test and major modification test activities. The Department's organization is shown in Figure 16.

3.3.2 Maintenance and Administrative Services Department

The Maintenance and Administrative Services Department, Figure 17, is responsible for: the planning and scheduling of major plant maintenance activities, including production planning, establishment of priorities and manpower allocations; administrative services including training, work methods development, Document Control Center operations, budgeting and storeroom operations; and the operation and maintenance of the steam production and distribution facilities. This department's quality assurance responsibilities are the training program supervised by the Training Administrator and the Document Control Center.

3.3.3 Purchasing Department

The Purchasing Department reporting relationship is shown in Figure 2. The Director - Purchasing, who reports to Vice President - General Services, is responsible for procuring requested materials, equipment and services in accordance with approved specifications and from approved Principal Suppliers.

3.3.4 System Protection and Laboratory Services Department (SP&LS)

The SP&LS reporting relationship is shown in Figure 3. The Manager of SP&LS, who reports to the Executive Manager - Production and Transmission, is responsible for providing quality-related support in the following areas:

When assigned by Projects, Engineering & Construction, the System Protection Section of SP&LS is responsible for determining settings for electrical protective equipment systems and relay control systems throughout the design, construction and major modification phases. This Section is also responsible for periodic reviews of electrical protective schemes and associated settings and issuing recommendations and setting changes as required during the operational phase.

The Laborstory Technical Services Section of SP&LS is responsible for providing the checkout and testing service for electrical equipment and controls, plant metering, telemetering and protective devices for the turbine/generator and its auxiliary systems to the project test group during the construction and major modification phases. This Section is also responsible for conducting periodic maintenance testing of electrical protective

equipment (down to but not including 480 volt switchgear) and applying setting changes (including 480 volt switchgear) and providing technical assistance, as required, in such areas as generator electrical tests, telemetering, supervisory control systems, etc, during the operation phase. The Section is also responsible for controlling the Company's Echelon II (Reference and Secondary Standards) calibration facilities and for providing calibration services for transportable measuring and testing equipment for other departments.

The Nondestructive Testing Section performs, upon request, the review and evaluation of nondestructive testing procedures and personnel qualification and certification. It also provides nondestructive testing, technical and NDT design calculations, review and test services utilizing visual, radiography, ultrasonic, dye penetrants, eddy current and magnetic particle methods, as requested, during the design, construction, major modification and operation phases. This Section provides certified NDT Level III examiners, upon request.

The Engineering and Research Laboratory provides technical consultation and special test and evaluation services, as required. The Chemical Laboratory provides chemical testing services and analysis of solids, liquids and gaseous material. Analysis can be qualitative or quantitative, organic or inorganic. The Metallurgical Laboratory provides mechanical and metallographic evaluations of materials, components and metal systems. SP&LS provides additional technical assistance as requested by other Consumers Power Company organizations. The Department's organization is shown in Figure 18.

3.3.5 Property Protection Department

The Property Protection Department (PPD) is responsible for providing, after turnover of the plant from Projects, Engineering and Construction to Nuclear Operations, functional supervision over plant fire protection and security policies, programs and procedures, as well as coordination of the use of contract guard service. Property Protection Department's corporate reporting relationship is shown in Figure 2.

3.3.6 Fuel Supply Department

The organization of the Fuel Supply Department is shown in Figure 3. The quality assurance responsibilities of the Vice President - Fuel Supply are delegated to the Director, Nuclear Fuel Supply, who is in charge of the specification, acquisition and delivery of nuclear fuel and related services, including uranium concentrates, uranium conversion, reconversion, enriching services, nuclear fuel assembly fabrication and reprocessing including storage and transportation. This includes the negotiation and administration of nuclear fuel purchase agreements. He obtains assistance from the Operating Services, Nuclear Activities, Plant Staff and QA-NO, as deemed necessary, in performing the above activities.

3.3.7 Graphic Services Section

The Graphic Services Section of the General Services Department is responsible for the microfilming of quality-related documents that are sent to them.

3.3.8 Management and Budget Department (Management System Section)

The Management System Section of the Management and Budget Department is responsible for the development and implementation of a records management system for quality related documents. The reporting relationship is shown in Figure 19.

3.4 RESOLUTION OF CONFLICTS

If a difference of opinion arises between Quality Assurance personnel and those of other departments, the dispute is resolved as follows: The Supervisor of the Quality Assurance unit involved first tries to resolve the matter with the organization responsible for conducting the activity. If a resolution cannot be obtained, the matter is referred up through the following management personnel until it is resolved:

a. The appropriate Quality Assurance Director or Manager and the Executive Manager, Manager, Director or Plant Manager/Superintendent responsible for performing the activity;
b. The Vice President responsible for conducting the activity;
c. The Executive Vice President - Energy Supply (for operations phase items only);
d. The Senior Vice President - Projects, Engineering and Construction (for design and construction items only);
e. The President and Chief Executive Officer of Consumers Power Company.

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

ORGANIZATION

POLICY NO	1
PAGE	24 OF 44
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DATE	3/18/80

Approved by:

Senior Vice President 4-21-80
Projects, Engineering & Construction

Executive Vice President Energy Supply 4/25

Executive Vice President
Energy Distribution and General Services

Vice President Midland Project 4/21/80

Vice President
Fossil Operations 4/22/80

Vice President
Nuclear Operations 4/23

Vice President
Systems Operations

Vice President
Fuel Supply 4/23/80

Vice President
General Services

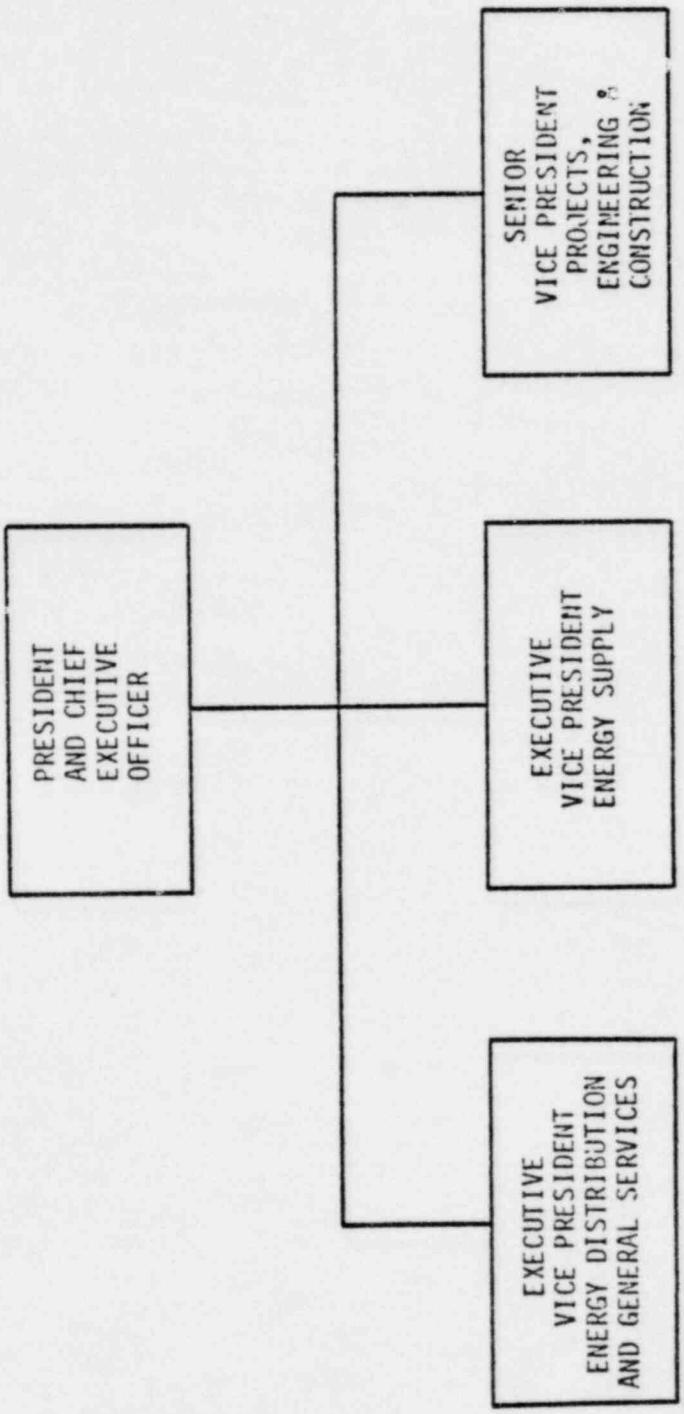


FIGURE 1 - CONSUMERS POWER COMPANY CORPORATE ORGANIZATION

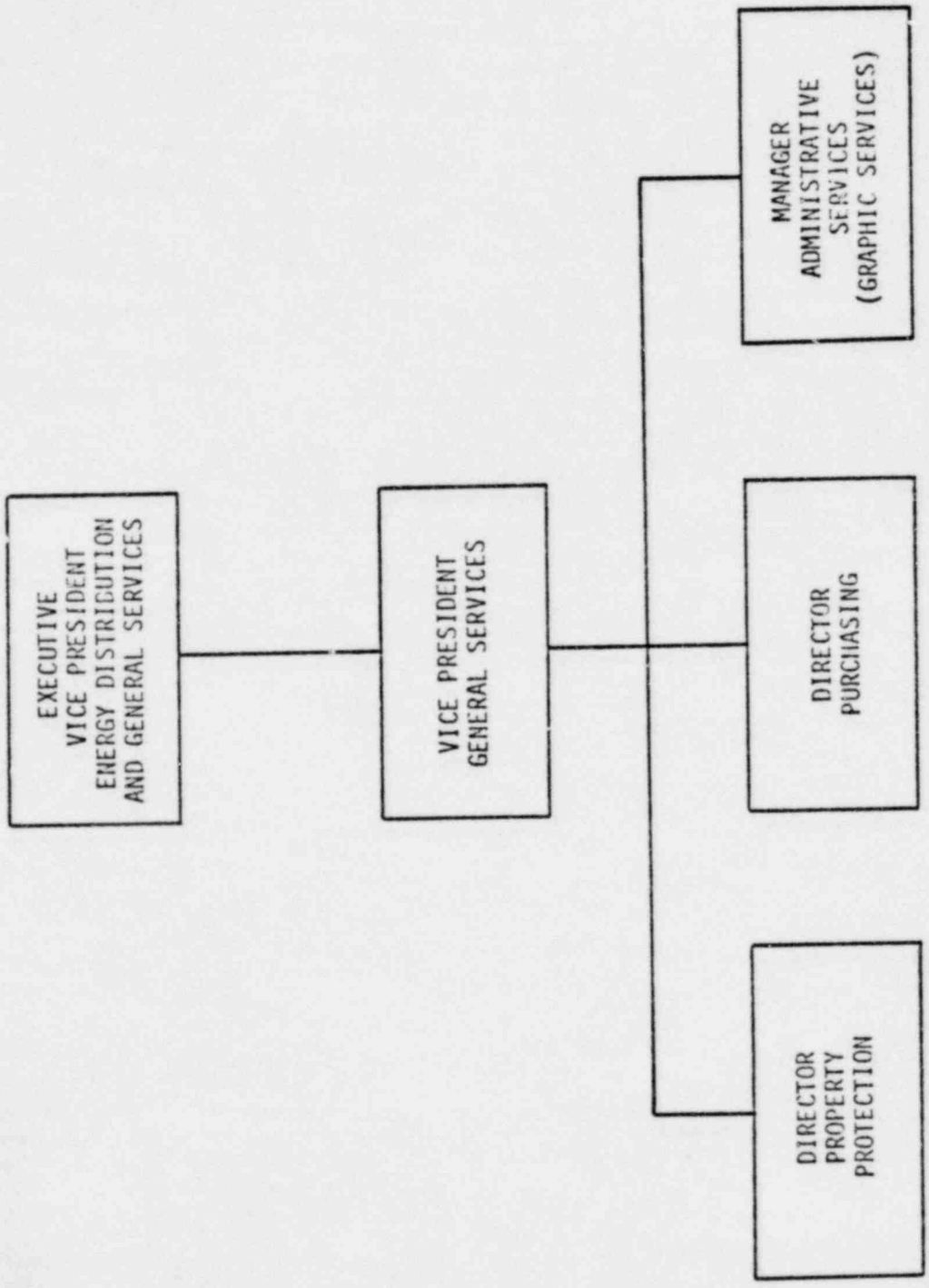


FIGURE 2 - ENERGY DISTRIBUTION AND GENERAL SERVICES ORGANIZATION

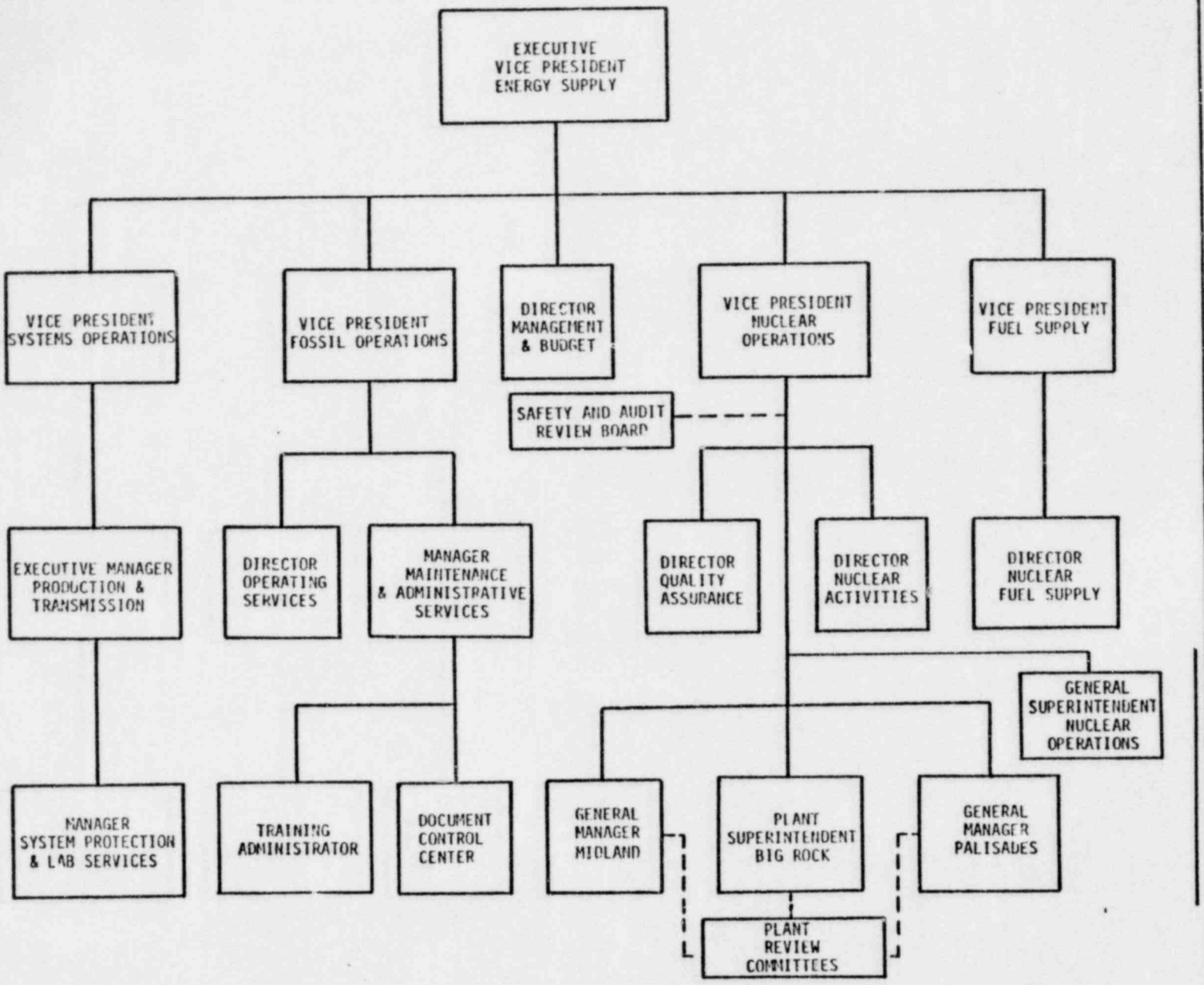


FIGURE 3 - ENERGY SUPPLY ORGANIZATION

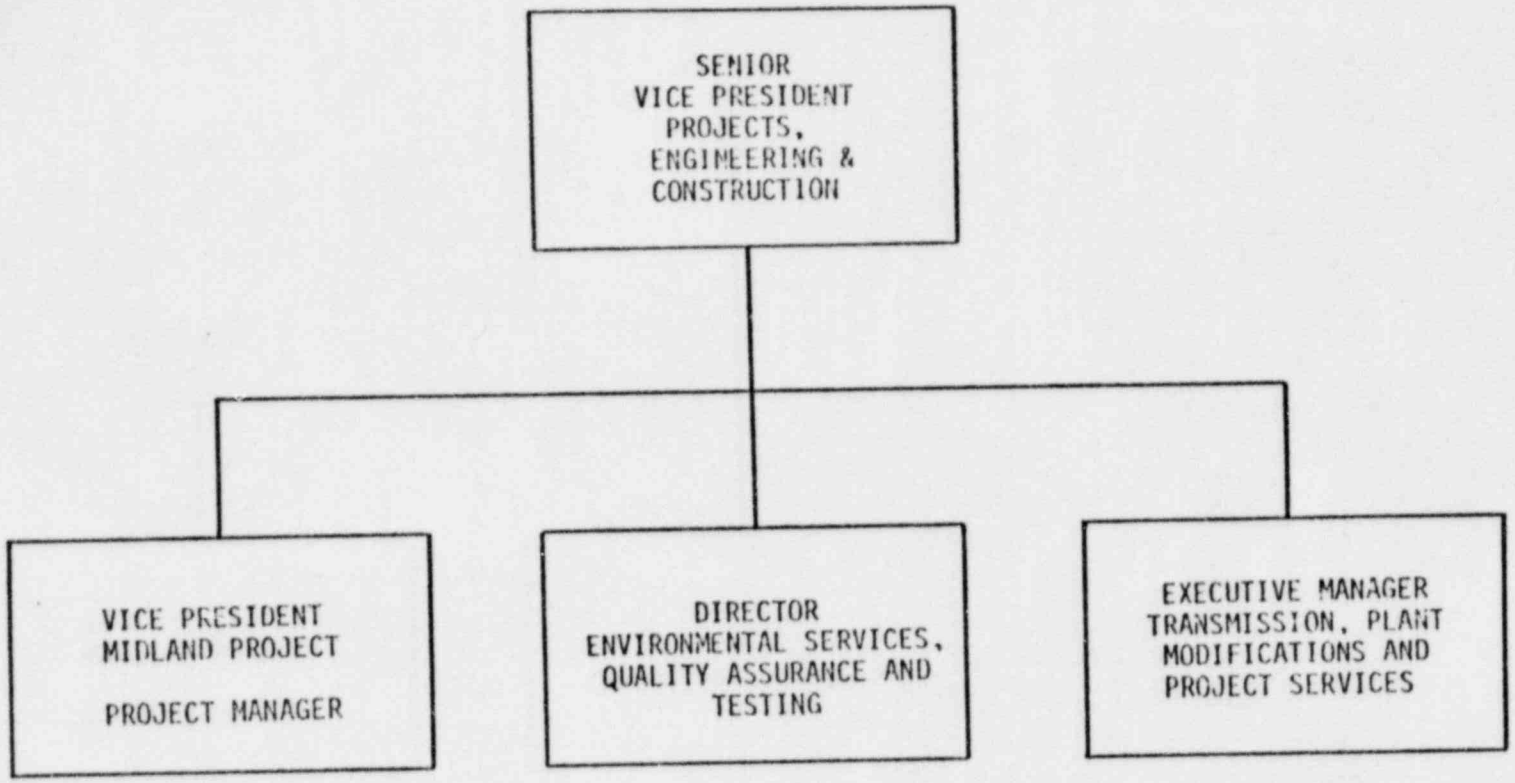
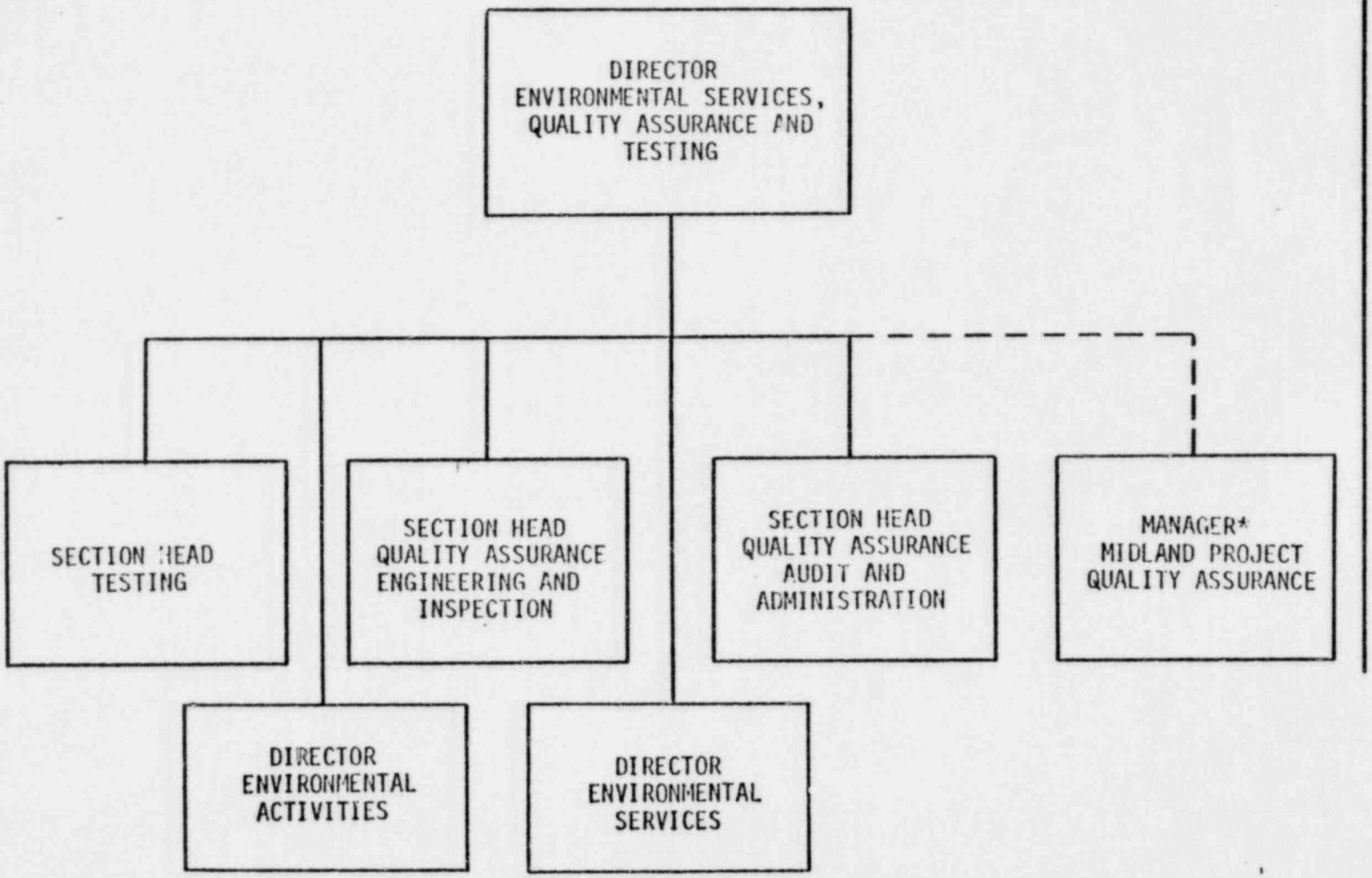


FIGURE 4 - PROJECTS, ENGINEERING AND CONSTRUCTION ORGANIZATION



*FOR OVERALL QUALITY ASSURANCE POLICY DIRECTION ONLY.

FIGURE 5 - ENVIRONMENTAL SERVICES, QUALITY ASSURANCE AND TESTING.

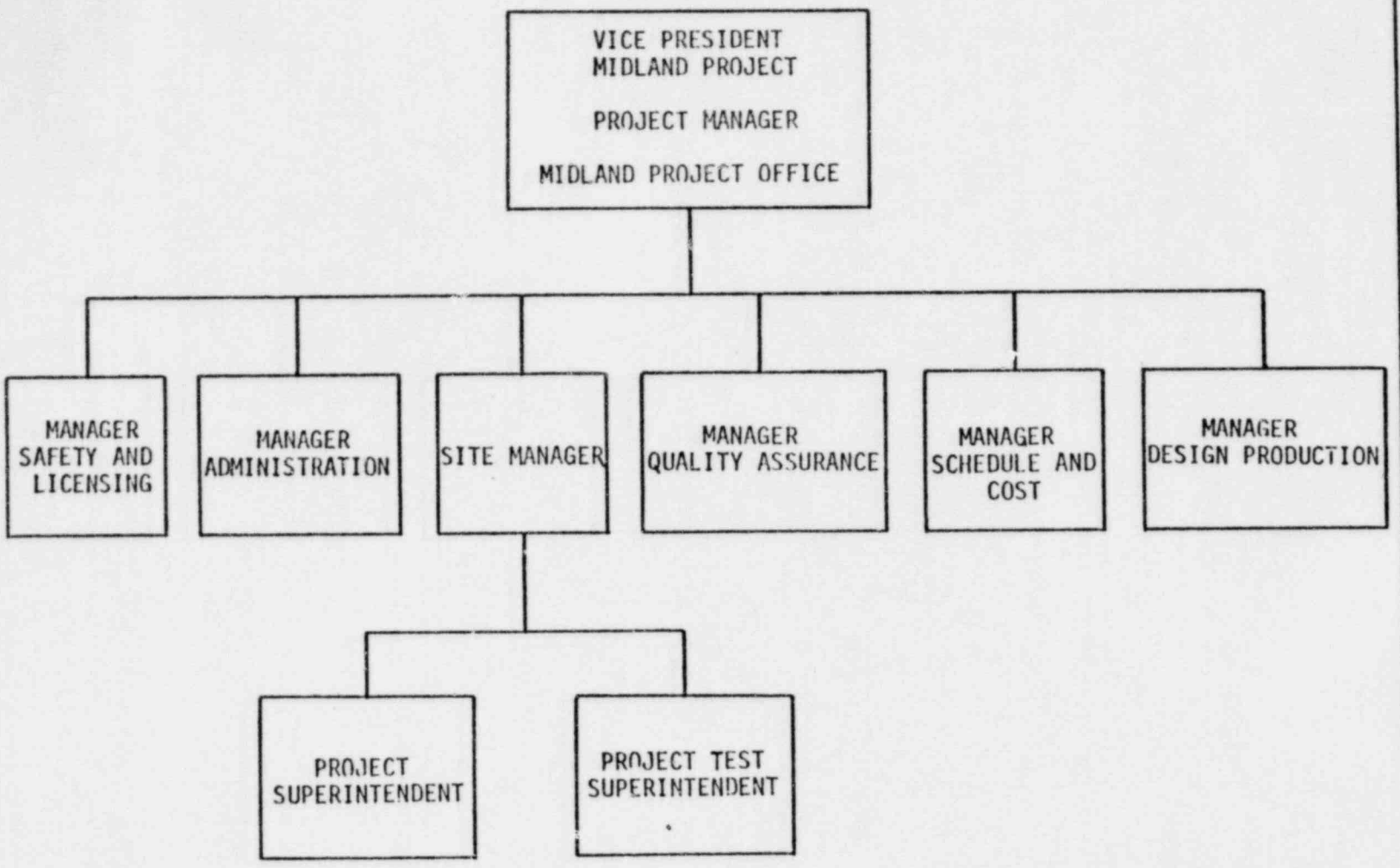


FIGURE 6 - MIDLAND PROJECT MANAGEMENT ORGANIZATION.

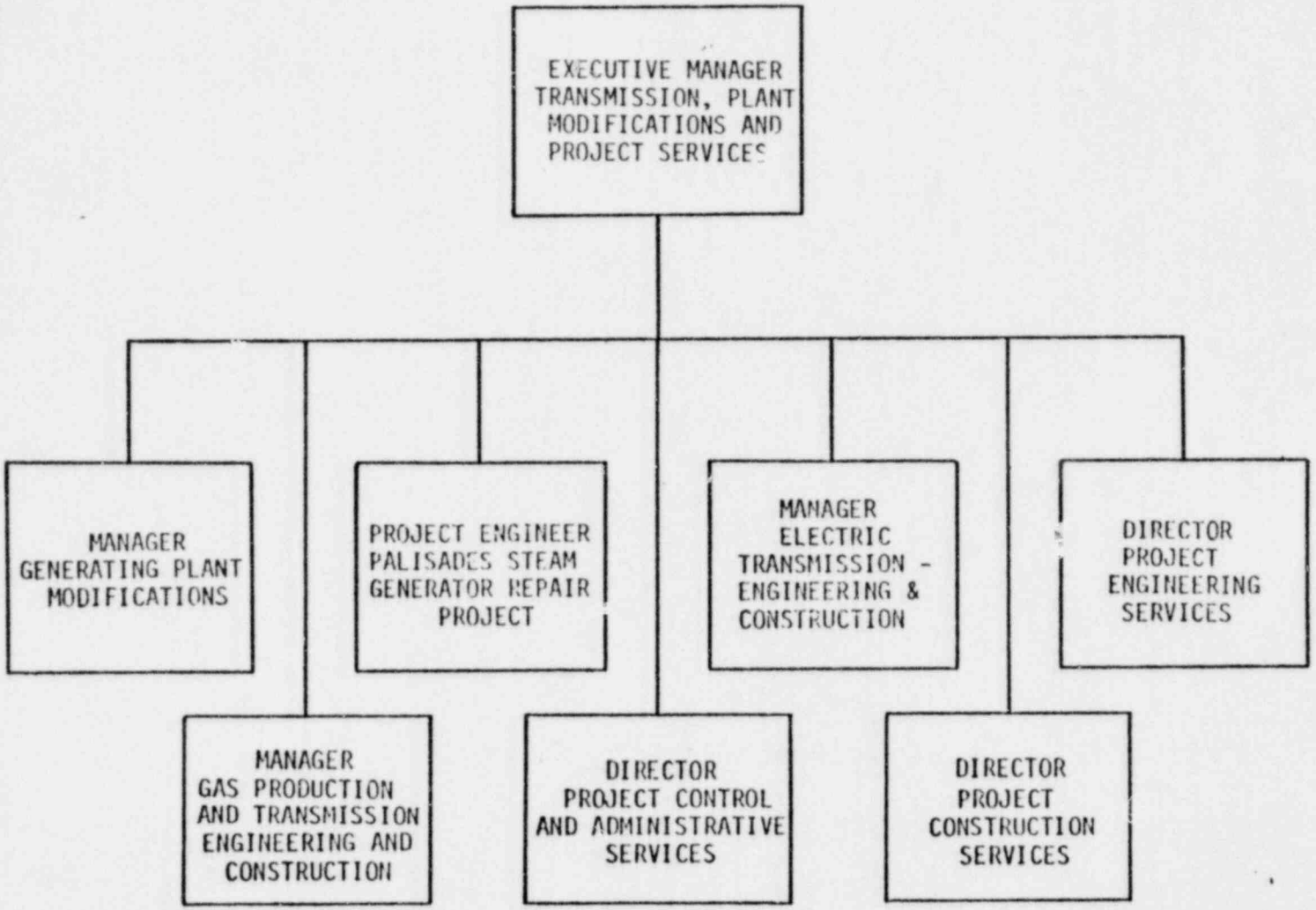
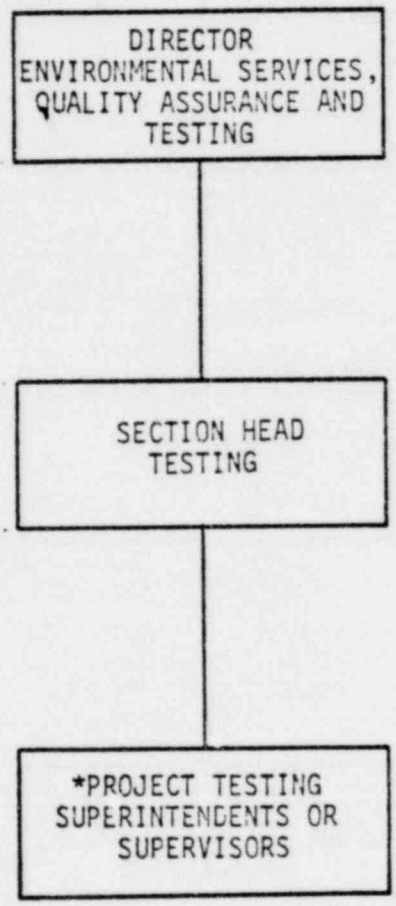


FIGURE 7 - TRANSMISSION, PLANT MODIFICATIONS AND PROJECT SERVICES.

FIGURE 8 - QUALITY ASSURANCE ENGINEERING AND INSPECTION.

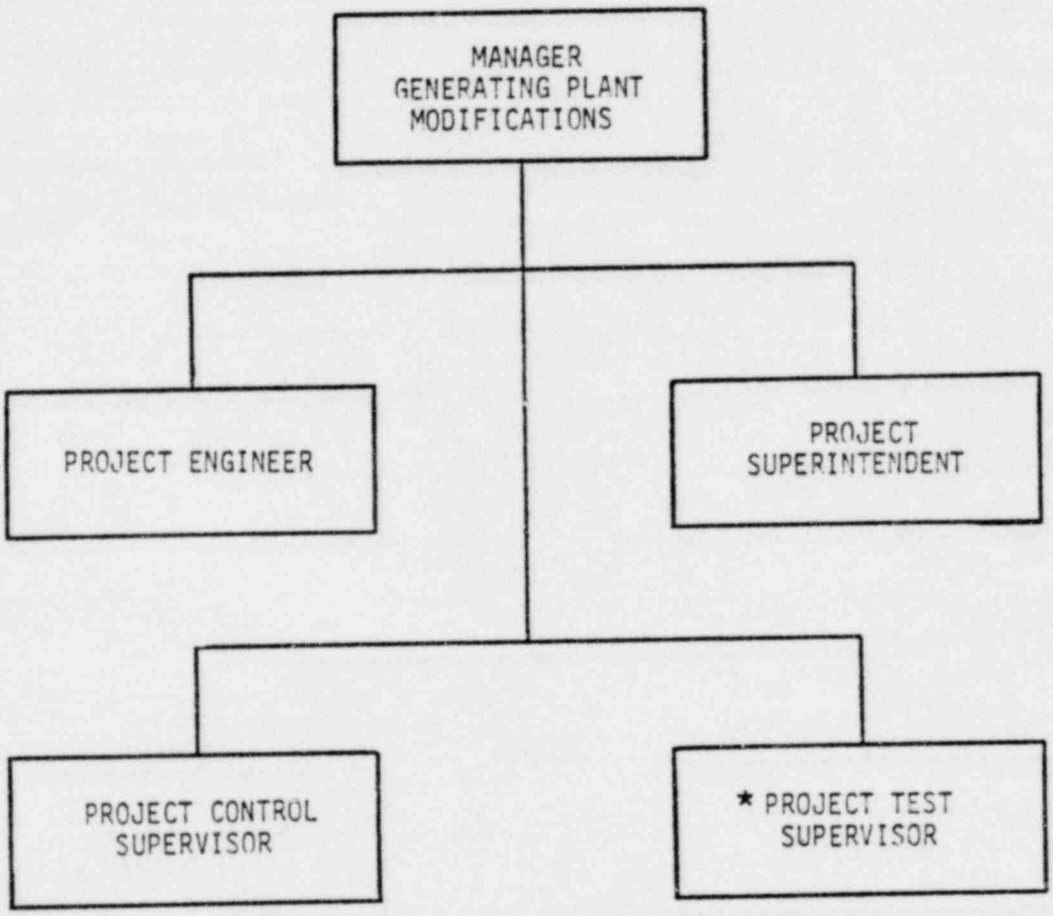
TESTING SECTION



*RESPONSIBLE FOR PRE-IMPLEMENTATION ACTIVITIES FOR NEW NUCLEAR PLANT PROJECTS AND FOR BOTH PRE-IMPLEMENTATION AND IMPLEMENTATION ACTIVITIES FOR MAJOR MODIFICATIONS AND THE PALISADES SGRP.

FIGURE 9

GENERATING PLANT
MODIFICATIONS
DEPARTMENT



*DURING IMPLEMENTATION PHASE FOR COORDINATION
WITH OTHER PROJECT RESPONSIBILITIES ONLY.

FIGURE 10

PROJECT MANAGEMENT ORGANIZATION
PALISADES STEAM GENERATOR REPAIR PROJECT

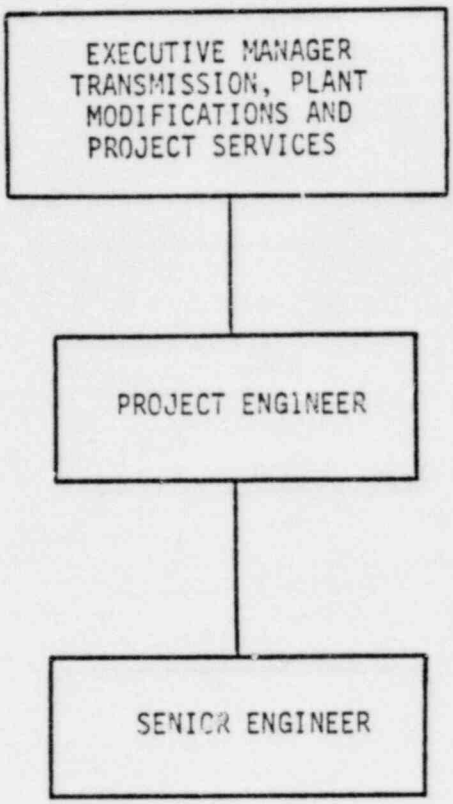


FIGURE 11

ENGINEERING RECORDS CENTER

FIGURE 12

PROJECT ENGINEERING SERVICES

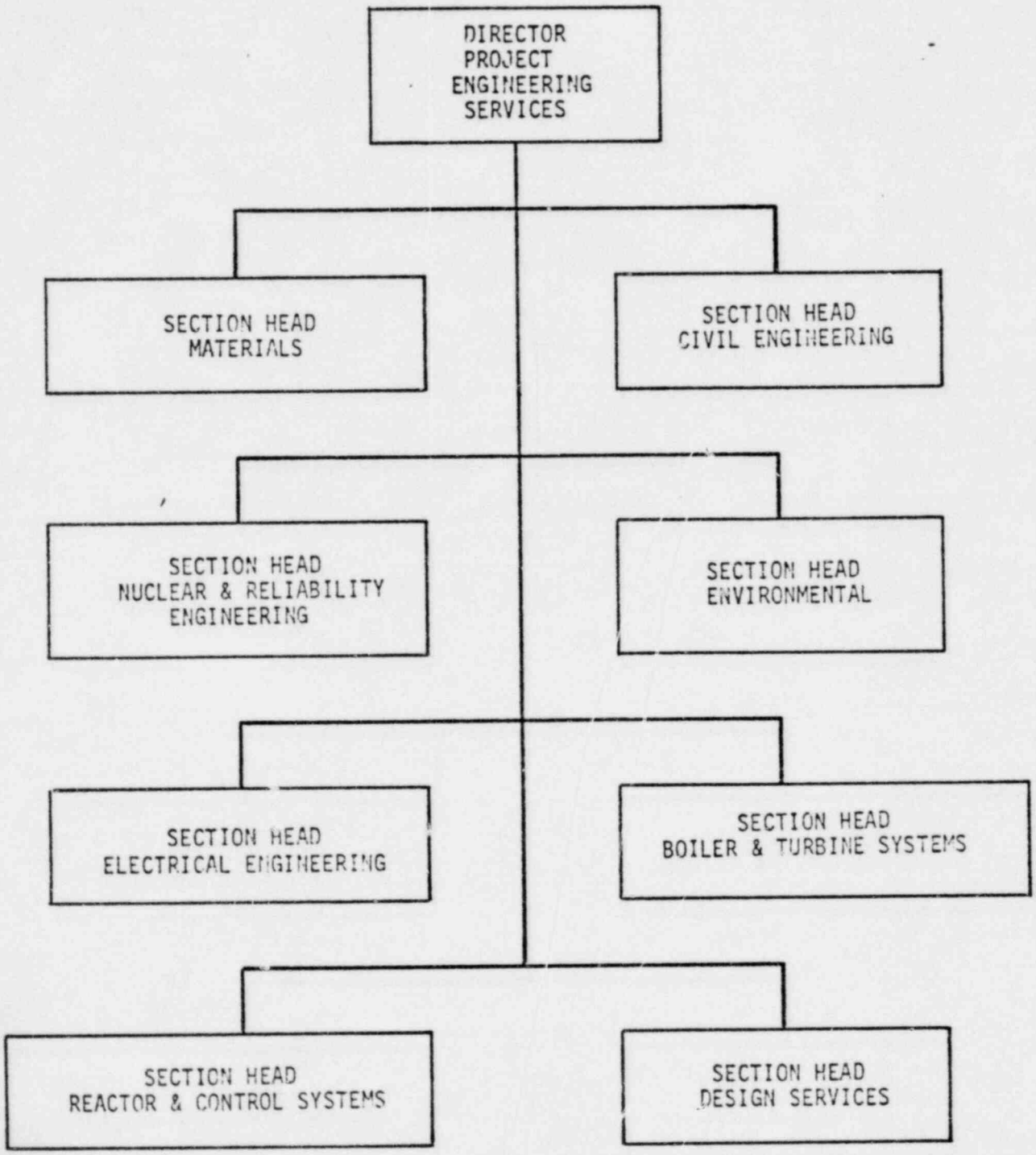


FIGURE 13

QUALITY ASSURANCE
NUCLEAR OPERATIONS

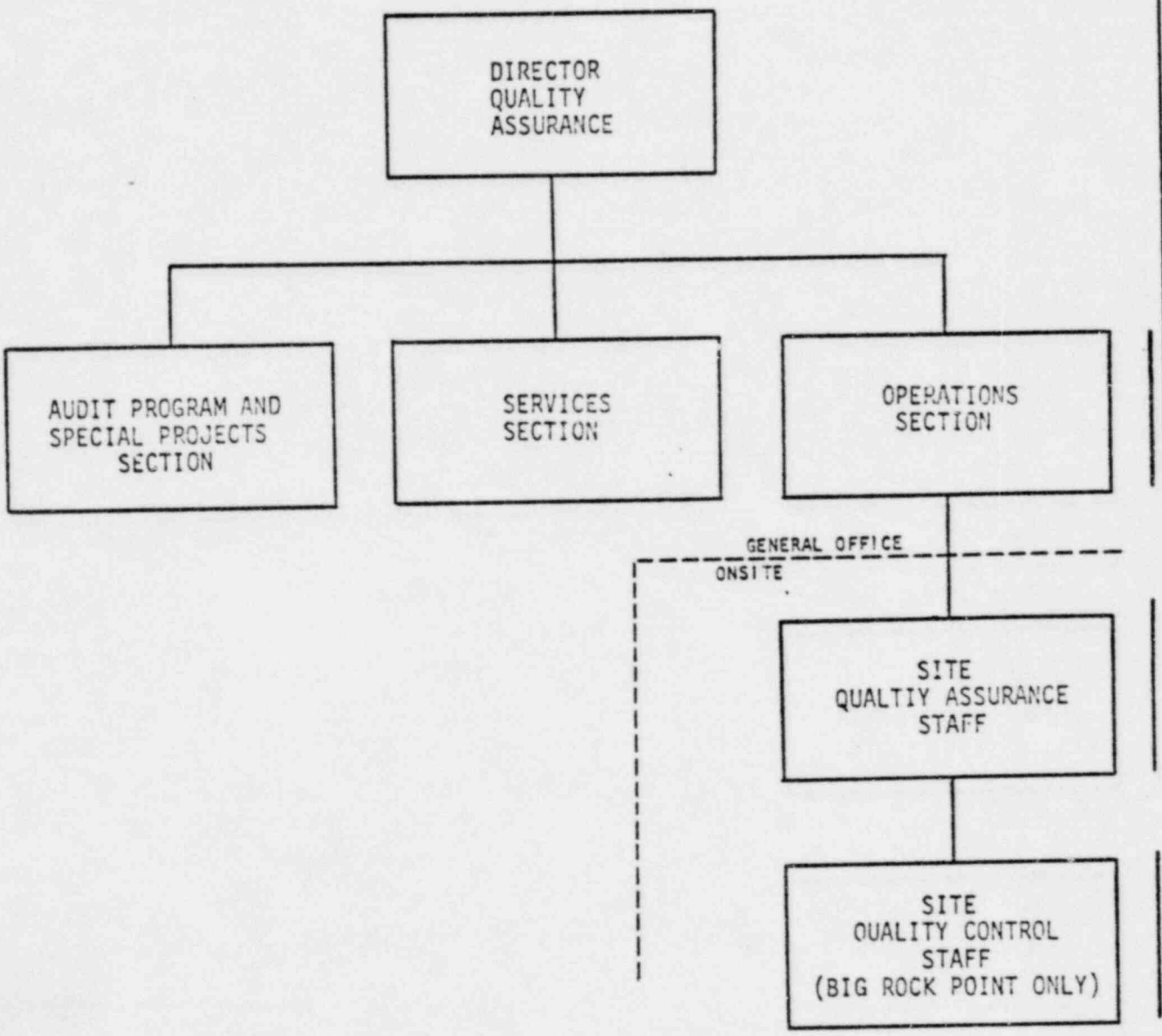


FIGURE 14

NUCLEAR ACTIVITIES DEPARTMENT

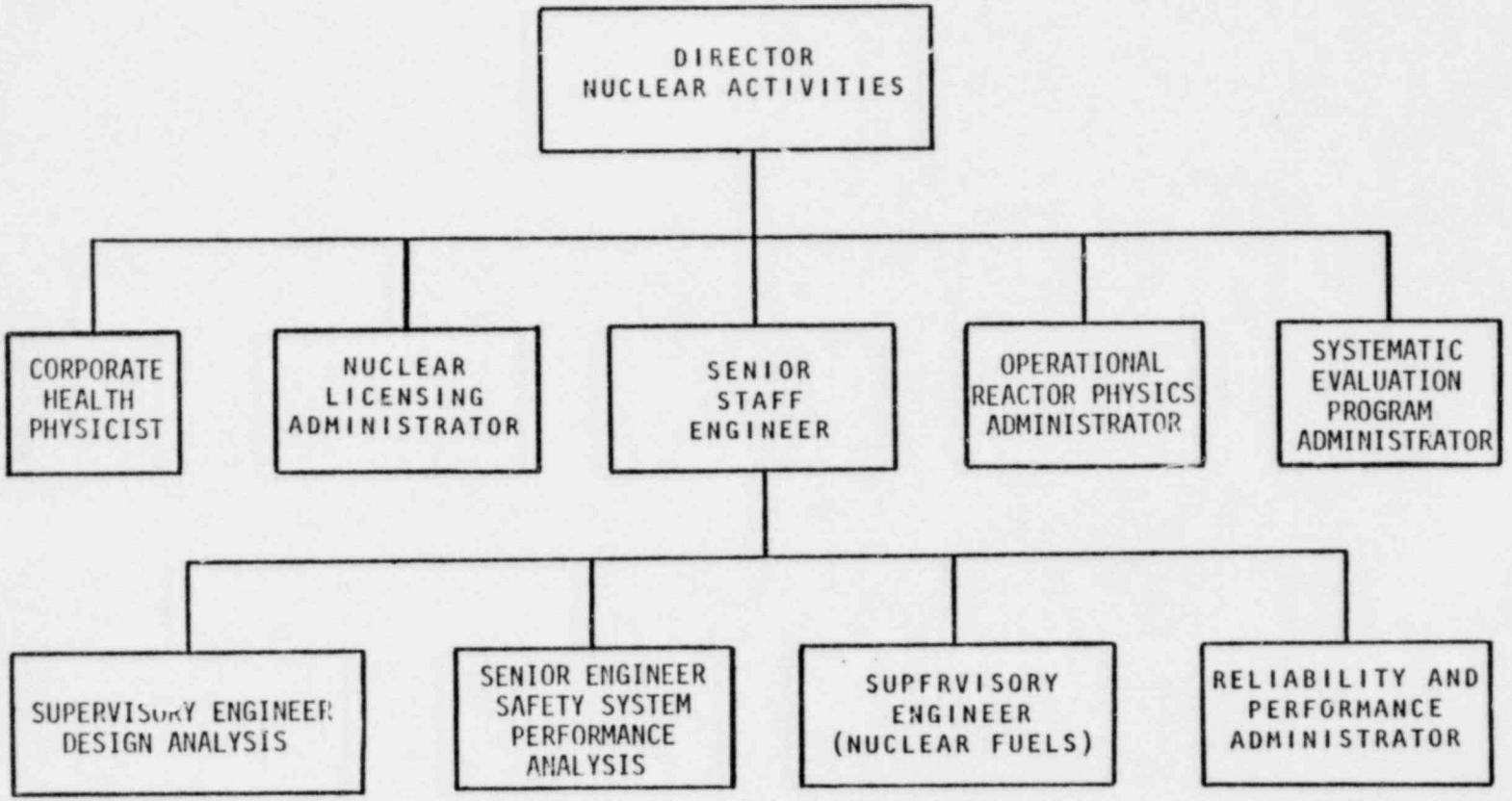


FIGURE 15

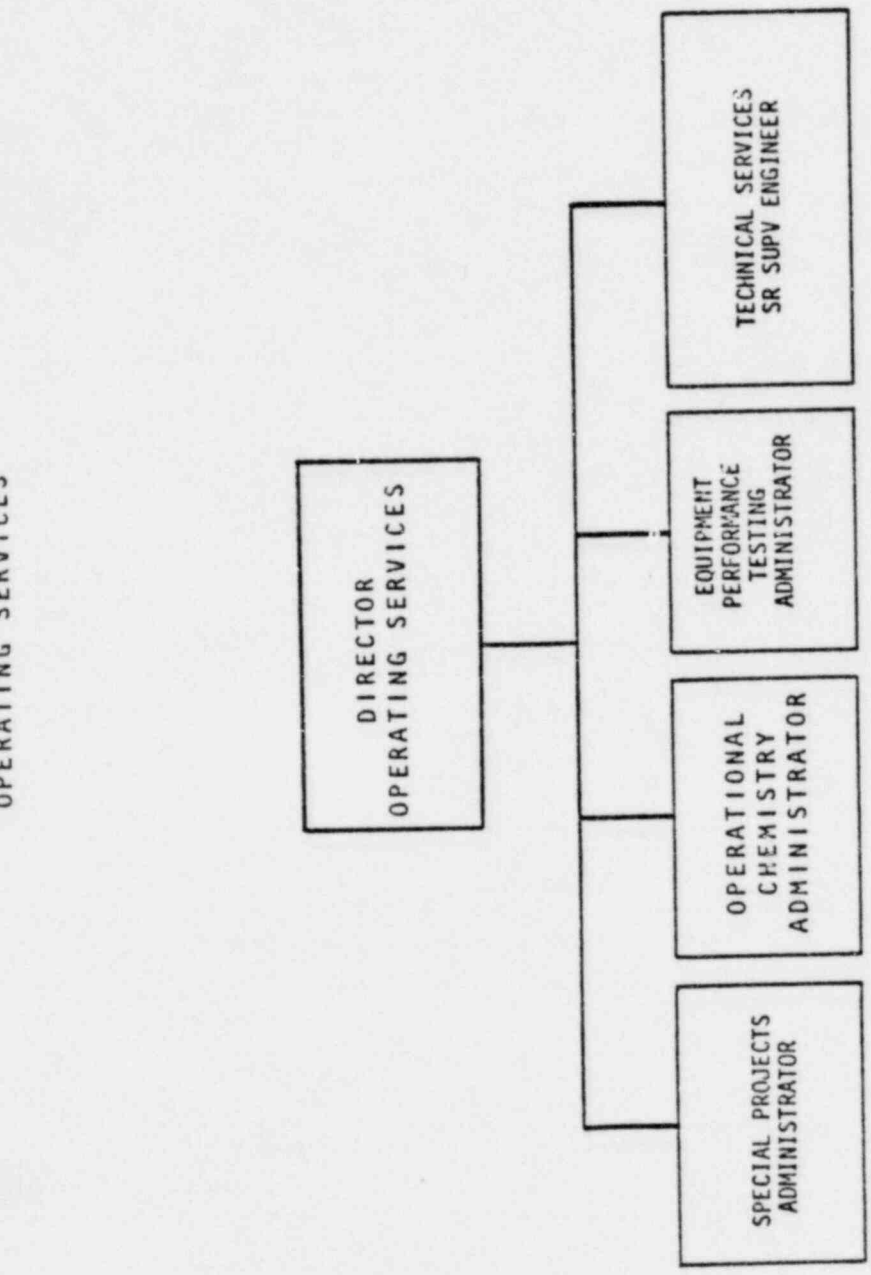

OPERATING SERVICES
DIRECTOR OPERATING SERVICES
TECHNICAL SERVICES SR SUPV ENGINEER
EQUIPMENT PERFORMANCE TESTING ADMINISTRATOR
OPERATIONAL CHEMISTRY ADMINISTRATOR
SPECIAL PROJECTS ADMINISTRATOR

FIGURE 16

MAINTENANCE & ADMINISTRATIVE SERVICES

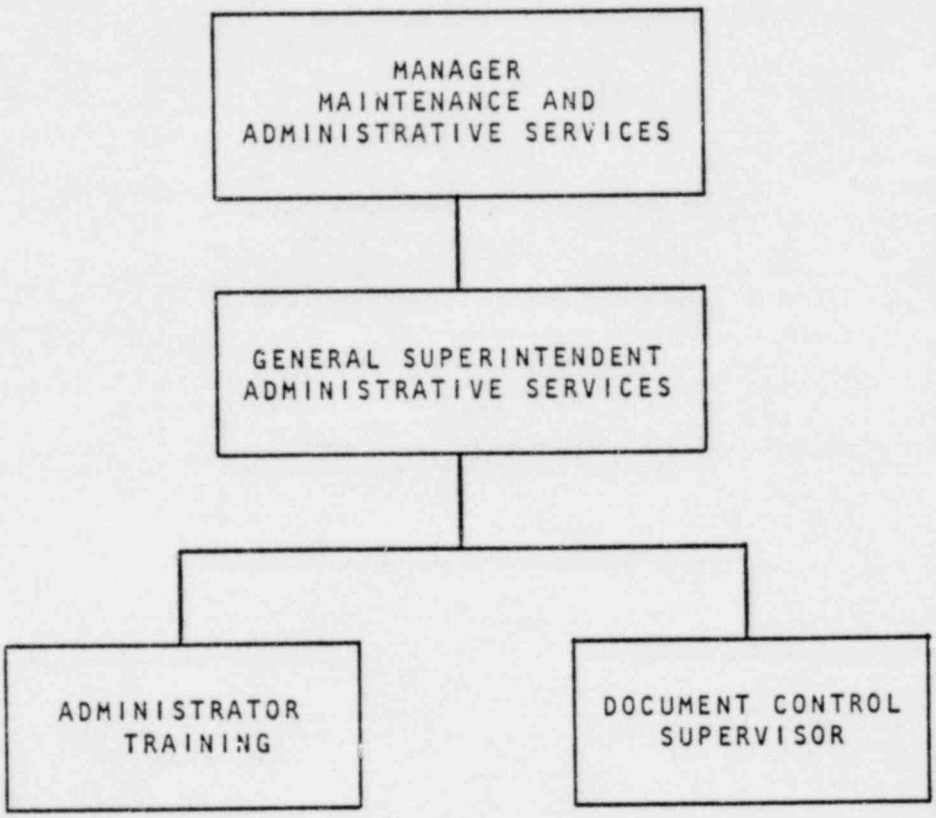


FIGURE 17

SYSTEM PROTECTION AND LABORATORY SERVICES

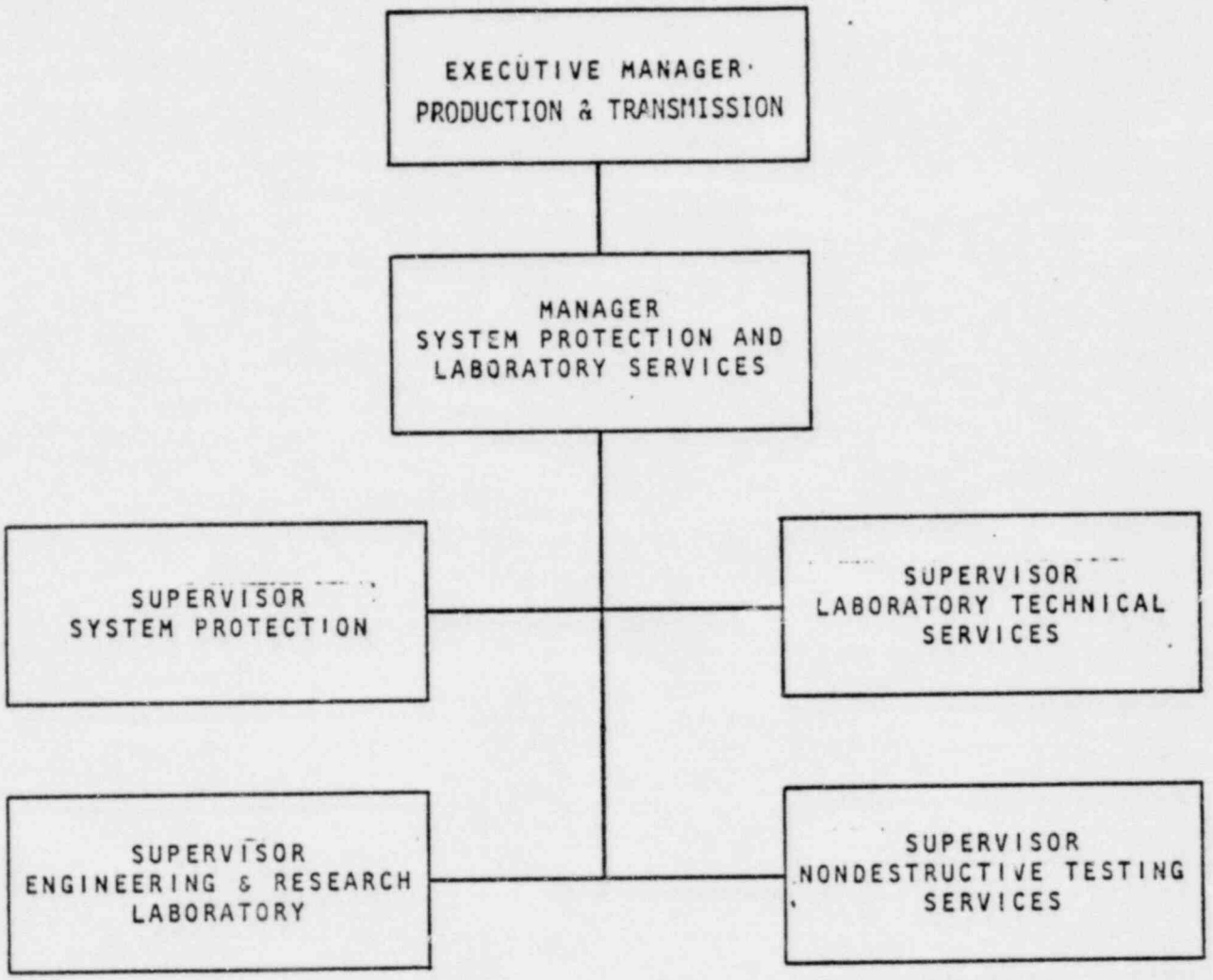
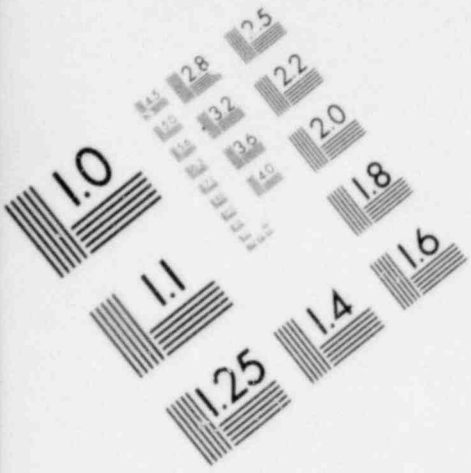


FIGURE 18



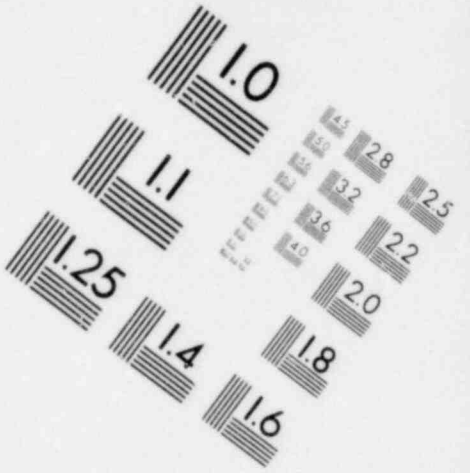
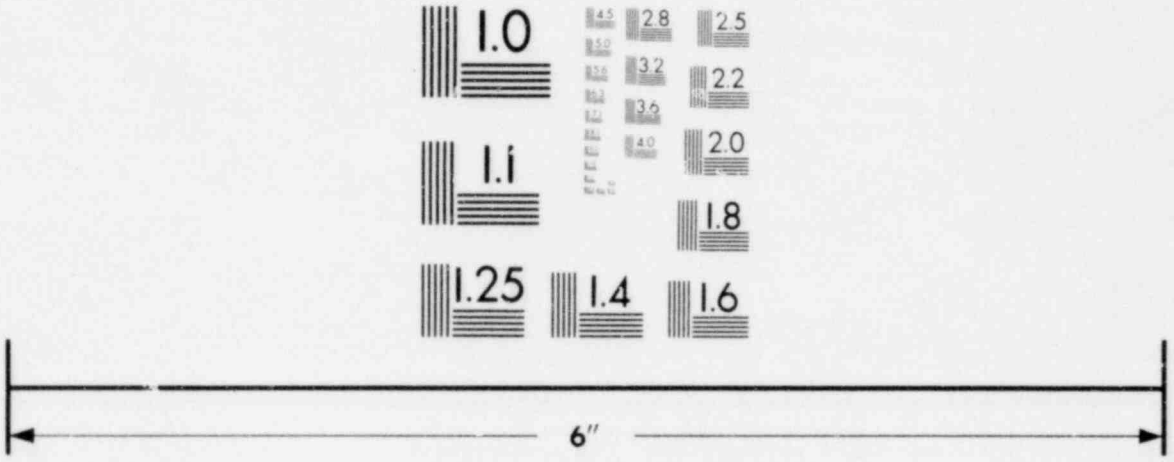
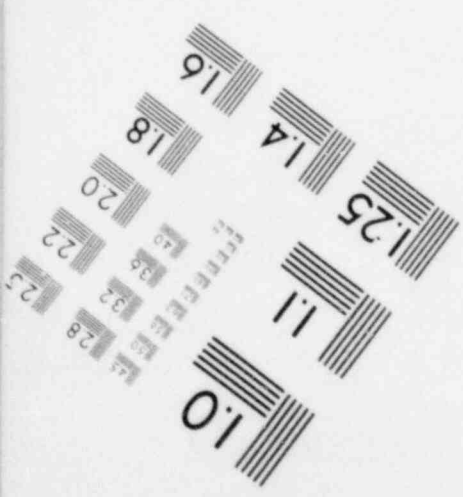
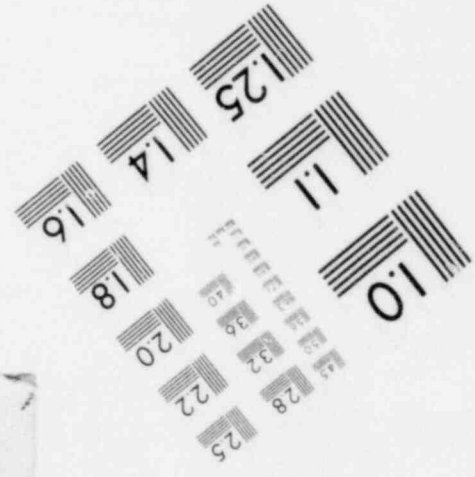
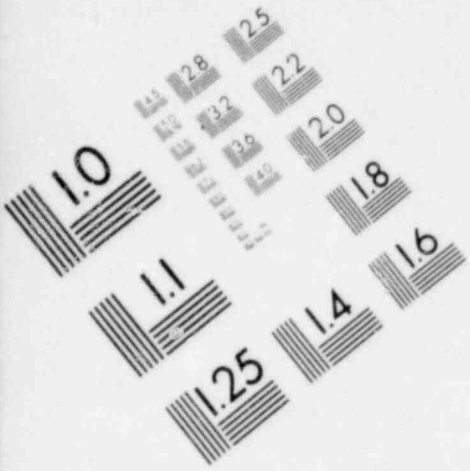


IMAGE EVALUATION TEST TARGET (MT-3)









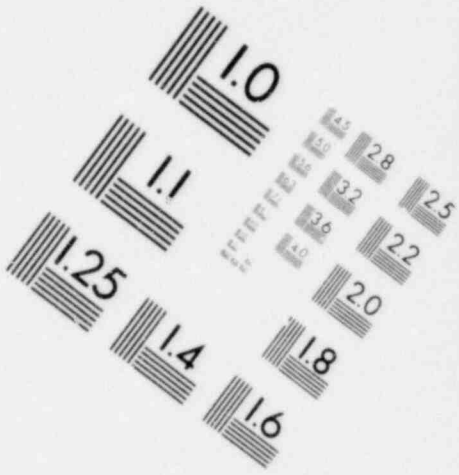
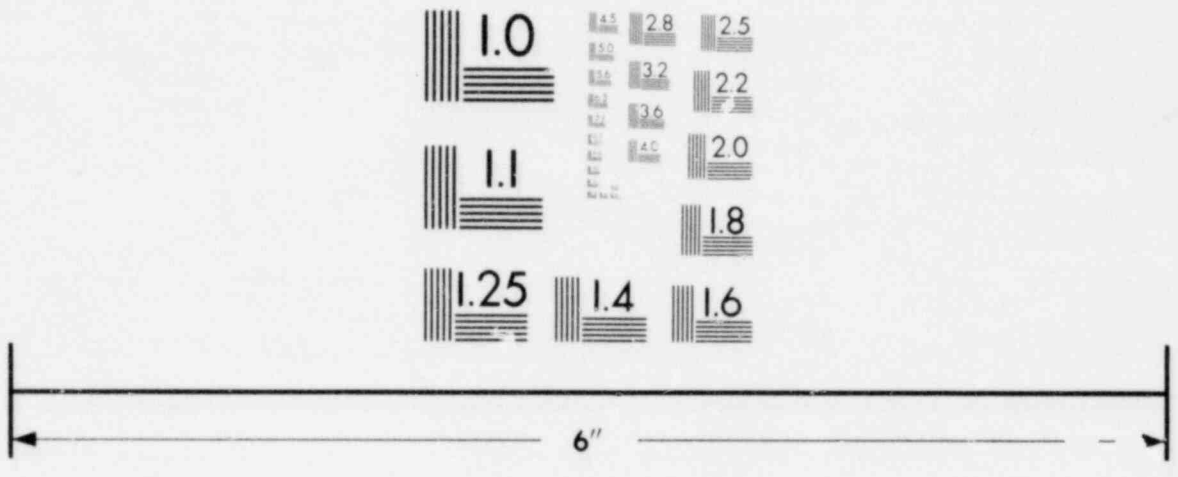
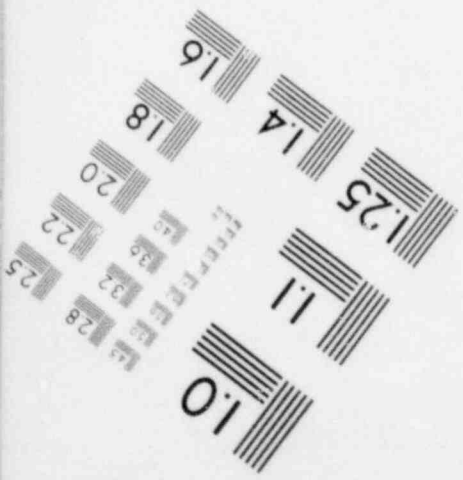
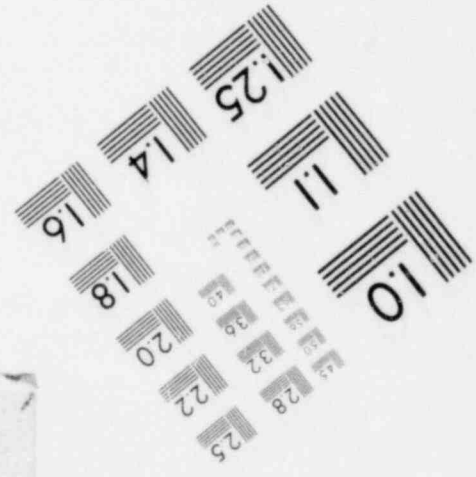


IMAGE EVALUATION TEST TARGET (MT-3)







MANAGEMENT AND BUDGET

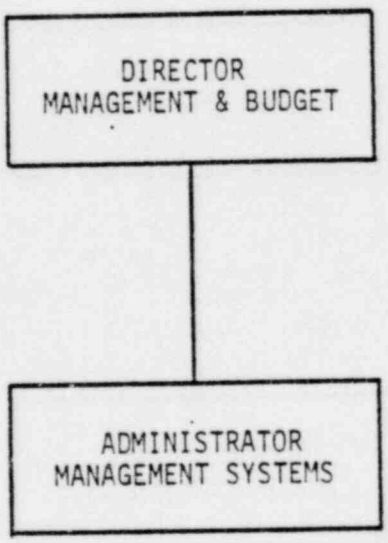


FIGURE 19

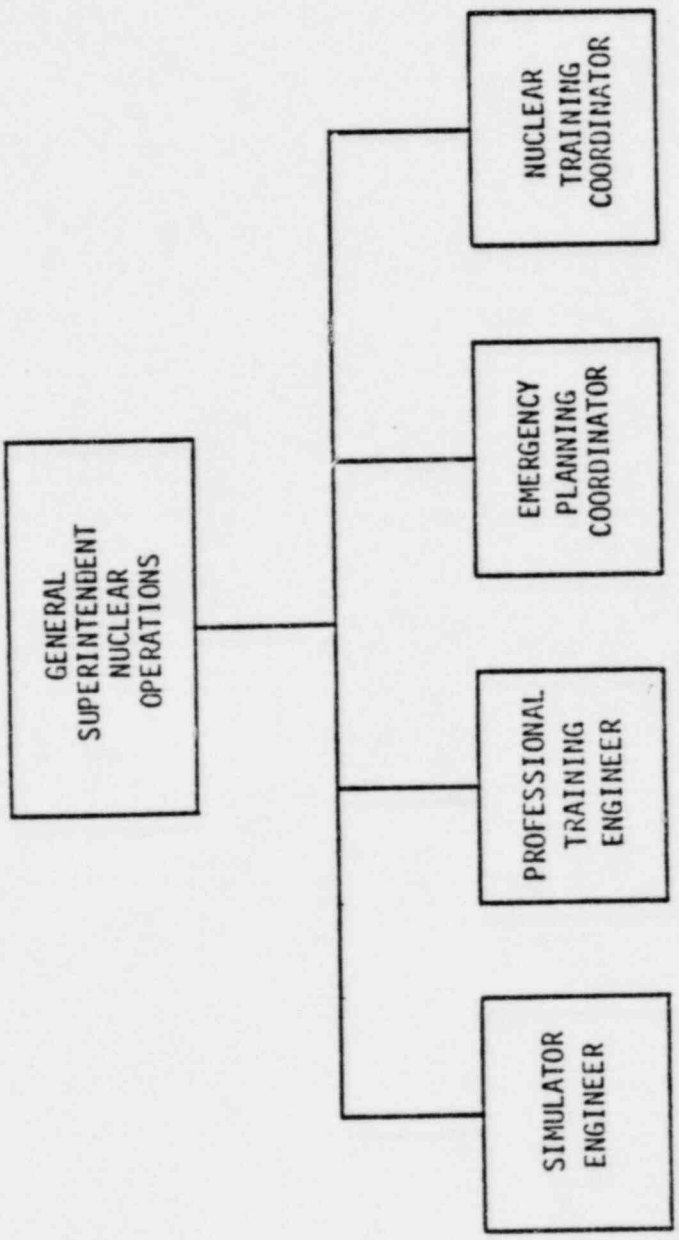


FIGURE 20 GENERAL SUPERINTENDENT - NUCLEAR OPERATIONS

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

QUALITY ASSURANCE PROGRAM

POLICY NO. 2
PAGE 1 OF 17
REVISION 3
DATE 12/1/75

1.0 GENERAL

The President of Consumers Power has issued a "Statement of Authority and Responsibility" which commits the Company to develop and implement a Quality Assurance Program for Nuclear Power Plants, in compliance with NRC Regulatory Requirements and applicable Industry Codes and Standards. The Quality Assurance Program is documented in the Consumers Power Company Quality Assurance Program Manual for Nuclear Power Plants (this document). The manual defines the Quality Assurance Program established by Consumers Power to assure that its nuclear power plants are designed, constructed and operated with the controls required to prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. The scope of the Quality Assurance Program covers design, procurement, testing, operations, maintenance, repair, refueling and modification activities associated with safe operation of the plant. The Quality Assurance Program assures that activities affecting quality are accomplished by use of appropriate equipment and under suitable environmental conditions. The program establishes the requirements for special controls, processes, test equipment, tools and qualified personnel.

2.0 BASIS DOCUMENTS

a. NRC 10CFR50, Appendix B, Criterion 2, Quality Assurance Program
b. NRC Regulatory Guide No 1.8, Personnel Selection and Training (Endorses ANSI N18.1)
c. NRC Regulatory Guide No 1.28, Quality Assurance Program Requirements - Design and Construction (Endorses ANSI N45.2)
d. NRC Regulatory Guide No 1.33, Quality Assurance Program Requirements - Operation
e. NRC Regulatory Guide No 1.58, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel (Endorses ANSI N45.2.6)
f. NRC Regulatory Guide No 1.74, Quality Assurance Terms and Definitions (Endorses ANSI N45.2.10)
g. ANSI N18.7
h. ANSI N45.2, Criterion 2, Quality Assurance Program
i. WASH 1283, 5/24/74; WASH 1284, 10/26/73; and WASH 1309, 5/10/74

3.0 POLICY

3.1 QUALITY ASSURANCE PROGRAM COMPLIANCE WITH NRC REGULATORY GUIDANCE

The Consumers Power Company Quality Assurance Program for Nuclear Power Plants is committed to the guidance and requirements contained in NRC Quality Assurance Regulatory Guides, and the NRC Grey, Green and Orange Books, referred to as the Rainbow Books and/or WASH Documants (1283, 5/24/74; 1309, 5/10/74; and 1284, 10/26/73, respectively.) Exceptions and/or explanations follow:

a. Subsection "a" of Section D-1 in the Grey Book requires that, "A schedule of all safety-related nuclear power plant activities to be performed by each organization along with the required procedures or instructions to implement the corresponding Quality Assurance Program for the activity should be prepared (and periodically updated to indicate status) to assure timely development, approval and implementation of these Quality Assurance Procedures or instructions prior to initiation of the activity." Consumers Power does not have a schedule relating to timely development, approval and implementation of procedures and instructions. In lieu of this schedule, Consumers Power does require that procedures or instructions be prepared prior to initiation of safety-related activities (and revised when necessary) and does verify, during audits, that the procedures have been prepared and are being implemented.

b. Consumers Power uses the definitions of terms provided in ANSI N45.2.10-1973 for safety-related activities with the following exceptions:

Audit is defined as "A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of a Quality Assurance Program have been developed, documented and effectively implemented in accordance with specified requirements. An audit does not include surveillance or inspection for the purpose of process control or product acceptance."

Construction Phase is defined as "Activities at the building site necessary to erect and verify proper installation and performance of nuclear power plant facilities prior to initial fuel loading."

Nonconformance is defined as "A deficiency in haracteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate and which is considered significant to quality or safety. Examples include:

Physical defects, test failures, incorrect or inadequate documentation, deviation from prescribed processing, inspection, or test procedures."

Procurement Documentation is defined as "Purchase Requisitions (PRs), Purchase Orders (POs), Division Purchase Orders (DPOs), Returned Material Requests (RMRs), drawings, contracts, specifications, and instructions used to define requirements for the purchase of materials, equipment or services."

c. Section 5.6 of ANSI N45.2.9 requires that the permanent record storage facility have "structure, doors, frames, and hardware should be Class A fire-rated with a recommended four-hour minimum rating." In lieu of this, the existing Consumers Power permanent record storage facility has a two-hour fire rating.

d. The remaining guides and/or standards below are listed because the draft revision or released edition implemented by Consumers Power Company is later than that contained in the respective WASH Document in which they appear:

Regulatory Guide 1.64 - Revision 1 (February 1975)
Regulatory Guide 1.88 (August 1974)
ANSI N45.2.9 - 1974
Regulatory Guide 1.94 (April 1975)
ANSI N45.2.5 - 1974
ANSI N45.2.8 - 1975
ANSI N45.2.12 (Draft 4, Revision 1)
ANSI N45.2.13 (Draft 3, Revision 3)

Consumers Power Company requires its suppliers to respond to the Grey and Green Books (WASH Documents 1283 and 1309) and assigns responsibility for this action to the Supplier. Alternates or exceptions taken by the Supplier to comply with or implement the regulatory guidance contained in these documents will be described and delineated in the Preliminary Safety Analysis Report.

3.2 CLASSIFICATION OF STRUCTURES, SYSTEMS, COMPONENTS AND OPERATIONAL SAFETY ACTIONS

The Quality Assurance Program assures that structures, systems and components important to the safety of the power plant; ie, "safety-related" items, have been designed, fabricated, erected, tested and are operated to standards commensurate with the safety function to be performed. Design documents, procurement documents and Quality Assurance Program documents reflect the importance to safety of the item or activity affected by the documents.

During the design and construction phase, the Palisades SGRP or major modifications, the Architect-Engineer, with input from the NSSS Supplier, develops the original list of safety-related structures, systems and components (Q-List). The list is reviewed and approved by the assigned Project Engineer (Palisades SGRP), Engineering Supervisor (Major Modifications) or Manager - Design Production (Midland Project) with assistance in reviews from Project Engineering Services (Palisades SGRP and major modifications) and Environmental Services, Quality Assurance and Testing or Midland Project Quality Assurance to assure that the listing properly identifies and classifies safety-related items. This list identifies and classifies those safety-related items according to the requirements of 10CFR50.55(a) and the guidance of NRC Regulatory Guides 1.26 and 1.29. The safety-related items are specified in the applicable design documents and a listing of the items and their classification level is prepared for each nuclear power plant. The classification listing is revised as design changes, modifications and regulatory requirements dictate. The assigned individual, above, is responsible for controlling the classification listing and its revisions.

During the operations phase, it is the responsibility of the Plant Manager/Superintendent, with the assistance of the Director, Nuclear Activities to update and maintain the classification listing of safety-related items and operational safety actions (Q-List). The Director, Quality Assurance - Nuclear Operations, conducts a review of these classification listings and their revisions during the operations phase, and he assures that the listings properly identify and classify safety-related items and activities. Additional reviews are conducted by the Plant Review Committee (PRC). Items or activities deleted or added to the lists during the operations phase are also reviewed by the PRC.

3.3 QUALIFICATION OF PERSONNEL

Qualification requirements for heads of departments which are implementing the Quality Assurance Program are documented by the appropriate Vice Presidents. For personnel within each department, the qualification requirements are documented by the head of the department.

The Director, Environmental Services, Quality Assurance and Testing must have an engineering or scientific degree with five or more years of appropriate experience in such areas as Quality Assurance, design, manufacture, testing, construction, or operations; and five or more years experience in the management of appropriate engineering, construction, operations functions, administrative activities, program development or nuclear plant quality-related activities.

For Operations, the Director, Quality Assurance-Nuclear Operations qualification requirements are a degree in engineering or scientific discipline, five years experience in power plant design, manufacturing, testing and/or operations, and five years experience in management of projects associated with power plant operations, including unit or section administrative activities, program development and implementation, and nuclear plant quality-related activities.

3.4 TRAINING OF PERSONNEL

To assure that safety-related operations and activities are performed correctly, Consumers Power conducts formal training programs for Company personnel and requires Principal Suppliers to have formal training programs. These training programs include general, continuing and specialty training. Training is accomplished in accordance with documented instructions with the objectives of indoctrinating personnel in disciplines such as Quality Assurance, testing, operation, maintenance, radiation protection, site emergency situations, industrial safety and security, etc.

Training is also accomplished to aid in developing specific job skills and updating and maintaining these skills. Records are maintained for each trained Consumers Power Company employee and are reviewed on a periodic basis to assure completeness and determine requirements for continuing training.

Training of personnel within the scope of the Quality Assurance Program is accomplished by Projects -Engineering & Construction, Nuclear Operations and departments involved, and subject to appropriate audit as follows:

a. Projects, Engineering & Construction Personnel Training - Personnel who perform activities during the design and construction of a nuclear power plant require various levels of proficiency to properly perform their job responsibilities.

Each Director or Manager in Projects, Engineering and Construction provides the necessary training and indoctrination and maintains his own personnel training records.

b. Plant Personnel Training - Personnel who perform activities in a nuclear power plant during the operations phase require various levels of proficiency to perform their assigned functions in a safe and efficient manner and to comply with the nuclear plant Operating License and Technical Specifications. Training programs are conducted to assure that the required level of proficiency of selected personnel is achieved and maintained. The training programs are based on ANSI N18.1 - 1970, 10CFR55, and other applicable requirements. The General Superintendent - Nuclear Operations is responsible for planning and developing training programs, program approval, selection of personnel, coordinating training activities and for preparing and maintaining training records.

c. Other Support Services Training - Personnel who perform quality-related activities during the design and construction and operations phase require various levels of proficiency to properly perform their job responsibilities. Training is accomplished in accordance with the departmental training plan.

d. Quality Assurance Training - Supervisors or managers responsible for work activities which affect quality are trained or indoctrinated as appropriate to assure their understanding of quality functions and interfaces. Training and indoctrination of Consumers Power Projects, Engineering & Construction, Nuclear Operations, or other Company personnel to the requirements of the Quality Assurance Program are performed under the direction of the Director, Environmental Services, Quality Assurance and Testing or the Director, Quality Assurance - Nuclear Operations. They provide for such training and indoctrination and assign responsibility for developing and conducting training programs. The respective Quality Assurance groups coordinate with other departments to develop schedules, select personnel and conduct retraining as deemed necessary. Personnel training records are maintained by the respective departments. The Quality Assurance training provides the mechanism for communicating to all responsible organizations and individuals that quality policies, Quality Assurance manuals, and procedures are mandatory requirements which must be implemented and enforced.

3.5 QUALITY ASSURANCE PROGRAM REVIEW

The status and adequacy of the Quality Assurance Program is reviewed on a regular basis during the design, construction and operation phases. The results are documented and reported to senior Consumers Power Management personnel in accordance with Quality Assurance Program Policy No 20, "Program Reporting."

3.6 QUALITY ASSURANCE PROGRAM MATRIX

The index of CPC-1 provides a Matrix of major Quality Assurance Program policies keyed for 10CFR50, Appendix B, criteria. The number of the policy (Arabic) is the same as the criterion number (Roman). Two additional subjects, Policy 19, Program Review and Policy 20, Program Reporting, are added to cover special interest areas.

The indices of Volumes II, IIA, and III (Attachment A) of Consumers Power Company's Quality Assurance Program Manual for Nuclear Power Plants provide a matrix of the major Quality Assurance procedures. Volume II applies to the Midland Project and major modifications initiated prior to January 1, 1980. Volume IIA applies to the Palisades SGRP and major modifications initiated on or after January 1, 1980. Volume III applies to operating nuclear plants. The key to determine which 10CFR50, Appendix B, criterion the procedure implements is the first set of digits of the policy or procedure number. For example, Quality Assurance Program Procedure 4-1 (QAP 4-1) implements Criterion IV, and is a Design and Construction procedure. QAP 4-51 also implements Criterion IV but the "5" in the second set of digits in the procedure number indicates it is an Opera- Operations' procedure.

Approved by:

Senior Vice President 4-21-80
Projects, Engineering & Construction

Executive Vice President
Energy Supply 4/25

Executive Vice President
Energy Distribution and General Services

Vice President
Midland Project 4/21/80

Vice President
Fossil Operations 4/22/80

Vice President
Nuclear Operations 4/23

Vice President
Systems Operations

Vice President
Fuel Supply 4/23/80

Vice President
General Services

QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME II

QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME II

QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME II

QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME IIA

QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME IIA

Criterion No (Tab)	Criterion & Procedure Title	Procedure No
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QUALITY ASSURANCE PROGRAM PROCEDURES - VOLUME III

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

DESIGN CONTROL

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1.0 GENERAL

Consumers Power Company is ultimately responsible for, and maintains cognizance and control of, the initial design of power plants and subsequent modifications. This responsibility is carried out for initial design and major modifications by Projects, Engineering & Construction. The Nuclear Steam Supply System (NSSS) Supplier, the Architect-Engineer (A-E), and other Suppliers and Consultants, perform the detailed design work. For minor modifications, the responsibility for design is retained by Nuclear Operations. For the Midland Project design, the Midland Design Production Manager is assigned direct responsibility for coordinating the activities between design organizations and within Consumers Power Company in areas where Consumers Power Company acts as lead designer. For major modifications, the Generating Plant Modifications Department - Projects, Engineering & Construction is assigned project responsibilities. For the Palisades Steam Generator Repair Project (SGRP), the Project Engineer is assigned project responsibilities.

The design organizations identify the applicable regulatory requirements, design bases, codes and standards; develop the design and specify the design interfaces; perform design verification and prepare design documents. Each design organization prepares procedures for controlling its own design activities. Consumers Power Company audits selected supplier design documents to an extent deemed appropriate.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 3, Design Control
b. 10 CFR 50, Appendix A, General Design Criteria for Nuclear Power Plants
c. 10 CFR 50, Section 50.55a, Codes and Standards
d. NRC Regulatory Guide No 1.64, Quality Assurance Requirements for Nuclear Power Plants (Endorses ANSI N45.2.11)
e. ANSI N18.7
f. ANSI N45.2, Criterion 4, Design Control

3.0 POLICY

3.1 ORGANIZATION FOR DESIGN

The Midland Project Management Organization provides overall management and control of the Midland project throughout the design and construction phases until plant turnover to Nuclear Operations. The Design Production Department controls and coordinates design activities between the NSSS Supplier, A-E, Contractors and other organizations that provide design services.

During the operations phase, plant modifications require design control to the same degree as the initial design. Responsibility for design control for major modifications is assigned to Generating Plant Modifications Department - Projects, Engineering & Construction. Generating Plant Modifications controls and coordinates design activities performed by suppliers or other organizations that provide design services.

Responsibility for design control for the Palisades SGRP is assigned to the Project Engineer - Palisades SGRP who controls and coordinates design activities performed by suppliers or other organizations that provide design services.

For m. or modifications, responsibility for design control is retained by Nuclear Operations. This responsibility is carried out by the Plant Staff, or the Operating Services Department, or the Nuclear Activities Department depending upon the nature of the modification. In either case, a responsibile individual is assigned to control and coordinate design activities.

Quality Assurance Audit & Administration assures by audits that design controls are instituted and adequate during initial design, the Palisades SGRP and major modifications and verifies that design control records are complete prior to resuming service. For minor modifications, the Quality Assurance - Nuclear Operations Department assures adequate Quality Assurance and verifies that design control records are complete.

3.2 DESIGN INTERFACES

A single design organization (eg, the A&E, PESD) is assigned as the lead design organization. The lead design organization, at the direction of the Midland Project Design Production Manager, or the assigned Consumers Power Project Engineer or Engineering Supervisor as applicable, establishes and controls the interfaces with other design organizations. These interfaces include Mechanical, Electrical, Civil, Metallurgical, Instrumentation and Control, and Nuclear disciplines as well as functional interfaces. The lead design organization reviews the designs of other organizations to assure compatibility of design and equipment.

3.3 DESIGN DOCUMENTS

Each group or organization performing detailed design translates the applicable regulatory requirements, design bases, codes, standards and design criteria into design documents, such as: specifications, drawings, standards, materials, lists, process procedures and other types of requirements documents.

3.4 DESIGN VERIFICATION

The assigned lead design group or organization (ie, the NSSS Supplier, A&E, Supplier or Consumers Power department) assures that the designs and materials are

suitable and that they comply with design criteria and regulatory requirements. Verification of design is performed by individuals other than those who performed the original design. The extent of the design verification is determined by the complexity of the system, the safety-related function to be performed, and the applicability of regulatory requirements, codes, standards, SAR commitments and Quality Assurance requirements. The lead design group or organization identifies the particular verification methods to be utilized, and if a test program is used, it includes testing of a prototype under the most adverse design conditions. Quality Assurance Audit & Administration, with assistance from other Consumers Power Company departments, conducts audits to assure that the design is reviewed, and the review documented in such areas as: Stress thermal, hydraulics, transient and accident analysis, compatibility of materials, accessibility for in-service inspection, maintenance and repair, and acceptance criteria for inspections and tests. The assigned lead group or organization establishes procedures to assure that errors and deficiencies in the design process that adversely affect safety-related structures, systems and components are documented and corrective action is taken to preclude repetition.

Standard off-the-shelf commercial or previously approved materials, parts and equipment essential to the safety-related functions of structures, systems and components are reviewed for suitability of application before they are selected.

For fuel design, the Nuclear Activities Department, working through the fuel supplier's organization, assures that the designs and materials are suitable and that they comply with design criteria and regulatory requirements. The extent of design verification is determined by the lead design organization who identifies the particular verification methods to be utilized and if a test program is to be used. The Nuclear Activities Department assures that the design is reviewed, and the review documented for fuel design. The Nuclear Activities Department representative is responsible for Consumers Power review during initial fuel and reload fuel design. He also assures that calculations or test results are recorded and that the required records are retained.

3.5 DESIGN CHANGES AND MODIFICATIONS

During the design and construction phases, changes to the design require the same review and approval as the original design by the group or organization delegated lead

design responsibility. Design reviews are documented, and revised design documents are issued to the same distribution as the original documents. Procedures are established which assure that design and specification changes initiated during the operations phase (including those originating on site) are subject to the same design controls and approvals that were applicable to the original design. These changes should be approved by the same origination that approved the original design unless delegated to another organization.

After the plant operations phase begins, a change to the design results in a plant modification. Depending upon the complexity and extent of the modification, the modification, including its design, is under the jurisdiction of Projects, Engineering & Construction (major modifications) or Nuclear Operations (minor modifications); however, all modifications are approved by the Plant Manager/Superintendent. The responsible organization assures that the installation, inspection, test verification and records development are properly controlled. Records are reviewed and approved by the Plant Manager/Superintendent prior to declaring the system operable. The Plant Manager/Superintendent verifies that plant procedures are revised to include the changes when required by plant modifications. Safety-related modifications and related changes in plant procedures are given a 10 CFR 50.59 safety review by the Plant Review Committee and the Safety and Audit Review Board.

The organization responsible for the modification is also responsible for development of design documents which reflect the as-built configuration of the plant, coordinating the preparation and distribution of design documents to individuals and organizations involved in the modification and developing a list of design document revisions for use by the various organizations to assist in maintaining an up-to-date document file.

3.6 OFF-SITE OPERATIONS AND TECHNICAL SUPPORT DURING OPERATIONS PHASE

The Operating Services Department, Nuclear Activities Department, and Plant Staff supply technical support for operational safety actions such as nuclear reactor safety analyses and in-reactor fuel management, procedures, etc. Each completed piece of work (eg, calculation, instruction, procedure, report, etc) receives at least one level of administrative review for pertinence, completeness and adherence to Quality Assurance Program requirements. In the working group, it also receives at least one level of technical review (accuracy, appli-

cability, proper computer programs, etc) by an individual or group that is independent from the individual or group doing the work. The Director, Quality Assurance-Nuclear Operations, is responsible for auditing the departmental procedures and adherence to them for Quality Assurance Program requirements. At the plant, each piece of work submitted for implementation also receives at least one level of administrative review. In addition, the group assigned the task of implementation conducts a technical review (for applicability, accuracy, etc) before the work is applied. The Plant Quality Assurance Superintendent is responsible for auditing the plant level reviews to the Quality Assurance Program requirements.

Approved by:

Senior Vice President
Projects, Engineering
& Construction
4-21-80

Executive Vice President
Energy Supply 4/25

Vice President
Midland Project
4/21/80

Vice President
Fossil Operations
4/24/80

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Vice President
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Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

PROCUREMENT DOCUMENT CONTROL

POLICY NO. 4
PAGE 1 OF 6
REVISION 9
DATE 3/18/80

1.0 GENERAL

During the design, construction and operation phases, procurement procedures describe the sequence of actions to be accomplished in the preparation, review, approval and control of procurement documents for procurements by Consumers Power Company. The system of procurement of safety-related materials, spare parts and equipment for nuclear plants provides measures to assure that the quality of purchased items will, as a minimum, be equivalent to the original equipment. Where possible, the original specification is invoked, or consideration is given to the rationale behind the original procurement and those factors affecting safety are properly accounted for in procurement documents. Changes to the technical or Quality Assurance specifications of procurement documents are subject to the same reviews and approvals as the original specification.

Assigned Quality Assurance personnel review procurement specifications to verify the adequacy of quality requirements stated therein. This review determines that quality requirements are correctly stated, inspectable and controllable; that there are adequate acceptance and rejection criteria; and that procurement documents have been prepared, reviewed and approved in accordance with Quality Assurance Program requirements. Records of this Quality Assurance review of procurement documents are made and kept available for verification.

During the design and construction phase of the Midland Project, the Manager of Quality Assurance - Midland Project, assigns personnel to review the Quality Assurance provisions in procurement documents issued by the Company for the services of principal nuclear power plant suppliers, such as the Architect-Engineer, Constructor, Nuclear Steam Supply System Supplier, and suppliers to Consumers Power of other safety-related equipment, materials and services. These principal suppliers are responsible for reviewing and approving the procurement documents issued to their lower-tier suppliers. Quality Assurance Audit & Administration personnel or Quality Assurance personnel under contract to Consumers Power audit the activities of these suppliers to assure their procurement document controls are effective. The Section Head - Quality Assurance Engineering & Inspection also assigns personnel to review Quality Assurance provisions in procurement documents for the Palisades SGRP and major modifications.

During the operations phase, the Director, Quality Assurance - Nuclear Operations, assigns personnel to review the Quality Assurance provisions in procurement documents issued by Consumers Power for spare parts, minor modifications, nuclear fuel procurement and services such as in-service inspection.

During design and construction, and during the operations phase including the Palisades SGRP and major modifications; these reviews are accomplished to assure that Consumers Power Company procurement documents contain or reference provisions such as the following:

a. Basic technical requirements including drawings, specifications, codes and standards with applicable revision data, test and inspection requirements, and special requirements, such as for designing, fabricating, cleaning, erecting, packaging, handling, shipping and storage.

b. Quality Assurance requirements, such as invoking the requirements for a Quality Assurance Program, or elements of a program in accordance with the requirements of 10CFR50, Appendix B; ANSI N45.2 and ANSI N45.2.13.

c. Designation of records to be prepared, maintained, submitted, or retained available for review, such as drawings, specifications, procedures, procurement documents, inspection and test records, personnel and procedure qualification records, and material, physical and chemical test results. At a minimum, documentation to be submitted by the Supplier must specifically identify (e.g., by purchase order number):

   (1) The purchased material or equipment and the specific procurement requirements (codes, standards, specifications, etc) which are met by the items.

   (2) Procurement requirements which have not been met, together with a description of those nonconformances dispositioned "accept as is" or "repair."

d. Provisions for extending applicable requirements to lower-tier subcontractors and suppliers.

e. Provisions for access to vendors or contractors facilities for the purpose of source inspection, surveillance and audit.

f. SAR commitments and regulatory requirements.

g. Applicable requirements of the Consumers Power Company Quality Assurance Program Manual for Nuclear Power Plants.

When Consumers Power Company procurement documents do not contain or reference the preceding provisions, these procurement documents do require the principal Supplier to provide a Quality Assurance Program description. This Quality Assurance Program

description will be evaluated and approved by the appropriate Consumers Power Company department. Approval is based, in part, on compliance with the preceding provisions. Approval of the principal suppliers Quality Assurance Program is necessary prior to initiation of activities covered by the procurement document.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 4, Procurement Document Control

b. ANSI N45.2, Criterion 5, Procurement Document Control

c. ANSI N45.2.13, Quality Assurance Requirements for Control of Procurement of Equipment, Materials and Services for Nuclear Power Plants

d. ANSI N18.7

3.0 POLICY

3.1 PROCUREMENT DURING THE DESIGN AND CONSTRUCTION PHASE

The Project Manager assigned to each nuclear plant project is responsible for planning and coordinating the selection of the Architect-Engineer, Constructor, Nuclear Steam Supply System (except for fuel and related services) and other Principal Suppliers. He recommends Principal Suppliers and requests an evaluation for nonconstruction contractor services from the Director, Engineering Services, Projects-Engineering & Construction. The Midland Project Quality Assurance Department evaluates the proposed Supplier's Quality Assurance Programs. Principal Suppliers of contractor construction field labor are evaluated for technical capability by the Project Manager.

The Midland Project Quality Assurance Department evaluates the Contractor's Quality Assurance Program.

The Design Production Manager coordinates preparation of the required procurement documents and obtains approval of the appropriate Projects-Engineering & Construction and Energy Supply Departments, including the Midland Project Quality Assurance Department prior to forwarding the request for purchase to the Purchasing Department.

Consumers Power delegates the procurement of the Nuclear Steam Supply System (NSSS) items and services to the NSSS Supplier, and the procurement of certain other items and services to the Architect-Engineer. The Audit & Administration Section reviews the procurement documents issued by these principal Suppliers during scheduled audits to assure that the appropriate Quality Assurance requirements are being incorporated.

3.2 PROCUREMENT DURING THE OPERATIONS PHASE

The procurement documents also require suppliers to have and implement a documented Quality Assurance Program for purchased materials, equipment and services to an extent consistent with their importance to safety. Purchase orders for safety-related materials, spare parts, equipment and services are placed with qualified suppliers, except for purchase of items whose quality can be verified by historical quality performance data, receipt inspection and/or testing. Quality Assurance Program Policy No 7, "Control of Purchased Material, Equipment and Services," describes how qualified suppliers are selected.

Procurement of materials, parts or components is initiated by purchase requisitions prepared by the plant staff or by others in the Nuclear Operations, Nuclear Activities and other departments. For plant-initiated purchase requisitions, the Plant Manager/Superintendent establishes a plant procedure which provides for the determination of the system or component safety class. For items within the scope of the Quality Assurance Program, plant initiated purchase requisitions and invoked requirements are reviewed for concurrence by the Plant Quality Assurance Superintendent. For cases where requisitions are not prepared by the plant, the requisition and invoked requirements, including specifications prepared by outside organizations, are reviewed for concurrence by the Operating Services Department or other departments possessing appropriate technical expertise and the Quality Assurance - Nuclear Operations Department. Further, if the requirements invoked by the requisition are not taken from current approved specifications or drawings, then technical approval of the requisition and invoked requirements is required.

When purchase requisitions have received the required approvals and concurrences, the Purchasing Department converts them to purchase orders and places the order with a qualified supplier. If the supplier has not been approved, the requisitioner submits a Supplier Evaluation Request to the Director, Quality Assurance - Nuclear Operations. When the Request is approved, it is attached to the purchase requisition and forwarded to the Purchasing Department for procurement.

Technical review of procurement documents includes verification of appropriate classifications, technical requirements and code application.

3.3 PROCUREMENT DURING MODIFICATIONS

If the modification is performed by the Generating Plant Modifications Department, the assigned Engineering Supervisor coordinates selection of the Principal Supplier, and preparation and approval of the required procurement documents as outlined in Section 3.1 of this Policy for General Office procurements. For site procurements, this responsibility is with the Project Superintendent. For the Palisades SGRP, the Project Engineer coordinates selection of Principal Suppliers and preparation and approval of the required procurement documents as outlined in Section 3.1 of this Policy for General Office procurements. For site procurements, this responsibility is with the Project Superintendent. The procurement documents are reviewed and approved for appropriate quality requirements by Quality Assurance Engineering and Inspection Section, as outlined in Section 3.1 of this Policy.

If the modification is performed by the plant staff (minor modification), the Plant Manager/Superintendent coordinates the preparation and approval of the required procurement documents as outlined in Section 3.2 of this Policy. The procurement documents are reviewed and approved for appropriate quality requirements by the Quality Assurance - Nuclear Operations Department, as outlined in Section 3.2 of this Policy.

3.4 FUEL PROCUREMENT

The Nuclear Fuel Supply Department is in charge of the specification, acquisition and delivery of nuclear fuel. This includes the negotiation and administration of nuclear fuel purchase agreements. The Director, Nuclear Fuel Supply, coordinates preparation and approval of procurement documents for nuclear fuel. The technical requirements are established by the Director, Nuclear Activities Department. The Quality Assurance requirements are established by the Director, Quality Assurance - Nuclear Operations. The procurement documents are reviewed and approved by the three departments for the appropriate requirements. These departments also perform evaluations of the fuel suppliers for the technical and Quality Assurance capabilities, respectively.

3.5 PROCUREMENT CHANGE CONTROL

Changes in procurement documents by Consumers Power, its suppliers, and their suppliers, are subject to equivalent reviews, approvals, and audits as those in effect during the preparation and processing of the original procurement documents.

Approved by:

Senior Vice President
Projects, Engineering
& Construction
4-21-80

Executive Vice President
Energy Supply
4/25

Executive Vice President
Energy Distribution and
General Services

Vice President
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4/21/80

Vice President
Nuclear Operations
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Vice President
Systems Operaations

Vice President
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Vice President
General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

INSTRUCTIONS, PROCEDURES AND DRAWINGS

POLICY NO 5
PAGE 1 OF 6
REVISION 9
DATE 3/18/80

1.0 GENERAL

Instructions for controlling and performing activities affecting quality of equipment or operations during the design, construction and operation phases of nuclear power plants, such as procurement, manufacturing, construction, installation, inspecting, testing, operation and maintenance are documented in instructions, procedures, specifications, checklists and other forms of documents. These documents provide qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished. (Note: This policy does not apply to design documents, such as drawings and procurement documents which are covered by Policies No 3 and No 4.)

The various Consumers Power Departments and Suppliers who perform a safety-related activity prepare required instructions, procedures and other instructional-type documents prior to initiation of safety-related activities. Reviews of Consumers Power Company departmental procedures for adequacy are conducted during the design and construction phase, the Palisades SGRP and major modifications by the Quality Assurance Audit & Administration Section within Environmental Services, Quality Assurance & Testing. They also verify through audits that the required instructions and procedures are prepared and implemented. During the operations phase, Quality Assurance - Nuclear Operations, has this responsibility.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 5, Instructions, Procedures and Drawings
b. NRC 10 CFR 50, Appendix E, Emergency Plans for Production and Utilization Facilities
c. NRC 10 CFR 20, Standards for Protection Against Radiation
d. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section III
e. NRC Regulatory Guide No 1.17, Protection of Nuclear Plants Against Industrial Sabotage (Endorses ANSI N18.17)
f. NRC Regulatory Guide No 1.21, Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents From Light-Water-Cooled Nuclear Power Plants (Endorses ANSI N13.1)

g. NRC Regulatory Guide No 1.33

h. NRC Regulatory Guide No 1.68, Appendix C, Preparation of Procedures

i. ANSI N18.17, Industrial Security for Nuclear Power Plants

j. ANSI N18.7

k. ANSI N45.2, Criterion 6, Instructions, Procedures and Drawings

3.0 POLICY

3.1 QUALITY ASSURANCE PROGRAM POLICIES

Quality Assurance Program Policies are documents which establish requirements and assign responsibility for implementing elements of the Consumers Power Company Quality Assurance Program. The policies respond to the eighteen (18) criteria delineated in 10 CFR 50, Appendix B, and two additional criteria that cover requirements of ANSI N18.7. There is one policy for each criterion. The policies provide the Consumers Power interpretation of the requirements of the criteria and formulate a Management commitment to comply with the requirements of the basis documents listed in Section 2 of each policy. The policies provide the basis for preparing Quality Assurance Program Procedures, described below.

3.2 QUALITY ASSURANCE PROGRAM PROCEDURES

Quality Assurance Program Procedures are used to implement the Consumers Power Quality Program Policies. Quality Assurance Program Procedures are prepared by Projects, Engineering & Construction for the design and construction phase, for the Palisades SGRP and for major modifications, and by Nuclear Operations for the operations phase. They describe the system and methods for accomplishing the various quality-related activities, define the departmental relationships and assign responsibilities in a manner that assures compliance to the quality requirements delineated in the Quality Program Policies. Approved Quality Assurance Program Procedures are retained in Quality Assurance Program Manuals assigned to specified functions and are maintained current.

3.3 QUALITY ASSURANCE PROGRAM DEPARTMENTAL PROCEDURES

Departmental procedures are prepared by each department that is responsible for implementing portions of the Quality Assurance Program.

a. Department Procedures - Projects, Engineering & Construction

Organizations within Projects, Engineering & Construction, prepare and maintain procedures as necessary to provide instructions for administrative

control and technical support during the design and construction phase, the Palisades SGRP and major modifications of the nuclear plant. They provide the basis for a consistent method of performing recurring engineering, construction and Quality Assurance activities. They also control the interfaces between Consumers Power and its suppliers. These procedures establish the system for off-site Management control and visibility and for control of on-site quality-related activities which assure the quality program is implemented, maintained and its effectiveness is measured and reported.

b. Department Procedures - Nuclear Operations

The departments within Nuclear Operations, such as Nuclear Activities and Quality Assurance, prepare and maintain procedures to provide the administrative control and technical support, as necessary, for the safe and efficient operation of the nuclear plant. These procedures establish the system for off-site Management control and visibility of operations and operating status. They provide instructions for performing quality-related or safety-related activities in such areas as Plant Administration, Nuclear Fuel Specification, License Administration, Design Document Review, Control of Modifications and other specialized support activities.

c. Nuclear Fuel Supply, System Protection and Laboratory Services, Management and Budget Procedures, Operating Services, and Maintenance and Administrative Services Procedures

The Nuclear Fuel Supply, System Protection and Laboratory Services, Management and Budget, Operating Services, and Maintenance and Administrative Services Departments prepare and maintain procedures for their activities that are within the Quality Assurance Program. These procedures provide the basis for a consistent method of performing their internal department quality-related activities and also define the interfaces between other Consumers Power Departments and Suppliers.

d. Purchasing Department Procedures

Purchasing Department Procedures provide instructions and assign responsibility for accomplishing routine activities within the Purchasing Department and define the Purchasing Department's interfaces with the departments that

initiate procurements or contracts. Purchasing Department Procedures are prepared to cover such activities as commercial approval of suppliers, processing procurement documents, and return of unacceptable materials.

e. Property Protection Department Procedures

The Property Protection Department prepares and maintains procedures to provide instructions for administrative control of the nuclear plant security program. These procedures establish the basis for the coordination and operation of applicable plant property protection services.

f. Graphic Services Department Procedures

The Graphic Services Department of the General Services Department prepares and maintains procedures providing instructions and control of Consumers Power Company microfilming of Quality Assurance records.

3.4 QUALITY ASSURANCE PROGRAM SITE PROCEDURES

Special procedures are prepared by various responsible departments or organizations for use at each site where portions of the Quality Assurance Program are implemented.

a. Plant Procedures

Plant Procedures are used during plant operation to establish rules and instructions pertaining to assignment of responsibility, performance of plant personnel, availability of professional and supervisory personnel, requirements and methods for conducting operations, maintenance, inspections and tests; and preparing, distributing and retaining plant documents. Plant Procedures are distributed among several volumes, as appropriate for use, and cover subjects such as compliance with applicable NRC Regulatory Guides, Consumers Power Management requirements, the Safety Analysis Report (SAR), the Plant Technical Specifications (Tech Spec) and the Quality Assurance Program.

b. Preoperational, Hot Functional, Start Up, Palisades SCRP And Major Modifications Test Procedures

Projects, Engineering & Construction is responsible for providing for the preparation of:

1. Preoperational test procedures for preliminary testing of components and systems prior to initial fuel loading to assure that construction and installation are complete and to verify design and function of systems.
2. Hot functional test procedures for testing the NSSS and auxiliary systems where possible at rated temperature and pressure to demonstrate their satisfactory performance.
3. Test procedures for testing components and systems after completion of Palisades SGRP and major modifications.

Nuclear Operations is responsible for preparing start-up test procedures to demonstrate adequate operational characteristics of the NSSS as the plant power is escalated from 0 to 100% power. Test procedures are prepared in compliance with the NRC Regulatory Guide No 1.68

c. Quality Control Procedures

Quality Control Procedures are working level documents which prescribe quality control activities at the plant or field site. Quality Control Procedures provide detailed instructions for the physical inspection, test and measurement of parts, components and materials to assure compliance to engineering requirements, specifications, codes, standards and procurement documents. Quality Control Procedures also provide additional detailed instructions for carrying out the quality functions specified by Quality Assurance Program Procedures.

d. Special Process Procedures

Special Process Procedures are those procedures which control special processes, including welding, heat-tracing, nondestructive testing and microfilming. Special Process Procedures require qualification of personnel, equipment, or procedures through tests and examinations by examiners, or approved examination techniques. Special Process Procedures are prepared in compliance with ANSI N45.2, Section 10, and requirements of applicable standards and codes such as the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

e. Suppliers' Work and Inspection Procedures

Prior to performing work or inspection on a safety-related item (structures, systems and components), suppliers are required to develop written procedures for accomplishing quality-related work activities and performing required inspections and tests. These procedures reference applicable drawings, specifications, codes and standards. Consumers Power Company Quality Assurance Departments review field inspection plans or inspection procedures prior to implementation.

Approved by:

Senior Vice President, Projects, Engineering & Construction — 4-21-80

Executive Vice President, Energy Supply — 4/21/80

Executive Vice President, Energy Distribution and General Services

Vice President, Midland Project — 4/21/80

Vice President, Fossil Operations — 4/22/80

Vice President, Nuclear Operations — 4/2

Vice President, Systems Operations

Vice President, Fuel Supply — 4/23/80

Vice President, General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

DOCUMENT CONTROL

POLICY NO. 6
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DATE 2/12/80

1.0 GENERAL

Documents which prescribe activities affecting quality, including instructions and procedures, are prepared, reviewed, issued, and controlled according to written procedures. Measures are included to assure that documents, including changes, are reviewed for adequacy and approved for release by the supervisory personnel of the organization preparing the document, and are distributed according to a controlled distribution to the user functions. The document control system provides for:

a. Identification of individuals and organizations responsible for preparing, reviewing, approving, and issuing documents and revisions.
b. Identifying the proper documents to be used in performing a quality-related or safety-related activity (refer to Quality Assurance Program Policy No 5).
c. Coordination and control of interface documents.
d. Ascertaining that proper documents are being used.
e. Establishing current and updated distribution lists.

(Note: This policy does not apply to design documents such as drawings, and procurement documents which are covered by Quality Program Policies No 3 and 4.)

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 6, Document Control
b. ANSI N18.7
c. ANSI N45.2, Criterion 7, Document Control
d. ASME Boiler and Pressure Vessel Code, Section III, Nuclear Power Plant Components

3.0 POLICY

3.1 DOCUMENT PREPARATION

The head of the department within the Consumers Power organization that is responsible for activities that are quality-related is responsible for directing the preparation of instructions or procedures for performing the activities. He or his designated representative is responsible for the identification of regulatory requirements, industry standards, CP Quality Assurance Program requirements, Safety Analysis Report requirements, Technical Specifications, and management instructions which relate to his area of responsibility and that the applicable requirements/standards/instructions are complied with to the extent appropriate. He is responsible that the documents and revisions recognize and establish interfaces with other functions or organizations, and he coordinates the review and resolution of comments with those

organizations and during the operations phase with the Plant Review Committee and the Safety and Audit Review Board, when applicable. The reviewer has access to background information to assure adequate understanding of the requirements for the document and the document's contents. A system for the preparation of documents and revisions, and their interdepartmental and intradepartmental review, approval, and administration which preclude the possibility of the use of outdated or inappropriate documents is defined by specific department procedures.

3.2 DOCUMENT DISTRIBUTION AND CONTROL

Instructional documents are distributed to users and to other personnel according to a distribution list maintained by the person responsible for preparation and control of the document. The head of the department responsible for the document distributes up-to-date issues of the documents and maintains an up-to-date document index. The assigned holders of the manuals are responsible for maintaining the latest revisions of the documents in the manual. For those documents prepared by organizations within Projects, Engineering & Construction, the Quality Assurance Audit & Administration Section audits to assure that the manuals are maintained current and are at the locations where the information is to be used. Quality Assurance - Nuclear Operations, performs similar audits of documents prepared by departments within Nuclear Operations. Document control within other Consumers Power Company departments that perform activities which affect quality is audited either by Quality Assurance Audit & Administration or Quality Assurance - Nuclear Operations, depending on the nature of the activities.

3.3 RESPONSIBILITY FOR DOCUMENT PREPARATION AND CONTROL

The following sections list the responsibilities for the preparation, review, approval and distribution of policies, procedures and other instructional documents:

a. Quality Assurance Program Policies - The Director, Environmental Services, Quality Assurance & Testing and the Director, Quality Assurance - Nuclear Operations, formulate Quality Assurance Program Policies within their responsibility areas. Each Director coordinates with the other with regard to proposed changes to policy and acquires his approval of the policy. Each Director coordinates and acquires the approval of the policy by the appropriate Senior or Executive Vice Presidents and Vice Presidents who have the authority and responsibility for the elements of the Quality Assurance Program addressed by the policy.

Programmatic changes are submitted to the NRC for review and acceptance prior to implementation. Organizational changes are submitted to the NRC for information within 30 days of the announcement of the change.

b. Quality Assurance Program Procedures - The Director, Environmental Services, Quality Assurance & Testing is responsible for the preparation, approval, and control of Quality Assurance Program Procedures which cover quality-related activities during the design and construction phase, the Palisades SGRP and major modifications; the Director, Quality Assurance - Nuclear Operations, has the same responsibility for Quality Assurance Procedures covering the operations phase.

c. Quality Assurance Program Departmental Procedures - The head of each department is responsible for the preparation, review, approval, distribution and control of departmental procedures which describe the departmental quality-related activities. This includes Projects, Engineering & Construction Departments; Energy Supply Departments; and Energy Distribution and General Services Departments.

d. Plant Procedures - The Plant Manager/Superintendent is responsible for the preparation, review, distribution, control and approval of Plant Procedures.

e. Test Procedures (Construction Phase, Palisades SGRP and Major Modifications)
During the construction phase, test procedures required for the implementation of the construction and preoperational test programs are prepared by personnel from the NSSS Supplier, A-E, Constructor and Consumers Power organizations. The Project Management Organization is responsible for coordinating the preparation, review, distribution and control of construction test procedures.

During the Palisades SGRP and major modifications, they are prepared by the Suppliers and by Consumers Power organizations.

The Section Head, Testing, is responsible for coordinating the preparation, review, distribution, and control of Palisades SGRP and major modifications test procedures and for their approval for use. The test procedures for the Palisades SGRP and major modifications are reviewed as required by the Technical Specifications.

f. Test Procedures (Minor Modifications - Responsibility of Off-Site Support Department or Plant Personnel) - Test procedures for minor modifications, controlled by the off-site support Department or the Plant, are the responsibility of the assigned Engineer, or the Plant Manager/Superintendent. He coordinates their preparation, review, distribution, and control and approves them prior to use. These test procedures are reviewed as required by the Technical Specifications.

g. Quality Control Procedures - Consumers Power Company Quality Control Procedures are applicable to a field site or an operating plant. For the design and construction phase, the Palisades SCRP and for the major modifications, they are prepared and approved by Environmental Services, Quality Assurance & Testing Quality Assurance personnel. Distribution and control are the responsibility of Environmental Services, Quality Assurance & Testing. During the operations phase at Big Rock Point Plant, they are prepared by the site Quality Control Staff, reviewed by the Plant Staff, and approved by the Director, Quality Assurance - Nuclear Operations. During the operations phase at Palisades and Midland Plants, they are prepared by Plant Staff, reviewed by Quality Assurance - Nuclear Operations, and approved by the Plant Manager/Superintendent. Distribution and control are the responsibility of the Director, Quality Assurance - Nuclear Operations (for Big Rock procedures) and the Project Manager/Superintendent (for Midland and Palisades procedures).

h. Special Process Procedures - Special Process Procedures are prepared and controlled by Consumers Power Company organizations or the Suppliers who perform work for Consumers Power. Copies of procedures used at the nuclear plant site are retained by Consumers Power as records (refer to Quality Assurance Policy No 17, "Quality Assurance Records"). Responsibilities for Special Process Procedures used by Consumers Power personnel are assigned as follows:

(1) Nondestructive Testing (NDT) Procedures - Manager, System Protection and Lab Services

(2) Welding Procedures - Director, Operating Services

(3) Cleaning Procedures (Other Than Plant Procedures) - Director, Operating Services

(4) Microfilming Procedures - Supervisor, General Graphic Services
- Engineering Division Head, Station Plans Division Engineering Records Center

i. Supplier Work Procedures - Preparation, review, approval and distribution of Supplier Work Procedures are by the individual Suppliers.

j. Calibration Procedures (Other Than Plant Procedures) - Preparation, review, approval, and distribution of Consumers Power Company calibration procedures other than plant procedures are the responsibility of the Manager, System Protection and Lab Service.

3.4 REVISIONS TO INSTRUCTIONAL DOCUMENTS

Revisions to procedures and instructions are processed, distributed, and controlled as required by Technical Specifications or other regulatory requirements.

Approved by:

Senior Vice President 4-2-80
Projects, Engineering & Construction

Executive Vice President 4/25
Energy Supply

Executive Vice President
Energy Distribution and General Services

Vice President 4/21/80
Midland Project

Vice President 4/22/80
Fossil Operations

Vice President 4/23
Nuclear Operations

Vice President
Systems Operations

Vice President 4/24/80
Fuel Supply

Vice President
General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

POLICY NO 7
PAGE 1 OF 5
REVISION 9
DATE 3/18/80

1.0 GENERAL

Suppliers furnishing safety-related materials, equipment, and services to Consumers Power Company are selected on the basis of their capability to provide these items. During the design and construction phase, if the material, equipment, or service is procured directly by Consumers Power, the Projects, Engineering & Construction Engineering Services and the appropriate Quality Assurance organization verify that procurement requirements are met. This is accomplished through review of procurement documents, source evaluation and inspection, audits, and obtaining objective evidence of quality such as physical and chemical test reports and certificates of conformance.

During the operations phase, for material, equipment, or services procured by Consumers Power, the appropriate involved department and Quality Assurance-Nuclear Operations verify that procurement requirements are met. This is accomplished through: Review of procurement documents; and, as appropriate, source evaluation and selection, inspection and audit at the source, examination, receipt inspection or test of items on delivery, functional test before reliance is placed on it; and requirements for objective evidence of quality such as physical and chemical test reports and certifications of conformance.

If the material, equipment, or services is procured by Consumers Power Principal Suppliers, or their Suppliers, these Principal Suppliers or Suppliers verify that purchased items conform to requirements. Quality Assurance Audit & Administration and Nuclear Operations Quality Assurance organizations audit these Suppliers to verify that the established procurement controls are adequate and effective.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 7, Control of Purchased Materials, Equipment, and Services

b. ANSI N45.2, Criterion 8, Control of Purchased Material, Equipment, and Services

c. ANSI N45.2.2, Paragraph 5, Receiving

d. ANSI N45.2.13, Quality Assurance Requirements for Control of Procurement of Equipment, Materials, and Services for Nuclear Power Plants

e. ASME Boiler and Pressure Vessel Code, Section III, Nuclear Power Plant Components

f. ANSI N18.7

3.0 POLICY

3.1 EVALUATION OF SUPPLIERS

The evaluation of Suppliers is based on one or more of the following:

a. The ability of the Supplier to currently comply with those elements of NRC 10 CFR 50, Appendix B, and ANSI N45.2 that are applicable to the type of material, equipment, and services being procured.

b. A review of previous records and performance of Suppliers who have supplied similar articles.

c. An evaluation of the Supplier's facilities and Quality Assurance Program, when no previous quality records are available, to determine the capability to supply a product which meets required design, manufacturing, and quality requirements. Results of these evaluations are documented and filed in the appropriate Quality Assurance files.

An evaluation of technical and Quality Assurance capability is required for Suppliers providing nuclear fuel and other safety-related items or services to Consumers Power.

Quality Assurance evaluations are performed using source qualification programs, historical quality performance data, or source surveys or audits. Source qualification programs may include: (a) the ASME Nuclear Certifications Programs, (b) the Nuclear Regulatory Commission Licensee Contractor and Vendor Inspection Program (LCVIP), (c) the Coordinating Agency for Supplier Evaluation Program (CASE), or (d) other similar programs. When such programs are used, Quality Assurance assures the Suppliers' Quality Assurance Programs meet applicable elements of Policy No 4.

For each new source of nuclear fuel and/or related services, a review of the Supplier's Quality Assurance capability is made by the Quality Assurance-Nuclear Operations Department, prior to initiation of work. When a specific Supplier of nuclear fuel and/or related services, technical and Quality Assurance Program has been approved, this information is included in the list of approved suppliers maintained by Quality Assurance-Nuclear Operations.

For other items and services during major modifications and the Palisades SGRP, a survey of the Principal Supplier's Quality Assurance capability may be made by Quality Assurance Engineering & Inspection , if previous records of the Supplier's performance are not available. During the design and construction phases for the Midland Project, preaward evaluation of the Principal Supplier's Quality Assurance capability is the responsibility of the Midland Quality Assurance Department.

Technical capabilities of Principal Suppliers of nonconstruction contractor type services are evaluated by Projects, Engineering & Construction Engineering Services. When a specific Supplier's technical and Quality Assurance Program has been approved, this information is forwarded to the Purchasing Department by Projects, Engineering & Construction Engineering Services.

3.2 SELECTION OF SUPPLIERS

Selection of Suppliers is based on the Quality Assurance and technical evaluations and the capability of the Supplier to provide established procurement requirements.

The Project Management Organization, Generating Plant Modifications Department, or Palisades SGRP place orders (via Purchasing Department) for safety-related items and nonconstruction contractor services, other than engineering and construction field labor, with approved Suppliers. Principal Suppliers of contractor construction field labor are evaluated for technical capability by the Project Management Organization, Generating Plant Modifications Department or the Palisades SGRP. The Midland Quality Assurance Department during design and construction activities for the Midland Project and the Quality Assurance Engineering & Inspection Section during Palisades SGRP and major modifications evaluates the contractor's Quality Assurance Program.

During the operations phase, the Quality Assurance evaluation of Suppliers is conducted by the Quality Assurance-Nuclear Operations Department. Evaluation and selection of Suppliers includes the use of historical quality performance data, source surveys or audits, or source qualification programs. Methods used to determine the acceptability of an item or service for use in the plant include source verification, receiving inspection, Supplier certificate of conformance, post installation test, or a combination thereof. The Plant Manager/Superintendent and the Plant Quality Assurance Superintendent approve the acceptability for use of items and services.

3.3 AUDIT, SURVEILLANCE, AND INSPECTION OF SUPPLIER OPERATIONS

During design and construction of the Midland Project, the Manager - Quality Assurance, Midland Project, and during the Palisades SGRP and the major modifications the Section Head - Quality Assurance Engineering & Inspection assigns qualified personnel to the Supplier's facility to implement source inspection and surveillance requirements at predetermined points during the procurement cycle in accordance with inspection procedures, checklists and schedules.

During the operations phase, Quality Assurance - Nuclear Operations reviews the procurement document for source inspection and surveillance requirements for adequacy and adds any requirements deemed necessary. Based on the requirements, an inspection plan and checklist are prepared to outline the method of performance and to advise the Supplier of his obligation to accommodate and respond to the requirements. The plan includes witness and hold points and tentative schedules.

On-site and off-site audits of Principal Supplier operations are conducted to assure that all procurement requirements are met, with audit intervals consistent with the importance, complexity, and quality of the item or service provided. These audits are conducted in accordance with Quality Assurance Program Policy No 18, "Audits."

Source surveillance or inspection, including designated hold points, are made a requirement of the Procurement Document when conditions such as the following exist:

a. Determination of conformance of the item to Procurement Document requirements at the plant site would require uneconomic disassembly or destructive testing.
b. Special instruments, gages, or facilities required for inspection or test at the source would be uneconomical to reproduce at the plant site.
c. Inspection at the plant site would require replacement of special preservation or packing.
d. Inspections and tests are an integral part of the manufacturing process and a physical verification prior to final assembly is necessary to assure the required quality.

3.4 RECEIVING INSPECTION

Receipt inspections are made to verify that the items are undamaged, that they conform to procurement requirements not verified by source surveillance or inspection, and that the required documentation is available. Documented evidence that the items meet requirements such as receiving inspection reports, physical and chemical test reports, and certification of conformance must be available at the plant site prior to installation or use of the items. The Section Head - Quality Assurance Audit & Administration assigns personnel to audit the procurement control activities of these on-site suppliers of services during the design and construction phase. During operations, the Plant Manager/Superintendent, or the Director, Quality Assurance-Nuclear Operations assigns personnel to inspect items upon receipt at the plant to verify that the items are undamaged, that they conform to requirements, and that the required documentation is available. Assistance is provided as necessary by other plant personnel and off-site personnel. In cases where documentary evidence is not available, the associated equipment or materials is considered nonconforming.

Until suitable documentary evidence is available to show the equipment or material is in conformance, affected systems are considered inoperable and reliance is not placed on such systems to fulfill their intended safety functions during design, construction, and operations phases.

Nonconforming items are identified and controlled in accordance with Quality Assurance Program Policy No 15, "Nonconforming Items."

Approved by:

Senior Vice President, Projects, Engineering & Construction — 4-21-80

Executive Vice President, Energy Supply — 4/25

Executive Vice President, Energy Distribution and General Services

Vice President, Midland Project — 4/24/80

Vice President, Fossil Operations — 4/24/80

Vice President, Nuclear Operations — 4/23

Vice President, Systems Operations

Vice President, Fuel Supply — 4/23/80

Vice President, General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

IDENTIFICATION AND CONTROL
OF MATERIALS, PARTS AND COMPONENTS

POLICY NO 8
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DATE 3/18/80

1.0 GENERAL

Consumers Power and its Principal Suppliers such as Architect-Engineers and NSSS Suppliers, and their on-site Suppliers exercise a system of controls to assure that only correct and accepted materials, parts, and components (items) are used and installed. These items are identified by marking the items, or by records traceable to the items. This identification is maintained from initial receipt throughout fabrication, installation, repair, modification or use of the items. The identification requirements applicable to each procurement are established by the Suppliers or by Consumers Power with review by Midland Project Quality Assurance for the Midland Project or by Quality Assurance Engineering & Inspection for the Palisades SGRP and major modifications. Requirements for identification and control are incorporated into the appropriate Procurement Documents in accordance with the provisions established in Quality Assurance Program Policy No 4, "Procurement Document Control." Unique identification and control requirements for nuclear fuels and procurements during the operations phase are established and implemented through Department Procedures prepared under the direction of the Director, Nuclear Activities - Nuclear Operations.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 8, Identification and Control of Materials, Parts, and Components
b. NRC Regulatory Guide No 1.38, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants (Endorses ANSI N45.2.2)
c. ANSI N45.2, Criterion 9, Identification and Control of Materials, Parts, and Components
d. ANSI N45.2.2, Paragraph 5.4, Status Indicating System, and Paragraph 5.6, Marking
e. ANSI N18.7

3.0 POLICY

3.1 ITEM IDENTIFICATION

Physical identification is required where possible. Identification through documentation is required where physical identification is not practical. Identification

requirements are such that the item identified can be traced to the associated documentation, such as drawings, specifications, purchase orders, manufacturing and inspection documents, deviation reports, or physical and chemical mill test reports. Consideration is given to assure that the location and the method of identification do not affect the function or quality of the item being identified.

During the design phase for the Midland Project, the Design Production Manager specifies in contracts or Procurement Documents that requirements for identification and marking be in accordance with applicable codes, standards, and Company requirements (eg, heat number, part number, serial number, lot number, etc). He obtains assistance as required from other organizations, such as Engineering Services and the Midland Project Quality Assurance Department. During the Palisades SGRP and major modifications the assigned Project Engineer specifies in contracts or Procurement Documents that requirements for identification and marking be in accordance with applicable codes, standards, and Company requirements (eg, heat number, part number, serial number, lot number, etc). He obtains assistance from other organizations such as Engineering Services and Quality Assurance Engineering & Inspection, as required. The identification and marking requirements are incorporated into Consumer Power Design and Procurement Documents, and are made a part of the purchase orders or contracts placed with the Architect-Engineer, Constructor, Nuclear Steam Supply System Supplier, and other Principal Suppliers. These Procurement Documents also include requirements for the Principal Suppliers to place appropriate requirements for the identification, control, and traceability of materials, parts, and components on their lower-tier Suppliers.

During the Operations Phase, the responsible technical organization (eg, Plant Technical Staff, Operating Services, etc) assures that the Procurement Documents contain appropriate requirements for identification of the items. Compliance to the specific Procurement Document requirements is the responsibility of the Supplier supplying the item. The Plant Manager/Superintendent or the Director, Quality Assurance - Nuclear Operations assigns personnel to inspect the items upon receipt at the plant site to verify that procurement requirements have been met. The Plant Manager/Superintendent maintains identification and control of the items during their storage, installation, and use. Procedures covering the identification and control of the items are prepared by the plant staff, reviewed by the Plant Review Committee, and approved by the Plant

Manager/Superintendent. The procedures are also reviewed by the Plant Quality Assurance Superintendent. The Director, Quality Assurance - Nuclear Operations, audits these organizations to verify that items are properly identified.

The Director, Nuclear Fuel Supply, is in charge of administration of purchase agreements for nuclear fuel and related services. The Director, Nuclear Activities, assures proper management of documents, related to identification and control of materials, parts and components for nuclear fuel assemblies.

During the Palisades SGRP and major modifications, the Palisades SGRP PMO and the Generating Plant Modifications Department respectively assure that Suppliers identify items in their responsibility area. This identification is used during implementation of the modification. The site Supplier of construction services is responsible for receipt inspection to assure that items are properly identified. Quality Assurance Audit & Administration audits to verify that items are properly identified.

3.2 ITEM CONTROL

During the design and construction phase, for the Midland Project, items are inspected upon receipt at the plant site by the Supplier of construction services. During the Palisades SGRP and major modifications, the items are inspected upon receipt by Quality Assurance Engineering & Inspection or if assigned, by a Supplier. During the operations phase, the items are inspected upon receipt at the plant site by personnel reporting to the Plant Manager/Superintendent or the Director, Quality Assurance - Nuclear Operations. These inspections include checks to verify that the items are properly marked for identification purposes when specified as a requirement in the Procurement Documents.

During subsequent fabrication, installation, repair, or modification of the items, in-process surveillance is made by Consumers Power Company personnel and inspection by the Construction Contractor's on-site inspection personnel to verify that the required identification is not obliterated or hidden. Identification markings are maintained for each part of an item when the item is subdivided. The identification markings are placed on the item, or on records traceable to the item.

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

IDENTIFICATION AND CONTROL
OF MATERIALS, PARTS AND COMPONENTS

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If the required identification is missing, obliterated, or hidden, the item is identified as nonconforming and is placed in a segregated area, where practical. The item cannot be used until its identification marking conforms to the procurement document, drawing, or specification requirements.

Approved by:

Senior Vice President
Projects, Engineering
& Construction
4-24-80

Executive Vice President
Energy Supply 4/25

Executive Vice President
Energy Distribution and
General Services

4/21/80
Vice President
Midland Project

4/22/80
Vice President
Fossil Operations

4/23
Vice President
Nuclear Operations

Vice President
Systems Operations

4/23/80
Vice President
Fuel Supply

Vice President
General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

CONTROL OF SPECIAL PROCESSES

POLICY NO 9
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REVISION 9
DATE 3/18/80

1.0 GENERAL

The Project Management Organization, the Palisades SGRP or GPMD is responsible for requiring the Principal Supplier or the responsible Consumers Power Company department that uses special processes to develop and implement requirements of appropriate codes, standards, or specifications as indicated in the Design or Procurement Documents. Principal Suppliers require their lower-tier Suppliers to implement these requirements. Whether performed by Consumers Power Company or a Principal Supplier, special processes are performed using qualified procedures, equipment, and personnel.

During the Operations phase, Special Process Procedures are prepared by the appropriate Fossil or Nuclear Operations Departments and System Protection and Laboratory Services Department when required by codes, standards, and specifications. The responsible department managers assure that special process procedures are prepared in accordance with Quality Assurance Program Procedures. Special Process Procedures contain the necessary prerequisites, personnel requirements, and qualification test procedures and limitations, acceptance criteria or standards, results interpretation, records, etc, as applicable to the particular requirements of the methods and material employed.

For such special processes as welding, heat-treating, chemical analysis, nondestructive testing, cleaning and microfilming, where the required level of quality cannot be measured by inspection only of the item, Consumers Power, its Suppliers, and their lower-tier Suppliers, accomplish these processes under controlled conditions in accordance with applicable codes, standards, and specifications using qualified procedures, equipment and personnel. For special processes not covered by codes or standards, qualifications of procedures, equipment and personnel are specified.

During the Palisades SGRP and major modifications, requirements for the control of special processes, including the appropriate code, standard, or specification, are referenced in Consumers Power Design and Procurement Documents prepared under the direction of the assigned Project Engineer or Engineering Supervisor. During the Midland Project, the Manager, Design Production has this responsibility. The Principal Suppliers such as the Architect-Engineer, Constructor and Nuclear Steam Supply System Supplier or other Suppliers qualify their required procedures, personnel

or equipment and place similar requirements on their lower-tier Suppliers. During the operations phase, the appropriate Fossil or Nuclear Operations Departments and System Protection and Laboratory Services Department are responsible for qualification of the required procedures, equipment and personnel.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 9, Control of Special Processes

b. NRC Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel (Endorses ANSI N45.2.6)

c. ANSI N18.7

d. ANSI N45.2, Criterion 10, Control of Special Processes

e. ASME Boiler and Pressure Code:

(1) Section III, Nuclear Power Plant Components and Appendix IX, Nondestructive Examination Methods

(2) Section V, Nondestructive Examination

(3) Section IX, Welding Qualifications

(4) Section XI, Rules for In-Service Inspection of Nuclear Reactor Coolant Systems.

f. SNT-TC-1A and Supplements, American Society for Nondestructive Testing Recommended Practices

3.0 POLICY

3.1 PROCESS QUALIFICATION AND CONTROL

During the construction phase, the Palisades SGRP or major modifications, special processes are performed by either Consumers Power or Supplier personnel. When special processes are performed by Consumers Power during Palisades SGRP and major modifications, the requirements are established during the design phase by the assigned Project Engineer or Engineering Supervisor - Projects, Engineering & Construction, with assistance from other Consumers Power Departments as required. When special processes are performed by Consumers Power during the Construction phase for the Midland Project, the requirements are established during the design phase by the Design Production Manager with assistance from other Consumers Power Departments as required. When performed by a Supplier, the requirement to perform special processes in accordance with applicable specifications, codes, and standards, is made a provision of the Procurement Documents placed with Consumers Power Principal Suppliers such as the Architect-Engineer, Constructor, and NSSS Supplier. These Principal Suppliers are

also required to establish provisions for the control of special processes in their lower-tier Procurement Documents. Whether performed by Consumers Power or its Principal Supplier, special processes are accomplished with written process sheets, shop procedures, checklists, travelers, or equivalent with recorded evidence of verification. Qualification records of procedures and equipment associated with special processes are available and maintained. During major modifications and the Palisades SGRP, Quality Assurance Engineering & Inspection and Project Engineering Services Department assign personnel within their organization to review the process control requirements placed in Consumers Power Procurement Documents as indicated in Quality Assurance Policy No 4, "Procurement Document Control." During the Midland Project, such personnel are assigned by the Midland Project Quality Assurance Department and the Midland Project Design Production Department with assistance as requested, from the Project Engineering Services Department.

During the operations phase, the responsible Consumers Power Department Managers prepare, qualify, approve and issue special process procedures required for operation of the nuclear power plants. The Director, Quality Assurance - Nuclear Operations, assigns personnel within his department to review and audit the special process procedures and records of these departments, as well as outside Suppliers providing these services, to assure that applicable codes, specifications, and standards are being met.

3.2 PERSONNEL QUALIFICATION

Consumers Power and Supplier personnel responsible for the performance of special processes are qualified in accordance with applicable codes, specifications, and standards. This includes conducting the necessary training and examinations to determine the capability of each individual. Qualification records of personnel associated with special processes are established, filed and kept current. The period of validity for qualifications will be in accordance with applicable codes, specifications and standards. During Palisades SGRP and major modifications, Quality Assurance Engineering & Inspection assigns personnel to monitor the process control activities of on-site Consumers Power personnel or Suppliers during construction, installation and preoperational testing activities. The responsibility is assumed during the Midland Project construction, installation, preoperational and hot functional testing activities by the Midland Project Quality Assurance Department and during the operation of the nuclear power plant by the Director, Quality Assurance - Nuclear Operations.

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

CONTROL OF SPECIAL PROCESSES

POLICY NO 9
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3.3 PROCESS CONTROL RECORDS

Consumers Power and Supplier personnel performing special processes maintain records to verify that the required activities were accomplished in accordance with qualified procedures by qualified personnel. These records are maintained as indicated in Quality Assurance Policy No 17, "Quality Assurance Records."

Approved by:

Senior Vice President, Projects, Engineering & Construction — 4-4-80

Executive Vice President, Energy Supply — 4/25

Executive Vice President, Energy Distribution and General Services

Vice President, Midland Project — 4/21/80

Vice President, Fossil Operations — 4/22/80

Vice President, Nuclear Operations — 4/22

Vice President, Systems Operations

Vice President, Fuel Supply — 4/23/80

Vice President, General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

INSPECTION

POLICY NO 10
PAGE 1 OF 6
REVISION 8
DATE 2/12/80.

1.0 GENERAL

Inspection and surveillance are performed to assure that activities affecting quality comply with documented instructions, design documents and applicable codes and standards. When direct inspection of an item cannot be performed or is impractical, surveillance of the process or procedure and the resulting documentation assures compliance. Inspection and surveillance are performed according to written instructions.

For Design, Construction and Operations, inspection procedures, instructions and checklists used by personnel checking the quality of work, provide the following:

a. Identification of characteristics to be inspected.
b. Identification of individuals or groups responsible for performing the inspection.
c. Acceptance and rejection criteria.
d. Description of the method of inspection.
e. Verification of completion and certification of inspection.
f. Record of results of inspection.
g. Provision for identifying mandatory inspection hold points for witness by an authorized inspector.
h. Provision for indirect control by monitoring processing methods, equipment and personnel if direct inspection is not possible.

For the Design and Construction Phases and for Palisades Steam Generator Repair Project (SGRP), and for major modifications, procedures for maintenance, modification, and receipt inspections are either prepared or reviewed by Quality Assurance personnel (Consumers Power Company or its Principal Suppliers) to determine the need for an independent inspection and the degree and method if such an inspection is required and to assure the identification of inspection personnel and the documentation of inspection results.

An inspection is made upon completion of work on a system or component prior to declaring the system operable. Surveillance of procedures, operations and inspection activities is performed according to a scheduled, planned program.

The organization (eg, corporation) responsible for the work normally performs the inspections. The personnel performing inspections have the necessary qualifications and are independent of the supervisor directly responsible for performing the work being inspected.

Quality Assurance Engineering & Inspection is responsible for assuring adequate inspection and surveillance activities during the major modifications and the Palisades SGRP. Midland Project Quality Assurance is responsible for assuring adequate inspection and surveillance activities during the design and construction phase of the Midland Project. During Palisades SGRP, major modifications and the Midland Project design and construction phase, Quality Assurance Audit & Administration is responsible for audit of the inspection and surveillance activities. The Plant Manager/Superintendent at Midland and Palisades is responsible for inspections during plant operations, including receipt inspection, maintenance inspection, minor modifications inspection, operations inspection, inspection of Operations testing activities, and inservice inspection. The Director, Quality Assurance - Nuclear Operations is responsible for surveillance and audit of these inspection activities and is also directly responsible for inspections at the Big Rock Point Plant. Nonconformances are documented according to Quality Assurance Program Policy No 15, "Nonconforming Items."

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 10, Inspection
b. NRC 10 CFR 50, Paragraph 50.55a, Codes and Standards
c. NRC Regulatory Guide No 1.30, Quality Assurance Requirements for Installation, Inspection and Testing of Instrumentation and Electric Equipment (Endorses ANSI N45.2.4)
d. NRC Regulatory Guide No 1.51, In-Service Inspection of ASME Codes, Class 2 and Class 3 Nuclear Power Plant Components
e. NRC Regulatory Guide No 1.58, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel
f. ANSI N18.7
g. ANSI N45.2, Criterion 11, Inspection
h. ANSI N45.2.8, Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants

i. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section III, Nuclear Power Plant Components

j. ASME, Boiler and Pressure Vessel Code, Section XI, Rules for In-Service Inspection of Nuclear Power Plant Components

3.0 POLICY

3.1 INSPECTION AND SURVEILLANCE DURING DESIGN AND CONSTRUCTION PHASES

Work activities during the design and construction phases including Palisades SGRP and major modifications of a power plant are performed by Consumers Power personnel and by Contractors and Suppliers. These work activities are accomplished according to approved procedures or instructions which include inspection hold points beyond which the work does not proceed until the inspection is complete or written consent for bypassing the inspection has been received from the organization authorized to perform the inspection. Supplier quality control personnel perform inspections or witnessing of inspections at each hold point and upon completion of the identified segment of work. The inspection includes review and verification of the related documentation. The results of inspections are documented and nonconformances are reported as indicated in Quality Assurance Program Policy No 15, "Nonconforming Items." Suppliers provide qualified personnel, procedures, equipment and measuring devices as necessary to conduct inspections as indicated in Quality Assurance Program Policy No 9, "Control of Special Processes."

Quality Assurance Engineering & Inspection performs inspections and overinspections of Supplier Inspection activities during Palisades SGRP and major modifications. For the Midland Project, the Midland Project Quality Assurance Department performs such activities. Inspections and overinspections are performed in accordance with inspection plans and written procedures.

3.2 PLANT OPERATIONS INSPECTION AND SURVEILLANCE

For their responsibility areas, the Plant Manager/Superintendent and the Director, Quality Assurance - Nuclear Operations direct the preparation of an inspection program. The program requires that inspections be performed to assure that the plant is being operated in accordance with documented procedures, the Technical Specifications, SAR and Quality Assurance Program requirements. The program also requires that the inspections be performed by qualified personnel who are independent of personnel responsible for the activity being inspected.

Special training courses are conducted to train and qualify personnel who perform specialized quality functions requiring personnel qualifications, such as welding, nondestructive testing, Quality Assurance auditing, inspection, testing, etc. Proficiency tests are required for those personnel whose work involves special processes such as welding, plating or nondestructive testing.

Personnel requiring special training are trained and qualified in accordance with the applicable documents covering the function such as ANSI N45.2.6 for inspection and testing, ANSI N45.2.23 for Quality Assurance auditing, SNT-TC-1A for nondestructive examination and Section IX of the ASME Code for welding. The training is accomplished in accordance with Department Procedures issued by the responsible departments. Personnel are also reevaluated at intervals specified in Department Procedures with the minimum intervals meeting the requirements specified in the appropriate basis documents.

3.3 MAINTENANCE, PALISADES SGRP AND MODIFICATION INSPECTION AND SURVEILLANCE

Documents which provide instructions for performing maintenance and modifications, such as Supplier procedures during the installation of modifications, and plant maintenance procedures during plant maintenance also specify inspection requirements. Inspection points are designated when deemed necessary in the procedures and work does not proceed beyond the designated inspection point until the inspection has been completed and documented or written consent for bypassing the inspection has been received from the organization responsible for performing the inspection. The individual assigned to perform the inspection is not the same person who does the work.

Instructions for performing repetitive inspection activities such as visual inspection of welds, bolt/nut/stud tension, selecting sample size for sample inspection, etc, are contained in Quality Control Procedures or Inspection Plans and the inspection activity is performed as negotiated between Quality Assurance Engineering & Inspection, Palisades SGRP, GPMD or the Project Engineer, and the Contractor for major modifications and by Supplier personnel or CP Co personnel for maintenance and minor modifications. CP Co QA organizations perform surveillance during modifications and maintenance to assure that inspections are performed as prescribed by work

instructions and procedures and that inspection results are documented. Modifications, repairs and replacements are inspected in accordance with the original design and inspection requirements or acceptable alternatives.

3.4 NUCLEAR FUEL HANDLING - INSPECTION AND SURVEILLANCE

Nuclear fuel handling is a part of plant operations and is performed according to plant procedures. These plant procedures contain requirements for the receipt, storage, handling and shipment of nuclear fuel. Inspection and surveillance results are documented and are maintained as records. The Director, Quality Assurance - Nuclear Operations, directs personnel within his department to perform inspection (at Big Rock Point Plant only) and surveillance of the plant staff's fuel handling activities.

3.5 IN-SERVICE INSPECTION

Inspections which provide the baseline for in-service inspection are performed during the Midland Project design and construction phase at the direction of the Manager of Design Production, in accordance with written procedures. The Design Production Department and when required, assisted by the Project Engineering Services Department, is responsible for coordinating the development of baseline inspection procedures, for their approval and control and for design criteria for arrangement of components for adequate clearance for inspection. In the case of plant modifications, including the Palisades SGRP, the department responsible for the design of the modification will assume the above responsibilities.

The procedures are prepared according to the applicable requirements of the ASME Boiler and Pressure Vessel Code, the SAR and NRC Regulatory Guide No 1.51. Results of baseline inspections are turned over to the Plant Manager/Superintendent and are maintained as lifetime plant records in the Document Storage Room in the General Office.

During the operations phase, in-service inspections are performed in accordance with the requirements of the Technical Specification, Plant Procedures and ASME, Section XI. The Director, Operating Services Department plans, schedules and coordinates the development of in-service inspection procedures and approves them for use. He is responsible for establishing the technical requirements and evaluating and dispositioning abnormal inspection results.

Records of baseline and in-service inspection results, corrective action, standards for repair, results of inspections of repairs and baseline inspections of replacements are maintained and compared with the results of subsequent in-service inspections.

3.6 INSPECTIONS OF SUPPLIERS DURING OPERATIONS PHASE

The Plant Manager/Superintendent assures that inspection requirements are included as necessary in plant originated procurement specifications. For procurement activities originating outside the plant, the responsible technical organization assures that necessary inspection requirements are included in procurement specifications. These inspections are conducted in accordance with Quality Assurance Program Policy No 7, "Control of Purchased Material, Equipment and Services." The Director, Quality Assurance - Nuclear Operations, is responsible for review of these procurement specifications and installation requirements.

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1.0 GENERAL

The following are tests conducted during the construction and operation phases of a nuclear plant:

a. Construction Tests - Those tests necessary to verify that the installation of systems is complete and complies with the applicable specifications, standards, codes, drawings and engineering information. It includes tests such as hydrostatic testing, megger testing, continuity testing and cleanliness testing.

b. Preoperational Tests - Tests prior to initial fuel loading and plant operation to demonstrate the capability of structures, systems and components to meet performance requirements.

c. Hot Functional Tests - Tests conducted at completion of preoperational tests. The nuclear steam supply systems and auxiliary systems, where possible, are brought to rated temperature and pressure to demonstrate satisfactory performance.

d. Start-Up Tests - Precritical tests, criticality tests, low-power tests and power ascension tests all performed after each fuel loading or refueling.

e. Operational Tests - Plant tests and surveillance tests performed during the operations phase to assure proper and safe operation of the plant.

f. Maintenance, Modification and Palisades SQRP Tests - Tests performed on structures, systems and components after maintenance, modification, or Palisades SQRP construction to assure compliance to operating requirements, codes and standards prior to returning the system to service.

Tests are performed according to written procedures and the test results are documented. Tests are conducted by trained, qualified or licensed personnel. The construction Contractor provides and implements appropriate construction tests. The Testing Section, Environmental Services, Quality Assurance & Testing is responsible for the development and implementation of major modifications and Palisades SQRP test procedures.

During the Midland Project, the Site Manager is responsible for the development and implementation of checkout, preoperational, and hot functional test procedures.

The Plant Manager/Superintendent is responsible for initial start-up testing and for operation, maintenance and modification (minor modifications) test activities during the operations phase.

During Construction and Operation, testing (of modifications, repairs and replacements) is in accordance with the original design and testing requirements, or acceptable alternatives, and is procedurally controlled.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 11, Test Control
b. NRC Regulatory Guide No 1.30, Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment (Endorses ANSI N45.2.4)
c. NRC Regulatory Guide No 1.68, Preoperational and Initial Test Programs for Water-Cooled Power Reactors
d. ANSI N18.7
e. ANSI N45.2, Criterion 12, Test Control
f. ANSI N45.2.8, Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants

3.0 POLICY

3.1 TEST PROCEDURES

3.1.1 Preparation of Test Procedures for Design and Construction Phases, Palisades SGRP and major modifications (Construction, Preoperational, Hot Functional and Major Modifications Tests)

Construction test procedures are prepared by the Supplier of Construction Services or Consumers Power with coordination of preparation, review and control by PMO, Palisades SGRP or GPMD. Test Procedures required for the Palisades SGRP and major modifications are provided by the Testing Section, Environmental Services, Quality Assurance & Testing, with assistance from the NSSS Supplier, A-E, Constructor and Consumers Power Engineering organizations as necessary. Preoperational, checkout and hot

functional test procedures required for the Midland Project are provided by the Midland Project Site Manager with assistance from the NSSS Supplier, A-E, Constructor and Consumers Power Engineering organizations, as necessary. During the presite mobilization phase for the Midland Project, during the Palisades SGRP and major modifications, the Section Head, Testing, is responsible for the preparation of a Project Testing Program Manual which delineates a planned program for major modification, pre-operational and hot functional testing, as applicable; defines the test organization and objectives; identifies responsibilities and provides an index of Test Procedures. The Project Testing Program Manual is reviewed by the Director, Environmental Services, Quality Assurance & Testing; Director, Operating Services; Director, Projects, Engineering & Construction - Engineering Services, and reviewed and approved by the Vice President - Nuclear Operations or Plant Manager/Superintendent; the Project Manager, Manager, GPMD or the Project Engineer, Palisades SGRP; and Manager, System Protection and Laboratory Services or assigned delegates.

3.1.2 Preparation of Test Procedures for the Operations Phase (Start-Up, Operations, Maintenance and Minor Modification Tests)

Test procedures for start-up testing are prepared under the direction of the Plant Manager/Superintendent. Operations, maintenance and modifications (minor modifications) test procedures are prepared by the plant staff at the direction of the Plant Manager/Superintendent. Assistance is obtained as necessary from the Operating Services Department or the Nuclear Activities Department. In the case of minor modifications under the direct responsibility of an off-site department, the assigned Engineer is responsible for coordinating and obtaining approval of test procedures. These procedures are authorized for use by the Plant Manager/Superintendent.

3.1.3 Content of Test Procedures

Test procedures include prerequisites, requirements and acceptance limits provided by the organization responsible for the design of the item, unless otherwise designated. The procedures also specify the test equipment and its calibration requirements to conduct the tests. Hold points are identified in the test procedures where witnessing of the tests is required. Test results are documented and checklist and data sheets may be attached as addenda to complex procedures.

3.2 CONDUCT OF TESTS

3.2.1 Construction Tests

Construction tests for the Palisades SGRP and major modifications are performed and documented by Supplier personnel or Consumers Power personnel with surveillance by Quality Assurance Engineering and Inspection. Construction tests for the Midland Project are performed and documented by Supplier or Consumers Power personnel with surveillance by Midland Project Quality Assurance. Documented test results are retained for record.

3.2.2 PALISADES SGRP AND MAJOR MODIFICATION TESTS

Quality Assurance Engineering & Inspection personnel review and evaluate the completion of systems construction and installation prior to turnover to Consumers Power Company for testing. They also assure that Construction testing prerequisites have been met prior to running of Palisades SGRP and major modification tests. The Project Testing Superintendent or Supervisor coordinates the implementation of major modification and Palisades SGRP testing activities and obtains personnel to perform the test from the plant staff or support organizations.

Quality Assurance Audit & Administration perform audits of the test activities to assure that tests are performed in accordance with written procedures, results are documented, test results are reviewed and approved according to the Project Testing Program Manual and nonconformances or test anomalies are resolved prior to offical turnover of the

system to operations for start-up tests. During maintenance activities for items or systems under the control of the Project Testing Superintendent or Supervisor, Environmental Services, Quality Assurance & Testing has the responsibility for assuring that activities are performed in accordance with the Quality Assurance Program.

3.2.3 Midland Preoperational and Hot Functional Tests

Midland Project Quality Assurance personnel review and evaluate the completion of systems construction and installation prior to turnover to Consumers Power Company for testing. They also assure that Construction testing prerequisites have been met prior to running of preoperational and hot functional tests. The Midland Project Testing Superintendent coordinates the implementation of preoperational and hot functional testing activities and obtains additional personnel to perform the test from the plant staff or support organizations.

The Midland Project Quality Assurance Department performs surveillance of the test activities to assure that tests are performed in accordance with written procedures, results are documented, test results are reviewed and approved according to the Midland Project Testing Program Manual and nonconformances or test anomalies are dispositioned prior to official turnover of the system to operations for start-up tests. During maintenance activities for items or systems under control of the Midland Project Testing Superintendent, the Midland Project Quality Assurance Department has the responsibility for assuring that activities are performed in accordance with the Quality Assurance Program.

3.2.4 Start-Up and Operational Tests

The Plant Manager/Superintendent is responsible for operational activities during start-up tests and during operational testing and provides personnel and plant equipment and directs availability and accessibility of plant systems to support the test program. The Quality Assurance -

Nuclear Operation Department performs surveillance of the test activities to assure that tests are properly performed, results are documented, test results are reviewed and approved according to the Plant Administrative Procedures, nonconformances or test anomalies are resolved before reliance is placed on components or systems to fulfill their intended safety functions and that regulatory requirements are met.

3.2.5 Maintenance or Minor Modification Tests

Preventive maintenance tests, tests after maintenance or minor modifications are performed by members of the plant staff or Systems Protection and Laboratory Services as directed by the Plant Manager/Superintendent. The Quality Assurance - Nuclear Operations Department, performs surveillance to assure that tests are performed, are conducted in accordance with written procedures, tests results are documented and test results are reviewed and approved according to the Plant Administrative Procedures, nonconformances or test anomalies are resolved before reliance is placed on components or systems to fulfill their intended safety functions and that regulatory requirements are met.

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1.0 GENERAL

Devices used for quality verification which are utilized to calibrate measure, gage, test or inspect safety-related materials, components, parts, systems and structures are controlled, calibrated and records maintained in accordance with approved procedures. Calibration of portable and laboratory measuring and test equipment is performed at prescribed intervals or prior to use using secondary or reference standards which are traceable to nationally recognized standards. Where no standards exist, the basis for calibration is documented. Approved procedures prescribe the method and the interval of calibration based on the type of equipment, stability, required accuracy and other conditions affecting measurement control. A calibration control recall system is established to assure calibration prior to the equipment calibration expiration date and tags or labels are attached which identify the calibration status. Special calibrations are performed when the accuracy of equipment is suspect. When equipment is found to be consistently out of calibration, it is repaired or replaced. Nonconforming test and measuring equipment is identified and controlled and evaluations are conducted to determine the validity of previous inspections or tests which utilized the defective equipment. Calibration records are maintained and controlled. The assigned Project Engineer or Engineering Supervisor - Generating Plant Modifications, is responsible for assuring that the A-E, NSSS Supplier, Constructors, Principal Suppliers and Consumers Power organizations develop procedures to maintain and control measuring and test equipment within their respective areas during construction, the Palisades SGRP and major modifications. The Testing Section is responsible for assuring that procedures are developed and implemented for control of measuring and test equipment used during Palisades SGRP and major modification testing; the Site Manager is responsible for assuring that Procedures are developed and implemented for control of measuring and test equipment used during preoperational and hot functional test for the Midland Project; and the Plant Manager/Superintendent is responsible for measuring and test equipment during plant start-up tests and tests run during operations and minor modifications. The responsible Quality Assurance organization assures compliance to procedures through surveillance and audits.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 12, Control of Measuring and Test Equipment

b. NRC Regulatory Guide No 1.33, Appendix A, Paragraph H, Procedures for Control of Measuring and Test Equipment

c. ANSI N18.7

d. ANSI N45.2, Criterion 13, Control of Measuring and Test Equipment

3.0 POLICY

3.1 MEASURING AND TEST EQUIPMENT LIST

3.1.1 Midland, Palisades SCRP and Major Modifications

Lists of measuring and test equipment required for construction and construction testing are developed by the A-E, Constructor or other Suppliers. The lists identify the test equipment, method and interval of calibration. The availability of these lists and the control of measuring and test equipment on the lists is audited by Quality Assurance Audit & Administration.

3.1.2 Palisades SCRP and Major Modifications Testing

Lists of measuring and test equipment required for Palisades SCRP and major modifications testing are prepared at the direction of the Testing Section. Included on lists of measuring and test equipment are test equipment and laboratory test equipment.

3.1.3 Preoperational and Hot Functional Testing

Lists of measuring and test equipment required for the Midland Project preoperational and hot functional testing are prepared at the direction of the Midland Project Test Superintendent. Included on lists of measuring and test equipment are test equipment and laboratory test equipment.

3.1.4 Start-Up and Operations

Lists of measuring and test equipment required for plant start-up and operations, maintenance and minor modifications are developed as directed by the Plant Manager/Superintendent. Included are: portable test equipment and laboratory test equipment. The lists identify each type of test equipment, the identification number and the recommended calibration interval. The lists are reviewed by the Plant Manager/Superintendent and submitted to the Calibration and Instrument Services Supervisor, System Protection and Lab Services, for comment and recommendations. The Plant Manager/Superintendent approves the list.

3.2 PROCEDURES

Calibration control procedures are prepared by the group who provide the measuring and test equipment. A calibration recall system for portable and laboratory test equipment and standards, which identifies when calibration is required, is developed, documented by procedures and maintained by the group who is using the equipment. Action is taken to recalibrate the equipment before the expiration date or prior to use.

When a user group assigns complete calibration and repair of M&TE responsibilities to SP&LS, the recall system is developed, documented by procedures and maintained by the Calibration and Instrument Services Supervisor, SP&LS. The user group is notified prior to calibration expiration dates to return the M&TE.

Calibration procedures require that Reference Standards used for calibrating PL-M&TE have an uncertainty (ie, error) requirement of no more than 1/4 of the tolerance of the equipment being calibrated. A greater uncertainty may be acceptable where limited by the accuracy of commercially available standards. All other PL-M&TE (including Secondary Standards) have an uncertainty requirement of less than or equal to the tolerance of the equipment being calibrated.

The procedures are submitted for review and approval in accordance with Quality Assurance Program Policy No 6, "Document Control."

3.3 CALIBRATION

3.3.1 Portable Measuring and Test Equipment

Calibration procedures are prepared by the group responsible for calibration of the measuring and test equipment. The procedures are submitted for review and approval in accordance with Quality Assurance Program Policy No 6, "Document Control." The calibration system provides that measuring and test equipment and standards are maintained and used in an environment which will not adversely affect their accuracy. Certification of traceability to nationally recognized standards is supplied by the facility performing the calibration. When no National Standard exists, the basis for the calibration is documented.

Portable measuring and test equipment and standards are identified with a label or tag which describes the calibration status and includes a traceable identification number. Equipment which is not identified or has an expirated calibration date is withheld from use.

The responsible Quality Assurance organization audits to assure proper calibration, according to procedures, within the recall period, and that equipment and instruments are identified and their calibration status indicated.

3.3.2 Installed Instrumentation and Controls

The Plant Manager/Superintendent is responsible for directing the development, documenting by plant procedures, and maintenance of the calibration system for installed safety-related plant instrumentation and control equipment to assure calibration on or before the expiration date. Documents are prepared, which show the equipment identification, location, portable test equipment used and results of calibration.

3.4 NONCONFORMANCES

Failure of portable measuring and test equipment, standards or installed instrumentation and control equipment to successfully pass accuracy requirements at the time of calibration or which become suspect prior to calibration is reported using a nonconformance reporting system. Evaluations are conducted to determine the validity of previous tests, inspections or operations which utilized the defective or suspect equipment and the results of evaluations documented. If the evaluation is negative, materials, components, parts, systems and structures which were verified by the tests or inspections are considered nonconforming.

3.5 RECORDS

Records of portable measuring and test equipment and standards used during construction, modification, preoperational, hot functional and start-up testing and operation of the plant are traceable to the test and inspections performed. Consumers Power calibration records of installed instrumentation and control equipment are maintained and controlled according to Plant Procedures. These records are traceable to the test equipment calibration record and when necessary to the standard calibration record. Records are retained for the period identified in the SAR, Departmental Procedures, Technical Specifications or Plant Procedures in accordance with Quality Assurance Program Policy No 17, "Quality Assurance Records."

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Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

HANDLING, STORAGE, AND SHIPPING

POLICY NO 13
PAGE 1 OF 5
REVISION 9
DATE 3/18/80

1.0 GENERAL

During initial construction, **the Palisades SGRP, and major modifications, the** assigned Project Engineer, or Engineering Supervisor, assures that the Principal Suppliers, such as the Architect-Engineer, Nuclear Steam Supply System Supplier and Constructor prepare procedures and instructions to control the handling, packaging, preservation, storage, lay-up, cleaning, and shipping of safety-related items. When necessary, special protective covering equipment identification and environmental conditions are specified. For the Midland Project, the Midland Project Quality Assurance Department personnel verify compliance to procedures and instructions through surveillance. **During Palisades SGRP and major modifications.** the Section Head, Quality Assurance Engineering & Inspection assigns personnel within his Section to verify compliance to procedures and instructions by inspections, overinspections and surveillance. **During the design, construction, Palisades SGRP and major modifications, the Quality Assurance Audit & Administration** Section conducts audits to assure that the controls for handling, storage and shipping are established, implemented, adequate and effective.

Suppliers of items shipped to Consumers Power provide control of their storage, handling, and shipping activities as specified by procurement documents.

During operations and minor modifications, handling, storage and shipping activities (including SNM) are the responsibility of the Plant Manager/Superintendent or Department Head responsible for the materials, equipment and supplies. They provide procedures and instructions and assign personnel responsibilities. The Director, Quality Assurance - Nuclear Operations, assigns personnel within his department to assure by surveillance and audit that correct and accepted items are used, that personnel are qualified to receive and release for use, and that procedures are followed.

During construction, **Palisades SGRP, major modifications, or operations.** special handling tools and equipment are inspected and tested at specified times to verify that they are being adequately maintained.

2.0 BASIS DOCUMENTS

a. NRC 10CFR50, Appendix B, Criterion 13, Handling, Storage, and Shipping

b. NRC Regulatory Guide No 1.37, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components (Endorses ANSI N45.2.1)

c. NRC Regulatory Guide No 1.38, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants (Endorses ANSI N45.2.2)

d. NRC Regulatory Guide No 1.39, Housekeeping Requirements for Water-Cooled Nuclear Power Plants (Endorses ANSI N45.2.3)

e. NRC Regulatory Guide No 1.54, Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants (Endorses ANSI N101.4)

f. ANSI N45.2, Criterion 14, Handling, Storage, and Shipping

g. NRC 10CFR70, Special Nuclear Material

h. ANSI N18.7

3.0 POLICY

3.1 SPECIAL HANDLING PRIOR TO SHIPMENT

Requirements for special handling and storage, including cleaning, packaging, and preservation of safety-related materials, spare parts, and equipment, prior to shipment by the Manufacturer or Supplier, are conditions of the procurement documents prepared in accordance with Quality Assurance Program Policy No 4, "Procurement Document Control." When required the Supplier or Manufacturer prepares written procedures that provide special handling and storage instructions.

3.2 PREPARATION FOR SHIPMENT

Special requirements for protective packaging, preservation and segregation of materials, shipping method, shipping containers, cleanliness, pressurization, desiccation, and labeling of purchased items are specified in the procurement document. When the preparation for shipment is extensive or involves considerations such as for shipment of fuel, the Supplier prepares written procedures which address Regulatory Guides No 1.37, No 1.38 and No 1.39, as applicable.

Source inspection by Consumers Power, Architect-Engineer, Constructor, or other Supplier personnel may be employed to assure proper preparation for handling and shipping. Source inspection, when used, is specified in the procurement documents and the inspection results are documented for use.

3.3 RECEIPT AND STORAGE

3.3.1 CONSTRUCTION ITEMS

During initial construction, the Palisades SGRP and major modifications, the Suppliers provide plans, facilities, handling equipment, procedures,

and personnel to receive, inspect, store, maintain, and control items upon arrival at the site. Items, when inspected upon receipt, are identified by marking or tagging in accordance with Quality Assurance Program Policy No 8, "Identification of Materials, Parts, and Components." When required, a Supplier also maintains storage and inventory records applicable to the items which are acceptable for use.

Preservation and special on-site storage conditions, such as inert gas atmosphere, humidity controls, special cleanliness requirements, etc, are provided as specified in written instructions which address Regulatory Guides No 1.37, No 1.38 and No 1.39. **During Palisades SGRP and major modifications, Quality Assurance Engineering & Inspection assures, through** periodic inspection and surveillance, that Supplier personnel adhere to the written instructions, follow acceptable housekeeping practices, and proper use storage facilities and handling equipment. During design and construction for the Midland Project, Midland Project Quality Assurance assures through periodic inspection and surveillance, that supplier personnel adhere to the written instructions, follow acceptable housekeeping practices, and proper use storage facilities and handling equipment. Quality Assurance Audit & Administration conducts audits to assure that the controls for handling, storage and shipping are established, implemented, adequate and are effective during design, construction, major modifications and the Palisades SGRP.

3.3.2 OPERATIONS ITEMS

Items are received during operation; i.e., spare parts, items for minor modifications, maintenance materials, consumables and plant supplies, are delivered to the Plant Manager/Superintendent or responsible Department Head or his designated alternate. He is responsible for receipt of the item. Receipt inspection is the responsibility of the Plant Manager/Superintendent or responsible Department Head. Assistance is provided, when required, by the plant technical personnel, and personnel qualified in nondestructive examination. Items are identified by marking on the item or by tagging in accordance with Quality Assurance Program Policy No 8, "Identification and Control of Materials, Parts, and Components."

Preservation and special storage conditions are provided as necessary by written instructions which comply with ANSI N18.7. The Plant Manager/ Superintendent or responsible Department Head or his designated alternate is responsible for adhering to the instructions and for proper maintenance and storage of items. The Plant Manager/Superintendent or responsible Department Head is responsible for providing adequate storage facilities, handling equipment, and storeroom controls specified by storage instructions.

3.3.3 SPECIAL NUCLEAR MATERIAL

The handling and storage of special nuclear material, including radiation sources, nuclear fuel, and spent fuel, at the plant site, is under the control and direction of the Plant Manager/Superintendent. He provides adequate facilities and equipment according to written, approved procedures. The Director, Nuclear Activities - Nuclear Operations, establishes specification requirements for handling, storage, and cleanliness of nuclear fuel and reactor internal components. Procedures controlling handling, storage, and related activities are prepared at the direction of the Plant Manager/Superintendent in accordance with Quality Assurance Program Policy No 5, "Instructions, Procedures, and Drawings."

3.4 SHIPPING (OPERATIONS PHASE)

Shipping of items during the operations phase is accomplished by personnel assigned by the Plant Manager/Superintendent or responsible Department Head.

3.4.1 PLANT EQUIPMENT AND SUPPLIES

He provides packaging, prepares shipping documents, and arranges for transport of the items. Items returned to the supplier are returned in the original container, whenever possible, and condition as when received, or repackaged to equivalent standards. High-value or radioactive items leaving the plant site are handled and packaged according to written instructions prepared at the direction of the Plant Manager/Superintendent.

3.4.2 RADIOACTIVE WASTE

The handling and shipping of radioactive waste is under the control and direction of the Plant Manager/Superintendent. He directs the preparation of plant procedures and instructions for handling, storage, shipping and

control of material in accordance with Quality Assurance Program Policy No 5, "Instructions, Procedures, and Drawings," and the requirements of 10 CFR 70 and 71. He identifies plant personnel and assigns a supervisor to direct the handling and shipping activities. The Director, Quality Assurance - Nuclear Operations is responsible for review and surveillance of applicable documents and procedures to assure that proper handling and shipping requirements are specified and implemented.

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Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

INSPECTION, TEST, AND OPERATING STATUS

POLICY NO 14
PAGE 1 OF 2
REVISION 9
DATE 3/18/80

1.0 GENERAL

During construction, **the Palisades SGRP and major modifications,** the Principal Suppliers such as the Architect-Engineer, Constructor, and other responsible on-site suppliers provide indicators which show the inspection, test, and operating status of plant structures, systems, and components. The Project Testing Superintendent or Supervisor - Projects, Engineering & Construction, provides indicators which show the inspection, test and operating status of items during preoperational, hot functional and **Palisades SGRP and major modifications testing.** Quality Assurance Audit & Administration conducts audits to verify compliances to the established requirements.

During the operations phase, the Plant Manager/Superintendent establishes requirements for indicators which show the inspection, test, and operating status of plant structures, systems and components during plant operation, maintenance, repair and minor modifications. These requirements are contained in each Plant's Administrative Procedures. These procedures describe the control and method for indicating the inspection, test and operating status through the use of tags, forms, logs, etc. The Director, Quality Assurance - Nuclear Operations assigns personnel within his organization to assure compliance with established requirements through audits and surveillances.

During the Design, Construction and Operations phases, bypassing/resequencing of required inspections, tests, and other critical operations is procedurally controlled to assure that bypassed/resequenced inspections or tests are properly documented and that the effect of bypassing/resequencing the inspection or test is evaluated by the organization responsible for specifying the inspection or test.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 14, Inspection, Test, and Operating Status
b. ANSI N18.7
c. ANSI N45.2, Criterion 15, Inspection, Test, and Operating Status

3.0 POLICY

3.1 INDICATION OF STATUS BY SUPPLIERS

Safety-related items received at the plant site are identified and controlled by the responsible Supplier at the site, in accordance with the Supplier's approved procedures. These procedures define the methods used to assure identification as to inspection or test status, traceability to manufacturers and log, and status of the item with respect to release for use. The procedures also include requirements for

the identification and control of nonconforming items, items removed from subassemblies, in-process systems and equipment, and the status of related tests and inspections. Devices such as receiving and in-process inspection reports, nonconformance logs, hold tags, and reject tags are used to indicate the status of the items.

3.2 INDICATION OF STATUS BY CONSUMERS POWER

The Project Testing Superintendent or Supervisor - Projects, Engineering & Construction, identifies the inspection, test, and operating status of systems undergoing preoperational, hot functional, **Palisades SGRP or major modification testing** in accordance with documented Department Procedures. These procedures include requirements for the use of workmen's protective tags, caution tags, and test report forms.

During plant operation, safety-related items removed from a plant system are identified and controlled in accordance with approved plant procedures. An item is not placed back into a safety-related system without meeting the same identification and control requirements as a replacement part. Items removed and stored meet the same identification and control requirements as items received at the site. The procedures governing the above activities are reviewed by the Director, Quality Assurance - Nuclear Operations, and approved by the Plant Manager/Superintendent.

An operational status system is developed and included in each Plant's Administrative Procedures. It covers such actions as removal of systems from service, caution tag procedures, and fuel status information. The Plant Manager/Superintendent is responsible for developing and implementing an adequate operational status system.

Approved by:

Stephen O'Donnell 4-21-80
Senior Vice President
Projects, Engineering
& Construction

R. C. Brumbaugh 4/25
Executive Vice President
Energy Supply

J W Cook 4/21/80
Vice President
Midland Project

R B Sewell 4/22
Vice President
Nuclear Operations

G. S. Keiss
Vice President
Systems Operations

1.0 GENERAL

For design and construction, and operations phases, procedural controls are established for identifying, documenting, segregating, reviewing, reporting, and disposing of nonconforming safety-related materials, parts, components, or services.

Items, services, or activities which are deficient in characteristic, documentation, or procedure which renders the quality unacceptable or indeterminate and which is considered significant to safety, are identified as nonconformances. Nonconforming items (structures, systems, components, parts, materials) are identified by marking, tagging, segregating, or by documentation. Nonconforming items are controlled to prevent their inadvertent installation or use. The nonconformance is evaluated to determine a disposition for the item; ie, repair, rework, use-as-is, scrap, or test to determine quality of the item; and the evaluation and disposition is documented. Nonconforming items and activities are recorded and are considered for corrective action to prevent recurrence in accordance with Quality Assurance Program Policy No 16, "Corrective Action." The Director, Environmental Services, Quality Assurance & Testing, is responsible for assuring that nonconformances are documented and controlled during the Palisades SGRP and major modifications. The Midland Project Quality Assurance Manager is responsible for assuring control of nonconformances during design and construction for the Midland Project. The Director, Quality Assurance - Nuclear Operations, is responsible for assuring control of nonconformances during and after initial fuel loading, and during operations, and minor modifications.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 15, Nonconforming Materials, Parts, or Components
b. NRC 10 CFR 50, Section 55, Conditions of Construction Permits, Paragraph (e) (10 CFR 50.55 e)
c. ANSI N18.7
d. ANSI N45.2, Criterion 16, Nonconforming Items

3.0 POLICY

3.1 RESPONSIBILITY FOR CONTROL OF NONCONFORMANCES

3.1.1 NONCONFORMANCES DURING DESIGN AND CONSTRUCTION PHASE, THE PALISADES SGRP AND MAJOR MODIFICATIONS

Control of nonconformances during the design and construction phase, tests prior to initial fuel loading, during the Palisades SGRP and major modifications are the responsibility of Projects, Engineering & Construction organiza-

tions responsible for the work. This activity may be delegated to the A/E, NSSS Supplier, Constructor and other Principal Suppliers. These Suppliers prepare procedures for nonconformance identification, disposition, reporting to Consumers Power, and corrective action. Consumers Power organizations are responsible for notifying the applicable Quality Assurance organization of nonconformances observed or discovered as a result of inspection, calibration, test, or verification activities by their personnel. Consumers Power Departmental Procedures control these activities. The respective Quality Assurance organization is responsible for documenting and controlling Consumers Power issued nonconformances. They also assure adherence to procedures by Suppliers and Consumers Power organizations by surveillance and audits, and monitor status of nonconformances. Status reports are submitted to the Project Manager and Senior Vice President, Projects, Engineering & Construction.

3.1.2 NONCONFORMANCES DURING THE OPERATIONS PHASE

At the plant site, control of nonconformances during the operations phase is the responsibility of the Plant Manager/Superintendent. The Supervisor of the quality-related technical area (such as reactor engineering, etc) or activity (such as mechanical maintenance) is responsible for documenting the nonconformance and initiating appropriate corrective action. The Plant Quality Assurance organization performs surveillance of plant activities to assure that nonconforming items or activities are documents and appropriate corrective action is initiated and completed.

At the General Office or other locations where quality-related activities (such as technical support, etc) are performed, the responsible department manager has the responsibility for controlling nonconformances. The Section Supervisor has the responsibility for documenting the nonconformance and initiating appropriate corrective action. The Quality Assurance - Nuclear Operations Department, performs surveillance of the quality-related activities to assure that nonconforming items or activities are documented and appropriate corrective action is initiated and completed.

The Quality Assurance - Nuclear Operations Department, routinely checks the status of nonconformances and reports on the status to the Vice President - Nuclear Operations.

3.2 IDENTIFICATION AND DOCUMENTATION OF NONCONFORMANCES

When a nonconforming item or activity is discovered or observed during design and construction for the Midland Project, the Palisades SGRP, major modifications or operations, the responsible Supplier or Consumers Power organization assures that the condition is documented and that nonconforming items are tagged, marked, segregated, or controlled to prevent inadvertent use or installation until the items are properly dispositioned.

3.3 RESOLUTION AND DISPOSITION OF NONCONFORMANCES

Nonconformances are reviewed and an investigation made to determine the extent, and effect of the nonconformance. The review and investigation is made by technically qualified personnel designated by the Suppliers (during the design and construction phase and during the Palisades SGRP and major modifications); Projects, Engineering & Construction Department Heads responsible for the item, area, or activity (during design and construction, and Palisades SGRP and major modifications); Nuclear Operations Department Heads responsible for the item, area, or activity (during operations and minor modification); or the Plant Manager/Superintendent (during operations and minor modifications). Upon completion of the review and investigation, the disposition of the condition and (when appropriate) action to prevent recurrence is documented.

Acceptability of rework or repair of equipment, material, components, or parts is verified by reinspecting the item as originally inspected or by a method which is at least equal to the original inspection method and by documented inspection rework and repair procedures. Nonconforming items dispositioned "use-as-is" and "repair" having departures from design specifications and drawing requirements are reviewed and approved by the Principal Supplier, if applicable, and by the appropriate quality organization, Nuclear Operations or Projects, Engineering & Construction.

The responsible Quality Assurance organization assures by audits the disposition completion and resolution of nonconformances.

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

NONCONFORMING ITEMS

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3.4 SIGNIFICANT NONCONFORMANCES

Nonconformances identified during design and construction, and during preoperational and hot functional testing, by either a Supplier or Consumers Power organizations, are reviewed by the Midland Project Quality Assurance Department. Significant nonconformances meeting the criteria set forth in 10 CFR 50, Section 55, Paragraph (e), are reported to Management and the NRC by the Manager - Midland Project Quality Assurance according to Quality Assurance Program Policy No 20, "Program Reporting."

In the event of a nonconformance during the Palisades SCRP or a major modification (ie, during operations), the nonconformance is brought to the attention of Environmental Services, Quality Assurance and Testing. Environmental Services, Quality Assurance and Testing reports the condition and forwards the associated documentation to the Plant Manager/Superintendent, who considers the item for reporting to Management and the NRC in accordance with the requirements of the Technical Specifications and operating license, consistent with Quality Assurance Program Policy No 20, "Program Reporting."

Departures from normal operations which are classified as abnormal occurrences according to the Technical Specifications are documented by the Plant Staff and are reported to the Plant Manager/Superintendent; Nuclear Licensing Administrator; and the NRC according to the Technical Specifications requirements, in accordance with Quality Assurance Program Policy No 20, "Program Reporting." These nonconformances are reviewed by the Quality Assurance - Nuclear Operations Department, to monitor status and assure adequate investigation of the event.

Approved by:

Senior Vice President Projects, Engineering & Construction — 4-24-80

Executive Vice President Energy Supply — 4/25

Executive Vice President Energy Distribution and General Services

Vice President Midland Project — 4/21/80

Vice President Fossil Operations — 4/22/80

Vice President Nuclear Operations — 4/2[illegible]

Vice President Systems Operations

Vice President Fuel Supply — 4/23/80

Vice President General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

CORRECTIVE ACTION

POLICY NO 16
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1.0 GENERAL

Corrective action is that action taken to correct and preclude recurrence of significant conditions adverse to the quality of items or operations. Conditions or trends observed or identified which are adverse to quality are considered for corrective action; however, nonconformances or departures from specified requirements which are not significant to safety, occur randomly, are of a minor nature, or which are routinely corrected without the need for a technical evaluation, may not require corrective action. Corrective action includes an evaluation of the conditions that led to a nonconformance, the disposition of the nonconformance, and completion of the action necessary to prevent, or reduce the possibility of recurrence. Nonconformances are evaluated to determine the need for corrective action under the control of established procedures. Corrective action is documented and corrective action status is reported to Management. The organization responsible for the item or activity identified for corrective action is responsible for completion of the action and maintaining corrective action status. The Quality Assurance organizations are responsible for verifying completion of corrective action during design and construction, major modifications, the Palisades SGRP, minor modifications and operations for their respective responsibility areas.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 16, Corrective Action
b. NRC 10 CFR 50, Paragraph 50.55, Conditions of Construction Permits
c. NRC Regulatory Guide No 1.16, Reporting of Operating Information
d. ANSI N18.7
e. ANSI N45.2, Criterion 17, Corrective Action

3.0 POLICY

3.1 INITIATION OF CORRECTIVE ACTION

Corrective action is initiated to correct conditions adverse to the quality of items and activities. The Head of the organization or department responsible for the item or activity is responsible for initiating action to correct the immediate condition. He is also responsible for evaluating the condition to determine if additional action is required to prevent or reduce the possibility of recurrence. Conditions which require additional action to prevent recurrence are a matter of judgment, but the following conditions are always evaluated:

a. Failure of safety-related structure, system, component, or part which is significant to safety.
b. Defect of a safety-related item that could, if uncorrected, lead to failure or malfunction which is significant to safety.
c. Operation outside of specified limits of a safety-related component, system, or equipment.
d. An in-use or in-service instrument or item of test equipment that is found to be out of calibration or has exceeded the calibration due date.
e. Repetitive minor problems or defects which may be symptomatic of a larger problem.
f. Abnormal occurrences as defined by the Technical Specifications.
g. Loss or apparent loss of special nuclear material.
h. Radioactive release beyond specified limits.
i. Significant deficiencies identified during quality audits.
j. Unsatisfactory conditions which could contribute to major damage, personnel injury, or schedule delays.
k. Unsatisfactory conditions identified by the NRC.
l. Unsatisfactory conditions identified by the Plant Review Committee (PRC), ie, on-site review, as defined by the Technical Specifications, SAR, and ANSI N18.7.
m. Unsatisfactory conditions identified by Safety and Audit Review Board (SARB), ie, off-site review, as defined by the Technical Specifications, SAR, and ANSI N18.7.

In general, corrective action is initiated to correct conditions adverse to quality and additional action is taken to prevent recurrence of significant nonconformances, occurrences reportable to NRC, unsatisfactory conditions, and audit deficiencies.

3.2 DOCUMENTING CORRECTIVE ACTION

During the design and construction phases, the Palisades SQRP and major modifications, action taken to correct a nonconforming item or activity is documented. If additional action (including evaluation, investigation, or analysis) is required to prevent recurrence, the required action is indicated.

During the operations phase and minor modifications, action taken to correct a nonconforming item or activity is documented.

If significant additional action (including evaluation, investigation, or analysis) is required to prevent recurrence, a separate corrective action report is initiated to assign and document the required action.

Different corrective action report forms may be used by various Nuclear Operations Departments to suit their individual needs. These forms describe the corrective action required including reason for the corrective action, any documentation requirements, corrective action taken, and review and approval of corrective action completed.

3.3 REPORTING CORRECTIVE ACTION

The Section Head - Quality Assurance Engineering & Inspection and the Midland Project Quality Assurance Manager, review Consumers Power Company nonconformance reports and replies made during the design, construction, the Palisades SGRP, and major modifications for their respective areas. During the Palisades SGRP and major modifications, the Section Head - Quality Assurance, Engineering & Inspection prepares a monthly status report which is issued to the Director - Environmental Services, Quality Assurance & Testing who in turn transmits pertinent status information to the Senior Vice President - Projects, Engineering & Construction. During the design and construction of the Midland Project, the Midland Project Quality Assurance Manager prepares a monthly status report which is issued to the Vice President - Midland Project with a copy to the Director - Environmental Services, Quality Assurance & Testing. The Vice President - Midland Project in turn transmits pertinent status information to the Senior Vice President - Projects, Engineering & Construction. The Director, Quality Assurance - Nuclear Operations, prepares a similar status report for nonconformances during the operations phase and issues it monthly to the Vice President - Nuclear Operations who in turn issues a report to the Executive Vice President - Energy Supply. It is the responsibility of the Senior Vice President - Projects, Engineering & Construction and the Executive Vice President - Energy Supply, to transmit pertinent nonconformance reports and replies to the President and Chief Executive Officer.

3.4 CORRECTIVE ACTION BY SUPPLIERS

Suppliers, including the A-E, NSSS Supplier, Constructor, and others who provide major items of equipment or who perform services for the nuclear plant, implement and follow a system for corrective action according to the Supplier's approved procedures. Individual corrective actions are documented by the supplier and are reviewed by the responsible Consumers Power Quality Assurance organization. Requests for Suppliers corrective action may be initiated by Consumers Power organizations by use of a nonconformance report or commitment request, in which case the completion is documented and reported.

Approved by:

Senior Vice President, Projects, Engineering & Construction — 4-4-80

Executive Vice President, Energy Supply — 4/25

Executive Vice President, Energy Distribution and General Services

Vice President, Midland Project — 4/24/80

Vice President, Fossil Operations — 4/22/80

Vice President, Nuclear Operations — 4/22

Vice President, Systems Operations

Vice President, Fuel Supply — 4/23/80

Vice President, General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

QUALITY ASSURANCE RECORDS

POLICY NO 17
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1.0 GENERAL

Consumers Power and its Suppliers compile records as specified in applicable procedures, codes, regulatory requirements, National Standards, SARs and Technical Specifications, and transmit them to the appropriate storage facilities.

During design and construction, preoperational testing, Palisades SGRP and major modifications, the assigned Project Management Organization (PMO), Generating Plant Modifications Department (GPMD) or the Project Engineer for the Palisades SGRP, and Plant Staff in conjunction with other support groups, Projects, Engineering and Construction, Engineering Services, Environmental Services, Quality Assurance & Testing and Nuclear and Fossil Operations Departments, determine and identify the documents that are to be retained for the project, who must retain them, and the duration they must be retained. These requirements are placed on the suppliers through appropriate provisions in procurement documents and on Consumers Power departments through documented procedures.

During the operations phase, the Plant Staff, in conjunction with other support departments and Nuclear and Fossil Operations Departments, determines and identifies the documents that are to be retained for an operating plant, who must retain them, and the duration they must be retained.

Examples of the types of records retained include procurement documents, procedures, nondestructive examination results, inspection and test results, material analyses, qualification results, calibration records, nonconformances and corrective action results and plant operating records. Inspection and test records as a minimum identify the inspector or data recorder, the type of observation, the results, the acceptability, and action taken in connection with any deficiencies noted.

The Records Management Project Section, in conjunction with other line support departments establish and maintain the Records Management System with appropriate indexes for location of the records. Additional controls include storage of records in secured areas, in a manner that precludes their loss or deterioration. Copies of required lifetime and nonpermanent records to be maintained by Consumers Power Company which are generated during the design and construction, modification, and operations phase, are ultimately forwarded to the General Office or the Plant Document Control Center. Drawings and specifications are forwarded to the Engineering Records Center.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Criterion B, Paragraph 17, Quality Assurance Records

b. ANSI N18.7 Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

c. ANSI N45.2, Criterion 18, Quality Assurance Records

d. ANSI N45.2.9, Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants

3.0 POLICY

3.1 SUPPLIER RECORDS

Consumers Power Principal Suppliers, their sub-tier Suppliers, and other suppliers are required to identify and classify Quality Assurance records in accordance with requirements established during the design phase by the assigned PMO, GPMD, Project Engineer, or Plant Staff with assistance from other Consumers Power departments, the Architect-Engineer, NSSS Supplier, or other Principal Suppliers. The Suppliers are required to maintain record management systems in accordance with appropriate provisions of ANSI N45.2.9, "Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants" Upon completion of their contract, the Suppliers either continue maintaining the records, or forward them to Consumers Power for incorporation into the Consumers Power Records Management System.

3.2 CONSUMERS POWER RECORDS DURING DESIGN AND CONSTRUCTION, PALISADES SGRP AND MAJOR MODIFICATIONS

Procedures are prepared covering the identification, indexing, storage, retrieval and disposition of records. These records include documents such as specifications, "as-built" engineering drawings, final manufacturers' drawings, instruction manuals, results of surveillance, audits, inspections and tests, and closely related data such as qualification of personnel, procedures and equipment. Provisions are included in the Procedures for record retention period, storage location, transmittal requirements and assignment of responsibilities.

When specific design, construction, preoperational tests, hot functional tests, Palisades SGRP and major modifications activities have been completed, the required records are forwarded for storage. Copies or original records are retained in the General Office or Plant Document Control Center. Records or copies of records necessary for plant operations are retained by the Plant Document Control Center. Drawings and specifications are retained by the Engineering Records Center.

3.3 CONSUMERS POWER RECORDS DURING OPERATIONS AND MINOR MODIFICATIONS

The Nuclear and Fossil Operations Departments prepare Department Procedures covering the identification, indexing, storage, retrieval and disposition of records generated by their organizational components. These records include completed documents such as qualification records, operating logs, inspection and test results, nonconformances and corrective action reports, and results of audits, surveillance and reviews. Inspection and test results include the type of activity, the data recorder, the results, the action taken in connection with nonconformances and traceability of the record to the activity to which it applies.

Operating plant quality-related records and other quality-related documents generated during the operations phase are stored and maintained in the Plant or General Office Document Control Centers, as applicable. Drawings and specifications are maintained by the Engineering Records Center.

3.4 OTHER CONSUMERS POWER GENERAL OFFICE RECORDS

The System Protection and Laboratory Services, Purchasing, Property Protection and General Services and other appropriate departments prepare Department Procedures covering the control of quality-related activities such as procurement, calibration, nondestructive examination and security. These procedures include requirements for the identification, indexing, retention, storage, retrieval and eventual transfer of those records which are to be stored by the Plant or General Office Document Control Centers and the Engineering Records Center, as applicable.

Approved by:

Senior Vice President, Projects, Engineering & Construction — 4-21-80

Executive Vice President, Energy Supply — 4/21

Executive Vice President, Energy Distribution and General Services

Vice President, Midland Project — 4/21/80

Vice President, Fossil Operations — 4/22/80

Vice President, Nuclear Operations — 4/22

Vice President, Systems Operations

Vice President, Fuel Supply — 4/23/80

Vice President, General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

AUDITS

POLICY NO 18
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1.0 GENERAL

The Director, Environmental Services, Quality Assurance & Testing is responsible for development and management of the Consumers Power Quality Assurance Audit Program during design and construction phase, the Palisades SGRP, and major modifications. The Director, Quality Assurance - Nuclear Operations is responsible for development and management of the Consumers Power Quality Assurance Audit Program during operations of the nuclear power plants. To implement these audit programs, they assign specific audit responsibilities to Quality Assurance personnel in their organizations. Audits to verify compliance to the requirements of the nuclear plant Quality Assurance Program are conducted by qualified personnel who have no responsibilities in the areas audited. The audits are performed in accordance with established schedules, using an audit plan and audit checklists. Audit results are documented and the findings are resolved with the supervisory heads of the audited organizations. Follow-up action, including reaudit, is taken to verify that deficiencies are corrected. Audit results are reported to Management personnel involved in the Quality Assurance Program during nuclear plant design and construction, and to the Vice President - Nuclear Operations and the Safety and Audit Review Board during the operations phase.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 18, Audits
b. ANSI N18.7
c. ANSI N45.2, Criterion 19, Audits
d. ANSI N45.2.12, Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants

3.0 POLICY

3.1 QUALITY ASSURANCE PROGRAM AUDITS

Audits of the Corporate Nuclear Quality Assurance Program are performed at least once every 24 months in accordance with schedules established by the Environmental Services, Quality Assurance & Testing Department and the Quality Assurance - Nuclear Operations Department to verify that the requirements identified in the Corporate

Quality Assurance Manual for Nuclear Power Plants are being implemented by the responsible Consumers Power personnel. The audits are accomplished by an audit team consisting of Environmental Services, Quality Assurance & Testing or Quality Assurance - Nuclear Operations Department personnel, selected employees from other Consumers Power departments or Quality Assurance personnel under contract to Consumers Power. The designated audit team is made up of personnel from departments other than the department being audited. Results of the corporate audits are provided to the Senior Vice President - Projects, Engineering & Construction, Vice President - Nuclear Operations, and Executive Vice President - Energy Supply. It is the responsibility of the Executive Vice President - Energy Supply and the Senior Vice President - Projects, Engineering & Construction to evaluate and approve recommendations therefrom and to inform the President & Chief Operating Officer of the company of pertinent audit results.

3.2 QUALIFIED SUPPLIER AUDITS

Environmental Services, Quality Assurance & Testing or Quality Assurance - Nuclear Operations, provides Quality Assurance personnel to conduct preaward evaluations of prospective Consumers Power Principal Suppliers. Preaward evaluations including audits, where required, are conducted to verify that the Principal Supplier's Quality Assurance Program meets the appropriate procurement and Quality Assurance requirements prior to placement of the order. Audit team representatives may be selected from other Consumers Power departments, based on the type of product or service to be purchased and the technical background required.

Post Award Audits, where required, of principal off-site Suppliers and certain other Suppliers are also conducted on a periodic basis or at least once within the life of the contract, whichever is shorter. These audits are conducted to verify implementation of Quality Assurance Requirements. Additional audits may also be made when the Supplier extensively reorganizes, when deficiencies or nonconformances are discovered, or to verify implementation of required corrective action.

3.3 DEPARTMENT AUDITS

Quality Assurance Audit & Administration or Quality Assurance - Nuclear Operations perform audits of the Consumers Power departments having quality-related

responsibilities during design, construction, modifications, maintenance, technical support and operation of nuclear power plants. The audits are conducted to verify that the quality-related responsibilities assigned to the departments by the Vice Presidents are being carried out. During the design and construction phase, the Palisades SGRP, and major modifications, the audits are accomplished by evaluating compliance to Quality Assurance Program Procedures and compliance to Department Procedures issued by the Consumers Power departments involved in the Quality Assurance Program. During the operations phase, the audits are accomplished by evaluating compliance to Department Procedures issued by Nuclear Operations, Purchasing, Fuel Supply, System Protection and Laboratory Services, Property Protection, Graphic Services and other Departments involved in the Quality Assurance Program. The results of these audits are documented and reported to the responsible Department Directors or Managers and follow-up action, including reaudits, is taken to verify closeout of items requiring corrective action.

3.4 CONSTRUCTION AUDITS

Quality Assurance Audit & Administration audits the activities of on-site suppliers (ie, Architect-Engineer, Constructor, etc) or Consumers Power departments during construction. Audits are conducted in accordance with established schedules to verify that these suppliers or Consumers Power departments are implementing their own Quality Assurance Program and to verify the correct accomplishment of construction activities such as receiving, inspection, storage, handling, welding, concrete pouring, nondestructive examination, construction testing, preoperational and hot functional testing. The results of the audits are documented and corrective action is implemented when required.

3.5 OPERATIONS AUDITS

The Director, Quality Assurance - Nuclear Operations is responsible for audits of on-site activities related to safe operation of the plant. Audits are conducted in accordance with a schedule that assures safety-related activities are checked for effective implementation. These audits assure compliance to plant procedures, such as operating, emergency, administrative, maintenance, test, radiation control, etc.

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

AUDITS

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A representative portion of the procedures and records related to each area is audited during the scheduled period to assure a review of all safety-related activities within a two-year period. Audit results are documented and copies are forwarded to the Director, Quality Assurance - Nuclear Operations, and to the supervisory head of the audited organization. Follow-up action, including reaudits, is taken to verify closeout of noted discrepancies.

Approved by:

Stephen D. Dowell 4-24-80
Senior Vice President
Projects, Engineering
& Construction

R C Youngdahl 4/25
Executive Vice President
Energy Supply

J B Simpson
Executive Vice President
Energy Distribution and
General Services

J W Cook 4/31/80
Vice President
Midland Project

C R Bishop 4/22/80
Vice President
Fossil Operations

R B Sewell 4/2
Vice President
Nuclear Operations

G L Heins
Vice President
Systems Operations

R J Vollen 4/23/80
Vice President
Fuel Supply

M Wiseman
Vice President
General Services

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

PROGRAM REVIEW

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1.0 GENERAL

During design and construction of the Midland Project, the Manager of Quality Assurance assigns personnel within his organization to review the Quality Assurance Programs of Consumers Power Company's Suppliers and lower-tier suppliers. During Midland design and construction, the Palisades SGRP and major modifications, the Director, Environmental Services, Quality Assurance and Testing assigns personnel within his organization to review the Quality Assurance Program of Consumers Power Company. During the Palisades SGRP and major modifications, Quality Assurance Engineering & Inspection assigns personnel within the organization to review the Quality Assurance Program of CP Co's Suppliers and lower-tier Suppliers. During operation, maintenance, repair and minor modifications, this responsibility is assigned to the Director, Quality Assurance-Nuclear Operations, and off-site and on-site committees established for that purpose. The results of these reviews are reported to Consumers Power Vice Presidents responsible for the respective activities.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 50, Appendix B, Criterion 2, Quality Assurance Program
b. ANSI N18.7
c. ANSI N45.2, Criterion 2, Quality Assurance Program

3.0 POLICY

3.1 REVIEW DURING THE DESIGN AND CONSTRUCTION PHASE

During the Palisades SGRP and major modifications, the Director, Environmental Services, Quality Assurance & Testing monitors design and procurement activities and maintains surveillance over construction and installation activities. During design and construction of the Midland Project, the Midland Quality Assurance Manager monitors design and procurement activities and maintains surveillance over construction and installation. Quality Assurance personnel, or Quality Assurance personnel under Contract to Consumers Power perform the following functions:

a. Review and approval of Consumers Power Principal Suppliers Quality Assurance Programs prior to commencement of activity.
b. Quality Assurance audits and surveillance of Suppliers to assure that the requirements contained in design and procurement documents, specifications, and Quality Assurance Programs are met.

c. Review of specifications, drawings, procedures, inspection checklists and other pertinent documents for Quality Assurance requirements.

d. Quality Assurance audits and surveillance at the nuclear plant site to evaluate the performance of contractors and subcontractors in implementing their Quality Assurance Programs.

e. Witnessing the performance of work activities and of construction and installation tests and inspections to assure that specified requirements are met and that required records are maintained.

f. Audits of the Consumers Power departments to assure that they are complying with the Quality Assurance Program for Nuclear Power Plants and Department or Plant Procedures.

g. Review of nonconforming conditions to detect trends requiring corrective action.

These reviews, audits and surveillances are documented and reported to the Senior Vice President, Projects, Engineering & Construction and to the responsible department heads in accordance with Quality Assurance Program Policy No 20, "Program Reporting."

3.2 REVIEW DURING THE OPERATIONS PHASE

In addition to audits conducted by the Quality Assurance Department - Nuclear Operations, Consumers Power has established the on-site Plant Review Committee (PRC) and the off-site Safety and Audit Review Board (SARB) for the purpose of reviewing safety-related aspects of plant operations, maintenance, modifications and technical matters involved in operating a nuclear power plant. Quality Assurance - Nuclear Operations, also performs audits in these areas and submits the results for review. Minutes and reports of the activities of these review groups are routinely sent to departments charged with implementing the Quality Assurance Program. The functions and responsibilities of these committees are as follows:

a. Safety and Audit Review Board (SARB)

SARB is responsible for maintaining a continuing critical examination of safety-related plant activities, including observation of plant operation, evaluations of procedures and certain contemplated actions, and investigations of abnormal conditions to verify that such activities do not constitute an unreviewed safety question.

In cases where an issue, report or problem is reviewed, evaluated or investigated by SARB, its findings and recommendations are communicated in writing to the Vice President - Nuclear Operations and the appropriate working level of Management. A written charter is prepared and approved by the Vice President - Nuclear Operations which designates the membership, authority and rules for conducting the meetings. Board membership, qualifications, meeting frequency, quorum, responsibilities, authority and records are in accordance with the nuclear plant Technical Specifications.

b. Plant Review Committee (PRC)

The PRC is an advisory group composed of plant supervisory personnel, constituted for the purpose of reviewing day-to-day activities and determining the effect on operational safety. The PRC recommends to the Plant Manager/ Superintendent approval or disapproval of proposals considered by the Committee and makes tentative determinations as to whether or not proposals involve unreviewed safety questions. Board membership, qualifications, meeting frequency, quorum, responsibilities, authority and records are in accordance with the nuclear plant Technical Specifications.

During operations, maintenance, repair and minor modifications, the Director, Quality Assurance - Nuclear Operations, monitors procurement activities and maintains surveillance over safety-related plant operating conditions. Nuclear Operations personnel, or Quality Assurance personnel under Contract to Consumers Power, conduct reviews, audits and surveillances similar to those previously identified in Paragraph 3.1 of this Policy. The results are documented and reported to the Vice President - Nuclear Operations, in accordance with Quality Assurance Program Policy No 20, "Program Reporting."

3.3 REVIEW OF CORPORATE QUALITY ASSURANCE PROGRAM

The review of the Consumers Power Corporate Nuclear Quality Assurance Program is performed at least once every 24 months by an audit as described in Section 3.1 of Quality Assurance Program Policy No 18, "Audits." The audit is documented and reported to the Senior Vice President - Projects, Engineering & Construction, the Director, Environmental Services, Quality Assurance & Testing, the Vice President - Midland Project, the Executive Manager of Transmission, Plant Modifications & Project Services, the

Vice President - Nuclear Operations, and the Executive Vice President - Energy Supply for their responsibility areas. It is the responsibility of the Executive Vice President - Energy Supply and the Senior Vice President - Projects, Engineering & Construction to evaluate and approve recommendations there from and to inform the President and Chief Executive Officer of the company in accordance with Quality Assurance Program Policy No 20, "Program Reporting."

Approved by:

Senior Vice President
Projects, Engineering
& Construction
4-21-80

Executive Vice President
Energy Supply 4/25

Vice President
Midland Project
4/21/80

Vice President
Nuclear Operations
4/22

Consumers Power

QUALITY ASSURANCE PROGRAM POLICY

PROGRAM REPORTING

POLICY NO 20
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1.0 GENERAL

Reports of nonconforming conditions, departures from normal operations, special nuclear material status and transfers, changes in facilities and procedures, and nuclear plant status are prepared by Consumers Power Company and submitted to the NRC and to the responsible departments according to the requirements set forth in Title 10 Code of Federal Regulations, applicable ANSI Standards, Regulatory Guides and the Plant Technical Specifications. Consumers Power Company requires suppliers: (a) to report potentially significant nonconformances to Consumers Power Company for determination of 10 CFR 50.55(e) reportability to the NRC; and (b) to comply with 10 CFR 21.

2.0 BASIS DOCUMENTS

a. NRC 10 CFR 19, "Notices, Instructions and Reports to Workers; Inspections"
b. NRC 10 CFR 20, "Standards for Protection Against Radiation"
c. NRC 10 CFR 21, "Reporting of Defects and Noncompliance"
d. NRC 10 CFR 50, Appendix B, Criterion 16, "Corrective Action"
e. NRC 10 CFR 50.55, "Conditions of Construction Permits", Paragraph (e)
f. NRC 10 CFR 59, "Authorization of Changes, Tests and Experiments"
g. NRC 10 CFR 70.52, "Reports of Accidental Criticality or Loss of Special Nuclear Material"
h. NRC 10 CFR 70.53, "Material Status Reports"
i. NRC 10 CFR 70.54, "Nuclear Material Transfer Reports"
j. NRC Regulatory Guide No. 1.16, "Reporting of Operating Information"
k. ANSI N18.7, Section 4, "Review and Audit"
l. Plant Technical Specifications
m. ANSI N45.2, Criterion 17, "Corrective Action"

3.0 POLICY

3.1 REPORTING DURING THE DESIGN AND CONSTRUCTION PHASE FOR NEW FACILITIES, MAJOR MODIFICATIONS AND THE PALISADES SGRP

3.1.1 REPORTS BY ENVIRONMENTAL SERVICES, QUALITY ASSURANCE & TESTING

Environmental Services, Quality Assurance and Testing prepares and issues a monthly status report to the Senior Vice President - Projects, Engineering & Construction. Quality Assurance Audit & Administration performs audits of the Quality Assurance Program and reports the results of the audits to the Director, Environmental Services, Quality Assurance & Testing; to the

Senior Vice President - Projects, Engineering and Construction and to other members of management who have either functional or line responsibilities, or both, for the audited area or activity. These reports summarize quality-related problems and nonconformances and describe the status of their resolution.

Environmental Services, Quality Assurance & Testing conducts quarterly status meetings with the Senior Vice President - Projects, Engineering & Construction and with the heads of departments involved in implementing the Quality Assurance Program.

Each biennium, a major audit of the Quality Assurance Program is conducted and reported to the Senior Vice President - Projects, Engineering & Construction.

The Senior Vice President - Projects, Engineering & Construction is responsible for transmitting pertinent quality-related problems and nonconformances to the President and Chief Executive Officer.

3.1.2 REPORTS BY MIDLAND PROJECT QUALITY ASSURANCE

Midland Project Quality Assurance prepares and issues a monthly status report to the Vice President - Midland Project who in turn issues a monthly status report to the Senior Vice President - Projects, Engineering & Construction. Results of audits performed by Midland Project Quality Assurance are reported to the Senior Vice President - Projects, Engineering & Construction, Vice President - Midland Project, Director - Environmental Services, Quality Assurance & Testing and to other members of management who have either functional or line responsibilities, or both, for the audited area or activity. These reports summarize quality-related problems and nonconformances and describe the status of their resolution. The Midland Project Quality Assurance Manager conducts quarterly status meetings with the Senior Vice President - Projects, Engineering & Construction, the Midland Project Office, the Director - Environmental Services, Quality Assurance & Testing, and other personnel as applicable.

3.1.3 REPORTING SIGNIFICANT CONDITIONS TO THE NRC

Significant nonconformances are recorded on nonconformance reports and are controlled in accordance with Quality Assurance Program Policies No 15, "Control of Nonconforming Items" and No 16, "Corrective Action." Each such nonconformance

occurring during the design and construction of the Midland Project is promptly reviewed by the Midland Project Quality Assurance Department or, when occurring during preoperational testing, by Midland Project Testing to determine its reportability to the NRC under the requirements of 10 CFR 50.55(e) and 10 CFR 21. Each nonconformance report originated during the design and construction of a major modification, to an existing operating plant, or the Palisades SGRP is transmitted to the Plant Manager/Superintendent for review and evaluation as the NRC reportability in accordance with the requirements given in Paragraph 3.2.2 of this Policy.

As applicable, nonconformances which are reportable under 10 CFR 50.55(e) are orally reported to the NRC by Midland Project Quality Assurance within 24 hours after their occurrence. Each such oral report is followed within 30 days by a written report to the NRC from the Senior Vice President - Projects, Engineering & Construction. Also, as applicable, nonconformances which are reportable under 10 CFR 21 are orally reported to the NRC by Midland Project Quality Assurance within 2 days after their evaluation. Each such oral report is followed within 5 days by a written report to the NRC from the Senior Vice President - Projects, Engineering & Construction.

3.1.4 SUPPLIER RESPONSIBILITIES

Consumers Power Company requires suppliers to report each potentially significant nonconformance to the responsible Quality Assurance organization and to the organization having project management responsibility. Each such nonconformance is reviewed and evaluated for reportability to the NRC in accordance with the process described in Paragraph 3.1.3, above. In addition, Consumers Power Company requires suppliers to comply with 10 CFR 21 for all procurements issued by Consumers Power Company after January 6, 1978, in accordance with the provisions delineated in 10 CFR 21.

3.2 REPORTING DURING THE OPERATIONS PHASE

3.2.1 QUALITY PROGRAM STATUS REPORTS

The Director, Quality Assurance - Nuclear Operations, prepares and issues a monthly status report to the Vice President - Nuclear Operations, and

he to the Executive Vice President - Energy Supply. The report summarizes quality-related problems and nonconformances, describes the status of resolution, and makes recommendations for required actions. In addition, the Quality Assurance - Nuclear Operations Department conducts quarterly status meetings with the Vice President - Nuclear Operations and the Consumers Power departments involved in implementing the Quality Assurance Program for Operations.

3.2.2 EVENT REPORTING

Reportable events occurring at the plant site as defined by the Technical Specifications, violations of or events defined as reportable in Title 10 Code of Federal Regulations, undesirable trends in performance or a radioactive release beyond specified limits are documented by the Supervisor of the area or activity involved. The condition or event is reviewed by the Plant Manager/Superintendent or his designated representative to assure that actions taken are in compliance with the Technical Specifications and Title 10 Code of Federal Regulations. Documentation of the event and actions taken are provided by the Plant Manager/Superintendent. He reports promptly to the Vice President - Nuclear Operations and to the NRC as required by the Technical Specifications or Title 10 Code of Federal Regulations. Appropriate corrective action is taken according to Policy 16, "Corrective Action." Resolution of these events, including corrective action, is reported to the Vice President - Nuclear Operations and the NRC as required by the Technical Specifications and Title 10 Code of Federal Regulations.

3.2.3 REPORTING CHANGES IN FACILITIES OR PROCEDURES, TESTS AND EXPERIMENTS

Safety-related changes to plant facilities or procedures during operations; i.e., plant modifications and the conduct of tests and experiments not covered by the Plant Safety Analysis Report, are reviewed by appropriate Management, Plant Review Committee (PRC) and the Safety and Audit Review Board (SARB) for safety implications according to the requirements set forth in 10 CFR 50.59 and the Technical Specifications. Results of these reviews are documented by the Plant Staff. The Plant Manager/Superintendent directs the preparation of a report describing the changes, tests and experiments and a summary of the evaluation of each case. Changes to the facility or procedures, as described in the FSAR, along with summaries of the safety evaluations are reported at least annually to the NRC or upon request.

3.2.4 SPECIAL NUCLEAR MATERIAL (SNM) STATUS

The Plant Manager/Superintendent directs the preparation of NRC Form 742, in accordance with Plant Procedures and 10 CFR 70.53. This report identifies the SNM material received, produced, possessed, transferred, consumed, disposed of or lost and is filed in accordance with 10 CFR 70.53.

NRC Form 741 is the principal document supporting the transaction of receiving SNM by Consumers Power or shipping SNM by Consumers Power. The Plant Manager/Superintendent directs the preparation of Form 741 and, as the responsible Consumers Power Official, signs the form, both upon receipt and shipment off-site of SNM. Copies of the form are distributed, according to Plant Procedures and the requirements of 10 CFR 70.54.

3.2.5 ANNUAL OPERATING REPORTS, ENVIRONMENTAL MONITORING REPORTS AND SPECIAL REPORTS

Annual Operating Reports, Environmental Monitoring Reports and Special Reports are prepared according to the requirements of the Technical Specifications by the Plant or General Office Staff as directed by the Nuclear Licensing Administrator. These reports are approved by him for submittal to the NRC.

3.2.6 SUPPLIER RESPONSIBILITIES

Consumers Power Company requires suppliers of safety-related items and services during the operations phase to comply with 10 CFR 21.

3.2.7 REPORTING OF AUDITS OF CORPORATE QUALITY ASSURANCE PROGRAM

Every two years, a major audit of the Consumers Power Corporate Quality Assurance Program is conducted and reported to the Vice President - Nuclear Operations and Executive Vice President - Energy Supply. The report summarizes quality-related problems and nonconformances, describes resolutions, and makes recommendations of where Quality Assurance Program Policies or Procedures might be improved. It is the responsibility of the Executive Vice President - Energy Supply to evaluate and approve recommendations therefrom and to inform the President and Chief Executive Officer of Pertinent audit results.

Consumers Power

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Vice President
Midland Project
4/20/80

Vice President
Nuclear Operations
4/23