INTRODUCTION

Illinois Power Company (IP), as principal owner of Clinton Power Station (CPS), has ultimate responsibility for the quality assurance program which is applied to CPS. The program is designed to meet the requirements of Title 10 of the Code of Federal Regulations, Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants;" Title 10 of the code of Federal Regulations, Part 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material" (with the exception of design, fabrication, assembly, and testing of packaging); and the American National Standard ANSI N18.7 (1976), "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants".

The IP Nuclear Quality Assurance Program applies to those activities associated with or affecting the ability of the plant's structures, systems, and components to function in preventing, or mitigating the consequences of, postulated accidents which could cause undue risk to the health and safety of the public. These activities include operating, maintaining, repairing, refueling, modifying, and other associated activities such as radiological environmental monitoring, radioactive material packaging and shipping, fire protection, and security programs. The structures, systems, and components to which the activities and programs apply are delineated in Table 3.2-1 of the Updated Safety Analysis Report (USAR).

This manual is arranged in eighteen chapters which correspond with the eighteen criteria contained in 10CFR50 Appendix B and 10CFR71 subpart H. Each chapter is further broken down into three main sections which describe the purpose and scope of that chapter, a description of the quality program, and the division of responsibilities. The Nuclear Assessment organization approves the distribution and is responsible for the maintenance of this manual in accordance with approved departmental procedures.

Appendix A of this manual is a glossary of terms applicable to the Illinois Power Nuclear Quality Assurance Program.

Appendix B of this manual details the scope of its application with respect to activities associated with fire Protection, Security, Environmental, Radwaste/Augmented-D Systems and Packaging and Transportation of Radioactive Material.

Centralized Commitment Tracking numbers are located directly after the sentence or paragraph in the manual which fulfills the commitment. These numbers are in the format (CCT XXXX) and provide identification of the source of the commitment.

AUTHORIZATION

The IP Nuclear Quality Assurance Program applies to every member of the Company performing work related to CPS and covered by the Manual. Specific responsibilities shall be assigned by IP management and supervision, consistent with the requirements described in this Quality Assurance Manual. The major portion of the Quality Assurance program is carried out by IP departments other than Nuclear Assessment. In recognition of these responsibilities, each department head has concurred with the contents of this manual.

The effective date of revisions to this manual shall be thirty (30) calendar days from the date of distribution to allow for procedure changes and training.

Approved R E Wyatt 7/2/93
Manager - Nuclear Assessment / Date

CHAPTER

1

ORGANIZATION

1.1 PURPOSE/SCOPE

To define the requirements for and to describe the organizational structure, functional responsibilities and levels of authority concerning the performance of activities which affect the safety-related functions of structures, systems, or components for the Clinton Power Station.

1.2 DESCRIPTION

1.2.1 General

Organizational structuring and functional responsibility assignments are based on recognition of quality assurance as an inter-disciplinary function with quality-related activities being performed by many organizational components and individuals from top-level management to individual workers.

The authorities and responsibilities of persons and organizations performing quality-related activities are established, assigned and documented. (CCT 8306) Those persons and organizations assigned quality assurance functions are given appropriate and sufficient authority and organizational freedom from cost and scheduling considerations to: identify quality problems; recommend solutions; verify implementation of the solutions; and control: processing, delivery, installation, or utilization of nonconforming items until proper dispositioning has occurred. (CCT 8307)

Corporate Nuclear Policy Statements are formalized in Corporate Nuclear Procedures (CNP) as described in this manual. (CCT 8195) Each CNP is reviewed and concurred with by responsible department management for incorporation of quality assurance program requirements. (CCT 8308) The CNPs are approved for use by the IP corporate officer(s) responsible for the activities covered by the CNP. Corporate Nuclear Procedures require the development and use of departmental procedures or instructions to describe interfaces and accomplish the activities covered by the CNP.

The organizational structure and functional responsibility assignments are such that: (1) attainment of quality objectives is by individuals assigned responsibility for specifying quality

requirements or performing work to specifications; (CCT 8196) and (2) personnel performing the quality assurance functions of verification, surveillance and audits have direct access to responsible management, and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations.

Activities affecting safety related functions (job duties and responsibilities) have been identified. (CCT 8309) Effectiveness of the program is assured through verifications, surveillances, audits and by the authority of individuals performing these activities to stop specific work activities where it appears that quality may be jeopardized, and the authority of the Manager - Nuclear Assessment to initiate a Stop Work Action. (CCT 8192) The Vice President and Manager - Clinton Power Station has the authority to bypass a stop work to place the plant in a safe and stable condition.

Inspection personnel are provided with procedures and instructions prior to performing inspection operations. (During plant operations emergencies, inspections may be performed without written procedures.) (CCT 8304) To further assure that inspections are done in a timely manner, specific inspection points are identified in work documents with provisions for notification of inspection/witness, and hold points. (CCT 8305)

1.2.2 Organization and Responsibilities

This section describes the organizational structure and responsibilities within IP for managing and implementing the quality assurance program for the operation of the CPS. (CCT 8198)

1.2.2.1 Executive Vice President - Energy Supply

The Executive Vice President - Energy Supply has the overall responsibility for the engineering, design, procurement, modification, testing, operation and quality assurance at CPS. Execution of these responsibilities is delegated to a Senior Vice President.

1.2.2.2 Senior Vice President

The Senior Vice President is responsible for the overall effectiveness of the Quality Assurance Program and for assuring oversight of the quality assurance program for effectiveness. The Senior Vice President is responsible for assuring that the authority and independence of personnel performing quality

assurance functions are such that they can effectively assure the conformance to quality requirements and are sufficiently independent from cost and scheduling when opposed to safety considerations.

1.2.2.3 Vice President and Manager - Clinton Power Station

The Vice President and Manager - Clinton Power Station reports to the Senior Vice President and is responsible for the safe, reliable and efficient operation of the Clinton Power Station in accordance with the operating license. This includes ensuring that the IP Nuclear Quality Assurance Program, as described in subsequent sections of this manual, is incorporated in plant procedures and implemented by the Clinton Power Station organization.

1.2.2.4 Manager - Nuclear Station Engineering

The Manager - Nuclear Station Engineering reports to the Senior Vice President and is responsible for the development, direction and overall coordination of power plant engineering activities performed by the Nuclear Station Engineering Department (NSED) for the Clinton Power Station. These responsibilities include: coordination of all interface with the Authorized Inspection Agency (AIA), and provisions for the establishment of Authorized Nuclear Inspector (ANI) hold/witness points and access to facilities and records. The Manager - NSED ensures that these activities are performed in accordance with the requirements of the IP Nuclear Quality Assurance Program.

1.2.2.5 Manager - Nuclear Support Services

The Manager - Nuclear Support Services reports to the Senior Vice President and is responsible for providing direction of nuclear plant services organizations for fitness for duty, material support, receiving, warehousing, records management, document control, safety, compliance to federal regulation of personnel activities, and for corporate and plant integration in these functional support disciplines. The Manager - Nuclear Support Services ensures that these activities are performed in accordance with the requirements of the IP Nuclear Quality Assurance Program.

1.2.2.6 Nuclear Review and Audit Group

The Nuclear Review and Audit Group (NRAG) reports to the Senior Vice President and is responsible for the independent safety review function. The NRAG functions in accordance with a written

charter which delineates committee composition, responsibility and authority, subjects to be reviewed, reporting requirements and administrative controls under which the group operates.

1.2.2.7 Facility Review Group

An on-site committee whose function is to advise the Vice President and Manager - Clinton Power Station on matters related to nuclear safety.

1.2.2.8 Manager - Nuclear Training

The Manager - Nuclear Training reports to the Vice President and Manager - Clinton Power Station and is responsible for the direction and management of the Nuclear Training for Clinton Power Station and management of the Emergency Preparedness Program. The Manager - Nuclear Training ensures that these activities are performed in accordance with the requirements of the IP Nuclear Quality Assurance Program.

1.2.2.9 Manager - Nuclear Assessment

The Manager - Nuclear Assessment reports to the Senior Vice President and is responsible for IP's overall Nuclear Quality Assurance Program. The Manager - Nuclear Assessment directs the Nuclear Assessment activities related to the design, procurement, maintenance, modification, and operation of the Clinton Power Station. (CCT 8199) The Manager - Nuclear Assessment interfaces with the Nuclear Regulatory Commission, and the Authorized Inspection Agency for the Quality Assurance Program. (CCT 8249) The Manager - Nuclear Assessment or the designated alternate has the responsibility and authority to stop unsatisfactory work during plant operation, as well as during plant modification, maintenance and in-service inspection periods, provided the health and safety of the public, or impact on capability to safely operate or shut down the plant are not adversely affected. (CCT 8178) The Manager - Nuclear Assessment also ensures that the Independent Safety Engineering Group functions are maintained separate and independent from the quality assurance functions but with appropriate interface.

1.2.2.10 Director - Licensing

The Director - Licensing reports to the Senior Vice President and is directly responsible for providing representation and interface with regulatory agencies to maintain operating licenses and permits for CPS, management of the Updated Safety Analysis Report (USAR), and the Environmental Report (ER), and the

administration of the tracking program for 10CFR21 items. The Director - Licensing ensures that these activities are performed in accordance with the requirements of the IP Nuclear Quality Assurance Program.

1.2.2.11 Manager - Purchasing and Material Control

The Manager - Purchasing and Material Control reports to the Vice President (Headquarters) and is responsible for assuring that suppliers are selected from the Qualified Supplier List as required, preparing and issuing purchase orders and ensuring that they include necessary technical, quality and commercial terms and conditions, and that appropriate reviews, are accomplished prior to release of a purchase order. The Manager - Purchasing and Material Control ensures that these activities are performed in accordance with the requirements of the IP Nuclear Quality Assurance Program.

1.2.3 Nuclear Assessment Department

General responsibilities of the department with regard to the Quality Assurance Program for Clinton Power Station include, but are not limited to, the following:

a. Prepare and control the IP Nuclear Program Quality Assurance Manual. (CCT 8311)

b. Verify the implementation of the IP Nuclear Quality Assurance Program. (CCT 8181)

c. If significant quality problems are identified, Nuclear Assessment personnel have the authority and responsibility to stop specific work activities pending satisfactory resolution of the identified problem, provided the health and safety of the public or impact on the capability to safely operate or shut down the plant are not adversely affected.

d. Verify that quality-related training programs are developed and implemented for each company department that has responsibility for implementing the IP Nuclear Quality Assurance Program. (CCT 8312)

e. Maintain awareness of Quality Assurance requirements, practices and experiences throughout the nuclear power industry. (CCT 8182)

f. Implement an audit, surveillance and inspection program for quality-related activities within the scope of the IP Nuclear Quality Assurance Program and report to management on the status of program implementation. Initiate and/or verify corrective action, as necessary, to resolve conditions adverse to quality. (CCT 8313)

g. Perform acceptance inspections related to activities during operation and maintenance of CPS.

h. Review the Quality Assurance programs of suppliers for compliance with regulatory requirements and the requirements of the IP Nuclear Quality Assurance Program when a program is required to be submitted by the procurement document. Ensure that supplier Quality Assurance program deficiencies are corrected. (CCT 8315)

i. Extend portions of the IP Nuclear Quality Assurance Program to selected equipment important to reliable station operation but not included in the compliance based Quality Assurance Program as directed by management.

1.2.4 Organizational Interfaces

Activities affecting the quality of safety-related systems, structures and components are considered quality assurance program activities and are performed by, or under the cognizance of various IP organizations. Any department may perform these quality assurance activities provided that personnel are adequately trained, qualified/certified, and these work activities are performed in accordance with approved procedures and instructions. (CCT 39591) Problems associated with meeting the requirements of the Quality Assurance Program, or disagreements and/or disputes shall be brought to the attention of appropriate levels of management, including the Executive Vice President - Energy Supply as necessary to obtain resolution. (CCT 8618)

Work may be delegated to qualified outside organizations by contract for such activities as design, special processes, inspections, etc. Selected work may be delegated to qualified outside organizations by Nuclear Program departments. The

responsibility for exercising engineering control rests with Nuclear Station Engineering, and operational controls with CPS Plant Staff. (CCT 39791) Prior to initiation of work, the qualified individual(s) or organizational elements within IP have their responsibilities identified for the control and quality of delegated work.

CHAPTER

2

QUALITY ASSURANCE PROGRAM

2.1 PURPOSE/SCOPE

The IP Nuclear Quality Assurance Program applies to those activities such as design, procurement, fabrication, installation, modification, maintenance, repair, refueling, operation, inspection, and tests related to those systems, structures, and components as identified by the letter "B" or "H" in the Quality Assurance Requirements column in USAR Table 3.2-1. (CCT 8335) This table of systems, structures, and components is kept current and is revised and distributed as a controlled document in accordance with approved procedures. (CCT 8337) Appendix "B" to the IP Nuclear Program Quality Assurance Manual describes and specifies a graded application of the IP Nuclear Quality Assurance Program to certain other activities, systems and items at the Clinton Power Station, such as the pressure boundaries of radwaste augmented D systems, portions of the fire protection system, security system, environmental monitoring, the packaging and transportation of radioactive material. (CCT 8338)

2.2 DESCRIPTION

2.2.1 General

Illinois Power Company's Nuclear Quality Assurance Program is based upon 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." (CCT 8619) The requirements of 10CFR71, subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material" are also included. (CCT 39593) Additionally, in USAR section 1.8, Illinois Power is committed to carrying out the provisions of various NRC regulatory guides and industry standards which further define Quality Assurance program requirements. As used in this chapter, "Quality Assurance" comprises all those planned and systematic actions necessary to provide adequate confidence that a Clinton Power Station structure, system, or component will perform satisfactorily in service. (CCT 8332) Quality assurance includes quality control which comprises those physical characteristics of a material, structure, component, or system which provide a means to

control the quality of the material, structure, component, or system to predetermined requirements. (CCT 8333)

2.2.2 Quality Assurance Program Revisions

The program receives ongoing reviews and is revised as necessary to assure its continued effectiveness. Changes made to the IP Nuclear Program Quality Assurance Manual which: 1) change or affect authority, independence, or management reporting levels previously established for organizations performing quality assurance functions; or 2) reduce commitments or effectiveness of quality assurance functions specifically delineated in this manual shall be submitted and approved by the NRC prior to change implementation. Quality Assurance Manual changes which do not reduce the Quality Assurance program's commitments in this manual shall be submitted to the NRC for review on an annual basis. Editorial changes or personnel reassignments of a non-substantive nature do not require NRC notification. (CCT 8186) Submittal to the NRC of a change to the IP Nuclear Program Quality Assurance Manual shall be in accordance with 10CFR50.54(a).

2.2.3 Quality Assurance Program Documentation

The IP Nuclear Quality Assurance Program is established and supported by three tiers of documents; each successive tier transmits requirements from a higher level of authority to the next successive lower document level. (CCT 8339)

a. Policy Documents issued by Corporate Management to promulgate authoritative management directives establishing and defining Quality Assurance policies within the Illinois Power Company Nuclear Program. (CCT 40849)

b.1 IP Nuclear Program Quality Assurance Manual describes the objectives, requirements, interface relationships, and assignment of responsibilities for accomplishing activities which affect the safety-related functions of systems, structures, or components. It contains the minimum requirements to be applied by IP and suppliers. The manual is approved and maintained current by the Manager - Nuclear Assessment. Department heads of organizations performing activities within the scope of the program designate their acknowledgment of responsibilities and authorization for use within their organization by signature prior to approval of the manual by the Manager - Nuclear Assessment. (CCT 80848)

b.2 Corporate Nuclear Procedures (CNP) are documents developed, approved, and issued to provide corporate direction and policy pertaining to appropriate Nuclear Program Activities. CNPs are reviewed by responsible department management and approved by corporate level management. (CCT 40847)

b.3 CPS Records Management Standards provide direction in the areas of records identification, preparation, collection/review, turnover/transfer, storage, preservation, and maintenance.

b.4 Inservice Inspection (ISI) Program Manual describes the ISI requirements for CPS and serves as the site standard for all CPS ISI Program activities.

c. Departmental Procedures or Instructions are developed, approved, and issued for each organization to further implement the requirements of the upper tier documents listed in section 2.2.3a & b above. These departmental procedures or instructions provide more detailed direction to IP personnel engaged in Nuclear Program related activities. (CCT 40846)

2.2.4 Training

Each department head is responsible for the proper qualification of assigned personnel performing activities related to CPS. This includes establishing and maintaining documented training programs to ensure that personnel performing activities affecting quality are appropriately trained in the principles and techniques of the activity being performed; are instructed as to purpose, scope, and implementation of governing documents; and that they maintain required proficiency. (CCT 8341) Programs are formulated to provide training based on individual employee experience and position and fulfill regulatory requirements, where applicable. Training records are maintained for each employee. Departmental training procedures/instructions require that indoctrination and training programs include objectives, content of program, attendees, and date of attendance. (CCT 24341) Applicable departmental procedures and instructions require that the proficiency of personnel performing and verifying activities affecting quality is maintained by retraining, re-examining, and/or recertifying, as determined by management or program commitment. (CCT 24342)

2.2.5 IP Nuclear Quality Assurance Program Evaluations

Regular reviews of the IP Nuclear Quality Assurance Program to assess the scope, status, adequacy, compliance, and overall effectiveness are performed under the direction of the Senior Vice President. This review function consists of meetings with key Nuclear Assessment personnel, as well as review of audits and reports, and the performance of an IP Nuclear Quality Assurance Program assessment, which is preplanned and documented. Corrective action required as a result of adverse conditions identified during the assessment are documented, tracked, and completion is verified and documented. (CCT 8342) Independent audits of other organizations performing activities related to quality are accomplished regularly under the direction of the Manager - Nuclear Assessment. (CCT 8187)

Suppliers' quality assurance programs are reviewed, approved, and audited by the Nuclear Assessment organization or authorized agent for compliance with applicable rules, regulations, and IP Nuclear Program Quality Assurance Manual as set forth in the contract document. Approval of such programs related to CPS is documented. (CCT 8343)

2.3 RESPONSIBILITIES

2.3.1 Senior Vice President

a. Directs reviews for overall effectiveness of the IP Nuclear Quality Assurance Program on a regular basis.

2.3.2 Nuclear Program Departments

a. Implement and comply with the IP Nuclear Quality Assurance Program.

b. Train and qualify/certify, as required, personnel who perform quality activities associated with CPS. (CCT 8341)

c. Maintain procedures/instructions to the extent necessary to carry out activities affecting quality.

2.3.3. CPS Plant Staff

a. Operate and maintain CPS in a safe, reliable, and efficient mode of operation.

2.3.4 Nuclear Station Engineering

a. Implement the design control program for CPS, including design interface control activities.

2.3.5 Nuclear Training

a. Maintain and implement a Licensed Operator Training program, Maintenance and Technical Training program and a General Employee Training program.

2.3.6 Nuclear Assessment

a. Perform activities to ensure the established quality assurance program meets requirements and is effectively executed.

b. Identify quality problems and assure corrective actions are effective.

CHAPTER

3

DESIGN CONTROL

3.1 PURPOSE/SCOPE

To establish the requirements, responsibilities and control measures for assuring that design bases and regulatory requirements are correctly translated into design documents. The scope of design control covers all phases of engineering design, including: conceptual design selections; identification of design inputs (criteria and bases); identification and control of design interfaces; production of design documents, calculations and analyses; procurement-related engineering; design verification; and installation engineering support.

3.2 DESCRIPTION

Design control measures are established to assure modifications and design changes meet the appropriate performance and quality requirements. These design control measures are commensurate with those applicable to the original design and assure that modifications are designed and implemented in accordance with applicable codes, standards and regulatory commitments.

The Nuclear Station Engineering Department has overall responsibility for design control activities at Clinton Power Station (CPS). These design control activities are managed within the context of the Nuclear Program Configuration Management Program, which also includes provision for controlling hardware and software items (procedures, training, etc.) which comprise the configuration of CPS and also includes final design approval of changes or modifications for incorporation into the plant. Processing of a modification, and the associated design/design change documents under this program ensures appropriate participation and awareness by CPS organizations throughout the design development and installation process.

Provisions of this program also ensure that each modification or design change receives a thorough safety evaluation, that meets regulatory commitments or ensures that the basis for not performing the safety evaluation is documented. If the change is determined

to constitute "an unreviewed safety question", or to alter commitments contained in approved Safety Analysis Reports or the CPS Technical Specifications, it shall be evaluated by established safety review committees and submitted for regulatory approval prior to implementation.

New design or design changes shall be defined by drawings, specifications, change notices or other documents as prescribed in design control procedures. The organization actually performing the design work, either Nuclear Station Engineering or a qualified consultant-engineer is required to include the following considerations in the design of each modification:

a. Appropriate design bases, regulatory requirements, safety requirements, performance objectives, design margins, special processes, material and testing requirements, and operating objectives are adequately translated into the various design documents.

b. Appropriate design analysis (e.g., physics, seismic, stress, thermal, hydraulic, radiation and accident) is part of the design process.

c. Accessibility requirements for operation, testing, maintenance, in-service inspection and repair are included in the design.

d. Necessary installation or modification inspection and test acceptance criteria are included in the design documents or modification packages.

e. An evaluation to determine if the proposed design change or modification involves an "unreviewed safety question".

f. Design control measures shall include criticality physics and radiation shielding for radioactive material shipments.

g. Design control measures shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled.

Additionally, the organization which produces and approves the design/design change documents shall maintain detailed procedures to control and document performance of the following design activities:

a. Identification and selection of design inputs.

b. Identification and control of interfaces between organizations required to make input to, review or approve final design products.

c. Performance of calculations or analyses which demonstrate that design products satisfy the design inputs, including those performed using computer codes.

d. Production, review, approval and revision of drawings, specifications, data sheets or other design output documents.

e. Classification and specification of technical requirements for equipment or material procurements associated with the design/design change.

f. Verification that the design inputs, interfaces, calculations and final design products are adequate and correct; and that the installation satisfies all specified design requirements.

The form and structure of the procedures and instructions used to accomplish these activities may vary dependent upon the complexity of the design and the different organizations involved in the design development.

Design verification for the final design products will normally be done by an independent group or person within the organization actually producing the design. When this is a consultant-engineer organization, Nuclear Station Engineering may choose to conduct, or direct, additional independent design verifications.

This verification consists of a check of design adequacy by such methods as design reviews, use of alternate calculations or methods, or performance of verification or qualification testing. The method, or combination of methods, used to verify a design will be selected on a case-by-case basis. The selection will be based on consideration of such things as: a) uniqueness of the design or application, b) complexity of the design, c) prior history of use, d) importance to safety, and e) consequences of failure. CPS operating phase design verification other than qualification testing of prototype or lead production unit will, where practical, be completed prior to installation and operation. In those cases where this timing cannot be met, the design verification may be deferred, providing the justification for this action is documented

and the unverified documents related to the design are appropriately identified and controlled. However, design verification shall be completed prior to the component, system or structure being released for operation.

Verification by test will normally be included in procurement documents that require the supplier to perform the test and use the most severe design conditions as acceptance criteria. These procurement documents shall require that the test procedure, including acceptance criteria, be submitted to Illinois Power or its designee for review and approval prior to performance of the test.

When a verification test cannot be performed prior to installation, proposed testing programs shall be reviewed and approved by Illinois Power to ensure that no unresolved safety questions are involved and the testing is conducted within licensing limitations prior to the point when the installation would become irreversible.

The entire design control process shall be subject to audits and surveillances to ensure that design activities are implemented in accordance with program requirements. (CCT 8345)

3.3 RESPONSIBILITIES

3.3.1 CPS Plant Staff

a. Initiate or concur with design change requests for CPS and forward to Nuclear Station Engineering for review and approval.

b. Incorporate approved design changes into CPS.

c. Employ controls which maintain the "as-built" and "as-modified" condition of the plant.

d. Assure that the proposed design change affecting nuclear safety and associated safety evaluation has been reviewed by the Facility Review Group.

3.3.2 Nuclear Station Engineering

a. Implement the design control program for CPS, including design interface control activities.

b. Perform or obtain design services, such as preparation and review of design technical documents for all modifications and design changes.

c. Review and approve design change requests and modification requests for incorporation into the plant.

d. Providing "as built" information to the Nuclear Licensing and Safety Department for updating the USAR to current plant conditions.

e. Determine if the proposed design change involves an "unreviewed safety question".

f. Coordinate the processing of plant modifications, assigning control numbers, the recording of progress, confirming procedural compliance, recommending operational readiness of affected hardware and transmittal of completed design change packages to Nuclear Support Services for processing, and retention.

g. Issue or coordinate issuance of data and reports which provide status of design changes.

3.3.3. Licensing

a. Review and evaluate Technical Specification changes and unreviewed safety questions identified during the modification process and obtain the necessary reviews and approvals.

3.3.4 Nuclear Assessment

a. Conduct audits and surveillances to determine that the design control and verification activities meet the requirements of the design control program.

CHAPTER

4

PROCUREMENT DOCUMENT CONTROL

4.1 PURPOSE/SCOPE

To define the requirements and responsibilities for the preparation, review, release, and revision of procurement specifications, purchase orders, and associated documents to assure the procurement of items and services are properly controlled.

4.2 DESCRIPTION

Measures are established for the preparation, review, approval and processing of purchase requisitions, purchase specifications, purchase orders and revisions to these documents to ensure that materials, parts, components and services for CPS are properly specified and procured. (CCT 8349)

Purchase requisitions for materials, parts, components or services are originated for the operation, maintenance, refueling, repair or modification of the plant. (CCT 8350)

Purchase requisitions are prepared in accordance with documented procedures that require:

a. Applicable specifications, drawings, quality requirements, and related documents be included or referenced. (CCT 8351)

b. Appropriate quality requirements, including supplier documents and records to be prepared, submitted or retained, and made available for purchaser review or approval are included or referenced. (CCT 8351)

c. Appropriate quality assurance program requirements be included or referenced. (CCT 8351)

d. Provisions for the purchaser's right of access to supplier's facilities and records (including sub-tier suppliers) for source inspection and audit be specified. (CCT 8351)

e. Provisions for supplier's reporting and disposition of nonconformances and requirements for hold points and release control are clearly identified. (CCT 8351)

f. Suppliers extend the applicable quality requirements, including purchaser's access to facilities and records for inspection and audit, to their sub-tier suppliers. (CCT 8351)

Technical and quality requirements for procurement of items and services are specified. Purchase requisitions are approved by the Manager or Director of the originating organization, or designee, and forwarded for processing. (CCT 40852)

Based on the approved purchase requisition, the necessary purchase orders or contract documents are prepared. Prior to release of the purchase order or contract, a review is performed to ensure the requirements ("a" through "f" above) have been met. (CCT 8347) Orders or contracts are placed only with suppliers determined to be capable of meeting the procurement requirements. This determination is based on evaluations of the supplier's quality assurance program, the supplier's technical capabilities and the supplier's commercial ability.

Changes, revisions or amendments to requisitions and procurement documents, except as discussed below, are subject to the same requirements as was the original document. The following changes revisions or amendments require Purchasing and Material Control department approval only: a) quantity, b) estimated price, c) cost codes, d) taxes, e) format and editorial changes (such as spelling or typing errors) and commercial terms and conditions.

Audits and surveillances are conducted to ensure that procurement activities are implemented in accordance with program requirements. (CCT 8348)

4.3 RESPONSIBILITIES

4.3.1 Nuclear Program Departments

a. Initiate and approve purchase requisitions for material, parts, components or services for CPS.

4.3.2 Nuclear Support Services

a. Review purchase requisitions for completeness.

4.3.3 Purchasing and Material Control

a. Prepare purchase orders/contracts for award to qualified suppliers.

b. Review purchase orders/contracts for quality assurance program requirements.

4.3.4. Nuclear Station Engineering

a. Specify technical and quality requirements for materials, parts, components or services for CPS.

b. Review and approve design changes that result from procurements.

c. Provide specifications for procured materials, parts, components or services for CPS.

d. Evaluate suppliers for technical ability.

4.3.5 Nuclear Assessment

a. Review and approve supplier quality assurance programs. (CCT 8347)

b. Conduct audits and surveillances of the procurement document control program to ensure compliance with the requirements of this chapter. (CCT 8348)

CHAPTER

5

INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 PURPOSE/SCOPE

To define the requirements and responsibilities for the generation and use of instructions, procedures, drawings, or related material to control activities which affect quality.

5.2 DESCRIPTION

Each IP department is responsible for developing, reviewing, approving and complying with formal instructions, procedures, drawings and related material for performing activities affecting the quality or functions of applicable systems, structures, or components at CPS. Requirements established are: (CCT 8277)

a. Instructions, procedure, or drawings shall include appropriate qualitative and/or quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

b. Instructions, procedures, or drawings for maintenance, modifications, testing and operation shall contain step-by-step instructions in the degree of detail necessary for a qualified individual to perform the required function or task.

Each Manager, Director and Supervisor is responsible for determining the need for issuing and revising instructions and procedures related to each organization's scope of activities. (CCT 8278)

Surveillances and audits are conducted to determine that appropriate instructions, procedures, or drawings exist and to evaluate their adequacy and implementation. (CCT 8292)

5.3 RESPONSIBILITIES

5.3.1 Nuclear Program Departments

a. Develop, approve, and employ those instructions, procedures, or drawings necessary to accomplish its

assigned tasks and responsibilities at CPS. Each department is responsible for developing, obtaining approvals and complying with instructions, procedures or drawings related to its scope of effort.

5.3.2 Nuclear Assessment

a. Conduct surveillances and audits to verify that appropriate instructions, procedures and drawings exist, are adequate and are being implemented in accordance with the requirements of this chapter. (CCT 8292)

6

DOCUMENT CONTROL

6.1 PURPOSE/SCOPE

To define the requirements and responsibilities for review, approval, issue and distribution of controlled documents such as instructions, procedures or drawings and changes thereto.

6.2 DESCRIPTION

Controlled documents such as specifications, procedures, instructions, drawings, computer software for safety-related applications, and other related materials which prescribe activities affecting quality or safety-related functions of systems, structures or components at CPS shall be processed in accordance with the following criteria: (CCT 8170)

a. Documents, including changes, are reviewed for adequacy by appropriately qualified personnel, approved for issue and use by authorized personnel, and distributed to and used where the prescribed activity is performed. (CCT 8288)

b. The review and approval of changes which modify the intent of the document is performed by the same organizations that performed the original review and approval, unless other equivalent organizations are specifically designated. Reviewing organizations will have access to pertinent background information upon which to base approval and have adequate understanding of the requirements and intent of the original document. (CCT 8288)

c. The document control system ensures that personnel or organizations are provided with current and approved documents. (CCT 8077)

d. Documents and changes thereto are controlled by procedures to preclude the use of outdated or inappropriate documents. (CCT 8077)

e. The CPS document control program provides for periodic reviews of plant procedures to determine if changes are necessary or desirable. (CCT 8078)

f. Individuals or organizations responsible for preparing, reviewing, approving and issuing documents and changes thereto are identified. (CCT 8078)

g. The proper documents to be used in an activity are identified. (CCT 8078)

h. Current distribution lists are established and used. (CCT 8078)

Types of documents to be controlled as described above include:

a. IP Nuclear Program Quality Assurance Manual which contains the basic description, requirements and assignment of responsibilities for the IP Nuclear Quality Assurance Program. (CCT 8079)

b. Corporate Nuclear Procedures which provide corporate instruction and policies pertaining to Nuclear Program activities. (CCT 8079)

c. CPS Operating License Manual contains the technical specifications that are an integral part of the Clinton Power Station operating license. (CCT 8079)

d. Station Operating Manual which contains procedures for the operation, maintenance and testing of the plant by the CPS organization. These procedures are subject to a well-defined and documented preparation, review, approval, change control and distribution process. (CCT 8079)

e. CPS Records Management Standards which provide direction for records identification, preparation, collection/review, turnover/transfer, storage, preservation and maintenance. (CCT 8079)

f. Inservice Inspection (ISI) Program Manual which describes the ISI requirements for CPS and serves as the site standard for all CPS ISI Program activities. (CCT 8079)

g. Other controlled documents, such as: the nuclear policy documents, USAR, as-built drawings, procedures and/or instructions used by IP Nuclear Program Departments. (CCT 8079)

Documents such as parts lists, vendor manuals and written correspondence used in the design, operation, maintenance or testing are controlled in accordance with departmental procedures which include the following: (CCT 8080)

a. A method of verifying and documenting receipt of transmitted documents.

b. A program for reviewing and approving the documents received for use in activities associated with CPS by that organization.

c. A program for distribution and control.

Measures are established within each organization to assure that obsolete or superseded documents described in the paragraph above are replaced in a timely manner by updated document revisions. (CCT 8081)

Surveillances and audits are conducted of document control systems to ensure compliance with the specified requirements. (CCT 8293)

6.3 RESPONSIBILITIES

6.3.1 Nuclear Program Departments

a. Review, approve and distribute controlled documents generated in accordance with appropriate procedures.
b. Employ appropriate measures to receive, record and re-distribute controlled documents from other organizations.

6.3.2 Nuclear Support Services

a. Maintain a Document Control Program to control the issuance of documents, such as instructions, procedures and drawings, including changes thereto, which prescribe all activities affecting quality.

6.3.3. Nuclear Assessment

a. Conduct surveillances and audits of document control systems to ensure compliance with the requirements of this chapter. (CCT 8293)

CHAPTER

7

CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

7.1 PURPOSE/SCOPE

To define the requirements and responsibilities for programs that assure purchased material, equipment, and services conform to procurement requirements.

7.2 DESCRIPTION

Measures have been established to provide assurance that purchased material, equipment, and services conform to procurement document requirements. This assurance is accomplished by controlling both the selection of procurement sources and inspections of the product at the source and/or upon receipt at CPS. (CCT 8353)

IP procurement procedures require a review of material, equipment and services requisitions for safety-related structures, systems, and components. This review will identify the applicable codes, standards, technical and quality requirements to assure that they are equivalent to the original requirements. When alternate requirements are imposed which are not equivalent to the original requirements, the alternate requirements will be fully evaluated and documented. The necessary reviews and evaluations of the procurement source's capability to meet the technical requirements of the procurement documents will also be performed.

Reviews and evaluations are performed of the procurement source's quality assurance program and ability to meet the quality assurance requirements of the procurement documents. (CCT 8354) Where necessary, a supplier's acceptability is determined by an audit of the supplier's quality assurance program. Such audits are performed in accordance with a written plan or checklist to determine the ability of the supplier to comply with the quality assurance program requirements of the procurement document. (CCT 8355) The determination of a supplier's acceptability may be made by means other than by audits. These means may include: a) review and evaluation of the supplier's quality assurance program description document, b) review and evaluation of historical supplier quality performance data, c) supplier facility surveys, d)

review and evaluation of audits, surveys, and inspections conducted by other utilities, or American Society Mechanical Engineers (ASME), or e) documented information from organizations, including architect-engineer, Nuclear Steam Systems Supplier, and other utilities that indicates the supplier has a program that meets applicable requirements of Appendix B to 10CFR50. When these means are either not available or do not permit a complete evaluation of a supplier's quality capabilities, a survey or an audit will be conducted of the supplier. A Qualified Suppliers List is maintained. (CCT 8356)

In addition to reviewing a supplier's capability to meet the commercial requirements of the procurement documents, a review is performed to ensure that the required technical and quality assurance evaluations have been completed satisfactorily prior to contract award or release of the purchase order. The results of these reviews and evaluations are documented.

Following the award of the contract or placement of the purchase order, surveillances and evaluations at the supplier's facility are conducted to verify continued compliance with the quality assurance requirements of the procurement documents. Where specified in the purchase order or contract, source inspections at the supplier's facility are accomplished by qualified individuals or qualified agent to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents. Such inspections are accomplished in accordance with written procedures, plans, and/or checklists containing or referencing appropriate acceptance criteria. (CCT 7997)

Upon receipt at CPS, safety-related materials, parts, and components are controlled. Qualified inspection personnel are responsible for inspecting, releasing, and identifying purchased material and equipment as to the inspection status. (CCT 8357)

Acceptance activities such as evaluation of content of technical documents required by the purchase order, and the conduct of special tests and measurements which are identified in the purchase order are also performed. Receipt inspections are accomplished in accordance with written procedures and/or plans containing or referencing appropriate acceptance criteria. After receipt inspection, the purchased material is forwarded to a controlled storage area or released for installation or further work. (CCT 8188)

Documentary evidence of conformance to procurement requirements provided by the supplier in accordance with the procurement documents is reviewed during source and/or receipt inspections to verify compliance. The validity of a supplier's certificate of

conformance is ascertained through any of the following methods: source inspection, independent inspection agency, receipt inspections, surveillance, testing of hardware, quality assurance audits or surveillances. Inspection and test activities verify that the hardware performs in accordance with applicable technical requirements and serve to demonstrate that the hardware meets the requirements stated in a certificate of conformance. The results of the source and/or receipt inspections, the acceptability of supplier furnished documentation, and the resulting determination of conformance or nonconformance are documented. (CCT 8189)

Acceptance of contracted services such as inspection services, consultant services, installation, repair or maintenance services shall be based on one or all of the following methods, as required:

a. technical verifications

b. surveillance/inspections

c. review of objective evidence such as certifications or technical reports.

Surveillances and audits are conducted of the control measures applied to purchased materials, equipment, and services to determine the effectiveness in meeting the specified requirements. Audits of suppliers evaluate the adequacy and effectiveness of suppliers' systems and procedures for preparing certificates of conformance, as well as the adequacy of supporting documentation and records. (CCT 8358)

7.3 RESPONSIBILITIES

7.3.1 Nuclear Program Departments

a. Ensure the control of purchased material, equipment, and services conform to procurement requirements.

b. Ensure that suppliers performing work at CPS utilize control measures compatible with those of CPS Plant Staff.

7.3.2 Nuclear Station Engineering

a. Review purchase requisitions and specify the technical and quality requirements for the item(s) or service(s) to be procured.

b. Perform technical reviews and evaluations of suppliers' capabilities to meet procurement technical requirements prior to release of the purchase order or contract.

c. Review and approve supplier furnished technical data specified by the procurement document, including such items or services as process and test procedures, performance of test data, and heat treat charts prior to acceptance.

7.3.3. Nuclear Support Services

a. Review requisitions for completeness.

b. Provide materials or equipment requiring receipt inspection to qualified inspectors for acceptance prior to issuing the material or equipment for operation.

c. Develop and implement procedures for the receiving, storing, and issuing of purchased items.

7.3.4 Purchasing and Material Control

a. Perform reviews of suppliers' capabilities to meet commercial terms and conditions prior to release of the purchase order or contract.

b. Verify the suppliers are listed on the Qualified Suppliers List as required.

7.3.5 Nuclear Assessment

a. Perform source surveillances and audits of suppliers' quality assurance programs prior to release of the initial purchase order or award of contract. (CCT 8354)

b. Perform surveillances and audits at suppliers' facilities to verify continued compliance with quality requirements of procurement documents.

c. Conduct surveillances and audits of the control measures applied to purchased material, equipment, and services to ensure compliance with the requirements of this chapter.

d. Perform and document source surveillances at the suppliers' facilities to verify that procured items or services are in compliance with the requirements of the procurement documents. (CCT 7997)

e. Maintain the Qualified Suppliers List current based on the results of the surveillances and audits.

CHAPTER

8

IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS

8.1 PURPOSE/SCOPE

To define the requirements and responsibilities for a program of identification and control of materials, parts, and components such that traceability is assured and the use of incorrect or defective items is prevented.

8.2 DESCRIPTION

Measures have been established which provide for the identification and control of materials, parts, and components to assure that traceability is provided and the use of incorrect of defective items is prevented. (CCT 8171) These measures include the following:

a. Procurement documents specify appropriate identification to be applied to purchased items. (CCT 8294)

b. An inventory control system is employed for the receipt, storage or stocking, and issue of materials, parts, and components.

c. The identity of materials, parts, and components is either on the items or on records traceable to them. When physical marking is employed, the marking is clear, unambiguous, indelible, and applied in such a manner as to not be detrimental to the intended function of the item. (CCT 8294)

d. Markings are not obliterated or hidden by treatment or coatings unless other means of identification are substituted.

e. When codes, standards, or specifications require traceability of materials, parts, or components to specific inspection or test records, the program is designed to provide such traceability.

f. When employed, identification is transferred to each part of an item prior to its being subdivided.

Materials, parts, and components shall have appropriate identifying designation (such as serial number, part number, heat number, etc.) in order to provide traceability to each item to inspection and test records and/or reports. Where physical identification of an item is either impractical or insufficient, physical separation or additional procedural controls are employed. (CCT 8295)

When installed material or equipment is removed for maintenance, repair, or modification, control measures are implemented to ensure proper identification markings and traceability throughout its processing. During fabrication, assembly, installation, and shipping activities at a supplier's facility, the supplier conducts verification inspections and is responsible for identification and control of materials, parts, and components in accordance with the requirements of the IP purchase order. (CCT 8296)

Material, parts, and components are identified and controlled during fabrication, maintenance and modification activities performed at CPS. Material, parts, and components are also identified and controlled during receipt and storage at CPS. The IP department responsible for supplier work at CPS is responsible for ensuring that identification and control of materials, parts, and components by the supplier are in accordance with applicable procedures.

Surveillances and audits are conducted to assure that identification and control of materials, parts, and components are in compliance with program requirements. (CCT 8298)

8.3 RESPONSIBILITIES

8.3.1 Nuclear Program Departments

a. The Nuclear Program Departments responsible for supplier work at CPS are responsible for ensuring that identification and control of materials, parts and components by the supplier are in accordance with applicable procedures.

8.3.2 CPS Plant Staff

a. Implement a program that provides for the identification and control of materials, parts and components used at CPS.

8.3.3. Nuclear Support Services

a. Implement an inventory control system for the identification and control of materials, parts and components.

8.3.4 Nuclear Assessment

a. Conduct surveillances and audits of the identification and control of items to ensure compliance with program requirements. (CCT 8298)

CHAPTER

9

CONTROL OF SPECIAL PROCESSES

9.1 PURPOSE/SCOPE

To define the requirements and responsibilities for assuring that special processes such as welding, heat treating, chemical cleaning, nondestructive examination (NDE), pipe bending, and special coatings are performed under proper controls and that qualified procedures governing these processes are established in accordance with applicable codes and specifications, are implemented by qualified personnel, and results of special processes are properly documented and evaluated.

9.2 DESCRIPTION

For some processes, the required level of quality defined in codes, standards, and specifications cannot be verified by inspection of the item only. For these processes, quality assurance is obtained through a combination of inspection and reliance on personnel qualification and procedural control, as appropriate, for the process being conducted. Processes which meet the following criteria are controlled as special processes: (CCT 8104)

a. The process is highly dependent upon operator skill and/or process control.

b. The specified quality cannot be readily determined by direct inspection or test of the final product.

Special process procedures shall specify: prerequisite conditions, processing steps, conditions to be maintained during the steps of the process, inspection and test requirements, personnel qualification requirements and record requirements. Technical portions of the special process controls are delineated or referenced in the design or technical documents by the organization preparing the document. (CCT 40853)

Special process procedures shall be reviewed and approved to assure technical adequacy. Supplier process control procedures specify the methods of verifying the adequacy of processing materials, solutions, and equipment, including definitions of their associated control parameters. The control and approval of sub-supplier special process procedures are the responsibility of the specific suppliers involved. (CCT 8276) Special process requirements are

involved. (CCT 8276) Special process requirements are promulgated to suppliers by the procurement and/or design documents.

Control measures and requirements that have been established include:

a. The need for special processes and the codes or standards applicable are identified during design or preparation of technical documents associated with an activity. (CCT 8006)

b. Special processes are performed in accordance with approved written procedures applicable to the specific process and qualified in accordance with applicable codes and standards. (CCT 8006)

c. Personnel performing special processes are qualified, as required in accordance with applicable codes and standards. (CCT 8006)

d. Special processes are accomplished under suitable controlled conditions which include the use of qualified equipment, adequate control of the environment, and establishment of proper prerequisites related to the process. (CCT 8006)

e. Application of special process procedures and personnel qualifications is verified through audits and surveillances. (CCT 8006)

f. Records which show that special processes were performed in compliance with qualified or approved procedures and by qualified personnel and equipment are maintained. (CCT 8006)

Inspections, surveillances and audits are conducted of special processes, including qualification of processes, equipment, and personnel to ensure compliance with appropriate codes, standards, specifications, procedures, and the IP Nuclear Program Quality Assurance Manual. (CCT 7996)

9.3 RESPONSIBILITIES

9.3.1 CPS Plant Staff

a. Maintain a program to qualify special process procedures and equipment, except NDE required for plant operations.

b. Maintain a program to qualify personnel to perform special processes, except NDE required for plant operations.

c. Incorporate into Plant Staff documents the requirement for special processes and their controls and references to the applicable codes or standards.

9.3.2 Nuclear Station Engineering

a. Specify special processes in technical documents and procurement requisitions.

b. Support CPS Plant Staff in the preparation, revision and qualification of special process procedures and personnel.

c. Review and approve special process procedures used at CPS or specified in procurement documents to verify technical adequacy.

d. Review and approve special process personnel qualification procedures and verify technical adequacy.

e. Contracts with an Authorized Inspection Agency to provide inspection services for ISI.

f. Perform scheduled ISI examinations and inspections.

g. Contracts with a supplier to perform scheduled ISI examinations and inspections as required.

h. Review NDE procedures, including those of suppliers.

i. Maintain a program to qualify procedures, equipment, and personnel for NDE.

j. Perform NDE to support plant operations, including NDE for repairs, replacements and modifications.

k. Contracts with a supplier to perform NDE or inspection services as required.

9.3.3 Nuclear Assessment

a. Conduct surveillances and audits of special processes and controls, including qualification of

process, equipment, and personnel, whether performed by CPS Plant Staff or suppliers to ensure compliance with approved procedures. (CCT 7996)

10.1 PURPOSE/SCOPE

To define the requirements and responsibilities for a program of inspection which provides assurance that the fabrication, installation, modification, and repair activities affecting safety-related components, systems, and structures conform to the applicable specifications, instructions, procedures, drawings, or other pertinent technical requirements. The independent inspections performed are not intended to diminish or replace the clear responsibility of first line supervisors for the quality of work performed under their supervision.

10.2 DESCRIPTION

In order to assure safe and reliable operation, programs of inspections are established at CPS which include the following provisions:

a. The requirements for inspections are identified and documented based on procedures, instructions, drawings, and other documents for an activity prior to the start of the activity. (CCT 8021)

b. Inspections are accomplished in accordance with a combination of approved written inspection procedures and documented instructions which contain or reference, as a minimum: (CCT 8290)

1. A description of the required inspection (type, method, etc.), the responsibility for performing the inspection, and, where applicable, any sampling plan to be used. Hold/Witness points, where required, will be indicated in the appropriate documents;

2. The discrete identity of the activity, process, or item to be inspected;

3. Applicable documents, drawings, and specifications pertaining to the activity or item under inspection;

4. Verification of proper type, range, and accuracy of inspection instrument(s) used for each operation;

5. Appropriate quantitative or qualitative criteria for acceptance/rejection;

6. Provisions for recording inspection data and results.

c. Inspection personnel are qualified and certified in accordance with the requirements of applicable codes, standards and written procedures. Inspections are performed by persons other than those who performed or directly supervised the activity being inspected. The qualifications and certification of inspection personnel are maintained current. (CCT 24343)

d. Where direct inspection or testing is impossible or disadvantageous, indirect control by monitoring process methods, equipment, or personnel is employed. When necessary to provide an adequate level of product quality assurance, both direct control (inspection and testing) and indirect control (process monitoring) are utilized. When sampling plans are used, their applicability is evaluated and justified in writing. (CCT 8076)

e. Measuring and test equipment used to obtain quantitative data for acceptance criteria shall have an accuracy equal to, or greater than, the required tolerances of the measurement being taken. (CCT 8016)

Suppliers are responsible for establishing and implementing inspection programs necessary to meet the requirements specified in the procurement documents. The need to invoke the requirements of ANSI N45.2.6-1978, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants", on suppliers is evaluated during the review of procurement documents for items and services. The complexity of the item and the extent of the source and receipt inspection are factors which are considered when determining whether or not to invoke ANSI N45.2.6. (CCT 8018)

Surveillances and audits are conducted of the various established inspection programs and their implementation to ensure compliance

with the provisions described in items "a" through "e" above. (CCT 8008)

10.3 RESPONSIBILITIES

10.3.1 CPS Plant Staff

a. Implement a program that provides for inspection of work operations performed at CPS.

10.3.2 Nuclear Station Engineering

a. Specify inspection and nondestructive examination criteria and requirements in technical documents and procurement requisitions.

b. Implement an inspection program for scheduled ISI Program examinations and inspections and perform NDE to support plant operations.

c. Maintain qualified and certified inspection personnel in accordance with appropriate standards.

10.3.3. Nuclear Assessment

a. Implement an inspection program for CPS, excluding material receipt, ISI, NDE, and welding inspection. (CCT 8021)

b. Maintain qualified and certified inspection personnel in accordance with appropriate standards. (CCT 24343)

c. Verify through surveillances and audits that suppliers performing work at CPS are in compliance with an approved inspection program. (CCT 8018)

d. Conduct surveillances and audits of inspection programs to ensure compliance with the requirements of this chapter. (CCT 8008)

CHAPTER

11

TEST CONTROL

11.1 PURPOSE/SCOPE

To define the requirements and responsibilities for the control of a test program which will assure that the safety-related structures, systems or components being tested meet specified performance criteria.

11.2 DESCRIPTION

The IP Nuclear Quality Assurance Program addresses requirements and responsibilities for establishing and conducting test programs for the following:

a. Verification tests prior to installation.

b. Surveillance testing.

c. Tests associated with plant maintenance, modifications, repairs or procedural changes.

Test programs are developed to assure that the required tests are performed in accordance with approved written procedures which incorporate or reference the design requirements and acceptance criteria and provide for the following, as required:

a. Statement of test objective(s);

b. Test prerequisites, to be fulfilled prior to the test, including requirements for calibrated instruments, suitable environmental conditions, appropriate equipment and personnel availability; and condition of the item to be tested and condition of the test equipment;

c. Precautions to be taken in the preparation and performance of the test, including limits of parameters if variations outside the normal ranges are prescribed;

d. Mandatory inspection hold points for witness by inspection personnel;

e. Instructions for performance of the test, including the use of appropriate instruments, equipment and personnel;

f. Data to be acquired; and

g. Acceptance/rejection criteria.

Test schedules are provided and maintained in order to assure that necessary testing is performed and properly evaluated on a timely basis and that the safety of the plant is dependent on performance of systems which have satisfactorily passed required tests. Testing is conducted by appropriately trained and qualified personnel. Test results are documented to facilitate evaluation and to provide a permanent record. Test evaluations are performed to assure that performance characteristics conform to design. Repair, rework and/or retesting are scheduled for accomplishment as identified by the test evaluation.

11.3 RESPONSIBILITIES

11.3.1 CPS Plant Staff

a. Implement programs that specify and control the testing of structures, components and systems.

b. Develop and implement test schedules to ensure that tests are performed on a timely basis.

c. Ensure that test personnel are qualified and trained to perform their function.

d. Perform the required tests.

e. Review and approve test procedures and results for surveillance testing.

f. Review and approve post-maintenance test results.

g. Review and approve post-modification test results.

11.3.2 Nuclear Station Engineering

a. Establish test requirements and acceptance criteria for post-modification testing.

b. Review and approve post-modification and/or special test results as detailed in approved procedures.

c. Review and evaluate test results as required by the ISI Program.

11.3.3. Nuclear Assessment

a. Conduct surveillances and audits of the test program to ensure the test program complies with the requirements of this chapter. (CCT 8359)

CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 PURPOSE/SCOPE

To define the measures and responsibilities to assure tools, gauges, instruments, and other measuring and testing devices (M&TE) used in activities affecting quality are properly controlled, calibrated and adjusted at specified periods to maintain accuracy within specified limits. Measures shall also be defined for the control of permanently installed instrument and control devices.

12.2 DESCRIPTION

M&TE is procedurally defined as equipment used to quantitatively generate or measure physical parameters with a known degree of accuracy for the purpose of calibration, inspection, test, or repair of plant mechanical, electrical or instrument/control equipment.

In order to assure the accuracy of measuring and test equipment and installed instrument and control devices which require calibration or calibration check is maintained within specified limits, a written program for the control and calibration of such devices is provided. This program includes the following provisions:

a. For M&TE, the reference standards have an accuracy of at least four (4) times the required accuracy of the equipment being calibrated, or when this is not possible, have an accuracy that assures the equipment being calibrated will be within the required tolerance and that the basis of acceptance is documented and authorized by supervisors.

b. The reference standards used for calibrations are required to be traceable to nationally recognized standards or accepted values of natural physical constants to the extent possible. When this is not possible, the basis for calibration of a reference standard is required to be documented.

c. Calibration intervals for M&TE and installed instrument and control devices are based upon the type of equipment, stability, reliability characteristics, required accuracy and other conditions affecting calibration.

d. Calibrations are performed by comparison with valid standards using approved written procedures.

e. Calibration standards are maintained and used in a controlled environment which does not adversely affect the calibration procedure or standard.

f. The calibration status, including the due date of next calibration of each item of M&TE, is visible through use of tags, labels or decals attached to the equipment or a statusing system.

g. M&TE and installed instrument and control devices requiring calibration are assigned identification numbers traceable to the calibration records which includes the calibration "AS FOUND" and "AS LEFT" data for the equipment calibrated at the plant. If the equipment is calibrated by an outside service organization, a certificate of calibration complete with "AS FOUND" and "AS LEFT" calibration data is required. Such certificates and data sheets bear the assigned equipment identification numbers and the identification of the calibration standard used and are traceable to the individual calibration records.

h. M&TE is not used past the expiration of the calibration period.

i. If selected installed instrument and control devices are found to be out of calibration, an evaluation concerning the validity of previous inspection and test results is performed and documented. If M&TE is found to be out of calibration, an evaluation concerning the validity of previous inspection and test results and the acceptability of items previously inspected or tested since the time of the last calibration check is made and documented. Corrective action is taken in accordance with Chapter 16 when such evaluations invalidate a previous acceptance.

j. A calibration tracking system is established to ensure that recalibration is performed in accordance with pre-established calibration frequencies.

A program has been implemented for the control of M&TE and installed instrument and control devices used in operation, maintenance, test and/or inspection activities which fall within the scope of the IP Nuclear Quality Assurance Program. Suppliers performing services or providing products to CPS are required to have comparable control programs in effect for items affecting systems, structures and components within the scope of the QA program.

Surveillances and audits are conducted of the controls applied to measuring and test equipment to determine compliance with the provisions described in items "a" through "j" above. (CCT 7995)

12.3 RESPONSIBILITIES

12.3.1 CPS Plant Staff

a. Implement programs to control the use of M&TE used at CPS.

b. Implement programs to calibrate and recall the M&TE used at CPS.

c. Ensure the appropriate requirements for the control of M&TE are included in Plant Staff initiated technical documents and procurement requisitions.

d. Implement programs to control the use of installed instrument and control devices.

12.3.2 Nuclear Assessment

a. Conduct surveillances and audits of the controls applied to M&TE and installed instrument and control devices to determine compliance with the requirements of this manual. (CCT 7995)

HANDLING, STORAGE AND SHIPPING

13.1 PURPOSE/SCOPE

To define the requirements and responsibilities for the control of handling, storage, shipping, packaging, cleaning and preservation of materials and equipment to prevent damage or deterioration.

13.2 DESCRIPTION

The IP Nuclear Quality Assurance Program includes procedures which assure special handling, preservation, storage, cleaning, packaging and shipping requirements are accomplished by trained individuals in accordance with plant procedures to prevent damage or deterioration. The procedures will provide for the control of heavy loads and safe load paths to protect safety systems and radioactive material from damage. In addition to the handling, storage and shipping requirements imposed on suppliers by IP through appropriate technical and procurement documents, suppliers may also be required to provide information to Nuclear Support Services related to the proper handling, storage and shipping of furnished materials, parts and components. Nuclear Support Services uses this information for the development of the storage and handling procedures and instructions to be applied to an item.

The procedures and instructions will provide for the preservation of special items that are subject to deterioration or damage through exposure to air, moisture, temperature, or other environments and use of special handling tools and equipment.

Consumable materials such as chemicals, reagents and lubricants maintained in storerooms and warehouses are controlled procedurally by an inventory control system which includes provisions for identifying storage requirements by commodity and identifying shelf life by commodity, when applicable. Disposal of commodities whose shelf life has expired is addressed and controlled by procedures.

Surveillances and audits are conducted to determine if appropriate procedures and controls are being applied regarding handling, storage and shipping of materials and equipment. (CCT 8007)

13.3 RESPONSIBILITIES

13.3.1 CPS Plant Staff

a. Implement programs to provide for the use of special handling tools and equipment.

b. Implement programs to control the handling, storage and shipping of materials.

13.3.2 Nuclear Station Engineering

a. Ensure that appropriate handling, storage and shipping requirements are identified in technical documents that are prepared or reviewed by the department.

b. Specify in procurement documents, that suppliers furnishing materials and equipment within the scope of this program implement appropriate controls for handling, shipping and storage of such items.

13.3.3. Nuclear Support Services

a. Ensure that suppliers furnish the required information relating to the proper handling, storage and shipping of procured items.

b. Implement programs to control the handling, storage and shipping of items to be used in CPS, including radioactive materials.

c. Implement programs to provide for the preservation of items in storage that are subject to deterioration or damage through exposure to harsh environmental elements or conditions.

d. Ensure that appropriate handling, storage and shipping requirements are identified in procurement requisitions.

13.3.4 Nuclear Assessment

a. Conduct surveillances and audits to verify that appropriate procedures and controls are being implemented in accordance with the requirements of this chapter. (CCT 8007)

INSPECTION, TEST AND OPERATING STATUS

14.1 PURPOSE/SCOPE

To define the requirements and responsibilities for identifying the inspection, test and operating status of materials, parts, components and assemblies to assure that only items which have passed the required inspections and tests are installed or operated.

14.2 DESCRIPTION

The IP Nuclear Quality Assurance Program includes procedures which assure the inspection, test and operating status of materials, parts and components are identified during the receiving, installation and operating processes. These procedures provide for: (CCT 8082)

a. Clear indication of the status of inspection and tests performed upon individual items by the use of markings such as: a) stamps applied directly to the item, tags, or labels attached to the item; b) routing cards that accompany the item; or c) identification numbers which are traceable to records of the status of inspections and tests. If control stamps are used, a record of the assignment of the control stamp is maintained; however, if a stamp is lost or if the stamp holder no longer requires the stamp, that stamp number is retired. When impression stamping is used, it conforms to the requirements of codes and applicable specifications and standards. When markings are applied directly to items, consideration is given to ensure the markings have no deleterious effect on the items. (CCT 8082)

b. Assurance that required inspections or tests are not inadvertently bypassed. In cases where required documenting evidence is not available, the

associated equipment or materials must be considered nonconforming in accordance with Chapter 15 of the Quality Assurance Manual. Until suitable documented evidence is available to show the equipment or material is in conformance, affected systems shall be considered to be inoperable and reliance shall not be placed on such systems to fulfill their intended safety functions. (CCT 8082)

c. Clear indication, by the use of a tag and/or statusing system, of the operational status of structures, systems and components when in any status other than a normal operable status to prevent inadvertent operation.

The test and operating status of materials, parts, components and assemblies is indicated at CPS. The inspection and test status of items in storage is also maintained. Inspection personnel are responsible for the identification of the inspection status on materials, parts and components. (CCT 7998) As imposed by the contract documents, suppliers performing activities at CPS or furnishing materials, parts, components or assemblies for use at CPS also have responsibilities for the identification of inspection, test and operating status of items under their control. (CCT 8083) The programs of suppliers performing work at CPS are reviewed and approved to ensure compatibility with the CPS status indication system. (CCT 8084)

Surveillances and audits are conducted to determine implementation and adequacy of measures used to indicate inspection, test and operating status to meet the requirements of the IP Nuclear Quality Assurance Program. (CCT 7999)

14.3 RESPONSIBILITIES

14.3.1 CPS Plant Staff

a. Implement programs to indicate inspection, test and operating status of materials, parts, components, sub-systems and systems during installation, modification, repair, testing and operation of CPS.

b. Review and approve the programs of suppliers performing work at CPS to ensure compatibility with the CPS status indication system.

c. Implement procedures to control the status of radiological samples.

d. Implement programs to indicate status of nonconforming items.

14.3.2 Nuclear Support Services

a. Implement procedures to control the inspection and test status of items in storage.

14.3.3 Nuclear Assessment

a. Conduct surveillances and audits of the implementation and adequacy of programs used to indicate inspection, test and operating status to ensure compliance with the requirements of this chapter. (CCT 7999)

CHAPTER

15

NONCONFORMING MATERIALS, PARTS OR COMPONENTS

15.1 PURPOSE/SCOPE

To describe the measures established and implemented to control items, services or activities which do not conform to the requirements, and the measures to control further processing, delivery or installation of nonconforming or defective items.

15.2 DESCRIPTION

The following measures have been established and implemented at CPS:

a. Control of nonconformances is accomplished in accordance with documented procedures. (CCT 8001)

b. Nonconformances are documented by means which also ensure that affected organizations are notified. (CCT 8001)

c. Nonconforming items are identified and controlled. Except for installed items, nonconforming items are placed in a segregated storage area when practical. Such storage areas are identified as containing only nonconforming items. When segregation is impossible or impractical, the nonconforming item shall be identified and controlled by tagging, marking or documentation traceable to the item, including normally installed items or those removed from the normally installed location. (CCT 8001)

d. Further use or installation of nonconforming items is controlled in accordance with written procedures and/or instructions. (CCT 8102)

e. The responsibility and authority for the disposition of nonconformances is defined. (CCT 8002)

f. Permissible dispositions are: a) "use as is", b) "rework" to drawing or specification requirements, c) "repair" to an acceptable level, d) "reject" for that particular use, or e) "other" for non-hardware nonconformances. (CCT 8002)

g. "Repair" and "rework" dispositions are implemented into the affected item in accordance with documented procedures and/or instructions. (CCT 8002)

h. The disposition, along with its engineering analysis and any resultant reinspection and/or acceptance verification, are documented. (CCT 8002)

i. "Rework" and "repair" actions are described, depending on complexity, by individual procedures or by instructions contained in the corresponding work control document. Each procedure or instruction details required inspections and tests. Specified inspections and tests are equivalent to original requirements. Acceptable alternatives to original inspection or test requirements may be used provided they are assessed for adequacy and the rationale documented. (CCT 40854)

Inservice items that are found to be nonconforming shall be reviewed to determine equipment operability as defined by the technical Specifications. For items that represent significant conditions adverse to quality or safety, or require a repair or use-as-is disposition, an engineering evaluation shall be performed. The engineering evaluation shall provide support for the initial operability decision and provide the correction or resolution for the identified nonconformances. These items shall be controlled in accordance with approved procedures. (CCT 8103)

Installed items not in service that are nonconforming or become nonconforming as a result of maintenance shall be corrected or resolved prior to operational reliance. These items shall be controlled in accordance with approved procedures.

A nonconforming item may be conditionally released for fabrication, installation or testing following an engineering evaluation to determine if such a conditional release is not detrimental to other components or systems. Conditional released items are controlled in accordance with approved procedures. The nonconformance for the conditionally released item shall be corrected or resolved prior to operational reliance.

The Vice President and Manager - Clinton Power Station has the authority to conditionally release any item or installation or operations if needed to place the plant in a safe and stable condition.

Procurement documents require that suppliers have similar measures established for the identification, control and dispositioning of nonconformances and that recommended dispositions of "use-as-is" or "repair" must be reported to IP for approval. (CCT 8004)

Surveillances and audits are conducted of the programs instituted for the identification and control of nonconformances to ensure compliance with the requirements of the IP Nuclear Quality Assurance Program. (CCT 8019)

15.3 RESPONSIBILITIES

15.3.1 All Nuclear Program Personnel

a. All Nuclear Program personnel are responsible for identifying and reporting nonconforming materials, parts, components, services and activities.

15.3.2 Nuclear Program Departments

a. All Nuclear Program Departments are responsible for establishing and implementing effective procedure(s) for identifying, documenting and controlling nonconformances within the scope of their department's activities as described in this chapter of the QA Manual.

15.3.3. CPS Plant Staff

a. Authorize the conditional release of items.

b. Coordinate with NSED to evaluate and document the safety significance of nonconforming items.

c. Develop and implement procedures, instructions or work control documents for the control and correction of nonconforming items with repair or rework dispositions.

15.3.4 Nuclear Support Services

a. Implement an effective program for processing supplier nonconformance reports.

15.3.5 Nuclear Station Engineering

a. Implement a program for nonconforming items that ensures "use-as-is or "repair" dispositions are approved by the appropriate design organization.

b. Coordinate with Plant Staff to evaluate and document the safety significance of nonconforming items.

c. Perform engineering evaluations for conditionally released items.

d. Determine acceptable alternatives to original inspection or test requirements for "rework" or "repair" dispositions.

e. Document engineering analyses that support the disposition of nonconforming items.

15.3.6 Nuclear Assessment

a. Conduct surveillances and audits of the nonconformance control program at CPS to ensure compliance with the requirements of the IP Nuclear Quality Assurance Program. (CCT 8019)

15.3.7 Facility Review Group

a. Review documented safety evaluations for conditionally released items in accordance with the requirements of 10CFR50.59.

16.1 PURPOSE/SCOPE

To describe the measures established and implemented to assure that conditions adverse to plant safety and/or quality are promptly identified and corrected; and that significant conditions are identified, evaluated, documented, corrected, reported and independently reviewed.

16.2 DESCRIPTION

Each IP organization and supplier performing activities or supplying services, materials, parts or components applicable to this program is required to establish and implement a documented corrective action procedure(s) which assures that conditions adverse to plant safety and/or quality are promptly identified, reported to supervisory personnel, analyzed for significance and corrected. (CCT 8023) Personnel or organizations identifying conditions adverse to plant safety and/or quality have the responsibility to report such conditions to the appropriate functional organization who will promptly correct the condition. Conditions adverse to plant safety will be reported to Plant Operations personnel for assessment of operational impact. Reporting may be accomplished through various reporting documents as defined in procedures. An analysis of the significance of conditions adverse to plant safety and/or quality is performed by personnel cognizant of the condition and its resultant effects on plant safety or operability.

Trend analysis is performed on conditions adverse to plant safety and/or quality to determine if a trend representing significant condition adverse to plant safety and/or quality exists. (CCT 8014) Trend analysis of conditions documented on maintenance work documents to identify equipment failures and reliability concerns is also performed. The results of these trend analyses are documented and reported to appropriate management of the area in which the trends are identified. Reports to management include a history and analysis of the adverse conditions and trends identified. (CCT 8015)

In the case of significant conditions adverse to plant safety and/or quality, including significant adverse trends, the functional organization responsible for the significant condition will analyze the condition for causes, take appropriate and timely action to preclude recurrence and implement follow-up action as appropriate to verify implementation of corrective action. The actions taken will be documented and reported to appropriate levels of management.

Corrective action is evaluated to determine its effectiveness, including steps taken to identify the cause of significant conditions adverse to plant safety and/or quality and action taken to preclude recurrence. (CCT 8013) Documented corrective action for significant conditions adverse to plant safety is also reviewed. These reviews are documented and are carried out in accordance with a documented program.

16.3 RESPONSIBILITIES

16.3.1 All Nuclear Program Personnel

a. All Nuclear Program personnel are responsible for identifying and reporting conditions adverse to plant safety and/or quality.

16.3.2 Nuclear Program Departments

a. Implement a corrective action procedure(s) which assures that conditions adverse to plant safety and/or quality are promptly identified, reported, analyzed for significance and corrected. In the case of significant conditions, the procedure(s) requires an analysis for causes, action to preclude recurrence, and follow-up to verify implementation of corrective action.

16.3.3. CPS Plant Staff

a. Assess conditions adverse to plant safety for operational impact.

16.3.4 Nuclear Assessment

a. Evaluate corrective action to determine its effectiveness.

b. Conduct surveillances and audits of the corrective action program to ensure compliance with the requirements of this chapter. (CCT 8012)

16.3.5 Nuclear Review and Audit Group

a. Review significant conditions adverse to plant safety in accordance with a documented program.

QUALITY ASSURANCE RECORDS

17.1 PURPOSE/SCOPE

To define the requirements and responsibilities for collection, compilation, storage and retrieval of records necessary to provide evidence of quality in the design, fabrication, installation, inspection, testing and operating activities related to the Clinton Power Station.

17.2 DESCRIPTION

Sufficient records, identifiable to the item or activity to which they apply, filed in an orderly manner and retrievable are maintained in the records storage facilities.

Test and inspection records shall contain the following information: (CCT 8287)

a. Identity of the inspector or data recorder;

b. Type of observation;

c. Date and results of the test or inspection (quantitative and qualitative);

d. Acceptability of the test or inspection results; and

e. Action taken and rationale to resolve any problems noted.

The preparation, collection, review, acceptance, turnover/transfer, processing, transmittal, retention and retrieval of records is accomplished in accordance with documented standards and procedures. Some quality assurance records may be kept by suppliers and maintained on an available basis for a specified period of time. Such records are required to be offered to IP after the suppliers no longer plan to keep them.

The retention times for the various quality assurance records are in accordance with applicable requirements including 10CFR50, Technical Specifications and nationally recognized standards and codes. Records are maintained in the records storage facilities that provides controlled access and protection against fire, flooding, vermin and decay.

Surveillances and audits are conducted of records systems to ensure compliance in meeting the IP Nuclear Quality Assurance Program requirements. (CCT 8020)

17.3 RESPONSIBILITIES

17.3.1 Nuclear Program Departments

a. Develop and implement departmental procedures or instructions for records preparation, collection, review, turnover/transfer, receipt, retention and retrieval which implement the Records Management Program and Standards.

b. Transfer completed quality assurance records to Nuclear Support Services, Records Management Group for processing and retention.

17.3.2 Nuclear Support Services

a. Establish, maintain and implement a Records Management Program including Standards covering the preparation, collection, review, turnover/transfer, processing, retention and retrieval of records generated in performing activities within the scope of this program.

b. Receive, process (index, microfilm, etc.), and retain QA records in the records storage facilities.

c. Maintain the CPS records storage facilities such that completed quality assurance records are kept in accordance with the requirements of this manual.

17.3.3. Nuclear Assessment

a. Conduct surveillances and audits of records systems to ensure compliance with the requirements of this chapter. (CCT 8020)

18.1 PURPOSE/SCOPE

To define the requirements and responsibilities for implementing the program of planned and periodic audits which verify compliance with the quality assurance program and determine the effectiveness in meeting program objectives.

18.2 DESCRIPTION

IP's Quality Assurance program includes provisions for planned and periodic audits designed to verify compliance with the requirements of the IP Nuclear Quality Assurance Program and to determine the effectiveness in implementing the program objectives. (CCT 8022) The audit program provides for the following:

a. Provisions are made for both internal and external audits. (CCT 8009)

b. Audits include the full range of activities within the scope of the IP Nuclear Quality Assurance Program. Additionally, program audits include indoctrination and training programs; interface between IP audited organizations and other affected organizations; USAR commitments; and Technical Specification requirements. (CCT 8105)

c. Provisions are made for regularly scheduling audits based upon the status and importance of the activities. (CCT 8106)

d. A qualification system is established for auditing personnel. Independent certifying agencies may be used for the development and administration of lead auditor examinations. (CCT 24358)

e. Personnel conducting audits do not have any direct responsibilities for the activities being audited. (CCT 8010)

f. The audit team leader is charged with instructing the other members during audit preparation and performance. Personnel conducting audits shall have training and/or experience with the activities being audited. (CCT 8010)

g. Written audit plans are developed which identify the scope, requirements, activities to be audited, organizations involved, applicable documents, schedule and written procedures or checklists to be used for each audit.

h. Audit results are documented, reports are generated and retained.

i. Audit reports are distributed to responsible management of the auditing organization and to the appropriate managerial level of the organization having responsibility for the area or activity audited. (CCT 24357)

j. Appropriate corrective action is developed. (CCT 8011)

k. Follow-up action (including re-audit) is taken to verify that corrective action has been completed and the resolution documented. (CCT 8011)

Audits are initiated as early in the life of the activity as practicable consistent with the schedule for accomplishing the activity to assure timely implementation of the quality assurance requirements. (CCT 1433) Audits may be augmented at any time based on recommendations from the Nuclear Review and Audit Group, or Nuclear Program personnel as the scope of work and other requirements for auditing an activity change. (CCT 1434)

Audited organizations are required to review and provide timely written response to audit findings stating corrective action taken or planned to correct deficient areas and prevent recurrence. (CCT 8299) Audit program requirements are imposed on suppliers by appropriate contract or procurement documents. (CCT 8300)

Reports of internal audits are forwarded to the Nuclear Review and Audit Group and the Independent Safety Engineering Group for program evaluation. (CCT 8301) IP Management obtains independent audits of the Nuclear Assessment organization. (CCT 8302)

18.3 RESPONSIBILITIES

18.3.1 Nuclear Program Departments

a. Maintain a program for determining and implementing corrective actions to audits.

18.3.2. Nuclear Review and Audit Group

a. Review reports of internal audits for program evaluation.

18.3.3 Nuclear Assessment

a. Implement an internal audit program and audit each IP organization performing activities within the scope of the QA program to verify that the requirements of this manual are being met. (CCT 8022)

b. Implement an external audit program and audit suppliers performing activities within the scope of the IPQA program to verify compliance with the supplier's respective quality assurance programs, contract, specifications and requirements. (CCT 8009)

c. Coordinate for the Senior Vice President, the performance of independent audits of the Nuclear Assessment organization. (CCT 8302)

d. Implement a program for evaluating the adequacy of corrective actions to audits. (CCT 8011)

e. Independent Safety Engineering Group review reports of internal audits for program evaluation.

APPENDIX A
GLOSSARY OF TERMS

Acceptance Criteria - Specified limits placed on characteristics of an item, process or service defined in codes, standards or other requirement documents.

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 the quality assurance program have been developed, documented and effectively implemented in accordance with specified requirements.

Auditor - Any individual who performs any portion of an audit, including lead auditors, technical specialists, auditors-in-training and others, such as management representatives.

Authorized Inspection Agency (AIA) - An agency designated as such by the appropriate legal authority of a State or Municipality of the United States or a Province of Canada or an insurance company authorized to write boiler and pressure vessel insurance in that jurisdiction.

Authorized Nuclear Inservice Inspector (ANII) - An authorized Nuclear Inservice Inspector is an employee of an Authorized Inspection Agency who meets the requirements of ANSI N626.1-1982 and the requirements of ANSI N626.0-1983 for Authorized Nuclear Inspector (ANI).

Certification - The act of determining, verifying and attesting in writing to the qualification of personnel, processes, procedures or items in accordance with specified requirements.

Certificate of Compliance - A written statement signed by a qualified party attesting that the items or services are in accordance with specified requirements and accomplished by additional information to substantiate the statement.

Certificate of Conformance - A written statement signed by a qualified party certifying that items or services comply with specific requirements.

Certified Test Report - A written and signed document approved by a qualified party that contains sufficient data and information to verify the actual properties of items and the actual results of all required tests.

Characteristic - Any property or attribute of an item, process or service that is distinct, describable and measurable, as

conforming or nonconforming to specified quality requirements. Quality characteristics are generally identified in specifications and drawings which describe the item, process or service.

Chemical Cleaning - Refers to the use of acids and caustic substances applied to material or product forms during manufacture, maintenance or repair.

Codes - Collective term used to describe all the published codes applicable to Clinton Power Station operations, such as the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

Commercial Grade Classified Items - Items which are: (1) not subject to design or specification requirements unique to NRC licensed facilities or activities; (2) used in applications other than NRC licensed facilities or activities; and (3) able to be ordered from the manufacturer/distributor on the basis of the manufacturer's published specifications or descriptions.

Condition Adverse to Quality - An all inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, deviations, defective items and nonconformances.

Control Stamp - A stamp used to mark a unique identification of inspection or test status upon items, tags, labels, routing cards or records traceable to an item. Control stamp impressions clearly identify the person who applied it such that traceability to their authorization is provided.

Correction - The process of bringing a nonconforming item into conformity with an approved design, i.e., implementation of a dispositioned nonconformance document.

Corrective Action - The action required to correct or resolve adverse conditions in equipment, material, processes, procedures or activities when noted. Action taken may be remedial action to correct the specific condition, corrective action to preclude recurrence, or both.

CPS - Abbreviation for Clinton Power Station.

Departmental Procedures or Instructions - Procedures or instructions approved and issued within a department which provide detailed direction to personnel.

Deviation - A nonconformance or departure of a characteristic from specified requirements.

Documents - Collective term used to describe all written or pictorial information that directs or shows how an activity is to be accomplished. Documents include, but are not limited to , drawings, procedures, instructions and changes thereto.

Documentation - Any written or pictorial information describing, defining, specifying, reporting or certifying activities, requirements, procedures or results.

Examination - An element of inspection consisting of investigation of materials, components, supplies or services to determine conformance to those specified requirements which can be determined by such investigation. Examination is usually nondestructive and includes simple physical manipulation, gauging and measurement.

Extended Quality Assurance Program - The selected use of technical and management controls to improve the operational performance of equipment important to reliable station operation but not included in compliance based quality assurance programs.

External Audits - Audits of those portions of contractors', vendors' and suppliers' quality assurance program activities not retained under IP's direct control and not within the IP organizational structure.

Facility Review Group (FRG) - An on-site committee whose function is to advise the Vice President and Manager - Clinton Power Station on matters related to nuclear safety.

Follow-up - Action involving direct communication with the responsible organization to assure a timely written response to findings, adequacy of the response and corrective action accomplishment as scheduled.

Hold Point - Point in a procedure or work document at which the performer is required to stop and notify inspection personnel to allow for planned inspections. The work activity shall not proceed without the point being signed by inspection personnel, or inspection personnel being present and authorizing the activity to proceed, or the point waived/reclassified.

Independent Review - Review completed by personnel not having direct responsibility for the work functions under review regardless of whether they operate as a part of an organizational unit or as individual staff members.

Inservice Inspection - A mandatory program of examinations, testing, inspections and control of repairs and replacements to ensure adequate safety in maintaining the nuclear power plant and

to return the plant to service in a safe and expeditious manner in accordance with the CPS ISI Program Manual.

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

Interface - When two or more organizations have responsibilities for accomplishing an activity, the functional relationship that one organization has to the others in completing the activity is called an "interface" relation. One example of interface is when one organization must perform a step which is a prerequisite to another organization accomplishing its function. Interface can also mean that several organizations accomplishing similar activities are under the coordination control of one organization.

Internal Audits - Audits of those portions of IP's Quality Assurance program activities retained under direct Company control and within the IP organizational structure.

IP - Abbreviation for Illinois Power.

Item - Any level of unit assembly, including structure, system, sub-system, subassembly, component, part or material.

Lead Auditor - An individual qualified and certified to organize and direct an audit, report audit findings and evaluate corrective action.

Measuring and Test Equipment - Equipment used to quantitatively generate or measure physical parameters with a known degree of accuracy for the purpose of calibration, inspection, test or repair of plant mechanical, electrical or instrument/control equipment. (This does include permanently installed instrument and control devices.)

Modification - A planned change in plant design or operation and accomplished in accordance with the requirements and limitations of applicable codes, standards, specifications, licenses and predetermined safety restrictions.

Noncompliance - A failure to comply with a regulatory requirement.

Nonconformance - A deficiency in characteristics, documentation or procedure which renders the quality of an item unacceptable or indeterminate. Examples of nonconformances include physical

defects; test failures; incorrect or inadequate documentation; or unauthorized deviations from prescribed processing, inspection or test procedures.

Nuclear Review and Audit Group (NRAG) - A committee responsible for the independent safety review function.

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

Operable/Operability - A system, subsystem, train, component or device shall be operable or have operability when it is capable of performing its specified function(s) and when all necessary attendant instrumentation, controls, electrical power, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s). NOTE: Safe operation of the plant is determined by CPS licensed operators.

Permanently Installed Instrument and Control Devices - The installed plant equipment including computer points used in determining acceptance criteria of Technical Specification surveillances (Category A Instruments).

Plant Staff - The organization which is directly responsible for the operation of the Clinton Power Station. The Plant Staff includes operations, technical, maintenance, radiation protection, and support departments.

Procedure - A document that specifies or describes how an activity is to be performed. It may include methods to be employed, equipment or materials to be used and sequence of operations.

Procurement Documents - Contractually binding documents that identify and define the requirements which items or services must meet in order to be considered acceptable by the purchaser. Procurement documents include such items as contracts, letters of intent, purchase orders or proposals and their acceptance which authorizes the seller to perform services or supply equipment, materials or facilities on behalf of the purchaser.

Qualification - (Personnel) - The characteristics or abilities gained through training or experience or both that enable an individual to perform a required function.

Quality Assurance - All those planned and systematic actions necessary to provide assurance that a structure, system or component will perform satisfactorily in service.

Quality Assurance Record - Those delineated completed records which furnish documentary evidence of the quality of items and/or activities affecting quality within the scope of the IP Nuclear Quality Assurance Program.

Quality Control - Those quality assurance actions which provide a means to control and measure the characteristics of an item, process or facility to established requirements.

Quality Related - Activities which either do or could influence quality of safety-related items or work related to those systems, structures and components as identified in the USAR, Table 3.2-1, including design, purchasing, fabricating, handling, shipping, storing, cleaning, preserving, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling or modifying.

Receipt Inspection - An inspection which verifies that items are in satisfactory condition, that they match the purchase order requirements and that required documentation accurately reflects the item(s) received. Visual and physical inspection will be performed as necessary to determine the acceptability of the item(s).

Regulations - Collective term used to describe the governing directives and laws applicable to Clinton Power Station operation, such as the Code of Federal Regulations.

Repair - The process of restoring a nonconforming characteristic to a condition such that the capability of an item to function reliably and safely is unimpaired, even though that item still may not conform to the original requirement.

Resolution - The process by which a nonconforming item is corrected or determined to adequately perform its design function without adversely affecting safety. The resolution may contain controls or limitations that are to apply until the nonconformance is fully corrected.

Rework - The process by which a nonconforming item is made to conform to prior specified requirements by completion, remachining, reassembling or other corrective means.

Safety Related - Systems, structures and components which are considered important to safety because they perform safety actions required to avoid or mitigate the consequences of normal

operation transients or accidents. In addition, design requirements are placed upon such equipment to assure the proper performance of safety actions, when required. Safety related items are those designated Seismic Category 1, Safety Class 1, 2, 3, "Other" and Electrical Class 1E as identified in the USAR, Section 3.2.

Scope - The area covered by a given activity or subject.

Seismic Classification - Plant structures, systems and components important to safety which are designed to withstand the effects of a safe shutdown earthquake (SSE) and remain functional if they are necessary to assure:

a. The integrity of the reactor coolant pressure boundary, or

b. The capability to shutdown the reactor and maintain it in a safe condition, or

c. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the guideline exposures of 10CFR100.

Plant structures, systems and components, including their foundations and supports, which are designed to remain functional in the event of an SSE are designated as Seismic Category 1 as indicated in Table 3.2-1 of the CPS USAR.

Significant Condition Adverse to Quality and/or Safety - A condition that affects or is likely to have an effect on, or influence, the safe operation of the plant, the capability to shut down the reactor and maintain it in a safe shutdown condition or the capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures.

Source Inspection - An inspection performed at the location of item procurement, supply or manufacture for the purpose of verifying that the item meets specified requirements.

Special Processes - Term used to describe those activities or processes in which the end result or product quality either cannot be readily verified when the process is complete or it is not prudent to delay verification until process completion. The assurance of quality is heavily dependent upon control of the process and the skills of the personnel who perform the process.

Standards - Term used to describe the results of standardization efforts which have been approved by recognized authorities. As

used herein, standards refer to either publications describing an acceptable method of implementing or performing an activity or an item of known value used for comparison.

Stop Work - Collective term used to describe the following three (3) levels of stopping work activities:

a. The stopping of a single or specific work activity by Nuclear Assessment personnel.

b. A hold imposed by a Department Head on a department or general work activity.

c. A Stop Work Action initiated by the Manager - Nuclear Assessment.

Supplier - Any individual or organization that furnishes items or services to IP under a procurement document.

Surveillance - A review or observation of an activity, process or product to verify that an action has been or is being accomplished in accordance with applicable requirements.

Survey - A documented evaluation of an organization's ability to perform activities as verified by a determination of the adequacy of the organization's quality program and by a review of the implementation of that program at the location of work.

System Safety Classifications - Structures, systems and components are classified as Safety Class 1, Safety Class 2, Safety Class 3, Safety Class Other or Class 1E in accordance with the importance to Nuclear Safety. Equipment is assigned a specific safety class, recognizing that components within a system may be a differing safety importance. Definitions of various Safety Classes are:

Safety Class 1 - Components of the reactor coolant pressure boundary or core support structure whose failure could cause a loss of reactor coolant at a rate in excess of the normal make-up system.

Safety Class 2 - Structures, system and components, other than service water systems, that are not Safety Class 1, but are necessary to accomplish the safety functions of:

a. Inserting negative reactivity to shut down the reactor,

b. Preventing rapid insertion of positive reactivity,

c. Maintaining core geometry appropriate to all plant process conditions,

d. Providing emergency core cooling,

e. Providing and maintaining containment,

f. Removing residual heat form the reactor and reactor core, or

g. Storing spent fuel.

Safety Class 3 - Structures, systems and components that are not Safety Class 1 or Safety Class 2, but whose function is to process radioactive fluids and whose postulated failure would result in conservatively calculated offsite doses that exceed 0.5 rem to the whole body or its equivalent to any part of the body in accordance with Regulatory Guide 1.26.

Safety Class "Other" - Structures, systems and components used in the power conversion or other portions of the facility which have no direct safety function, but which may be connected to or influenced by the equipment within the Safety Classes 1, 2 or 3.

Class 1E - The safety classification of the electric equipment and systems that are essential to emergency reactor shutdown, containment isolation, reactor core cooling and containment and reactor heat removal or otherwise are essential in preventing significant release of radioactive material to the environment.

(Structures, systems and component safety classifications and related Quality Assurance Program requirements classifications are summarized in Table 3.2-1 of the USAR.)

Technical Specifications - Appendix A to the Operating License containing the design and performance criteria and operating limits and principles to be observed during critical testing, startup, power operations, refueling and maintenance operations.

Traceability - The ability to identify the origins of a particular item when required by adopted codes or standards.

USAR - Abbreviation for the Updated Safety Analysis Report, which is the document submitted by IP to the Nuclear Regulatory Commission in accordance with 10CFR50.71.

Use-As-Is - A disposition which may be imposed for a nonconformance when it can be established that the discrepancy will result in no adverse conditions to safety and that the item under consideration will continue to meet all engineering

functional requirements including performance, maintainability, fit and safety.

Verification - The act of confirming, substantiating or assuring that an activity or condition has been implemented in conformance with the specified requirements.

Verification/Inspection Point - A point in a procedure or work document at which the performer is required to notify inspection personnel in order to plan when they will perform the verification activity. A Verification/Inspection Point shall be capable of being verified after work completion.

Witness Point - Point in a procedure or work document at which the performer is required to stop and notify inspection personnel to allow for planned inspections. Once notification has been accomplished and the agreed to time (or a reasonable amount of time) has passed, the work activity may continue.

APPENDIX B
SUPPLEMENTAL APPLICATION
IP NUCLEAR QUALITY ASSURANCE PROGRAM

This appendix details in matrix form the chapters of this manual which are applicable in full or in part to:

Fire Protection
Security
Environmental Radwaste/Augmented D Systems
Packaging and Transportation of Radioactive Material

10CFR50, Appendix B requires that a quality assurance program be established in writing and executed for activities affecting the safety-related function of designated structures, systems and components to an extent consistent with their importance to safety. Table 3.2-1 in the Clinton Power Station USAR identifies specifically those structures, systems and components that are important to safety.

Fire Protection, Security, Environmental and Radwaste/Augmented D systems are specifically identified in Table 3.2-1 of the CPS USAR and/or highlighted in several Regulatory Guides that define and clarify their importance to the plant.

Regulatory Guide 1.120, "Fire Protection Guidelines for Nuclear Power Plants", Revision 1 (November 1977) states that, "A quality assurance (QA) program is needed to identify and rectify errors in design, construction and operation (of a fire protection system) and is an essential part of defense in depth." Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Normal Operation - Effluent Streams and the Environment", Revision 1 (February 1979), states that, "The need of quality assurance is implicit in all requirements for effluent and environmental monitoring." Regulatory Guide 1.143, Revision 0 (July 1978) states that, "...to ensure that systems will perform their intended function a quality assurance program sufficient to ensure that all design, construction and testing provisions are met should be established and documented." Regulatory Guide 1.17, "Protection of Nuclear Power Plants Against Industrial Sabotage", Revision 1 (June 1973), requires programmatic controls over the design, construction, testing and operation of the security system at nuclear power plants.

10CFR Part 71, "Packaging and Transportation of Radioactive Material", Section 71.101, "Quality Assurance Requirements", requires that licensees have a quality assurance program that has been submitted to and approved by the NRC as satisfying the provisions of Subpart H of Part 71. Subpart H requires, in part,

that licensees' quality assurance programs satisfy each of the applicable criteria specified in Section 71.101 to an extent consistent with their importance to safety. Regulatory Guide 7.10, "Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material", Annex 2, provides quality assurance programs applicable to Procurement, Use, Maintenance, and Repair of Packaging Used in Transport of Radioactive Material.

The extent to which the IP Nuclear Quality Assurance Program applies to each of the four areas varies as defined further under subsequent sections of this appendix. The attached matrix outlines which chapters of this manual apply to Fire Protection, Security, Environmental and Radwaste/Augmented D systems and Packaging and Transportation of Radioactive Material.

MATRIX

CHAPTERS OF THE IP NUCLEAR PROGRAM QUALITY ASSURANCE MANUAL
APPLICABLE TO FIRE PROTECTION, SECURITY, ENVIRONMENTAL,
AND RADWASTE/AUGMENTED D, AND PACKAGING
AND TRANSPORTATION OF RADIOACTIVE MATERIAL

OPERATIONAL QA MANUAL CHAPTER	FIRE PROTECTION	SECURITY	ENVIRONMENTAL	RADIOACTIVE WASTE/ AUGMENTED D	PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL
1	YES	NO	YES	YES	YES
2	YES	NO	YES	YES	YES
3	YES	NO	NO	YES	YES
4	YES	NO	YES	YES	YES
5	YES	NO	YES	YES	YES
6	YES	NO	YES	YES	YES
7	YES	NO	YES	YES	YES
8	NO	NO	YES	NO	YES
9	NO	NO	NO	YES	YES
10	YES	NO	NO	YES	YES
11	YES	NO	YES	YES	YES
12	NO	NO	YES	NO	YES
13	NO	NO	YES	YES	YES
14	YES	NO	YES	YES	YES
15	YES	NO	YES	YES	YES
16	YES	YES	YES	YES	YES
17	YES	YES	YES	YES	YES
18	YES	YES	YES	YES	YES

NOTE: Structures, systems and components subject to the above requirements are described by USAR Table 3.2-1 and further defined by engineering specifications, drawings, procedures, instructions, other documents, etc.

FIRE PROTECTION

Chapter 1 - Applicable

Chapter 2 - Applicable

Chapter 3 - Applicable

Chapter 4 - Applicable. Specification of quality assurance program requirements for suppliers of fire protection materials, equipment and services shall be on a case-by-case basis. Commercial grade or off-the-shelf items may provide an acceptable level of quality based on the nature of the item. This determination shall be made jointly by Engineering and Nuclear Assessment personnel prior to issuance of procurement documents

Chapter 5 - Applicable

Chapter 6 - Applicable

Chapter 7 - Applicable. Suppliers providing material, equipment and services for fire protection shall be subject to source evaluation and surveillance. The extent of imposition of these requirements shall be determined on a case-by-case basis by the design and quality assurance organizations responsible for review and approval of the procurement specifications. Measures shall be established, as appropriate, for examination of products upon delivery.

Chapter 8 - Not Applicable

Chapter 9 - Not Applicable

Chapter 10 - Applicable only to inspection of those items and activities affecting the fire protection system within the quality assurance boundaries as specified in the USAR, Table 3.2-1 and further amplified by the appropriate design drawings.

Chapter 11 - Applicable

Chapter 12 - Not Applicable

Chapter 13 - Not Applicable

Chapter 14 - Applicable

Chapter 15 - Applicable

Chapter 16 - Applicable

Chapter 17 - Applicable to documents designated as Quality Assurance Records generated in the implementation of the Fire Protection program and consistent with the requirements identified in Chapter 10 above. Records are prepared and maintained to furnish evidence that the applicable criteria discussed herein are being met for activities affecting the Fire Protection program.

Chapter 18 - Applicable. Audits shall be performed and documented to verify compliance with the Fire Protection program, including design and procurement documents, instructions, procedures and drawings and inspection and test activities.

SECURITY

Chapter 1 - Not Applicable

Chapter 2 - Not Applicable

Chapter 3 - Not Applicable

Chapter 4 - Not Applicable

Chapter 5 - Not Applicable

Chapter 6 - Not Applicable

Chapter 7 - Not Applicable

Chapter 8 - Not Applicable

Chapter 9 - Not Applicable

Chapter 10 - Not Applicable

Chapter 11 - Not Applicable

Chapter 12 - Not Applicable

Chapter 13 - Not Applicable

Chapter 14 - Not Applicable

Chapter 15 - Not Applicable

Chapter 16 - Applicable

Chapter 17 - Applicable to those records required by the CPS Physical Security Plan.

Chapter 18 - Applicable to the physical security of CPS and designated records.

ENVIRONMENTAL

Chapter 1 - Applicable

Chapter 2 - Applicable

Chapter 3 - Not Applicable

Chapter 4 - Applicable to procurement of monitoring services to be performed by contractors providing services dealing with radiological data and to radionuclide reference standards used for calibration of radiation measurement systems.

Chapter 5 - Applicable to all activities related to carrying out the radiological monitoring program including: sample collection; packaging, shipment and receipt of samples for offsite analysis; procurement, maintenance, storage and use of radioactivity reference standards; calibration and checks of radiation and radioactivity measurement systems; and reduction, evaluation and reporting of data.

Chapter 6 - Applicable to procedures and instructions required by Chapter 5.

Chapter 7 - Applicable to radionuclide reference standards used for calibration of radiation measurement systems and to radiological monitoring activities (services) provided by contractors.

Chapter 8 - Applicable only to radiological sample collection, identification, packaging, shipping, receiving, storage and analysis.

Chapter 9 - Not Applicable

Chapter 10 - Not Applicable

Chapter 11 - Applicable to radioactivity measurements of samples, instrument backgrounds, replicate samples and analytical blanks; data reduction and verification; computer program documentation and verification.

Chapter 12 - Applicable to laboratory instruments for radiation and radioactivity measurement, continuous radiological effluent monitoring systems and flowrate measuring devices associated with radiological effluent monitoring systems.

Chapter 13 - Applicable to radiological samples only.

Chapter 14 - Applicable to continuous radiological effluent monitoring systems equipment only.

Chapter 15 - Applicable

Chapter 16 - Applicable

Chapter 17 - Applicable to personnel training and qualification; field and in-plant collection of samples; continuous effluent monitoring; sample receipt and laboratory identification; sample preparation and radiochemical processing; radioactivity measurements of samples, instrument backgrounds and analytical blanks; data reduction and verification; instrument calibration and calibration standards; computer program documentation; audits; and corrective action.

Chapter 18 - Applicable

RADIOACTIVE WASTE/AUGMENTED "D"

Chapter 1 - Applicable

Chapter 2 - Applicable

Chapter 3 - Applicable

Chapter 4 - Applicable. Specification of quality assurance program requirements for suppliers of radioactive waste/augmented D materials, equipment and services shall be on a case-by-case basis. Commercial grade or off-the-shelf items may provide an acceptable level of quality based on the nature of the item. This determination shall be made jointly by Engineering and Nuclear Assessment personnel prior to issuance of procurement documents.

Chapter 5 - Applicable

Chapter 6 - Applicable

Chapter 7 - Applicable. Suppliers providing material, equipment and services for radioactive waste/augmented D shall be subject to source evaluation and surveillance. The extent of imposition of these requirements shall be determined on a case-by-case basis by the design and Nuclear Assessment organizations responsible for review and approval of the procurement specifications. Measures shall be established, and appropriate, for examination of products upon delivery.

Chapter 8 - Not Applicable

Chapter 9 - Applicable to the qualification of welders and welding procedures (ASME Section IX) for Radwaste/Augmented "D: system.)Pressure boundaries only.)

Chapter 10 - Applicable only to inspection of those items and activities affecting Radwaste/Augmented D systems within the quality assurance boundaries as specified in the USAR, Table 3.2-1, and further amplified by the appropriate design drawings.

Chapter 11 - Applicable

Chapter 12 - Not Applicable

Chapter 13 - Applicable

Chapter 14 - Applicable

Chapter 15 - Applicable

Chapter 16 - Applicable

Chapter 17 - Applicable

Chapter 18 - Applicable

PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL

Chapter 1 - Applicable

Chapter 2 - Applicable

Chapter 3 - Applicable, design activities are not normally performed by Clinton Power Station for radioactive material packaging however, audits of suppliers establish that the design was accomplished under control of an NRC approved QA program.

Chapter 4 - Applicable

Chapter 5 - Applicable

Chapter 6 - Applicable

Chapter 7 - Applicable, measures such as source surveillance and audits of records should be taken as appropriate to ensure that the design and fabrication of packaging were performed under the control of an NRC-approved QA program.

Chapter 8 - Applicable

Chapter 9 - Applicable, special processes such as welding or nondestructive testing are not normally performed by Clinton Power Station. However, if packaging requires major repairs necessitating use of special processes, e.g., welding or heat treating, measures shall be established to ensure that the special processes are controlled.

Chapter 10 - Applicable, visual inspections shall be performed upon receipt of packaging to ensure compliance with certificates of compliance.

Chapter 11 - Applicable

Chapter 12 - Applicable

Chapter 13 - Applicable, all conditions identified in a certificate of compliance when using packages shall be adhered to.

Chapter 14 - Applicable

Chapter 15 - Applicable

Chapter 16 - Applicable, measures are established for obtaining corrective actions from suppliers and for ensuring that follow-up is documented to verify that corrective actions were implemented and effective.

Chapter 17 - Applicable, records showing evidence of delivery of packages to a carrier and proof that al NRC and DOT requirements have been satisfied shall also be retained.

Chapter 18 - Applicable, audits are performed on the supplier of packaging to ensure compliance with the certificate of compliance.

IP Nuclear Program Quality Assurance Manual
Revision 24
10CFR50.54(a) Evaluation

Summary

Revision 24 to the IP Nuclear Program QA Manual was initiated to make changes in inspection planning, the Nuclear Assessment Department audit periodicity, to identify the consolidation of Non-Destructive Examination responsibilities, the reassignment of the Independent Safety Engineering Group, and the in-line review of procurement documents, procedures, Maintenance Work Requests, and Condition Reports.

Evaluation

Some changes to the IP Nuclear Program QA Manual do affect authority, independence, and management reporting levels previously established for organizations performing quality assurance functions and reduce commitments previously established over activities affecting quality of CPS structures, systems, or components.

Performed: P E Calhoun — 7/9/93
Supervisor - Quality Systems — Date

Reviewed: for DRM — 7/9/93
Director - Nuclear Assessment — Date

Approved: R W Hyatt — 7/9/93
Manager - Nuclear Assessment — Date

June 28, 1993

TO: Bud Calhoun - Supervisor Quality Systems

The Title 10 Code of Federal Regulations Part 50.59 Safety Evaluation Screening for the Illinois Power Nuclear Program Quality Assurance Manual Revision 24 is attached for your review and concurrence.

Please review the evaluation as the qualified reviewer and forward to the Director - Nuclear Assessment for his concurrence per Quality Assurance Procedure 102.02 Revision 13 step 4.2.9

Thank you.

Dick Merriken

Dick Merriken
Senior Quality Systems Specialist

Safety Evaluation Concurrence Omid H. Masoor 6-29-93
Director-Nuclear Assessment/Date

10CFR50.59
SAFETY EVALUATION SCREENING
(Complete All Blocks)

1.0 Document Evaluated Illinois Power Nuclear Program Quality Assurance Manual
1.1 Number: Not Applicable Revision: 24
Title: Illinois Power Nuclear Program Quality Assurance Manual
PDR/TCF/ACN (if applicable) Not Applicable
For CPS Procedures, list documents, checklist, and other forms which are being revised in this package; include revision numbers.
Not Applicable

This form is used to document the justification for not performing a full 10CFR50.59 safety evaluation for design or document changes, tests, and experiments. Chapter 5 of the Safety Evaluation Manual should be used as guidance. If all the questions can be answered "NO" with documented justification, then a full safety evaluation is not required.

SCREENING FOR FACILITY CHANGES

2.1 Is this a change to the facility as described in SAR (That is, does it result in any condition [including qualifications], operation, analysis result, or function contrary to the current SAR descriptions)? Yes ___ No X

a. Applies regardless of the safety classification of the item being changed.
b. Applies whether the specific item being changed is identified in the SAR or not.
c. Applies even if no hardware is being changed, but the plant does not match the SAR description in some way. (Reference Safety Evaluation Manual 5.D.2 and 4.C)

Affected System(s)/Component(s)/Function(s):

Not Applicable

USAR/Tech Spec References reviewed:

USAR 13.1.1.2/Tech. Spec. 6.0 which are being revised to reflect the same organizational changes

Justification for answer to Question 2.1 above:

See attached Justification

Document Evaluated Illinois Power Nuclear Program Quality Assurance Manual Revision 24

SCREENING FOR PROCEDURE CHANGES,
TEST AND EXPERIMENTS

2.2 Is this a change to a procedure as described in the SAR (That is, is any system or component operated or is any organization function performed in any way contrary to a description in the SAR or assumed in any SAR analysis)? (Includes changes to acceptance criteria, setpoints or commitments described in the SAR)
(Reference Safety Evaluation Manual Articles 5.D.3 and 4.D)

Yes ____
No X

2.3 Is this a test or experiment not described in the SAR (That is, is any system or component operated in any way contrary to a description in the SAR or assumed in any SAR analysis)?
(Reference Safety Evaluation Manual Articles 5.D.4 and 4.M)

Yes ____
No X

Affected System(s)/Component(s)/Function(s):

Not Applicable

USAR/Tech Spec References reviewed:

USAR 13.11.2/Tech. Spec. 6.0 which are being revised to reflect the same organizational changes

Justification for answers to Questions 2.2 and 2.3 above:

See attached Justification

Qualified Originator: DICK MERRIKEN (Name) R A Merriken (Signature) 6/28/93 (Date)

Qualified Reviewer: Agrees with determination that no safety evaluation is required.

Qualified Reviewer: C.E. CALHOUN (Name) P S Calhoun (Signature) 6/28/93 (Date)

Upon completion, this screening form shall be vaulted with the document evaluated. A copy, with a copy of the document evaluated, shall be forwarded to Supervisor-Technical Assessment, Licensing and Safety, V-920

Justification

Revision 24 to the IP Nuclear Program QA Manual was initiated to make changes in inspection planning, the Nuclear Assessment Department audit periodicity, to identify the consolidation of Non-Destructive Examination responsibilities, the reassignment of the Independent Safety Engineering Group, and the in-line review of procurement documents, procedures, Maintenance Work Requests, and Condition Reports.

The changes to the QA Manual do not affect the design functions, characteristics, configuration, or analysis of components, systems, or structures covered by the IP Nuclear QA Program. The basis is the IP Nuclear QA Program provides the programmatic administrative controls and associated departmental responsibilities for implementing the QA Program at CPS.

An evaluation in accordance with Title 10, Code of Federal Regulations Part 50.54(a) determined that the changes to the QA Manual do affect authority, independence, or management reporting levels previously established for organizations performing quality assurance functions and reduce commitments or effectiveness of controls previously established over activities affecting quality of CPS structures, systems, or components. Based on the evaluation that some of the changes constitute commitment reductions, those parts of this revision will not be implemented until approved by the Nuclear Regulatory Commission in accordance with Title 10, Code of Federal Regulations Part 50.54(a)(3).

This revision does not change the intent of the Safety Analysis Report or the administrative sections of the Technical Specifications which are also being revised to incorporate recent organizational changes.