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Power Company
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Buchanan, MI 49107 1395



June 19, 2001

C0601-19
10 CFR 50.54(a)(3)

Docket Nos.: 50-315
50-316

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
QUALITY ASSURANCE PROGRAM DESCRIPTION, REVISION 16

Pursuant to 10 CFR 50.54(a)(3), Indiana Michigan Power Company (I&M) is submitting Revision 16 of the Quality Assurance Program Description (QAPD) for Donald C. Cook Nuclear Plant Units 1 and 2. This revision involves a complete rewrite of the QAPD. The primary reasons for this revision include streamlining the program and aligning it with industry best practices.

Attachment 1 provides the revised QAPD. Because this revision involves a complete rewrite of the QAPD, changes are not identified with sidebars in the margin. A copy of the previous revision marked to indicate and explain the changes is included as Attachment 2. An explanation of the changes is provided in Attachment 3.

These changes have been evaluated in accordance with 10 CFR 50.54(a)(3). I&M has concluded that the changes do not reduce the commitments in the QAPD as accepted by the Nuclear Regulatory Commission. I&M will begin implementation of the revised QAPD in 90 days from the date of this letter.

Attachment 4 documents the commitments made in this letter.

Q004

Should you have any questions, please contact Mr. Ronald W. Gaston, Manager of Regulatory Affairs, at (616) 697-5020.

Sincerely,

A handwritten signature in black ink, appearing to read "R. P. Powers", with a long horizontal flourish extending to the right.

R. P. Powers
Senior Vice President, Nuclear Operations

/dmb

Attachments

c: J. E. Dyer
MDEQ - DW & RPD, w/o attachments
NRC Resident Inspector
R. Whale, w/o attachments

AFFIRMATION

I, Robert P. Powers, being duly sworn, state that I am Senior Vice President, Nuclear Operations of American Electric Power Service Corporation and Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

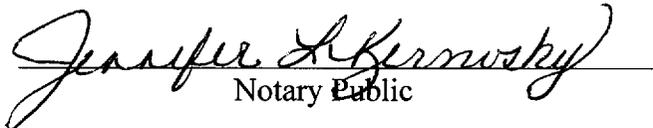
American Electric Power Service Corporation



R. P. Powers
Senior Vice President, Nuclear Operations

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 19 DAY OF June, 2001


Notary Public

My Commission Expires 5/26/05

JENNIFER L KERNOSKY
Notary Public, Berrien County, Michigan
My Commission Expires May 26, 2005

ATTACHMENT 1 TO C0501-12

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION, REVISION 16

DONALD C. COOK NUCLEAR PLANT

QUALITY ASSURANCE PROGRAM DESCRIPTION

UNITS 1&2
DOCKET NOS.50-315 & 50-316
LICENSE NOS. DPR-58 AND DPR-74

Revision 16

Concurred by: _____ Date: _____
Performance Assurance Director

Approved by: _____ Date: _____
Senior Vice President

Quality Assurance Program Description

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
STATEMENT OF POLICY	1.7-1
INTRODUCTION	3
A. MANAGEMENT	
1. Methodology	4
2. Organization	5
3. Responsibility	7
4. Authority	7
5. Personnel Training and Qualification	7
6. Corrective Action	8
7. Regulatory Commitments	8
B. PERFORMANCE / VERIFICATION	
1. Methodology	9
2. Design Control	10
3. Design Verification	11
4. Procurement Control	12
5. Procurement Verification	13
6. Identification and Control of Items	13
7. Handling, Storage, and Shipping	13
8. Test Control	14
9. Measuring and Test Equipment Control	15

Quality Assurance Program Description

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
B. PERFORMANCE / VERIFICATION (continued)	
10. Inspection, Test, and Operating Status	16
11. Special Process Control	16
12. Inspection	17
13. Corrective Action	17
14. Document Control	18
15. Records	19
C. AUDIT	
1. Methodology	19
2. Performance	19
Table 1-Regulatory and Safety Guides/ANSI Standards	22
Table 2-Clarification/Exceptions To Regulatory Guides	25
Figure 1 – Site Operations Organization Chart	56
Appendix C – Review and Audit	57

STATEMENT OF POLICY
FOR THE DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM

POLICY

American Electric Power recognizes the fundamental importance of controlling the design, modification, and operation of Indiana Michigan Power Company's Donald C. Cook Nuclear Plant by implementing a planned and documented quality assurance program, including quality control, that complies with applicable regulations, codes, and standards.

The quality assurance program has been established to control activities affecting safety-related functions of structures, systems, and components in Cook Nuclear Plant. The quality assurance program supports the goal of maintaining the safety and reliability of Cook Nuclear Plant at the highest level through a systematic program designed to assure that activities affecting safety-related functions are conducted in compliance with applicable regulations, codes, standards, and established corporate policies and practices.

As chairman of the board, president, and chief executive officer of American Electric Power Company, I maintain the ultimate responsibility for the quality assurance program associated with Cook Nuclear Plant. I have delegated responsibilities for implementation of, and compliance with, the quality assurance program, as outlined in this statement.

IMPLEMENTATION

The performance assurance director, under the direction of the senior vice president nuclear generation, has been assigned the overall responsibility for specifying the quality assurance program requirements for Cook Nuclear Plant and verifying their implementation. The performance assurance director has authority to stop work on any activity affecting safety-related items that does not meet applicable administrative, technical, and/or regulatory requirements. The performance

Statement of Policy for the
Donald C. Cook Nuclear Plant

assurance director does not have the authority to stop unit operations, but shall notify appropriate plant and/or corporate management of conditions not meeting the aforementioned criteria and recommend that unit operations be terminated.

The senior vice president nuclear generation, under my direction, has been delegated responsibility for effectively implementing the quality assurance program. All other AEP divisions and departments having a supporting role for Cook Nuclear Plant are functionally responsible to the senior vice president nuclear generation.

The site vice president, under the direction of the senior vice president nuclear generation, is delegated the responsibility for implementing the quality assurance program at Cook Nuclear Plant.

The performance assurance director is responsible for establishing a quality control program at Cook Nuclear Plant.

The performance assurance director is responsible for providing technical direction to the site vice president for matters relating to the quality assurance program at Cook Nuclear Plant. The performance assurance director is responsible for maintaining a quality assurance group at Cook Nuclear Plant to perform required reviews, audits, and surveillances, and to provide technical liaison services to the site vice president.

The requirements for implementation of the quality assurance program are described in the nuclear generation group policies and procedures.

Each nuclear generation group involved in activities affecting safety-related functions of structures, systems, and components in Cook Nuclear Plant has the responsibility to implement the applicable policies and requirements of the quality assurance program. This responsibility includes being familiar with, and complying with, the applicable quality assurance program requirements.

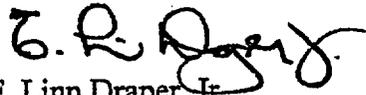
COMPLIANCE

The performance assurance director shall monitor compliance with the established quality assurance program. Audit programs shall be established to ensure that nuclear generation group activities comply with established program requirements, identify deficiencies or noncompliances, and obtain effective and timely corrective

Statement of Policy for the
Donald C. Cook Nuclear Plant

actions.

Any employee engaged in activities affecting safety-related functions of structures, systems, and components in Cook Nuclear Plant who believes the quality assurance program is not being complied with, or that a deficiency in quality exists, should notify his/her supervisor, the performance assurance director, and/or the site vice president. If the notification does not, in the employee's opinion, receive prompt or appropriate attention, the employee should contact successively higher levels of management. An employee reporting such conditions shall not be discriminated against by companies of the American Electric Power System, nor shall any supplier under contract with any of the companies of the American Electric Power System discriminate against any employee of the supplier for reporting such conditions. Discrimination includes discharge or other actions relative to compensation, terms, conditions, or privileges of employment.


E. Linn Draper, Jr.
Chairman of the Board, President,
and Chief Executive Officer

Quality Assurance Program Description

Introduction

Corporate Organization

American Electric Power Company Inc. (AEP), the parent holding company, wholly owns the common stock of all AEP System subsidiary (operating) companies. The chairman of the board, president, and chief executive officer of AEP is the chief executive officer of all operating companies. The responsibility for the functional management of the major operating companies is vested in the president of each operating company reporting to the AEP chairman of the board, president, and chief executive officer.

The operating facilities of the AEP System are owned and operated by the respective operating companies. The Donald C. Cook Nuclear Plant (CNP) is owned, operated and licensed to Indiana Michigan Power Company (I&M) which is part of the AEP System.

The AEP company with responsibility for executing the engineering, design, construction, specialized technical training, and certain operations' supervision for the various company power plants is vested with American Electric Power Service Corporation (AEPSC). All, or part, of the administrative functional responsibility for these plants is assigned to the individual operating companies. In the case of CNP, AEPSC provides various administrative support activities.

Certain organizations within the AEP system provide occasional technical assistance for the CNP. The administrative and QA controls for this assistance are controlled through documented interface agreements.

CNP responsibilities include, but are not limited to, providing planning, engineering, and design of the electrical facilities inside CNP up to the high voltage (HV) bushings of the main generator transformers and mechanical facilities inside the plant.

The chairman of the board, president, and chief executive officer of AEP, through its wholly owned subsidiary I&M, has ultimate responsibility for the QA program associated with CNP. The executive delegated the authority and responsibility for establishing, maintaining, and effectively implementing the QA program for plant modification, operations, and maintenance is the I&M vice president - nuclear generation, who is also the I&M chief nuclear officer (currently designated in CNP Technical Specification 6.2.1.c as vice president – nuclear operations). The I&M vice president-nuclear generation also serves as the American Electric Power Service Corporation (AEPSC) senior vice president nuclear operations. The I&M vice president - nuclear generation reports to the chief executive officer of AEP on all matters concerning the safe and reliable operation of CNP, including the Quality Assurance Program Description (QAPD).

Quality Assurance Program Description

A. MANAGEMENT

1. Methodology

- a. The QAPD provides a consolidated overview of the quality program controls that govern the operation and maintenance of I&M's quality-related items and activities. The QAPD describes the QA organizational structure, functional responsibilities, levels of authority, and interfaces.
- b. The requirements and commitments contained in the QAPD are mandatory and must be implemented, enforced, and adhered to by all individuals and organizations. Employees are encouraged to actively participate in the continued development of the QAPD, as well as its implementation. Changes are promptly communicated when identified.
- c. The QAPD applies to all activities associated with structures, systems, and components that are safety-related or controlled by 10 CFR 72. The QAPD also applies to transportation packages controlled by 10 CFR 71. Safety-related items are defined as items:

That are associated with the safe shutdown (hot) of the reactor; or isolation of the reactor; or maintenance of the integrity of the reactor coolant system pressure boundary.

OR

Whose failure might cause or increase the severity of a design basis accident as described in the Updated Final Safety Analysis Report; or lead to a release of radioactivity in excess of 10 CFR 100 guidelines.

The applicability of the requirements of the QAPD to other items and activities is determined on a case-by-case basis. The QAPD implements 10 CFR 50, Appendix B, 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H.

- d. The QAPD is implemented through the use of approved procedures (i.e., policies, directives, procedures, or instructions) that provide written guidance for the control of quality-related activities and provide for the development of documentation to provide objective evidence of compliance.

Quality Assurance Program Description

2. Organization

The organizational structure responsible for implementation of the QAPD is described below. The specific organization titles for the QA functions described are identified in procedures. The authority to accomplish the QA functions described is delegated to the incumbent's staff as necessary to fulfill the identified responsibility.

- a. The chief executive officer is responsible for providing top level direction of all activities associated with the safe and reliable operation of I&M's nuclear site. The chief executive officer provides guidance with regards to company QA.
- b. The chief nuclear officer reports to the chief executive officer and is responsible for the implementation of all activities associated with the safe and reliable operation of I&M's nuclear site. The chief nuclear officer provides guidance with regards to company QA policy. The off-site safety review committee reports the results of its oversight initiatives to the CNO.
 1. The individual responsible for QA reports to the chief nuclear officer and has overall authority and responsibility for establishing, controlling, maintaining and verifying the implementation and adequacy of the QA program as described in this QAPD. The individual responsible for QA is also responsible for supplier evaluations and source verifications. The individual responsible for QA has the authority and responsibility to escalate matters directly to the chief executive officer when needed.
- c. The following executives report to the chief nuclear officer:
 1. The executive responsible for overall plant nuclear safety is responsible for establishing policies, goals and objectives, and the implementation of the QA program at the plant site and oversees the activities of the on-site review committee.
 2. The executive responsible for engineering is responsible for providing engineering services and for establishing the policies, goals and objectives, and the implementation of the QA program of I&M's corporate engineering and support activities.
- d. The individuals fulfilling the following management functions report to the executives identified in Paragraph A.2.c above. These individuals may report through an additional layer of management but shall maintain sufficient authority and organizational freedom to implement the assigned responsibilities. These individuals may fulfill more than one function described below:

Quality Assurance Program Description

1. The individual responsible for plant operations assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements and the operating license.
 2. The individual responsible for plant modification provides direction, control, and overall supervision of the implementation of plant modifications and assigned maintenance. Separate individuals may be responsible for different modifications.
 3. The individual responsible for training provides direction, control, and overall supervision of all training of personnel required by regulations.
 4. The individual responsible for records management provides direction, control, and overall supervision of the records management program and associated activities.
 5. The individual responsible for document control provides direction, control, and overall supervision of the document control program and associated activities.
 6. The individual responsible for the corrective action program provides direction, control, and overall supervision of the corrective action program and associated activities.
 7. The individual responsible for engineering is responsible for the development and maintenance of engineering programs, policies, and procedures and for providing engineering services. Different aspects of these responsibilities (e.g., fuel design) may be fulfilled by separate individuals.
 8. The individual responsible for materials, purchasing, and contracts is responsible for procurement, services, receipt, storage, and issue of materials, parts, and components. Different aspects of these responsibilities (e.g., source verification) may be fulfilled by separate individuals.
- e. The on-site and off-site safety review committees independently review activities to provide additional assurance that the units are operated and maintained in accordance with the Operating License and applicable regulations, which address nuclear safety. Appendix C to this QAPD provides additional information that supplements or complements the on-site and off-site safety review committees activities described herein.

Quality Assurance Program Description

3. Responsibility

- a. I&M has the responsibility for the scope and implementation of an effective QA program.
- b. I&M may delegate all or part of the activities of planning, establishing, and implementing the QA program to others, but retains the responsibility for the program's effectiveness.
- c. The adequacy of the QAPD's implementation is periodically assessed by the individual responsible for QA and the associated executive for overall plant nuclear safety, and is reported to the chief nuclear officer.
- d. I&M is responsible for ensuring that the applicable portion(s) of the QA program is properly documented, approved, and implemented (people are trained and resources are available) before an activity within the scope of the QAPD is undertaken by I&M or by others.
- e. Responsible individuals are to ensure that personnel working under their management cognizance are provided the necessary training and resources to accomplish their assigned tasks within the scope of the QAPD.
- f. Procedures that implement the QAPD are approved by the management responsible for the applicable quality function. The procedures are to reflect the QAPD and work is to be accomplished in accordance with them.

4. Authority

- a. When I&M delegates responsibility for planning, establishing, or implementing any part of the overall QA program, sufficient authority to accomplish the assigned responsibilities is delegated.
- b. The individual responsible for QA has the responsibility and the authority to stop unsatisfactory work (except reactor operation) and control further processing, delivery, installation, or use of non-conforming items or services. Cost and schedule considerations will not override safety considerations.

5. Personnel Training and Qualification

- a. Personnel assigned to implement elements of the QA program are capable of performing their assigned tasks.
- b. Training programs are established and implemented to ensure that personnel achieve and maintain suitable proficiency.

Quality Assurance Program Description

- c. Personnel training and qualification records are maintained in accordance with procedures.
- d. Additional details concerning personnel training and qualification may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.8, 1.58, and 1.146).

6. Corrective Action

- a. It is the responsibility of each individual to promptly identify and report conditions adverse to quality. Management at all levels encourages the identification of conditions that are adverse to quality.
- b. A corrective action program is established and implemented that includes prompt identification, documentation, and correction of conditions adverse to quality. For significant conditions adverse to quality, the cause is determined (when possible) and corrective action(s) that should prevent recurrence is (are) identified and tracked until completed.
- c. Specific responsibilities within the corrective action program may be delegated, but I&M maintains responsibility for the program's effectiveness.
- d. Non-conforming items are properly controlled to prevent their inadvertent test, installation, or use. They are reviewed and either accepted, rejected, repaired, or reworked.
- e. Reports of conditions that are adverse to quality are analyzed to identify trends in quality performance. Significant conditions adverse to quality and adverse trends are reported to the appropriate level of management.
- f. Additional details concerning corrective action activities may be found in Section B.13 and the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33).

7. Regulatory Commitments

- a. Except where alternatives are identified, I&M complies with the QA guidance documents listed on Table 1. If the guidance in any of these documents is in conflict with the QAPD, the guidance provided in the QAPD is the controlling guidance. Additionally, the following clarifications apply to all guidance documents listed in Table 1:

Quality Assurance Program Description

1. For modifications and non-routine maintenance, guidance applicable to construction-like activities is applicable to comparable plant activities. An exception is that the inspection of modifications, repairs, rework, and replacements shall be in accordance with the original design and inspection requirements or a documented approved alternative.
 2. The definitions provided by Regulatory Guide 1.74 and associated clarifications as described in Table 2 apply wherever the defined term is used in the QAPD and associated guidance documents.
 3. Clarification to a guidance document applies wherever the guidance document is invoked.
 4. In each of the ANSI Standards, other documents (e.g., other standards, codes, regulations, tables, or appendices) are referenced or described. These other documents are only QA program requirements if explicitly committed to in the QAPD. If not explicitly committed to, these documents are not considered as QA program requirements, although they may be used as guidance.
 5. Guidance applicable to safety-related items and activities is applicable to comparable items and activities controlled by 10 CFR 72 and transportation packages controlled by 10 CFR 71.
 6. Guidance applicable to safety-related items and activities is applicable to comparable fire protection items and activities controlled by Appendix A to NRC Branch Technical Position (APCSB) 9.5-1 (1976) and Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance (FRACQA), dated June 14, 1977.
- b. The NRC is to be notified of QAPD changes in accordance with 10 CFR 50.54(a).

B. PERFORMANCE /VERIFICATION

1. Methodology

- a. Personnel performing work activities such as design, engineering, procurement, manufacturing, construction, installation, startup, maintenance, modification, operation, and decommissioning are responsible for achieving acceptable quality.
- b. Personnel performing verification activities are responsible for verifying the achievement of acceptable quality and are different personnel than those performing the work.

Quality Assurance Program Description

- c. Work is accomplished and verified using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.
- d. Criteria that define acceptable quality are specified, and quality is verified against these criteria.
- e. Computer programs used in safety-related design analyses or operational activities are controlled through administrative procedures.

2. Design Control

- a. The design control program is established and implemented to assure that the activities associated with the design of systems, components, structures, and equipment and modifications thereto, are executed in a planned, controlled, and orderly manner.
- b. The program includes provisions to control design inputs, processes, outputs, changes, interfaces, records, and organizational interfaces.
- c. Design inputs (e.g., performance, regulatory, quality, and quality verification requirements) are to be correctly translated into design outputs (e.g., specifications, drawings, procedures, and instructions).
- d. The final design output is to relate to the design input in sufficient detail to permit verification.
- e. The design process is to ensure that items and activities are selected and independently verified consistent with their importance to safety to ensure they are suitable for their intended application.
- f. Changes to final designs (including field changes and modifications) and dispositions of non-conforming items to either use-as-is or repair are to be subjected to design control measures commensurate with those applied to the original design and approved by the organization that performed the original design or a qualified designee.
- g. Interface controls (internal and external between participating design organizations and across technical disciplines) for the purpose of developing, reviewing, approving, releasing, distributing, and revising design inputs and outputs are defined in procedures.

Quality Assurance Program Description

- h. Design documentation and records, which provide evidence the design and design verification process was performed in accordance with this program, shall be collected, stored, and maintained in accordance with documented procedures. This documentation includes final design documents, such as drawings and specifications, revisions thereto, and documentation that identifies the important steps, including sources of design inputs which support the final design.
- i. Additional details concerning design control activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.64).

3. Design Verification

- a. A program is established and implemented to verify the acceptability of design activities and documents for the design of items. The selection and incorporation of design inputs and design processes, outputs, and changes are verified.
- b. Verification methods include, but are not limited to, design reviews, alternative calculations, and qualification testing. The extent of this verification will be a function of the importance to safety of the item, the complexity of the design, the degree of standardization, the state of the art, and the similarity with previously proven designs. Standardized or previously proven designs will be reviewed for applicability prior to use.
- c. When a test program is used to verify the acceptability of a specific design feature, the test program is to demonstrate acceptable performance under conditions that simulate the most adverse design conditions that are expected to be encountered.
- d. Independent design verification is to be completed before design outputs are used by other organizations for design work and before they are used to support other activities such as procurement, manufacture, or construction. When this timing cannot be achieved, the unverified portion of the design is to be identified and controlled. In all cases, the design verification is to be completed before relying on the item to perform its function.
- e. Individuals or groups responsible for design reviews or other verification activities shall be identified in procedures and their authority and responsibility shall be defined and controlled. Design verification shall be performed by any competent individuals or groups other than those who performed the original design but who may be from the same organization. The designer's immediate supervisor may perform the design verification provided: the supervisor is the only technically qualified individual capable of performing the verification, the need is individually documented and approved in advance by the supervisor's

Quality Assurance Program Description

management, and the frequency and effectiveness of the supervisor's use as a design verifier are independently verified to guard against abuse.

- f. Design verification procedures are to be established and implemented to ensure that an appropriate verification method is used, the appropriate design parameters to be verified are chosen, the acceptance criteria are identified, the verification is satisfactorily accomplished, and the results are properly recorded.
- g. Additional details concerning design verification activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.64).

4. Procurement Control

- a. A program is established and implemented to ensure that purchased items and services are of acceptable quality.
- b. The program includes provisions for evaluating prospective suppliers and selecting only qualified suppliers.
- c. The program includes provisions for ensuring that qualified suppliers continue to provide acceptable products and services.
- d. The program includes provisions (e.g., source verification, receipt inspection, pre-installation and post-installation tests, and certificates of conformance) for accepting purchased items and services.
- e. Applicable technical, regulatory, administrative, and reporting requirements (e.g., specifications, codes, standards, tests, inspections, special processes and 10 CFR 21) are invoked for procurement of items and services.
- f. The program includes provisions for ensuring that documented evidence of an item's conformance to procurement requirements is available at the site before the item is placed in service or used unless otherwise specified in procedures.
- g. The program includes provisions for ensuring that procurement, inspection, and test requirements have been satisfied before an item is placed in service or used unless otherwise specified in procedures.
- h. The procurement of components, including spare and replacement parts, is subject to quality and technical requirements suitable for their intended service.
- i. Appropriate controls for the selection, determination of suitability for intended use (critical characteristics), evaluation, receipt, and quality evaluation of

Quality Assurance Program Description

commercial grade items are to be imposed to ensure that the items will perform satisfactorily in service.

- j. Additional details concerning procurement control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33 and 1.123)

5. Procurement Verification

- a. A program is established and implemented to verify the quality of purchased items and services at intervals and to a depth consistent with the item's or service's importance to safety, complexity, quantity, and the frequency of procurement.
- b. The program is executed in all phases of procurement. As necessary, this may require verification of activities of suppliers below the first tier.
- c. Additional details concerning procurement verification may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.123 and 1.144)

6. Identification and Control of Items

- a. A program is established and implemented to identify and control items to prevent the use of incorrect or defective items.
- b. Identification of each item is maintained throughout fabrication, erection, installation, and use so that the item can be traced to its documentation. Traceability is maintained to an extent consistent with the item's importance to safety.
- c. Additional details concerning identification and control of items may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.33).

7. Handling, Storage, and Shipping

- a. A program is established and implemented to control the handling, storage, shipping, cleaning, and preserving of items to ensure the items maintain acceptable quality.
- b. Special protective measures (e.g., containers, shock absorbers, accelerometers, inert gas atmospheres, specific moisture content levels, and temperature levels) are specified and provided when required to maintain acceptable quality.

Quality Assurance Program Description

- c. Specific procedures are developed and used for cleaning, handling, storage, packaging, shipping, and preserving items when required to maintain acceptable quality.
- d. Items are marked and labeled during packaging, shipping, handling, and storage to identify, maintain, and preserve the items' integrity and indicate the need for special controls.
- e. Additional details concerning handling, storage, and shipping activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.38)

8. Test Control

- a. A test control program is established and implemented to demonstrate that items will perform satisfactorily in service.
- b. Criteria are defined that specify when testing is required.
- c. The test control program includes, as appropriate, proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, and operational tests.
- d. Test procedures are developed that include:
 - 1. instructions and prerequisites to perform the test,
 - 2. use of proper test equipment,
 - 3. acceptance criteria, and
 - 4. mandatory inspections as required.
- e. Test results are evaluated to assure that test objectives and inspection requirements have been satisfied.
- f. Unacceptable test results shall be evaluated.
- g. Additional details concerning test control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.33).

Quality Assurance Program Description

9. Measuring and Test Equipment Control

- a. A program is established and implemented to control the calibration, maintenance, and use of measuring and test equipment.
 1. Measuring and test equipment does not include permanently installed operating equipment or test equipment used for preliminary checks where data obtained will not be used to determine acceptability or be the basis for design or engineering evaluation.
 2. Installed operating equipment does not include the plant process computer (PPC), security computer, meteorological information data acquisition system (MIDAS), PRORAD or other computers that are permanently installed in the plant.
 3. Calibration and control measures are not required for rulers, tape measures, levels, and other such devices if normal commercial manufacturing practices provide an adequate level of accuracy.
- b. The types of equipment covered by the program (e.g., instruments, tools, gages, and reference and transfer standards) are defined in procedures.
- c. Measuring and test equipment is calibrated at specified intervals or immediately before use on the basis of the item's required accuracy, intended use, frequency of use, and stability characteristics and other conditions affecting its performance.
- d. Measuring and test equipment is labeled, tagged, or otherwise controlled to indicate its calibration status and to ensure its traceability to calibration test data.
- e. Measuring and test equipment is calibrated against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated or, when this is not possible, have an accuracy that ensures the equipment being calibrated will be within the required tolerance.
- f. If nationally recognized standards exist, calibration standards are to be traceable to them. Except where calibration standards with the same accuracy as the instruments being calibrated are shown to be adequate for the requirements, calibration standards are to have a greater accuracy than the standards being calibrated.
- g. Measuring and test equipment found out of calibration is tagged or segregated. The acceptability shall be determined for items measured, inspected, or tested with an out-of-calibration device.

Quality Assurance Program Description

- h. Additional details concerning measuring and test equipment control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Safety Guide 30, Regulatory Guides 1.33, 1.94, 1.116 and 1.123).

10. Inspection, Test, and Operating Status

- a. The status of required inspections and tests and the operating status of items is verified before release, fabrication, receipt, installation, test, and use, as applicable. This verification is to preclude inadvertent bypassing of inspections and tests and to prevent inadvertent operation of controlled equipment.
- b. The application and removal of inspection, test, and operating status indicators are controlled in accordance with procedures.
- c. Additional details concerning inspection, test, and operating status control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.33).

11. Special Process Control

- a. A program is established and implemented to ensure that special processes are properly controlled.
- b. Processes subject to special process controls are those for which full verification or characterization by direct inspection is impossible or impractical. The criteria that establish which processes are special are described in procedures. The following are special processes:
 - 1. welding and brazing,
 - 2. heat treating,
 - 3. protective coatings,
 - 4. NDE (Non-Destructive Examination),
 - 5. chemical cleaning, and
 - 6. concrete placement
- c. Special processes are accomplished by qualified personnel, using appropriate equipment, and procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

Quality Assurance Program Description

- d. Additional details concerning special process control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.33).

12. Inspection

- a. A program is established and implemented for inspections of activities in order to verify conformance to the documented instructions, procedures and drawings for accomplishing the activity. The inspection program may be implemented by or for the organization performing the activity to be inspected.
- b. Provisions to ensure inspection planning is properly accomplished are to be established. Planning activities are to identify the characteristics and activities to be inspected, the inspection techniques, and the acceptance criteria.
- c. Provisions to identify inspection hold points, beyond which work is not to proceed without the consent of the inspection organization, are to be defined.
- d. Inspection results shall be kept in sufficient detail to permit adequate confirmation of the inspection program.
- e. Unacceptable inspection results shall be evaluated and resolved in accordance with procedures.
- f. Inspections are performed by qualified personnel other than those who performed or directly supervised the work being inspected. While performing the inspection activity the inspectors functionally report to the associated individual responsible for QA or an individual responsible for materials, purchasing, and contracts, as appropriate.
- g. Additional details concerning inspections may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33 and 1.58).

13. Corrective Action

- a. Procedures shall provide for identification, evaluation, and resolution of conditions adverse to quality.
- b. Reworked, repaired, and replacement items are to be inspected and tested in accordance with the original inspection and test requirements or specified alternatives.

Quality Assurance Program Description

- c. Additional details concerning corrective action activities may be found in Section A.6 and the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33 and 1.144).

14. Document Control

- a. A program is established and implemented to control the development, review, approval, issue, use, and revision of documents.
- b. At a minimum, the following documents are included in the document control program:
 - 1. Safety Analysis Report,
 - 2. design documents,
 - 3. procurement documents,
 - 4. Technical Specifications,
 - 5. procedures, manuals, and plans,
 - 6. corrective action documents,
 - 7. other documents as defined in procedures.
- c. Revisions of controlled documents are reviewed for adequacy and approved for release by the same organization that originally reviewed and approved the documents or by a designated organization that is qualified and knowledgeable.
- d. Controlled documents are available to and used by the person performing the activity.
- e. The distribution of new and revised controlled documents is in accordance with procedures. Superseded documents are controlled to prevent inadvertent use.
- f. Additional details concerning document control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33 and 1.64).

Quality Assurance Program Description

15. Records

- a. A program is established and implemented to ensure that sufficient records of items and activities (e.g., design, engineering, procurement, manufacturing, construction, inspection and test, radiography, installation, pre-operation, startup, operations, maintenance, modification, decommissioning, and audits) are generated and maintained to reflect completed work.
- b. The program provides provisions for the administration, receipt, storage, preservation, safekeeping, retrieval, and disposition of records.
- c. Additional details concerning records requirements may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guide 1.88).

C. AUDIT

1. Methodology

- a. Personnel responsible for carrying out audits are maintained cognizant of day-to-day activities by ongoing involvement in the QA program requirements so that they can act in a management advisory function.
- b. Organizations performing audits are to be technically and performance oriented commensurate with the activity being reviewed.
- c. Personnel performing audits have no direct responsibilities in the area they are assessing.
- d. Audits are accomplished using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

2. Performance

- a. A program of planned and periodic audits is established and implemented to confirm that activities affecting quality comply with the QAPD and that the QAPD has been implemented effectively. Audits will be conducted as required by the applicable Code of Federal Regulations, safety analysis reports, and commitments by various correspondence to the Nuclear Regulatory Commission. Audits will be conducted at a frequency in accordance with Section C.2.a.1.

Quality Assurance Program Description

1. Audit schedules assure that the following areas are audited at the indicated frequencies, or more frequently as performance dictates.
 - a. The conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 24 months.
 - b. The performance, training, and qualification of the entire station staff at least once per 24 months.
 - c. The results of actions taken to correct deficiencies occurring in unit equipment, structures, systems, or method of operation that affect nuclear safety at least once per 24 months.
 - d. The performance of activities required by the QAPD to meet the requirements of 10 CFR 50, Appendix B, at least once per 24 months.
 - e. The fire protection programmatic controls including implementing procedures at least once per 24 months by qualified licensee personnel.
 - f. The fire protection equipment and program implementation at least once per 12 months using either qualified licensee fire protection engineer or an outside independent fire protection consultant.
 - g. The fire protection equipment and program implementation at least once per 36 months using an outside independent fire protection consultant.
 - h. The Radiological Environmental Monitoring Program and radiological effluents monitoring activities and implementing procedures at least once per 12 months.
 - i. The Off-site Dose Calculation Manual and implementing procedures at least once per 24 months.
 - j. The Process Control Program and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.
 - k. Any other area of facility operation considered appropriate by the off-site review committee or the executives responsible for overall plant nuclear safety and engineering.

Quality Assurance Program Description

2. A grace period of 90 days may be applied to the 24-month frequency for internal audits. For activities deferred in accordance with the 90-day grace period, the next performance due date will be based on their originally scheduled date.
3. Audits shall provide an objective evaluation of quality-related practices, procedures, instructions, activities, and items, and a review of documents and records, as applicable.
4. Audits shall be performed in accordance with approved written procedures or checklists. Items from previous audits shall be reviewed and re-audited, as appropriate. The checklists are used as guides to the auditor.
5. Scheduling and resource allocations are based on the status and safety importance of the activity or process being assessed.
6. Scheduling is dynamic and resources are supplemented when the effectiveness of the QA program is in doubt.
7. Audit reports are written and distributed to the appropriate levels of management for review. Follow-up action, including re-audit of deficient areas, is initiated as deemed appropriate.
8. Implementation of delegated portions of the QA program is assessed.
9. Audits are conducted using predetermined acceptance criteria.
10. Additional details concerning audits may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Table 1 (e.g., Regulatory Guides 1.33 and 1.144).

Quality Assurance Program Description

Table 1 - REGULATORY AND SAFETY GUIDES/ANSI STANDARDS

1.	Reg. Guide 1.8 (9/75)	- Personnel Selection and Training
	ANSI N18.1 (1971)	- Selection and Training of Nuclear Power Plant Personnel
2.	Reg. Guide 1.14 (8/75)	- Reactor Coolant Pump Flywheel Integrity
3.	Reg. Guide 1.16 (8/75)	- Reporting of Operating Information, Appendix A - Technical Specifications
4.	Safety Guide 30 (8/72)	- Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment
	ANSI N45.2.4 (1972)	- Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations
5.	Reg. Guide 1.33 (02/78)	- Quality Assurance Program Requirements (Operation)
	ANSI N18.7 (1976)/ (ANS 3.2 1976)	- Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
	ANSI N45.2 (1977)	- Quality Assurance Program Requirements for Nuclear Facilities
6.	Reg. Guide 1.37 (3/73)	- Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants
	ANSI N45.2.1 (1973)	- Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants
7.	Reg. Guide 1.38 (10/76)	- Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants
	ANSI N45.2.2 (1972)	- Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (During the Construction Phase)

Quality Assurance Program Description

Table 1 - REGULATORY AND SAFETY GUIDES/ANSI STANDARDS

8.	Reg. Guide 1.39 (10/76)	- Housekeeping Requirements for Water-Cooled Nuclear Power Plants
	ANSI N45.2.3 (1973)	- Housekeeping During the Construction Phase of Nuclear Power Plants
9.	Reg. Guide 1.54 (6/73)	- Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants
	ANSI N101.4 (1972)	- Quality Assurance for Protective Coatings Applied to Nuclear Facilities
10.	Reg. Guide 1.58 (9/80)	- Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel
	ANSI N45.2.6 (1978)	- Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants
11.	Reg. Guide 1.63 (7/78)	- Electric Penetration Assemblies in Containment Structures for Light-Water- Cooled Nuclear Power Plants
12.	Reg. Guide 1.64 (6/76)	- Quality Assurance Requirements for the Design of Nuclear Power Plants
	ANSI N45.2.11 (1974)	- Quality Assurance Requirements for the Design of Nuclear Power Plants
13.	Reg. Guide 1.74 (2/74)	- Quality Assurance Terms and Definitions
	ANSI N45.2.10 (1973)	- Quality Assurance Terms and Definitions
14.	Reg. Guide 1.88 (10/76)	- Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records
	ANSI N45.2.9 (1974)	- Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants
15.	Reg. Guide 1.94 (4/76)	- Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants

Quality Assurance Program Description

Table 1 - REGULATORY AND SAFETY GUIDES/ANSI STANDARDS

	ANSI N45.2.5 (1974)	- Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants
16.	Reg. Guide 1.123 (7/77)	- Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants
	ANSI N45.2.13 (1976)	- Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants
17.	Reg. Guide 1.144 (1/79)	- Auditing of Quality Assurance Programs for Nuclear Power Plants
	ANSI N45.2.12 (1977)	- Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants
18.	Reg. Guide 1.146 (8/80)	- Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants
	ANSI N45.2.23 (1978)	- Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants
19.	ANSI N45.2.8 (1975)	- Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants
20.	ANSI N45.4 (1972)	- Leakage-Rate Testing of Containment Structures for Nuclear Reactors
21.	Appendix A to NRC Branch Technical Position (APCSB) 9.5-1 (1976)	- Guidelines for Fire Protection for Nuclear Power Plants
	FRACQA (06/77)	- NRC clarification "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance," (FRACQA) dated June 14, 1977

Quality Assurance Program Description

Table 2

CLARIFICATION/EXCEPTIONS TO REGULATORY GUIDES

1. Reg. Guide 1.8 (9/75)/ANSI N18.1 (1971)

1a. General

Exception/Interpretation

The following qualifications may be considered equivalent to a bachelor's degree:

1. Four (4) years of post-secondary schooling in science or engineering;
2. Four (4) years of applied experience at a nuclear facility in the area for which qualification is sought;
3. Four (4) years of operational or technical experience/training in nuclear power; or
4. any combination of the above totaling four (4) years.

Years of experience used to meet the education requirements as allowed by this exception shall not be used to also meet the experience requirements.

1b. Sec. 4.2.4

Requirement

Technical Manager – “A maximum of four years of the remaining seven years of experience should be fulfilled by satisfactory completion of academic training.”

Exception/Interpretation

The performance assurance director may have equivalent educational qualifications in accordance with ANSI/ANS 3.1-1993, paragraph 4.1 to 4.1.2.4.

2. Reg. Guide 1.33 (02/78)/ANSI N18.7 (1976)

2a. General

Exception/Interpretation

I&M has established both an on-site and off-site standing committee for independent review activities; together they form the independent review body.

The standard numeric and qualification requirement may not be met by each group individually. Procedures will be established to specify how each group will be involved in review activities. This exception/interpretation is consistent with Appendix C to this QAPD.

Quality Assurance Program Description

2b. Sec. 4.3.1

Requirement

"Personnel assigned responsibility for independent reviews shall be specified in both number and technical disciplines, and shall collectively have the experience and competence required to review problems in the following areas:...."

Exception/Interpretation

The specific areas of experience described in this section are not applicable to the Plant Operations Review Committee (PORC) but the committee must be comprised of site operations or engineering supervisory personnel. Additionally, the Nuclear Safety Review Board (NSRB) need contain experience in only a majority of the areas.

2c. Sec. 4.3.2.1

Requirement

"When a standing committee is responsible for the independent review program, it shall be composed of no less than five persons of whom no more than a minority are members of site operations. Competent alternates are permitted if designated in advance. The use of alternates shall be restricted to legitimate absences of principals."

Exception/Interpretation

No more than two alternates shall participate as voting members in PORC activities at any one time

2d. Sec. 4.3.2.1

Requirement

"When a standing committee is responsible for the independent review program, it shall be composed of no less than five persons of whom no more than a minority are members of site operations. Competent alternates are permitted if designated in advance. The use of alternates shall be restricted to legitimate absences of principals."

Exception/Interpretation

The minimum number of members for NSRB composition shall be ten (10) [ref: NRC letter dated December 28, 1998].

2e. Sec. 4.3.2.2

Requirement

"Formal meetings of personnel assigned to a standing committee functioning as an independent review group shall be scheduled as needed."

Quality Assurance Program Description

Exception/Interpretation

The PORC shall meet at least once per calendar month and as convened by the Chair or the Vice-Chair.

2f. Sec. 4.3.2.3

Requirement

"A quorum for formal meetings of the committee held under the provisions of 4.3.2.2 shall consist of not less than a majority of the principals, or duly appointed alternates,..."

Exception/Interpretation

The quorum of the PORC shall consist of the Chair or the Vice-Chair and at least four members including alternates. The Vice-Chair may vote as a member when not acting as the Chair

2g. Sec. 4.3.2.3

Requirement

"...no more than a minority of the quorum shall have line responsibility for the operation of the plant."

Exception/Interpretation

This requirement is not applicable to the on-site safety review committee.

2h. Sec. 4.3.2.3

Requirement

"A quorum for formal meetings of the committee held under the provisions of 4.3.2.2 shall consist of not less than a majority of the principals, or duly appointed alternates,..."

Exception/Interpretation

NSRB quorum – The minimum number or regular members and alternates required to hold a NSRB meeting shall be eight members, of whom no more than two shall be designated or temporary alternates. The Chair or acting Chair shall be present for all NSRB meetings.

2i. Sec. 4.3.3.1

Requirement

"... recommendations ... shall be disseminated promptly to appropriate members of management having responsibility in the area reviewed."

Quality Assurance Program Description

Exception/Interpretation

Recommendations made as a result of review will generally be conveyed to the on-site, or off-site, standing committee. Procedures will be maintained specifying how recommendations are to be considered.

2j. Sec. 4.3.4

Requirement

"The following subjects shall be reviewed by the independent review body:...."

Exception/Interpretation

Subjects requiring review will be as specified in the plant Technical Specifications and this QAPD and shall include:

1. All Plant Manager Instructions (PMIs) and changes thereto.
2. Review of facility operations to detect potential nuclear safety hazards.
3. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluations, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the chief nuclear officer (CNO) and to the NSRB.
4. Review of changes to the Process Control Program, Offsite Dose Calculation Manual, and radwaste treatment system.

2k. Sec. 4.3.4(2)

Requirement

"Proposed changes in procedures, proposed changes in facility, or proposed test or experiments, any of which involves a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(c). [1]"

Exception/Interpretation

As a result of the 1999 10 CFR 50.59 rule change, the phrase "an unreviewed safety question" will be replaced with the phrase "requires a license amendment pursuant to 10 CFR 50.90."

2l. Sec. 4.3.4(3)

Requirement

"Changes in the Technical Specifications or License Amendments relating to nuclear safety are to be reviewed by the independent review body prior to implementation, except in those cases where the change is identical to a previously reviewed proposed change."

Quality Assurance Program Description

Exception/Interpretation

NSRB review and approval are required for proposed license amendments prior to implementation. NSRB review and approval are normally performed prior to submittal to the NRC. However, in rare cases, with the permission of the NSRB Chair, exceptions may be authorized. PORC review and approval are also required for proposed license amendments prior to implementation. This requirement is normally satisfied before a request is submitted to the NRC.

2m. Sec. 4.5

Requirement

“Audits of selected aspects of operational phase activities shall be performed with a frequency commensurate with their safety significance and in a manner as to assure that an audit of all safety-related functions is completed within a period of two years.”

Exception/Interpretation

Audits will be performed at frequencies as discussed in QAPD section C.2.a.1 instead of this section of ANSI N18.7.

2n. Sec. 5.2.2

Requirement

“At least one of these individuals shall be the supervisor in charge of the shift and hold a senior operators license on the unit affected.”

Exception/Interpretation

The person who holds a senior reactor operator license for the affected unit and approves a temporary change to a procedure is not required to be in charge of the shift.

2o. Sec. 5.2.2

Requirement

“Temporary changes which clearly do not change the intent of the approved procedure, shall ...”

Exception/Interpretation

The temporary changes shall be approved by the original approval authority within 14 days of implementation.

Quality Assurance Program Description

2p. Sec. 5.2.8

Requirement

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

Exception/Interpretation

Separate master schedules may exist for different programs, such as ISI, pump and valve testing, and Technical Specification surveillance testing.

2q. Sec. 5.2.11

Requirement

"The program shall provide measures to ensure that conditions adverse to plant safety... and non-conformances are promptly identified and corrected."

Exception/Interpretation

The job order system and/or the corrective action program are used at CNP to identify nonconforming items and initiate corrective action for items which are installed or have been released to the CNP. Completed job order activities are reviewed by the supervisor responsible for accomplishing the work. Performance assurance periodically audits the job order system, and on a sample basis, job orders.

2r. Sec. 5.2.13.1

Requirement

"To the extent necessary, procurement documents shall require suppliers to provide a Quality Assurance Program consistent with the pertinent requirements of ANSI N45.2 - 1977."

Exception/Interpretation

To the extent necessary, procurement documents require that the supplier has a documented Quality Assurance Program consistent with the pertinent requirements of 10 CFR 50, Appendix B; ANSI N45.2; or other nationally recognized codes and standards.

2s. Sec. 5.2.13.2

Requirement

ANSI N18.7 and N45.2.13 specify that where required by code, regulation, or contract, documentary evidence that items conform to procurement requirements shall be available at the nuclear power plant site prior to installation or use of such items.

Quality Assurance Program Description

Exception/Interpretation

The required documentary evidence is available at the site prior to use, but not necessarily prior to installation. This allows installation to proceed while any missing documents are being obtained, but precludes dependence on the item for safety purposes.

2t. Sec. 5.2.15

Requirement

"Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable."

Exception/Interpretation

Biennial reviews are not performed in that I&M has programmatic control requirements in place that make the biennial review process redundant from a regulatory perspective. These programmatic controls were effected in an effort to ensure that plant instructions and procedures are reviewed for possible revision when pertinent source material is revised, therefore maintaining the procedures current. We believe that this approach, in addition to an annual random sampling of procedures, better addresses the intent of the biennial review process and is more acceptable from both a technical and practical perspective than a static two-year review process.

2u. Sec. 5.2.15

Requirement

"These measures shall assure that documents, including revisions or changes, are reviewed for adequacy..."

Exception/Interpretation

Top tier instructions and procedures that define QA program requirements are also reviewed and/or approved by performance assurance.

2v. Sec. 5.2.15

Requirement

"Applicable procedures shall be reviewed following an unusual incident such as an accident, an unexpected transient, significant operator error, or equipment malfunction."

Exception/Interpretation

Required procedure reviews following the occurrences discussed in Section 5.2.15, paragraph 3 sentence 3, of ANSI N18.7, are determined and controlled in accordance with corrective action requirements of section A.6, instead of this section.

Quality Assurance Program Description

2w. Sec. 5.2.16

Requirement

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

Exception/Interpretation

See Item 6b.

2x. Sec. 5.2.17

Requirement

“Such inspections shall be performed by qualified individuals other than those who performed or directly supervised the activity being inspected.”

Exception/Interpretation

1. The I&M Peer Inspection Program is based on the premise that I&M personnel are qualified to ANSI N18.1 (1971) and are periodically trained in their skill area using INPO accredited training. As a result of their experience, qualifications, and training, I&M personnel may perform inspections of work functions associated with normal operation of the plant, routine maintenance, and certain routine technical activities that are routinely performed by I&M personnel (peers). Peer inspection personnel are independent in that they do not perform or directly supervise the work being inspected, but they may be from the same work group.
2. Major modification and non-routine maintenance work on safety-related equipment is inspected per ANSI N45.2.6, whether it is performed by I&M or contractor personnel. All safety-related work performed by contract personnel is inspected per ANSI N45.2.6. Inspections of these work activities are performed by inspectors qualified and certified in accordance with Regulatory Guide 1.58 and ANSI N45.2.6. Contractors performing work on safety-related equipment are required to comply with the applicable requirements of Regulatory Guide 1.33 and ANSI N45.2.
3. Inspections associated with the packaging and shipment of radioactive waste and materials are conducted using the following program:
 - a. NRC Licensed Packagings - Inspections of NRC licensed radioactive material packagings shall be performed by individuals independent from the work being performed. The independent inspectors shall be I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum. Additionally, the inspector shall be familiar with the activities being performed.
 - b. Non-NRC Licensed Packagings and Containers - Inspections of non-NRC licensed radioactive material packagings and containers (shipping and/or burial) shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.

Quality Assurance Program Description

- c. Transportation Vehicles - Inspection of transportation vehicles being shipped as "exclusive use", shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.
- d. Other Inspections and Verification - Inspections and verifications of other activities associated with the packaging and shipment of radioactive materials and waste shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.

2y. Sec. 5.3.2(3)

Requirement

"References, including reference to technical specifications, should be included in procedures as applicable."

Exception/Interpretation

Instructions and procedures identify the regulatory requirements and commitments which pertain to the subject that it will control and establish responsibilities for implementation.

2z. Sec 5.3.9

Requirement

This section establishes the format and content of Emergency Operating Procedures (EOPs) for prescribing operator actions and observations.

Exceptions/Interpretations

Although the EOP content and format is different from the format and content specified in ANSI N18.7-1976, the upgraded EOP format and content were reviewed and approved by the NRC in their letter N90040 dated 02/14/90.

3. N45.2.1

3a. Sec. 3

Requirement

N45.2.1 establishes criteria for classifying items into "cleanness levels," and requires that items be so classified.

Exception/Interpretation

Instead of using the cleanness level classification system of N45.2.1, the required cleanness for specific items and activities is addressed on a case-by-case basis.

Cleanness is maintained, consistent with the work being performed, so as to prevent the introduction of foreign material. As a minimum, cleanness inspections are performed prior to closure of "nuclear" systems and equipment. Such inspections are documented.

Quality Assurance Program Description

3b. Sec. 5

Requirement

"Fitting and tack-welded joints (which will not be immediately sealed by welding) shall be wrapped with polyethylene or other nonhalogenated plastic film until the welds can be completed."

Exception/Interpretation

I&M sometimes uses other nonhalogenated material, compatible with the parent material, since plastic film is subject to damage and does not always provide adequate protection.

4. ANSI N45.2.2

4a General

Requirement

N45.2.2 establishes requirements and criteria for classifying safety-related items into protection levels.

Exception/Interpretation

Instead of classifying safety-related items into protection levels, controls over the packaging, shipping, handling and storage of such items are established on a case-by-case basis with due regard for the item's complexity, use, and sensitivity to damage. Prior to installation or use, the items are inspected and serviced, as necessary, to assure that no damage or deterioration exists which could affect their function.

4b. Sec. 3.2

Requirement

"The packaging requirements are based on the protection the item should receive during shipping, handling and storage."

Exception/Interpretation

As an alternative to the requirements in Section 3.2.1, items (4), (5) and (7), Section 3.2.2, Section 3.2.3, item (1), and Section 3.2.4, item (2), the storage atmosphere may be controlled such that it is free of harmful contaminants in concentrations that could produce damage to the stored item, and protecting weld end preparations and threads by controlling the manner in which the item is stored.

Quality Assurance Program Description

4c. Sec. 3.7.1

Requirement

Containers are used when maximum protection for the item or its barrier is required. Domestic types used shall be limited to:

- (1) Cleated, sheathed boxes (500 lb. Maximum net weight).

Exception/Interpretation

Cleated, sheathed boxes may be used up to 1000 lb., rather than 500 lb. as specified in 3.7.1(1). Special qualification testing may be required for loads over 1000 lb.

4d. Sec. 3.7.2

Requirement

Skids and runners shall be used on boxes with a gross weight of 100 lb. or more, allowing a minimum floor clearance for forklift tines as provided by 4-inch lumber.

Exception/Interpretation

Skids and runners will normally be fabricated from a minimum 2 X 4 inch nominal lumber size and laid flat except where this is impractical because of the small dimensions of the container. If forklift handling is required, minimum floor clearance for forklift tines will be provided.

4e. Sec. 5.2.1

Requirement

Preliminary visual inspection or examination shall be performed prior to unloading to determine if any damage occurred during shipping.

Exception/Interpretation

Warehouse personnel will normally visually scrutinize incoming shipments for damage of the types listed in this section. This activity is not necessarily performed prior to unloading. Separate documentation of the shipping damage inspection is not necessary. Release of the transport agent after unloading and the signing for receipt of the shipment provides adequate documentation of completion of the shipping damage inspection. Any nonconformance noted will be documented and dispositioned. Persons performing the visual scrutiny during unloading are not considered to be performing an inspection function as defined under Reg. Guide.1.74; therefore, while they will be trained to perform this function, they may not be certified (N45.2.6) as an inspector.

Quality Assurance Program Description

4f. Sec. 5.2.2

Requirement

“Unless the completed item was inspected or examined at the source, it shall be inspected or examined at the point of receiving to verify that the following characteristics conform to the specified requirements.”

Exception/Interpretation

This subsection requires six additional inspection activities if an item was not inspected or examined at the source. I&M will consider that a source inspection has been conducted if the supplier of the item is required to comply with ANSI N45.2.2 for the purchased item and if the supplier's program has been audited and found acceptable in the area (i.e., the supplier performs a source inspection of his supplier or conducts a receipt inspection that includes, as applicable, the six additional items listed).

4g. Sec. 5.2.2

Requirement

"Receiving inspections shall be performed in an area equivalent to the level of storage."

Exception/Interpretation

Receiving inspection area environmental controls may be less stringent than storage environmental requirements for an item. However, such inspections are performed in a manner and in an environment which do not endanger the required quality of the item.

4h. Sec. 5.2.3

Requirement

“...the “Special Inspection” procedure, complete with documentation instructions, shall be attached to the item or container...”

Exception/Interpretation

The “Special Inspection” procedure is not required to be attached to the item or container but shall be readily available to inspection personnel.

4i. Sec. 6.2.1

Requirement

“Access to storage areas shall be controlled and limited only to personnel designated by the responsible organization.”

Quality Assurance Program Description

Exception/Interpretation

Items which fall within the Level D classification of the standard will be stored in an area which may be posted to limit access, but other positive controls such as fencing or guards may not be provided.

4j. Sec. 6.2.4

Requirement

"The use or storage of food, drinks and salt tablet dispensers in any storage area shall not be permitted."

Exception/Interpretation

Packaged food for emergency or extended overtime use may be stored in material stock rooms. The packaging assures that materials are not contaminated. Food will not be "used" in storage areas.

4k. Sec. 6.2.5

Requirement

"Measures shall be taken to prevent the entrance of rodents and other small animals into indoor storage areas or equipment to minimize possible contamination and mechanical damage to stored material."

Exception/Interpretation

The sentence is replaced with the following: "Exterminators or other appropriate measures shall be used to control animals to minimize possible contamination and mechanical damage to stored material. If evidence of animal activity is detected, a survey or inspection will be utilized to determine the extent of the damage."

4l. Sec. 6.3.3

Requirement

"Hazardous chemicals, paints, solvents, and other materials of a like nature shall be stored in well ventilated areas which are not in close proximity to important nuclear plant items."

Exception/Interpretation

An alternate to the stated requirement is the following: "Hazardous chemicals, paints, solvents, and other materials of a like nature shall be stored in approved cabinets or containers which are not in close proximity to installed systems required for safe shutdown."

Quality Assurance Program Description

4m. Sec. 6.4.1

Requirement

“Inspections and examinations shall be performed and documented on a periodic basis to assure that the integrity of the item and its container ... is being maintained.”

Exception/Interpretation

The requirement implies that all inspections and examinations of items in storage are to be performed on the same schedule. Instead, the inspections and examinations are performed in accordance with material storage procedures, which identify the characteristics to be inspected and include the required frequencies. These procedures are based on technical considerations, which recognize that inspections and frequencies needed vary from item to item.

4n. Sec. 6.4.2

Requirement

Care of items in storage shall be exercised in accordance with the following.

Exception/Interpretation

Care of items in storage shall be exercised in accordance with the following: “Types of components that could require maintenance while in storage shall be identified and evaluated for specific maintenance requirements. Maintenance activities 6.4.2 (6) through 6.4.2 (8) listed in this requirement shall be considered during this evaluation and any deviations shall be justified and documented.”

4o. Sec. 6.5

Requirement

“Items released from storage and placed in their final location within the power plant, shall be inspected and cared for in accordance with the requirements of Section 6 of this standard, and other applicable standards.”

Exception/Interpretation

The last sentence of this section is not applicable to the operations phase.

4p. Appendix (A-3) Sec. A3.4.1

Requirement

“The following criteria shall be used when considering the type of contact preservatives to be used.”

Quality Assurance Program Description

Exception/Interpretation

During printing of the standard, a transposition occurred between the last sentence of A3.4.1 (4) and A3.4.1(5). The correct requirements are: (4) “However, preservatives for inaccessible inside surfaces of pumps, valves and pipe systems containing reactor coolant water shall be the water flushable type.” (5) “The name of the preservative used shall be indicated to facilitate touch up.”

- 4q. Appendix (A-3) Sec. A3.4.2

Requirement

“When inert gas blankets are used, the following criteria shall apply.”

Exception/Interpretation

There may be cases involving large or complex shaped items for which an inert or dry air purge is provided, rather than a static gas blanket, in order to provide adequate protection due to difficulty of providing a leak proof barrier. In these cases, a positive pressure purge flow may be utilized as an alternate to a leak-proof barrier.

- 4r. Appendix (A-3) Sec. A3.9, Par. 2.(1)

Requirement

“Container markings shall be on a minimum of two sides of the container, preferably on one side and one end.”

Exception/Interpretation

Instead of the requirement that container markings appear on a minimum of two sides of the container, preferably on one side and one end, I&M will comply with the following: Containers are adequately marked for storage, identification, and retrieval. Multiple marking requirements are imposed, where necessary.

- 4s. Appendix (A-3) Sec. A3.9, Par. 2.(4)

Requirement

“Container markings shall be applied with waterproof ink or paint in characters no less than ¾ inch high, container size permitting.”

Exception/Interpretation

Instead of the requirement that container markings be no less than ¾' high, I&M will comply with the following: Container markings are of a size that permits easy recognition.

Quality Assurance Program Description

- 4t. Appendix (A-3) Sec. A3.9, Par. 2.(6)

Requirement

“Container markings shall include the following information:”

Exception/Interpretation

Instead of the specific container marking requirements, I&M will comply with the following: The information required in container marking is evaluated on a case-by-case basis.

- 4u. Appendix (A-3) Sec. A3.9, last Par.

Requirement

“Marking of items not within a container, such as pipe, tanks and heat exchangers, shall exhibit specified information in a location which is in plain unobstructed view, but not directly applied to bare austenitic stainless steel and nickel alloy metal surfaces of the item.”

Exception/Interpretation

The last paragraph of A3.9 could be interpreted as prohibiting any direct marking on bare austenitic stainless steel and nickel alloy metal surfaces. As a alternate, paragraphs A3.9.(1) and (2) may be used to control marking on the surface of austenitic stainless steels and nickel base alloys based on documented engineering evaluations. Contamination levels are controlled such that the material used for marking is not detrimental to the materials marked.

5. ANSI N45.2.3

- 5a. Sec. 2.1

Requirement

Cleanliness requirements for housekeeping activities shall be established on the basis of five zone designations.

Exception/Interpretation

Instead of the five-level zone designation system referenced in ANSI N45.2.3, I&M bases its controls over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible. However, in preparing these procedures, consideration is also given to the recommendations of Section 2.1 of ANSI N45.2.3.

Quality Assurance Program Description

6. ANSI N45.2.4

6a. Sec. 2.2

Requirement

Section 2.2 establishes prerequisites that must be met before the installation, inspections, and testing of instrumentation and electrical equipment may proceed. These prerequisites include personnel qualification, control of design, conforming and protected materials, and availability of specified documents.

Exception/Interpretation

During the operations phase, this requirement is considered to be applicable to modifications and initial start-up of electrical equipment. For routine or periodic inspection and testing, the prerequisite conditions will be achieved, as necessary.

6b. Sec. 6.2.1

Requirement

"Items requiring calibration shall be tagged or labeled on completion, indicating date of calibration and identity of person that performed calibration."

Exception/Interpretation

Frequently, physical size and/or location of installed plant instrumentation precludes attachment of calibration labels or tags. Instead, each instrument is uniquely identified and is traceable to its calibration record.

A scheduled calibration program assures that each instrument's calibration is current.

7. ANSI N45.2.5

7a. Sec. 2.5.2

Requirement

"When discrepancies, malfunctions or inaccuracies in inspection and testing equipment are found during calibration, all items inspected with that equipment since the last previous calibration shall be considered unacceptable until an evaluation has been made by the responsible authority and appropriate action taken."

Exception/Interpretation

I&M uses the requirements of N18.7, Section 5.2.16, rather than N45.2.5, section 2.5.2. The N18.7 requirements are more applicable to an operating plant.

Quality Assurance Program Description

7b. Sec. 5.4

Requirement

“Hand torque wrenches used for inspection shall be controlled and must be calibrated at least weekly and more often if deemed necessary. Impact torque wrenches used for inspection must be calibrated at least twice daily.”

Exception/Interpretation

Torque wrenches are controlled as measuring and test equipment in accordance with ANSI N18.7, Section 5.2.16. Calibration intervals are based on use and calibration history rather than as per N45.2.5.

7c. Sec. 4.9 – Mechanical (Cadmold) Splice

Requirement

4.9.1 Qualification of Operators. “Prior to the production splicing of reinforcing bars, each member of the splicing crew (or each crew if the members work as a crew) shall prepare two qualification splices for each of the splice positions (e.g., horizontal, vertical, diagonal) to be used. The qualification splices shall be made using the same materials (e.g., bar, sleeve, powder) as those to be used in the structure. To qualify, the completed splices must meet the specified visual inspection acceptance requirements and meet the tensile test requirements of Section 4.9.3. Each member of the splicing crew (or each crew if members work as a crew) is subject to requalification (1) if the specific splice position (e.g., horizontal, vertical, diagonal) has not been used by member or crew for a period of three months or more or (2) if there is another reason to question their ability, such as the completed splices not passing visual inspection or tensile testing. The requalification procedure should be identical to the original qualification procedure.”

4.9.3 “Tensile testing. Splice samples may be production splices (i.e., those cut directly from in place reinforcing) or sister splices (i.e., those removable splices made in place next to production splices and under the same conditions).”

4.9.4 “Tensile Testing Frequency. Separate test cycles shall be established for mechanical splices in horizontal, vertical, and diagonal bars, for each bar size, and for each splicing crew as follows:

... 2. Test Frequency for Combinations of Production and Sister Splices. If production and sister splices are tested, the sample frequency shall be:

- (A) One production splice of the first 10 production splices.
- (B) One production and three sister splices for the next 90 production splices.
- (C) Three splices, either production or sister splices for the next and subsequent units of 100 splices. At least 1/4 of the total number of splices tested shall be production splices.”

Quality Assurance Program Description

Exception/Interpretation

I&M uses the requirements of ASME Sec. III, Div. 2 Sections CC-4333.4, CC-4333.5.2 and CC-4333.5.3 rather than N45.2.5, Sec. 4.9.3 and 4.9.4. Sec. CC-4333.5.2 and CC-4333.5.3 are more applicable to the restoration and repair of a concrete containment.

CC-4333.4 Initial Qualification Tests

[A95] “Each splicer shall prepare two qualification splices on the largest bar size to be used. In addition, for ferrous filler metal splices, cementitious grouted splices and swaged splices only, each of the splice positions to be used (e.g., horizontal, vertical, diagonal) shall be qualified. The qualification splices shall be made using reinforcing bar identical to that to be used in the structure. The completed qualifications splices shall be tensile tested using the loading rates set forth in SA-370 and the tensile results shall meet those specified in Tables CC-4334-1. [A95]”

CC-4333.5.2 Splice Samples

“Splice samples may be production splices (cut directly from in-place reinforcement) or straight sister splices (removable splices made in place next to production splices and under the same conditions), in accordance with the schedule established in CC-4333.5.3.”

CC-4333.5.3 Testing Frequency

“Splice samples shall be tensile tested in accordance with the following schedule for the appropriate splice system.”

- (a) “Separate test cycles shall be established for sleeve with ferrous filler metal splices... Straight sister splices may be substituted for production test samples on radius bent bars and for splicing sleeves arc welded to structural steel elements or the liner.
 - (1) For sleeve with ferrous filler metal splices, one splice shall be tested for each unit of 100 production splices.”

7d. Table B – In-process Tests

Requirement

<u>Material</u>	<u>Requirement</u>	<u>Test Method</u>	<u>Test Frequency</u>
Aggregate	-Compliance with Requirements for Soft fragments	ASTM C235	Monthly during production
	-Potential Reactivity	ASTM C289	Every 6 Months

Quality Assurance Program Description

Exception/Interpretation

No testing of soft fragments is intended. Testing per ASTM C235 changed designations to ASTM C851 which was deleted in 1985. Aggregate is tested for potential reactivity using C289 or ASTM C586 as determined by the results of an examination using ASTM C295.

8. ANSI N45.2.6,

8a. Sec. 1.2

Requirement

“The requirements of this standard apply to personnel who perform inspections, examinations, and tests during fabrication prior to or during receipt of items at the construction site, during construction, during preoperational and start-up testing, and during operational phases of nuclear power plants.”

Exception/Interpretation

Personnel participating in testing who take data or make observations, where special training is not required to perform this function, need not be qualified in accordance with ANSI N45.2.6, but need only be trained to the extent necessary to perform the assigned function.

8b. Sec. 2.3

Requirement

“Any person who has not performed inspection, examination, or testing activities in his qualified area for a period of one year shall be reevaluated...”

Exception/Interpretation

A 90-day grace period may be applied to this activity. For activities deferred in accordance with the 90-day grace period. The next performance due date will be based on their originally scheduled date.

9. Reg. Guide 1.58 - General

9a. Sec. C.2.a(7)

Requirement

Regulatory Guide 1.58 endorses the guidelines of SNT-TC-1A as an acceptable method of training and certifying personnel conducting leak tests.

Quality Assurance Program Description

Exception/Interpretation

I&M takes the position that the "Level" designation guidelines as recommended in SNT-TC-1A, paragraph 4 do not necessarily assure adequate leak test capability. I&M maintains that departmental supervisors are best able to judge whether engineers and other personnel are qualified to direct and/or perform leak tests. Therefore, I&M does not implement the recommended "Level" designation guidelines.

It is I&M's opinion that the training guidelines of SNT-TC-1A, Table I-G, paragraph 5.2 specifically are oriented towards the basic physics involved in leak testing, and further, towards individuals who are not graduate engineers. I&M maintains that it meets the essence of these training guidelines. The preparation of leak test procedures and the conduct of leak tests at CNP is under the direct supervision of performance engineers who hold engineering degrees from accredited engineering schools. The basic physics of leak testing have been incorporated into the applicable test procedures. The review and approval of the data obtained from leak tests is performed by department supervisors who are also graduate engineers.

I&M does recognize the need to assure that individuals involved in leak tests are fully cognizant of leak test procedural requirements and thoroughly familiar with the test equipment involved. Plant performance engineers receive routine, informal orientation on testing programs to ensure that these individuals fully understand the requirements of performing a leak test.

- 9b. Sections C.5, C.6, C.7, C.8, C.10

Requirement

"The requirements for qualification of nuclear power plant inspection, examination, and testing personnel that are included in ANSI N45.2.6 are acceptable to the NRC staff..."

Exception/Interpretation

I&M takes the position that the classification of test personnel into "Levels" based on the requirements stated in Section 3.0 of ANSI N45.2.6 does not necessarily assure adequate capability. I&M maintains that departmental and first line supervisors are best able to judge the capability of the personnel under their supervision, and that "Level" classification would require an overly burdensome administrative work load, could inhibit testing activities, and provides no assurance of capabilities. Therefore, I&M does not implement the "Level" classification concept for test personnel.

Quality Assurance Program Description

The methodology under which tests are conducted at the CNP requires the involvement of first line supervisors, engineering personnel, departmental supervisors, and plant management. In essence, the last seven (7) project functions shown in Table 1 to ANSI N45.2.6 are assigned to supervisory and engineering personnel, and not to personnel of the test category. These management supervisory and engineering personnel, as a minimum, meet the educational and experience requirements of "Level II and Level III" personnel, as required, to meet the criteria of ANSI 18.1 which exceeds those of ANSI N45.2.6. In I&M's opinion, no useful purpose is served by classification of management, supervisory and engineering personnel into "Levels."

Therefore, I&M takes the following positions relative to regulatory positions C.5, C.6, C.7, C.8 and C.10 of Regulatory Guide 1.58 for test personnel.

C.5 Based on the discussion in 9b, this position is not applicable to the CNP.

C.6 Replacement personnel for CNP management, supervisory and engineering positions subject to ANSI 18.1 will meet the educational and experience requirements of ANSI 18.1 and therefore, those of ANSI N45.2.6.

Replacement test personnel will, as a minimum, meet the educational and experience requirements of ANSI N45.2.6, Section 3.5.1 - "Level I."

C.7 I&M, as a general practice, complies with the training recommendations as set forth in this regulatory position.

C.8 All I&M test personnel are instructed in the normal course of employee training in radiation protection and the means to minimize radiation dose exposure.

C.10 I&M maintains documentation to show that test personnel meet the minimum requirements of "Level I," and that management, supervisory, and engineering personnel meet the minimum requirements of ANSI 18.1.

10. ANSI N45.2.8,

10a. Sec. 2.9e

Requirement

Section 2.9e of N45.2.8. lists documents relating to the specific stage of installation activity which are to be available at the construction site.

Quality Assurance Program Description

Exception/Interpretation

All of the documents listed are not necessarily required at the construction site for installation and testing. AEPSC and I&M assure that they are available to the site, as necessary.

10b. Sec. 2.9e

Requirement

Evidence that engineering or design changes are documented and approved shall be available at the construction site prior to installation.

Exception/Interpretation

Equipment may be installed before final approval of engineering or design changes. However, the system is not placed into service until such changes are documented and approved.

10c. Sec. 4.5.1

Requirement

"Installed systems and components shall be cleaned, flushed and conditioned according to the requirements of ANSI N45.2.1. Special consideration shall be given to the following requirements:" (Requirements are given for chemical conditioning, flushing and process controls.)

Exception/Interpretation

Systems and components are cleaned, flushed, and conditioned as determined on a case-by-case basis. Measures are taken to help preclude the need for cleaning, flushing, and conditioning through good practices during maintenance or modification activities.

11. ANSI N45.2.9

11a. General

Exception/Interpretation

Quality assurance records required by this QAPD may be maintained electronically. Those records that are maintained electronically shall be maintained in accordance with the requirements of Generic Letter 88-18, Plant Record Storage on optical Disk, Regulatory Issue Summary 2000-18, Guidance on managing Quality Assurance Records in Electronic Media and this QAPD.

Quality Assurance Program Description

11b. Sec. 5.4, Item 2

Requirement

“Records shall not be stored loosely. They shall be firmly attached in binders or placed in folders or envelopes for storage on shelving in containers. Steel file cabinets are preferred.”

Exception/Interpretation

Records are suitably stored in steel file cabinets, or on shelving in containers. Methods other than binders, folders, or envelopes (for example, dividers) may be used to organize the records for storage.

11c. Sec. 6.2

Requirement

"A list shall be maintained designating those personnel who shall have access to the files.”

Exception/Interpretation

Rules are established governing access to and control of files as provided for in ANSI N45.2.9, Section 5.3, Item 5. These rules do not always include a requirement for a list of personnel who are authorized access. It should be noted that duplicate files and/or microforms may exist for general use.

11d. Sec. 5.6

Requirement

When a single records storage facility is maintained, at least the following features should be considered in its construction: etc.

Exception/Interpretation

The CNP Master File Room and other off-site record storage facilities comply with the requirements of NUREG-0800 (7/81), Section 17.1.17.4.

11e. Sec. 5.6

Requirement

Section 5.6 requires the record storage facilities to have a four-hour fire rating.

Exception/Interpretation

In lieu of this requirement, the minimum two-hour rating as specified in ANSI N45.2.9-1979 is an acceptable alternative.

Quality Assurance Program Description

12. Reg. Guide 1.64/ANSI N45.2.11

12a. Sec. 5.2.4

Requirement

Procedures shall be established to control the flow of design information between organizational units.

Exception/Interpretation

For the documentation of inter-disciplinary design reviews, there must be documented evidence of the acceptability of design documents, or portions thereof, prior to release (material, stress, physics, mechanical, electrical, concrete, etc.). Indication of the positive concurrence of those who determine the design acceptability relative to their respective disciplinary area of concern should be on the document or on a separate form traceable to the document. A document that indicates the reviewer's comments need not be retained.

13. Reg. Guide 1.144/ANSI N45.2.12

13a. Sec. C.3.a(2)

Requirement

Applicable elements of an organization's Quality Assurance program for "design and construction phase activities should be audited at least annually or at least once within the life of the activity, whichever is shorter."

Exception/Interpretation

Since most modifications are straight forward, they are not audited individually. Instead, selected controls over modifications are audited periodically.

13b. Sec. C.3.b(1)

Requirement

This section identifies procurement contracts which are exempted from being audited.

Exception/Interpretation

In addition to the exemptions of Reg. Guide 1.144, I&M considers that the National Institute of Standards and Technology, or other State and Federal Agencies which may provide services to I&M, are not required to be audited.

Quality Assurance Program Description

13c. Sec. C.3.b(2)(b)

Requirement

“Applicable elements of a supplier’s quality assurance program should be audited by the purchaser on a triennial basis. ... A documented evaluation of the supplier should be performed annually.”

Exception/Interpretation

A 90-day grace period may be applied to these activities. For activities deferred in accordance with the 90-day grace period. The next performance date will be based on their originally scheduled date.

13d. Sec. 3.3

Requirement

“An effective audit system shall be established and maintained and shall include the following essential elements...

3.3.7 Provision for verification of effective corrective action on a timely basis.”

Exception/Interpretation

Verification of the implementation of effective corrective action is performed as indicated in Section C.2.a.1.c of this QAPD. Only selected corrective/preventive actions, determined by the auditing organization, will be verified by the auditing organization.

13e. Sec. 4.5.1

Requirement

“...In the event that corrective action cannot be completed within thirty days, the audited organization's response shall include a scheduled date for the corrective action. The audited organization shall provide a follow-up report stating the corrective action taken and the date corrective action was completed.”

Exception/Interpretation

The auditing organization will determine when it is necessary for the audited organization to provide a response within thirty days. If the auditing organization does not designate that the response must be completed within the thirty day timeframe and forwarded to the auditing organization, the corrective action document will be processed in accordance with the corrective action program. The program determines the safety significance, extent of the investigation required, investigation due date, and required level of management review and approval. The audited organization will provide follow-up documentation to the appropriate level of management as to the status of the corrective/preventive action. Documentation of follow-up will be provided to the auditing organization when specified by the auditing organization.

Quality Assurance Program Description

14. ANSI N45.2.13,

14a. Sec. 3.1

Requirement

“Procurement document changes shall be subject to the same degree of control as utilized in the preparation of the original documents.”

Exception/Interpretation

The “same degree of control” is stipulated to mean “equivalent level of review and approval.” The changed document may not always be reviewed by the originator, however, at least an equivalent level of management/supervision shall review and approve any changes.

14b. Sec. 3.1

Requirement

“Procurement document changes shall be subject to the same degree of control as utilized in the preparation of the original documents.”

Exception/Interpretation

Changes to procurement documents which are changes in quantity, estimated price, cost codes, taxes, format or editorial changes that do not affect the quality of the item or service do not require an equivalent level of review and approval as the original document.

14c. Sec. 3.2.2

Requirement

N45.2.13 requires that technical requirements be specified in procurement documents by reference to technical requirement documents. Technical requirement documents are to be prepared, reviewed and released under the requirements established by ANSI N45.2.11.

Exception/Interpretation

For replacement parts and materials, I&M follow ANSI N18.7, Section 5.2.13, Sub-item 1, which states: "Where the original item or part is found to be commercially 'off the shelf' or without specifically identified QA requirements, spare and replacement parts may be similarly procured, but care shall be exercised to ensure at least equivalent performance."

Quality Assurance Program Description

14d. Sec. 3.2.3

Requirement

"Procurement documents shall require that the supplier have a documented quality assurance program that implements parts or all of ANSI N45.2 as well as applicable quality assurance program requirements of other nationally recognized codes and standards."

Exception/Interpretation

Refer to Item 2r.

14e. Sec. 3.3(a)

Requirement

Reviews of procurement documents shall be performed prior to release for bid and contract award.

Exception/Interpretation

Documents may be released for bid or contract award before completing the necessary reviews. However, these reviews are completed before the item or service is put into service, or before work has progressed beyond the point where it would be impractical to reverse the action taken.

14f. Sec. 3.3(b)

Requirement

Review of changes to procurement documents shall be performed prior to release for bid and contract award.

Exception/Interpretation

This requirement applies only to quality-related changes (i.e., changes to the procurement document provisions identified in ANSI N18.7, Section 5.2.13.1, Sub-items 1 through 5). The timing of reviews will be the same as for review of the original procurement documents.

14g. Sec. 4.2

Requirement

"Procurement source evaluation and selection measures shall be adopted by the Purchaser..."

Quality Assurance Program Description

Exception/Interpretation

Supplier evaluations may be performed any time prior to placing the purchased item in service.

14h. Sec. 8.2, Item b

Requirement

“b. Submittal of nonconformances notice to Purchaser by Supplier as directed by the Purchaser.”

Exception/Interpretation

Non-conformance notices for conditions described in this section are only required to be submitted to I&M when the non-conformance could adversely affect the end use of an item relative to safety, interchangeability, operability, reliability, integrity or maintainability.

14i. Sec. 10.1

Requirement

"Where required by code, regulation, or contract requirement, documentary evidence that items conform to procurement documents shall be available at the nuclear power plant site prior to installation or use of such items, regardless of acceptance methods."

Exception/Interpretation

Refer to Item 2r.

14j. Sec. 10.1

Requirement

"Post-installation test requirements and acceptance documentation shall be mutually established by the purchaser and supplier."

Exception/Interpretation

In exercising its ultimate responsibility for its quality assurance program, I&M establishes post-installation test requirements giving due consideration to supplier recommendations.

14k. Sec. 10.2, Item d

Requirement

“The certificate should be by a person who is responsible for this quality assurance function and ...”

Quality Assurance Program Description

Exception/Interpretation

The section states that the certificate should be attested to by a person who is responsible for this QA function whose function and position are described in the Purchaser's/ Supplier's QA program. As an alternate to this requirement, I&M will use the following: "The person attesting to a certificate shall be an authorized and responsible employee of the supplier, and shall be identified by the supplier."

15. ANSI N18.1

15a. Sec. 4.2.2

Requirement

At the time of initial core loading or appointment to the active position the operations manager shall hold a senior reactor operator's license.

Exception/Interpretation

The requirement implies that only personnel who currently hold a senior reactor operator's license can be appointed as operations manager. I&M takes the position that the operations manager must hold or have held a senior operator license at CNP or a similar reactor; or have been certified for equivalent senior operator knowledge. If the operations manager does not hold a senior operator license, then a line (v. staff) operations middle manager shall hold a current senior operator license for the purposes of directing operational activities. This exception/interpretation is consistent with Technical Specification 6.2.2.g, previously approved by Nuclear Regulatory Commission.

16. ANSI N45.2.23

16a. Sec. 3.2 & 5.3

Requirement

3.2 – "Based on management annual assessment, management may extend...."

5.3 – "Records for Lead Auditors shall be maintained and updated annually."

Exception/Interpretation

A 90-day grace period may be applied to these activities. For activities deferred in accordance with the 90-day grace period. The next performance due date will be based on their originally scheduled date.

Quality Assurance Program Description

17. FRACQA (06/77)

17a. Att. 6, Sec.4.0g

Requirement

“Periodic inspections of fire protection systems, ... to assure the acceptable condition of these items.”

Exception/Interpretation

The periodic inspections do not include emergency lighting or communication equipment.

17b. Att. 6, Sec.5.0a

Requirement

“Installation Testing – Following construction, modification, repair, or replacement, sufficient testing is performed to demonstrate that ... will perform satisfactorily in service and that design criteria are met.”

Exception/Interpretation

The installation testing following construction, modification, repair or replacement does not include emergency lighting or communication equipment.

17c. Att. 6, Sec.5.0b

Requirement

“Periodic Testing – The schedules and methods for periodic testing are developed and documented. Fire protection equipment ... are tested periodically to assure that the equipment will properly function and continue to meet the design criteria.”

Exception/Interpretation

The periodic testing does not include emergency lighting or communication equipment.

17d. Att. 6, Sec5.0c

Requirement

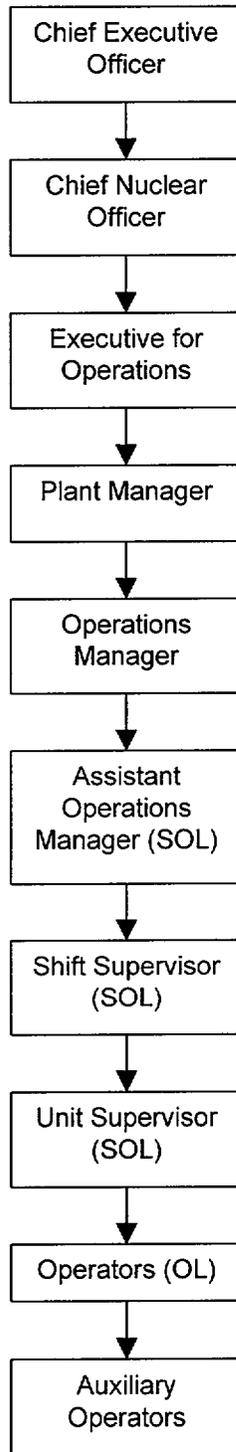
“Programs are established for QA/QC to verify testing of fire protection systems and to verify that test personnel are effectively trained.”

Exception/Interpretation

The programs has been established for designated fire protection personnel to verify testing of fire protection systems and to verify that test personnel are effectively trained.

Quality Assurance Program Description

Figure 1 – Site Operations Organization Chart



Quality Assurance Program Description

Note: Only those items for Appendix C in Revision 15C, that were not already addressed in a Reg. Guide, CFR, or a standard, or that were needed as a placeholder, were included in this Appendix.

Appendix C

6.5 REVIEW AND AUDIT

6.5.3 TECHNICAL REVIEW AND CONTROL

6.5.3.1 Activities which affect nuclear safety shall be conducted as follows:

- a. *Deleted (Addressed in N18.7 – 5.2.15).*
- b. Proposed changes or modifications to plant nuclear safety-related structures, systems and components shall be reviewed as designated by the site vice president, or designee. Each such modification shall be reviewed (reference Section 6.5.3.1.e) by a qualified (reference Section 6.5.3.1.d) individual/group other than the individual/group which designed the modification, but who may be from the same organization as the individual/group which designed the modifications. Proposed modifications to plant nuclear safety-related structures, systems and components shall be approved prior to implementation by the site vice president, or designee.
- c. Proposed tests and experiments which affect plant nuclear safety and are not addressed in the Final Safety Analysis Report or Technical Specifications shall be prepared, reviewed, and approved. Each such test or experiment shall be reviewed by qualified individuals/groups other than the individual/group which prepared the proposed test or experiment to assure cross disciplinary review as appropriate for the proposed test or experiment. Proposed tests and experiments shall be approved before implementation by the site vice president, or designee.
- d. Individuals who conducted the reviews performed in the accordance with Section 6.5.3.1a, 6.5.3.1b, and 6.5.3.1c, shall be members of the plant management staff previously designated by the site vice president and shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. Each such review shall include a determination of whether or not additional, cross-disciplinary review is necessary.

If deemed necessary, such review shall be performed by qualified personnel of the appropriate discipline.

- e. Each review shall include a determination of whether or not a condition requiring a license amendment pursuant to 10 CFR 50.90, is involved. Pursuant to

Quality Assurance Program Description

10 CFR 50.59, NRC approval of items involving a condition requiring a license amendment pursuant to 10 CFR 50.59, shall be obtained prior to the approval of the site vice president, or designee, for implementation.

- 6.5.3.2 Records of the above activities shall be provided to the site vice president or designee, PORC and/or the NSRB as necessary for required reviews.

6.10 RECORD RETENTION

- 6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- b. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- c. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- d. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- e. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- f. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- g. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- h. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- i. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- j. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- k. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- l. *Deleted (Addressed in N45.2.9 – Appendix A, Section A.6.1).*
- m. Records of the service lives of hydraulic snubbers including the date at which service life commences and associated installation and maintenance records.
- n. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM

ATTACHMENT 2 TO C0501-12

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION, REVISION 15
WITH CHANGES MARKED

STATEMENT OF POLICY
FOR THE DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM

The signed copy of this Statement of Policy (Rev. 14A) has been included in the new QAPD as written.

POLICY

American Electric Power recognizes the fundamental importance of controlling the design, modification, and operation of Indiana Michigan Power Company's Donald C. Cook Nuclear Plant by implementing a planned and documented quality assurance program, including quality control, that complies with applicable regulations, codes, and standards.

The quality assurance program has been established to control activities affecting safety-related functions of structures, systems, and components in Cook Nuclear Plant. The quality assurance program supports the goal of maintaining the safety and reliability of Cook Nuclear Plant at the highest level through a systematic program designed to assure that activities affecting safety-related functions are conducted in compliance with applicable regulations, codes, standards, and established corporate policies and practices.

As chairman of the board, president, and chief executive officer of American Electric Power Company, I maintain the ultimate responsibility for the quality assurance program associated with Cook Nuclear Plant. I have delegated responsibilities for implementation of, and compliance with, the quality assurance program, as outlined in this statement.

IMPLEMENTATION

The performance assurance director, under the direction of the senior vice president nuclear generation, has been assigned the overall responsibility for specifying the quality assurance program requirements for Cook Nuclear Plant and verifying their implementation. The performance assurance director has authority to stop work on any activity affecting safety-related items that does not meet applicable administrative, technical, and/or regulatory requirements. The performance assurance director does not have the authority to stop unit operations, but shall notify

appropriate plant and/or corporate management of conditions not meeting the
aforementioned criteria and recommend that unit operations be terminated.

The senior vice president nuclear generation, under my direction, has been delegated
responsibility for effectively implementing the quality assurance program. All other
AEP divisions and departments having a supporting role for Cook Nuclear Plant are
functionally responsible to the senior vice president nuclear generation.

The site vice president, under the direction of the senior vice president nuclear
generation, is delegated the responsibility for implementing the quality assurance
program at Cook Nuclear Plant.

The performance assurance director is responsible for establishing a quality control
program at Cook Nuclear Plant.

The performance assurance director is responsible for providing technical direction to
the site vice president for matters relating to the quality assurance program at Cook
Nuclear Plant. The performance assurance director is responsible for maintaining a
quality assurance group at Cook Nuclear Plant to perform required reviews, audits,
and surveillances, and to provide technical liaison services to the site vice president.

The requirements for implementation of the quality assurance program are described
in the nuclear generation group policies and procedures.

Each nuclear generation group involved in activities affecting safety-related functions
of structures, systems, and components in Cook Nuclear Plant has the responsibility to
implement the applicable policies and requirements of the quality assurance program.
This responsibility includes being familiar with, and complying with, the applicable
quality assurance program requirements.

COMPLIANCE

The performance assurance director shall monitor compliance with the established
quality assurance program. Audit programs shall be established to ensure that nuclear
generation group activities comply with established program requirements, identify
deficiencies or noncompliances, and obtain effective and timely corrective actions.

Any employee engaged in activities affecting safety-related functions of structures, systems, and components in Cook Nuclear Plant who believes the quality assurance program is not being complied with, or that a deficiency in quality exists, should notify his/her supervisor, the performance assurance director, and/or the site vice president. If the notification does not, in the employee's opinion, receive prompt or appropriate attention, the employee should contact successively higher levels of management. An employee reporting such conditions shall not be discriminated against by companies of the American Electric Power System, nor shall any supplier under contract with any of the companies of the American Electric Power System discriminate against any employee of the supplier for reporting such conditions. Discrimination includes discharge or other actions relative to compensation, terms, conditions, or privileges of employment.

E. Linn Draper, Jr.
Chairman of the Board, President,
and Chief Executive Officer

1.7.1 ~~ORGANIZATION~~

1.7.1.1 ~~SCOPE~~

Responsibility for establishing the QA program is stated in A.2.b.1 & A.2.c of the new QAPD and the 6th par. of the new QAPD Introduction section.

~~Indiana Michigan Power Company's nuclear generation group (I&M) is responsible for establishing and implementing the Quality Assurance (QA) program for the operational phase of the Donald C. Cook Nuclear Plant. Although authority for development and execution of various portions of the program may be delegated to others, such as contractors, agents or consultants, I&M retains overall responsibility. I&M shall evaluate work delegated to such organizations. Evaluations shall be based on the status of safety importance of the activity being performed and shall be initiated early enough to assure effective quality assurance during the performance of the delegated activity.~~

This statement is now in A.3.b of the new QAPD.

The application of the QAPD to work by others is now in A.3.d of the new QAPD.

~~This section of the Quality Assurance Program Description (QAPD) identifies the organizational responsibilities for activities affecting the quality of safety related nuclear power plant structures, systems, and components, and describes the authority and duties assigned to them. It addresses responsibilities for both attaining quality objectives and for the functions of establishing the QA program, and verifying that activities affecting the quality of safety related items are performed effectively in accordance with QA program requirements.~~

This descriptive text is now in A.1.a of the new QAPD.

1.7.1.2 ~~IMPLEMENTATION~~

1.7.1.2.1 ~~Source of Authority~~

This information is contained in the Policy Statement and the Introduction section of the new QAPD.

~~The chairman of the board, president, and chief executive officer of American Electric Power Company, Inc. (AEP), through its wholly owned subsidiary I&M is responsible for safe operation of the Cook Nuclear Plant. Authority and responsibility for effectively implementing the QA program~~

This is contained in the policy statement and 6th par. of the Introduction section of the new QAPD.

The requirement for lines of authority and responsibility is specified in N18.7, 3.2 and is therefore deleted from this section

The responsibility statement is contained in section A.2. The link to the CNO title is contained in the Introduction section of the QAPD

~~for plant modification operations and maintenance are delegated to the I&M vice president responsible for nuclear generation. The I&M vice president also serves as the American Electric Power Service Corporation (AEPSC) senior vice president nuclear generation (currently designated in Technical Specification 6.2.1.e as vice president nuclear operations).~~

~~In the operation of a nuclear power plant, the licensee is required to establish clear and direct lines of responsibility, authority and accountability. This requirement is applicable to the organization providing support to the plant, as well as to the plant staff.~~

~~The responsibility for the support of Cook Nuclear Plant rests with I&M which includes the onsite and offsite AEP organizations that administer, operate, maintain, and modify the plant. The I&M vice president responsible for nuclear generation has primary responsibility for Cook Nuclear Plant. All nuclear generation group organizations are functionally responsible to the I&M vice president (reference Figure 1.7 1). The I&M vice president functions as the chief nuclear officer (CNO).~~

~~In order to facilitate a more thorough understanding of the support functions, some of the responsibilities, authorities, and accountabilities within the organization are as follows:~~

Editorial deletion

The responsibility statement is contained in section A.2. The decision-making statement is inherent in the responsibility statement contained in A.2.b. This item is also addressed in the 6th para. of the Introduction section of the QAPD.

- ~~1) The responsibilities of the chief nuclear officer (CNO) shall be dedicated to the area of Cook Nuclear Plant operations and support.~~
- ~~2) The CNO shall be responsible for, and has the authority to direct, all Cook Nuclear Plant operational and support matters and shall make, or concur, in all final decisions regarding significant nuclear safety matters.~~

This global descriptive text is enveloped in the 10th par. of the policy statement.

- 3) ~~I&M managers shall be familiar with activities within their scope of responsibility that affect plant safety and reliability. They shall be cognizant of, and sensitive to, internal and external factors that might affect the operations of Cook Nuclear Plant.~~

This statement is enveloped by the corrective action statement in A.6.a and is binding to managers

- 4) ~~I&M managers have a commitment to seek and identify problem areas and take corrective action to eliminate unsafe conditions, or to improve trends that will upgrade plant safety and reliability.~~

This statement clarifies the fact the CNO of I&M does not allow the President I&M or other AEP executives to direct I&M staff away from duties required for the safe operation of DCCNP. It is a more detailed statement of the responsibility in A2.b and the 6th par. of the QAPD Introduction. This level of detail is not necessary.

- 5) ~~The CNO shall ensure that Cook Nuclear Plant personnel are not requested to perform inappropriate work or tasks by corporate personnel, and shall control assignments and requests that have the potential for diverting the attention of the site vice president from the primary responsibility for safe and reliable plant operation.~~

- 6) ~~I&M managers shall be familiar with the policy statements from higher management concerning nuclear safety and operational priorities. They shall be responsible for ensuring that activities under their direction are performed in accordance with these policies.~~

1.7.1.2.2 Responsibility for Attaining Quality Objectives in I&M Nuclear Generation

~~The AEP chairman of the board, president, and chief executive officer has assigned the overall responsibility for specifying QA program requirements and verifying their implementation to the performance assurance director.~~

This is addressed in A.2.b.1 of the new QAPD.

This section is a carryover from the time AEPSC had design responsibility at DCCNP. The arrangement is no longer valid since engineering is part of I&M. The "policies" addressed those of AEP, AEPSC and I&M.

This is a restatement of responsibility. It is addressed in A.2.b.

~~The chief nuclear officer under the direction of the AEP chairman of the board, president, and chief executive officer, is responsible for effectively implementing the QA program.~~

QC is part of QA per 10CFR APP B, the responsibility for the QA program requirements is identified in A.2.b.1.

~~The performance assurance director, under the direction of the chief nuclear officer is responsible for establishing the Cook Nuclear Plant quality control program.~~

The global requirement to follow the QAPD is contained in both the policy statement and A.1.b.

~~Each I&M manager involved in activities affecting safety related functions of structures, systems, and components in Cook Nuclear Plant, has the responsibility to implement the applicable policies and requirements of the quality assurance program. This responsibility includes being familiar with and complying with, the applicable quality assurance program requirements.~~

The onsite and offsite review committees are described in A.2.e and more extensively in N18.7, 4.3.

~~I&M has an independent off site Nuclear Safety and Design Review Committee (NSDRC) which has been established pursuant to the requirements of the Technical Specifications, Appendix C to this QAPD, for the Cook Nuclear Plant. The function of the NSDRC is to oversee the engineering, design, operation, and maintenance of the Cook Nuclear Plant by performing audits and independent reviews of activities which are specified in Appendix C to this QAPD.~~

~~The Cook Nuclear Plant on-site review group is the Plant Operations Review Committee (PORC). This committee has also been established pursuant to the requirements of Appendix C to this QAPD. The function of~~

See the last comment on the previous page.

the (PORC) is to review plant operations on a continuing basis and advise the site vice president on matters related to nuclear safety.

1.7.1.2.3 Corporate Organization

American Electric Power Company

AEP, the parent holding company, wholly owns the common stock of all AEP System subsidiary (operating) companies. The chairman of the board, president, and chief executive officer of AEP is the chief executive officer of AEP and all operating companies. The responsibility for the functional management of the major operating companies is vested in the president of each operating company reporting to the AEP chairman of the board, president, and chief executive officer.

This text (section 1.7.1.2.3) is now addressed in the Introduction to the new QAPD.

Operating Companies

The operating facilities of the AEP System are owned and operated by the respective operating companies. The responsibility for executing the engineering, design, construction, specialized technical training, and certain operations' supervision is vested in AEPSC, while all, or part, of the administrative functional responsibility is assigned to the operating companies. In the case of Cook Nuclear Plant, AEPSC provides limited public affairs, accounting, and industrial safety direction.

The Cook Nuclear Plant is owned and operated by I&M which is part of the AEP System.

~~1.7.1.2.4 Quality Assurance Responsibility of I&M~~

- ~~1) I&M provides the technical direction for the Cook Nuclear Plant, and as such makes the final decisions pertinent to safety related changes in plant design. Further, I&M reviews Nuclear Regulatory Commission (NRC) letters, bulletins, notices, etc., for impact on plant design, and the need for design changes or modifications.~~
- ~~2) I&M furnishes quality assurance, engineering, design, construction, licensing, NRC correspondence, fuel management and radiological support activities.~~
- ~~3) I&M provides additional service in matters such as supplier qualification, procurement of original equipment and replacement parts, and the process of dedicating commercial grade items or services to safety related applications.~~
- ~~4) The performance assurance organization provides technical direction in quality assurance matters to the nuclear organization and oversees the adequacy, effectiveness and implementation of the QA Program through review and audit activities.~~
- ~~5) Cognizant engineer (e.g., system engineer, equipment engineer, lead engineer, responsible engineer, procurement engineer etc.) is that individual who provides the engineering/design expertise for a particular area of responsibility. This~~

Section 1.7.1.2.4 has been deleted because it is detailing the responsibilities for quality assurance that is already addressed by the global requirements contained in the Introduction section of the QAPD. This section was placed in the QAPD to address the delegation of QA responsibilities between the AEPSC and I&M. Since AEPSC was performing safety related work at I&M's DCCNP, the need to clarify responsibilities was met by this section in the QAPD. Since AEPSC's role has significantly been reduced, the need for this section is no longer necessary.

~~responsibility includes the implementation of the quality assurance and quality control measures for systems, equipment, structures, or functional areas included in that individual's responsibility. The various titles used for the identification of an individual's responsibility and assignment shall be understood to mean the same as cognizant engineer in the respective areas of responsibility.~~

See explanation on the previous page.

~~Quality Assurance Responsibility - Cook Nuclear Plant~~

The requirement to use procedures is contained in A.3.f as well as RG 1.33.

~~The Cook Nuclear Plant staff operates the Cook Nuclear Plant in accordance with licensing requirements, including the Technical Specifications and such other commitments as established by the operating licenses. The categories of procedures identified in section 1.7.5.2.2 describe the means by which compliance is achieved and responsibilities are assigned. Figure 1.7-1 indicates the organizations pertaining to the operation and support of the Cook Nuclear Plant.~~

~~1.7.1.2.5 Organization~~

Justification for the removal of the position specific text is contained in I&M's Discussion of Change L.7.

~~The chairman of the board, president, and chief executive officer is ultimately responsible for the QA program associated with the Cook Nuclear Plant. This responsibility is administered through the I&M vice president responsible for nuclear generation, the chief nuclear officer (CNO).~~

This is addressed in the Policy Statement and the Introduction page of the new QAPD.

This text is addressed by the more generic titles contained in section A.2 for the executives and managers implementing 10CFR App B.

Nuclear Generation

See I&M's Discussion of Change L.3.

~~Nuclear generation is comprised of regulatory affairs, nuclear engineering, performance assurance, business services, site operations, and employee concerns.~~

Performance Assurance

~~The performance assurance director, reporting to the chief nuclear officer (CNO) is responsible for the performance assurance organization. The performance assurance organization is shown in Figure 1.7.2.~~

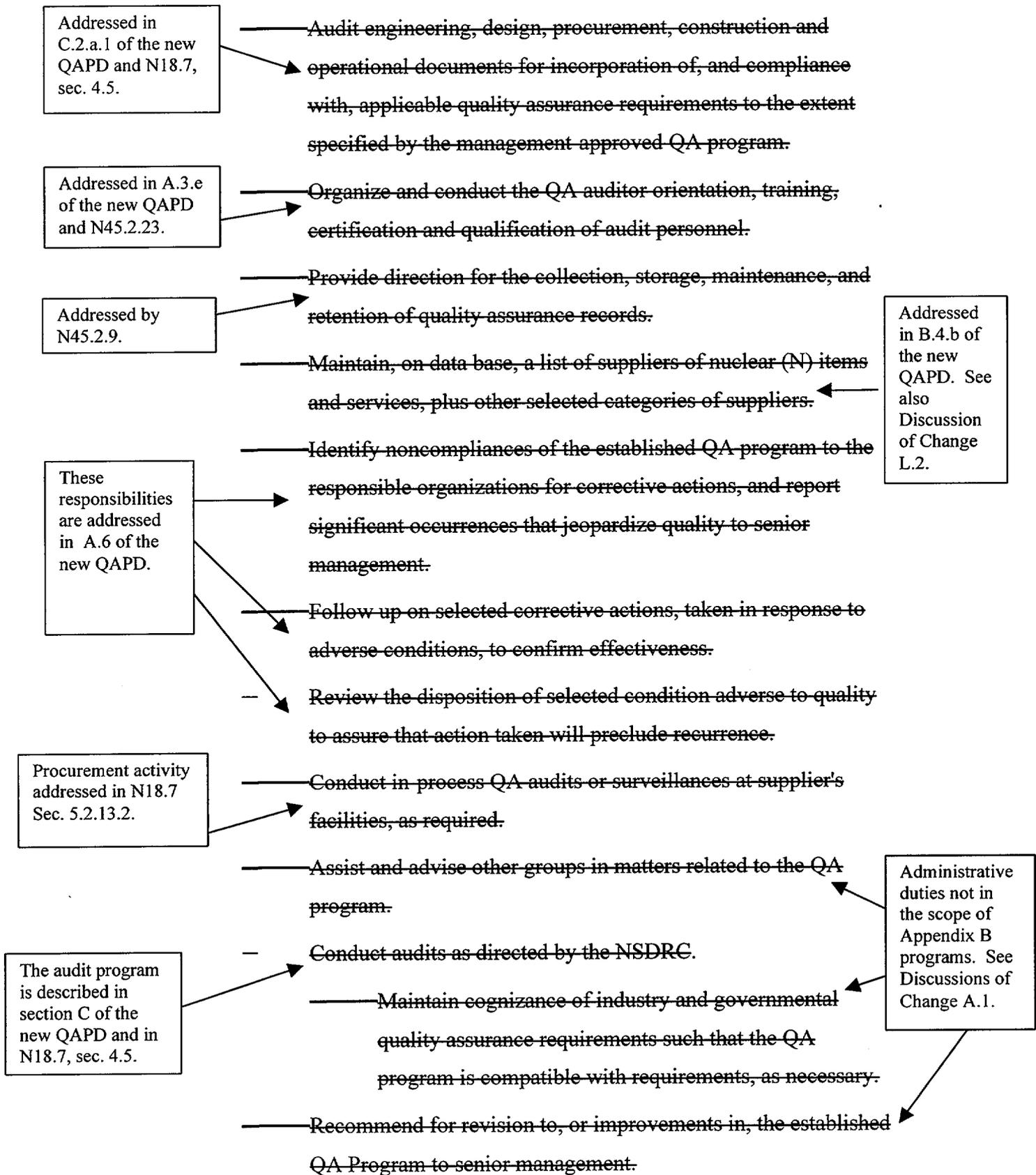
This is addressed in A.2.b.1 of the new QAPD.

~~Performance Assurance is organizationally independent and is responsible to perform the following:~~

- ~~— Specify QA program requirements.~~
- ~~— Identify quality problems.~~
- ~~— Initiate, recommend, or provide solutions through designated channels.~~
- ~~— Verify implementation of solutions, as appropriate.~~
- ~~— Prepare, issue and maintain QA program documents, as required.~~
- ~~— Verify the implementation of the QA program through scheduled audits and surveillances.~~
- ~~— Verify the implementation of computer software quality assurance through reviews, surveillances and audits.~~

This descriptive language of the fundamental duties of the QA organization is addressed in 10CFR50 APP B and is generic in nature. This was placed in the QAPD to describe the previous separation of QA duties between the I&M site and AEPSC Columbus.

This is addressed in C.2.a of the new QAPD as a part of the activities affecting quality.



Audited as part of the procurement program. Audit of procurement is addressed by N18.7, sec. 4.5.

~~Audit dedication plans for commercial grade items and services.~~

Addressed in A.4.b of the new QAPD.

~~Issue "Stop Work" orders when significant conditions adverse to safety related items are identified to prevent unsafe conditions from occurring and/or continuing.~~

Addressed in A.3.c of the new QAPD.

~~Provide management with periodic reports concerning the status, adequacy and implementation of the QA program.~~

Routine audit and surveillance activities addressed in N18.7, sec. 4.5 and C.1.a of the new QAPD.

~~Prepare and conduct special verification and/or surveillance programs on in house activities, as required or requested.~~

~~Routinely attend, and participate in, daily plant work schedule and status meetings.~~

~~Provide adequate QA coverage relative to procedural and inspection controls, acceptance criteria, and QA staffing and qualification of personnel to carry out QA assignments.~~

Addressed in A.2.b.1 and B.4.c of the new QAPD.

~~Determine the acceptability of vendors to supply products and services for safety related application.~~

~~Develop and implement an effective Quality Control (QC) Program. This encompasses, but is not limited to, the planning and directing of quality control activities to assure that industry codes, NRC regulations, and company instructions and policies~~

The development of a QC program is a fundamental aspect of QA identified in 10CFR50, Appendix B.

The development of a QC program is a fundamental aspect of QA identified in 10CFR 50, Appendix B.

~~regarding quality control for Cook Nuclear Plant are implemented, qualified personnel perform the work, and that these activities are properly documented.~~

The assignment of the group to functionally direct QC is not a 10CFR50 Appendix B issue. The APP B requires that when QC is performing the quality function that they must report to the QA individual to ensure independence of cost and schedule. See B.12.f of the new QAPD.

RG 1.58 and N45.2.6 do not specify the organization responsible for qualification and certification of NDE or inspection personnel. B.11.c of the new QAPD specify that it shall be done and an implementing procedure designate who will perform the work. Implementation is verified through audits of training. See C.2.a.1.b and A.5.d of the new QAPD.

~~Direct the activities of contractor QC/nondestructive examination (NDE) personnel assigned to the plant performance assurance department and provide oversight of work performed.~~

~~Qualification and certification of I&M personnel performing inspections or test of major modifications and non routine maintenance to the requirements of Regulatory Guide 1.58 and ANSI N45.2.6, except as noted in Appendix B hereto, item 9.~~

~~Proper certification of contractor inspection, test and examination personnel in accordance with Regulatory Guide 1.58, ANSI N45.2.6, ASME B&PV Code and/or SNT TC 1A, as applicable.~~

~~Selection of a qualification and certification administrator (NDE administrator) to certify personnel in accordance with ANSI N45.2.6 and SNT TC 1A, as applicable.~~

Amplification of Specific Responsibilities

Qualification of the performance assurance director

The performance assurance director shall possess the following position requirements:

~~Bachelor's degree in engineering, scientific, or related discipline. The performance assurance director may have equivalent educational qualifications in accordance with ANSI/ANS 3.1 1993, paragraph 4.1 to 4.1.2.4.~~

~~At least four years experience in the field of nuclear quality assurance or an equivalent number of years of nuclear power plant experience in a supervisory position or a combination of the two.~~

The qualifications of the individual responsible for quality assurance is the equivalent to that of a technical manager as described in RG 1.8/ ANSI N18.1. The educational requirement was included as exception 1b in Table 2 of the new QAPD.

This general statement of the training requirements for the position is enveloped by guidance in N18.1 (e.g., section 4.1). See also A.5. of the new QAPD.

~~Knowledge of QA regulations, policies, practices and standards.~~

~~The same, or higher, organization reporting level as the highest line manager directly responsible for performing activities affecting the quality of safety related items, such as engineering, procurement, construction, and operation, and is sufficiently independent from cost and schedule.~~

See A.2.c.1 of the new QAPD.

~~Effective communication channels with other senior management positions.~~

See A.2.b.1 of the new QAPD. This section sufficiently addresses this attribute.

~~Responsibility for approval of QA Manual(s).~~

See A.2.b.1 of the new QAPD. Manual approval is now enveloped by the term 'controlling' as it applies to the QAPD.

This statement is basically the same as that contained in N18.7, sec.3.4.2, last paragraph. Redundant statement.

~~Performance of no other duties or responsibilities unrelated to QA that would prevent full attention to QA matters.~~

~~Stop Work Orders~~

The performance assurance organization is responsible for ensuring that activities affecting the quality of safety related items are performed in a manner that meets applicable administrative, technical, and regulatory requirements. In order to carry out this responsibility, the AEP chairman of the board, president and chief executive officer has given the performance assurance director the authority to stop work on any activity affecting the quality of safety related items that does not meet the aforementioned requirements. Stop work authority has been further delegated by the performance assurance director to direct report managers and supervisors.

Addressed in A.4 of the new QAPD.

See A.4.b of the new QAPD.

~~The performance assurance director and direct report managers and supervisors do not have the authority to stop unit operations, but will notify appropriate management of conditions which do not meet the aforementioned criteria, and recommend that unit operations be terminated.~~

This is addressed in N45.2.12, section 2.2 and in A.5 of the new QAPD

~~QA Auditor, Qualification and Certification Program~~

~~I&M has established and maintains a QA auditor training and certification program for all QA auditors.~~

~~Condition Identification, Reporting and Escalation~~

This is addressed by C.2.a.7 and A.6 of the new QAPD.

~~I&M has established mechanisms for the identification, reporting and escalation of conditions affecting the quality of safety related items to a level of management whereby satisfactory resolutions can be obtained.~~

Regulatory Affairs

~~The design engineering and regulatory affairs director, reporting to the vice president nuclear engineering is responsible for the following:~~

B

- ~~— Formulate policies and practices relative to, licensing, fuel management, and radiological support.~~
- ~~— Maintain liaison with the performance assurance director.~~
- ~~— Implement the requirements of the QA program.~~

This section is a carryover from the time AEPSC had licensing and regulatory responsibility at Cook Plant. The arrangement is no longer valid since design engineering & regulatory affairs is part of I&M. The fact AEPSC had Appendix B responsibilities for Cook Plant made it important to define the separation of responsibilities. The following sections contain details to achieve the description of the responsibilities. These sections have been replaced by the executive level description contained in A.2 of the new QAPD. The detailed description of responsibilities is contained in plant administrative procedures.

See explanation on the bottom of page 1.7-16 for the attributes listed on this page.

- ~~Maintain knowledge of the latest licensing, and regulatory requirements, codes, standards, and federal regulations applicable to the operation of Cook Nuclear Plant.~~
- ~~Accomplish the procurement, economic, technical, licensing and quality assurance activities dealing with the reactor core and its related fuel assemblies and components.~~
- ~~Prepare bid specifications, evaluate bids, and negotiate and administer contracts for the procurement of all nuclear fuel and related components and services.~~
- ~~Maintain a special nuclear material accountability system.~~
- ~~Provide analyses to support nuclear steam supply system operation, including fuel economics, fuel mechanical behavior, furnish plant Technical Specification changes and other licensing work, and participate in NRC and NSDRC meetings as required by these analyses.~~
- ~~Perform reactor core operation follow up activities and other reactor core technical support activities as requested, and arrange for support from the fuel fabricator, when needed.~~
- ~~Contract for, and provide technical support for, disposal of both high level and low level radioactive waste.~~
- ~~Obtain and maintain the NRC Operating Licenses and Technical Specifications for the Cook Nuclear Plant.~~
- ~~Act as the communication link between the NRC and I&M.~~

See explanation on the bottom of page 1.7-16 for the attributes listed on this page.

- ~~Perform and coordinate efforts involved in gathering information, performing calculations and generic studies; preparing criteria, reports, and responses; reviewing items affecting safety; and interpreting regulations.~~
- ~~The preparation of changes to, and appropriate interpretation of, the plant Technical Specification submittals of license amendments; and the analysis of plant compliance with regulatory requirements.~~
- ~~Primary corporate contact for most oral and written communication with the NRC.~~
- ~~Review, evaluate, and respond to NRC requests for information and NRC notifications of regulatory changes resulting in plant modifications or new facilities. Such responses are generated in accordance with appropriate administrative procedures.~~
- ~~Review, on a conceptual basis, plant reports, to the extent that they are related to the ultimate safe operation of the plant, for compliance with safety regulations, plant Technical Specifications, the Updated FSAR design basis, and with any other requirements under the Operating License, to determine if there are any conditions requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59.~~
- ~~Perform reviews of Corrective Action Program Documents and 10CFR21 reviews in accordance with corporate requirements.~~
- ~~Operate the Action Item Tracking (AIT) system for internal commitment tracking.~~

C
A

- _____ Contribute to the annual FSAR updates through reviews of Licensee Event Reports, and the Annual Operating Report.
- _____ Serve as technical advisors on plant audits.
- _____ Remain cognizant of current decommissioning practices and developments.
- _____ Provide working level coordination with the Institute of Nuclear Power Operations (INPO) in the areas of INPO training, seminars, and workshops. This effort includes providing the nuclear generation organization access to INPO resources, such as NUCLEAR NETWORK.

Nuclear Engineering

The vice president engineering reporting to the chief nuclear officer (CNO) is responsible for certain engineering, design, procurement, and construction functions. Nuclear engineering is comprised of plant engineering, design engineering, and production engineering.

Certain organizations within the AEP power generation group and energy delivery provide occasional technical assistance for the Cook Nuclear Plant. The administrative and quality assurance controls for this assistance are controlled through documented interface agreements.

Nuclear engineering is responsible for the following:

- _____ Provide planning, engineering and design of the electrical facilities inside Cook Nuclear Plant up to the high voltage (HV) busings of the main generator transformers and mechanical facilities inside Cook Nuclear Plant including:
 - * determination of general layout and design;
 - * selection of equipment;

Included in the Introduction section of the new QAPP.

See explanation at the bottom of 1.7-16 for these attributes.

See explanation on the bottom of page 1.7-16 for the attributes listed on this page.

- ~~* preparation of one line and flow diagrams; and,~~
- ~~* coordination of inside and outside plant facilities.~~

- ~~Provide engineering and design of all controls for operation and protection of nuclear steam supply, steam generator, turbine generator, auxiliary equipment and general plant protection, including checking and approving elementary, one line, and flow drawings.~~
- ~~Ensure that all purchased equipment conforms to accepted standards and fulfills the desired function.~~
- ~~Closely follow manufacturer's engineering and design processes to assure provision of adequate and reliable equipment upon which depend the safety, reliability, and performance of the unit and plant.~~
- ~~Prepare, review and/or approve design changes, sketches, drawings, calculations, and design verifications, as required.~~
- ~~Perform evaluations of design changes pursuant to 10CFR50.59.~~
- ~~Prepare and/or approve dedication plans, specifications and procurement documents.~~
- ~~Perform drawing review of equipment, as appropriate.~~
- ~~Develop, review and/or approve procedures or correspondence as appropriate.~~
- ~~Obtain, review and perform engineering and design evaluations, including environmental equipment qualification (EQ).~~
- ~~Establish and maintain a central file for equipment environmental qualification documentation.~~
- ~~Coordinate operations that support the Cook Nuclear Plant Facility Data Base (FDB).~~

C

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

- ~~—— Perform calculations for proper application of equipment.~~
- ~~—— Perform and evaluate investigations, analyses and reports for facilities pertaining to the engineering design, operation and maintenance of the Cook Nuclear Plant.~~
- ~~—— Assist field personnel in installation, start up, and subsequent locating of problems in equipment, and in determining proper operation of equipment, during normal or after emergency operations.~~
- ~~—— Maintain a constant awareness for improvements and more reliable design of equipment and facilities, maintenance and operating methods or procedures.~~
- ~~—— Maintain a constant awareness of activities to ensure compliance with all applicable policies and procedures, initiating, when required, training or retraining programs.~~
- ~~—— Participate, as assigned, on the NSDRC and NSDRC subcommittees, and participate in matters covered in the committee's charter.~~
- ~~—— Provide responses to NRC correspondence, as required.~~
- ~~—— Participate in the evaluation and remedy of any situation requiring activation of the Emergency Response Organization.~~
- ~~—— Provide support personnel for the Emergency Response Organization.~~
- Provide technical support in areas of operation and maintenance, including: the Inservice Inspection (ISI) program; the QA program; the fire protection QA program; the ALARA program covering radiation protection; and, the corporate and plant industrial safety program.

- ~~Provide technical direction and assistance in the layout and arrangement of equipment piping, systems, controls, etc., for the development of drawings.~~
- ~~Develop System Descriptions.~~
- ~~Provide analytical support in engineering and design disciplines (e.g., heat transfer, thermodynamics, fluid dynamics).~~
- ~~Provide engineering and design evaluations for CRs, LERs, INPO SOERs, and NRC Bulletins.~~
- ~~Participate, as assigned, on the Corrective Action Program Screening Committee.~~
- ~~Make recommendations and assist in the formulation of policies and practices relating to the design and engineering of office and service buildings, miscellaneous structures and material handling equipment, and provide the general supervision of the engineering of such facilities, structures and equipment.~~
- ~~Initiate and/or review, approve and control laboratory and field investigations and feasibility studies.~~
- ~~Arrange for outside engineering, design and consulting assistance, as required.~~
- ~~Perform shop and field surveillance on equipment being manufactured, fabricated, or installed.~~
- ~~Provide field services to the Cook Nuclear Plant, including the assigning of personnel, as are required, during construction, normal or forced outages, or as requested.~~

A

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

- ~~Assist in the planning and execution of maintenance work on equipment, facilities, buildings and other structures.~~
- ~~Supervise maintenance and repairs of all masonry and concrete work at Cook Nuclear Plant, including supplying qualified inspection personnel.~~
- ~~Direct testing of materials used in concrete and testing of soils to be used in work at the Cook Nuclear Plant.~~
- ~~Review and recommend concrete mix formulations for all new construction.~~
- ~~Implement the corrective action program, with regard to activities affecting the quality of safety related items and services, that controls and documents items, services or activities which do not conform to requirements.~~
- ~~Assist in the preparation of applications for federal, state and local permits relative to installations being made which require such permits.~~
- ~~Conduct periodic management reviews of the activities of the department to ensure compliance with the objectives of the QA Program, and external technical surveillance, as necessary, of consultants, outside organizations and vendors over which the department is cognizant.~~
- ~~Establish and maintain a file for QA records.~~
- ~~Develop, review and approve designs and drawings for mechanical, electrical and structural systems, equipment and facilities of the Cook Nuclear Plant.~~
- ~~Perform required calculations and analyses, including pipe stress, pipe support design, cable sizing, conduit and cable tray support and structural steel and concrete.~~

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

- ~~Assist field personnel in the resolution of problems stemming from the installation of design changes, or from as-found plant conditions, including assigning personnel to the plant.~~
- ~~Formulate, administer, and implement policies and practices relating to the engineering, and design of the Cook Nuclear Plant.~~
- ~~Conduct functions so as to be in conformance with the operating licenses of the Cook Nuclear Plant.~~
- ~~Investigate evaluate and correct problems.~~
- ~~Coordinate special projects and studies, as required.~~
- ~~Coordinate the development and maintenance of the Vendor Drawing Control (VDC) programs which include coordinating the programs with interfacing divisions/departments.~~
- ~~Control the issuance and distribution of drawings for the Cook Nuclear Plant, including monitoring of the Aperture Card Microfilm Program.~~
- ~~Supervise and control the work of consultants, architect/engineers and outside engineering and design agencies supplying services to I&M in their discipline and process notification of defects in accordance with company requirements. Also perform detailed reviews of engineering and design work submitted by outside agencies.~~
- ~~Review and update applicable sections of Cook Nuclear Plant Updated FSAR as assigned.~~
- ~~Participate, as members and as assigned, on committees and ad hoc task forces that review nuclear activities.~~

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

- ~~Coordinate Cook Nuclear Plant activities associated with the initiation, review, approval, engineering, design, production, examination, inspection, test, turnover, and close out of design changes.~~
- ~~Administer and implement job orders issued by the Cook Nuclear Plant organization for major modifications, replacement and maintenance work with outside contractors.~~
- ~~Administer and monitor contractor's industrial safety programs and performance.~~
- ~~Manage construction labor relations with the international building and construction trades unions.~~
- ~~Plan, organize and control major construction projects, as assigned by the chief nuclear officer (CNO).~~
- ~~Maintain cognizance on matters pertaining to the Cook Nuclear Plant emergency response organization.~~
- ~~Prepare labor estimates.~~
- ~~Provide constructability guidance when requested in support of engineering and design changes.~~
- ~~Formulate Policies and practices relative to nuclear safety.~~
- ~~Maintain knowledge of the latest safety requirements, codes, standards, and federal regulations applicable to the operation of Cook Nuclear Plant.~~
- ~~Provide analysis to support reactor physics, core thermal hydraulic and LOCA and non LOCA transient safety analysis~~

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

See explanation on the bottom of page 1.7-16 for the attributes listed on this page.

~~and other analysis activities as requested, and participate in NRC and NSDRC meetings related to these analyses.~~

- ~~———— Coordinate the development of neutronics and thermal hydraulic safety codes and conduct safety analysis~~
- ~~———— Coordinate computer code development, and provide the interface control for AEPSC information systems and I&M nuclear generation.~~
- ~~———— Review, coordinate, and resolve all matters pertaining to nuclear safety for Cook Nuclear Plant. This includes, but is not limited to: the preparation of 10-CFR-50.59 evaluations, or reviews, for a designated subject.~~
- ~~———— Provide support in key areas of expertise, such as nuclear engineering, probabilistic analysis, thermohydraulic analysis, chemical engineering, mechanical engineering, electrical engineering, and technical writing.~~
- ~~———— Interface with vendors and other outside organizations on matters connected with the nuclear steam supply system and other areas affecting the safe design and operation of nuclear plants.~~
- ~~———— Participate, as appropriate, in the review of nuclear plant operating experiences, and relate those experiences to the design and safe operation of Cook Nuclear Plant.~~

C

- ~~———— Develop, specify and/or review conceptual nuclear safety criteria for Cook Nuclear Plant in accordance with established regulations. This includes all information contained in the FSAR, as well as specialized information such as environmental qualification and seismic criteria.~~
- ~~———— Review and evaluate performance requirements for systems, equipment and materials for compliance with specified safety criteria.~~
- ~~———— Coordinate Equipment Performance and Information Exchange (EPIX) with INPO.~~
- ~~———— Recommend facility engineering modification and initiate and approve plant improvement requisitions.~~
- ~~———— Plan and direct engineering and technical studies, equipment performance, and instrument and control maintenance for Cook Nuclear Plant.~~
- ~~———— Direct programs related to on-site fuel management and reactor core physics testing, and ensure satisfactory completion.~~
- ~~———— Coordinate the maintenance of design drawings.~~

See the explanation at the bottom of page 1.7-16 for the attributes listed on this page.

Site Operations

Addressed by section A.2.c.1 of the new QAPD.

~~The site vice president reports to the chief nuclear officer (CNO) and is responsible for the Cook Nuclear Plant activities (Figure 1.7-1).~~

~~Reporting to the site vice president is the plant manager who shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant. Also reporting to the CNO is the business services director.~~

This level of detail is required by N18.7 (3.2) to exist. However, in addition to organization charts for reporting changes, N18.7 states that responsibilities shall be identified but does not prescribe the accomplishment of the task. Therefore listing of the tasks in the QAPD is not a requirement. I&M utilizes procedures to describe individual group's 10CFR50 Appendix B responsibilities

~~The site operations organization is responsible for the following:~~

- ~~— Ensure the safety of all facility employees and the general public relative to general plant safety, as well as radiological safety, by maintaining strict compliance with plant Technical Specifications, procedures and instructions.~~
- ~~— Recommend facility engineering modification and initiate and approve plant improvement requisitions.~~
- ~~— Ensure that work practices in all site operations organizations are consistent with regulatory standards, safety, approved procedures, and plant Technical Specifications.~~
- ~~— Provide membership, as required, on the PORC.~~
- ~~— Maintain close working relationships with the NRC, as well as local, state, and federal government regulatory officials regarding conditions which could affect, or are affected, by Cook Nuclear Plant activities.~~
- ~~— Set up plant load schedules and arrange for equipment outages.~~
- ~~— Develop and efficiently implement all site centralized training activities.~~

See the explanation on page 1.7-28 for the attributes listed on this page.

~~Administer the centralized facility training complex, simulator, and programs ensuring that program development is consistent with the systematic approach to training, maintain INPO accreditations, regulatory and corporate requirements.~~

~~Ensure that human resource activities include employee support programs (i.e., fitness for duty) consistent with INPO/NUMARC guidelines, company policies, and regulatory requirements and standards.~~

~~Administer the NRC approved physical Security Program in compliance with regulatory standards, Modified Amended Security Plan (MASP), and company policy.~~

~~Supervise, plan, and direct the activities related to the maintenance and installation of all Cook Nuclear Plant equipment, structures, grounds, and yards.~~

~~Prepare and maintain records and reports pertinent to equipment maintenance and regulatory agency requirements.~~

~~Enforce and coordinate Cook Nuclear Plant regulations, procedures, policies, and objectives to assure safety, efficiency,~~

~~and continuity in the operation of the Cook Nuclear Plant within the limits of the operating license and the Technical Specifications and formulation of related policies and procedures.~~

~~Plan, schedule, and direct activities relating to the operation of the Cook Nuclear Plant and associated switchyards; cooperate in planning and scheduling of work and procedures for refueling and maintenance of the Cook Nuclear Plant; and direct and coordinate fuel loading operations.~~

See explanation on page 1.7-28 for the attributes listed on this page.

~~Review reports and records, direct general inspection of operating conditions of plant equipment, and investigate any abnormal conditions, making recommendations for repairs. Establish and administer equipment clearance procedures consistent with company, plant, and radiation protection standards; authorize and arrange for equipment outages to meet normal or emergency conditions. Provide the shift operating crews with appropriate procedures and instructions to assist them in operating the Cook Nuclear Plant safely and efficiently.~~

~~Approve operator training programs administered by the Cook nuclear plant training department designed to provide operating personnel with the knowledge and skill required for safe operation of the facility, and for obtaining and holding NRC operator licenses. Coordinate training programs in plant safety and emergency procedures for Cook Nuclear Plant operating department personnel to ensure that each shift group will function properly in the event of injury of personnel, fire, nuclear incident, or civil disorder.~~

~~Advance planning and overall conduct of scheduled and forced outages, including the scheduling and coordination of all plant activities associated with refueling, preventive maintenance, corrective maintenance, equipment overhaul, Technical Specification surveillance, and design change installations.~~

~~Prepare reports of reportable events which are mandated by the NRC and the Technical Specifications.~~

~~Prepare statistical reports utilized in NRC Appraisal Meetings and Enforcement Conference.~~

See explanation on page 1.7-28 for the attributes listed on this page.

~~Coordinate the efforts of outside agencies, such as American Nuclear Insurers (ANI), INPO, and third party inspector programs.~~

~~Maintain knowledge of developments and changes in NRC requirements, industry standards and codes, regulatory compliance activities, and quality control disciplines and techniques.~~

See discussion
of change A.4.

~~Stop plant operation, as appropriate, in the event that conditions are found which are in violation of the Technical Specifications or adverse to quality.~~

~~Maintain and renew accreditation of training programs.~~

~~Qualification of I&M personnel performing inspection of normal operating activities to ANSI N18.1.~~

~~Perform peer inspections of work completed by I&M personnel by independent persons qualified to ANSI N18.7.~~

~~Conduct of the Inservice Inspection (ISI) Program.~~

~~Plan and direct on site computer systems, shift technical advisors, and emergency planning. These activities support daily on site operations in a safe, reliable, and efficient manner in accordance with all corporate policies, applicable laws, regulations, licenses, and Technical Specification requirements.~~

~~Implement station performance testing and monitor programs to ensure optimum plant efficiency.~~

~~Establish testing and preventive maintenance programs related to station instrumentation, electrical systems, and computers.~~

~~Recommend alternative to Cook Nuclear Plant operation, technical or emergency procedures, and~~

See the explanation on page 1.7-28 for the attributes listed on this page.

~~design of equipment to improve safety of operations and overall plant efficiency.~~

~~Implement the Emergency Plan as it pertains to the Cook Nuclear Plant site.~~

~~Provide technical and engineering services in the fields of chemistry, radiation protection, ALARA, and environmental in support of the safe operation of the plant and the health and safety of the employees and the public.~~

~~Plan and schedule the activities of the radiation protection department of the Cook Nuclear Plant in support of operations and maintenance.~~

~~Establish chemistry, radiochemistry, and health physics criteria which ensure maximum equipment life, and the protection of the health and safety of the workers and the public.~~

~~Establish sampling and analysis programs which ensure the chemistry, radiochemistry, and health physics criteria are within the established criteria.~~

~~Establish and direct investigations, responses, and corrective actions when outside the established criteria.~~

~~Administer and direct the Cook Nuclear Plant's radioactive waste programs, including volume reduction, packaging and shipping.~~

~~Maintain the Cook Nuclear Plant Facility Data Base.~~

- ~~- Procurement, receiving, quality control receipt inspection, storage, handling, issue, stock level maintenance, and overall control of stores items.~~

See explanation on page 1.7-28 for the attributes on this page.

- ~~— Provide material service and support in accordance with policies and procedures required by AEPSC purchasing and materials management, QA, and the NRC, which are administered and enforced in a total effort to ensure safety and plant reliability.~~
- ~~— Provide nuclear General Employee Training (GET) for nuclear generation personnel.~~

- ~~— Prepare and administer equipment, labor and service contracts.~~
- ~~— Administer contracts and schedule outside contractors' work forces.~~
- ~~— Administration of the QA records program.~~
- ~~— Scope, bid, recommend awards and administer construction labor and service contracts.~~
- ~~— Process incoming vendor information.~~

Purchasing and Materials Management Department (not charted)

~~The AEP executive vice president administration and chief accounting officer, reporting to the AEP chairman of the board, president, and chief executive officer, is responsible for purchasing and materials management department through the vice president procurement & supply chain services.~~

~~Procurement & supply chain services is responsible for the following:~~

Procurement is no longer performed by AEPSC - Columbus. Procurement activities are performed by the site purchasing section. N18.7 states that responsibilities shall be identified but does not prescribe the accomplishment of the task. Therefore listing of the tasks in the QAPD is not a requirement. I&M utilizes procedures to describe site purchasing 10CFR50 Appendix B responsibilities.

- ~~Procurement of safety related items from only qualified and approved suppliers.~~
- ~~Provide supervision to Cook Nuclear Plant purchasing organization.~~
- ~~Provide ordering and stocking descriptions (Material & Equipment database) for safety related items and include these descriptions in the Cook Nuclear Plant inventory catalog, including necessary communications with suppliers, cognizant engineers, the Cook Nuclear Plant stores supervisor and other appropriate personnel.~~
- ~~Establish computerized inventory status reports, on line inventory and purchase order inquiry capabilities and other procedures to order, track and control materials.~~
- ~~Coordinate procurement activities with I&M.~~
- ~~Prepare and issue requests for quotations, contracts, service orders, blanket orders, and purchase orders for safety related items.~~
- ~~Implement corrective action as described in the I&M procedures for Cook Nuclear Plant.~~

~~Establish a system of document keeping and transmittal.~~

~~Establish a system of document control for controlled procedures, instructions, and purchasing documents for safety-related items.~~

~~The maintenance and control of selected procurement document standard phrases as identified by the performance assurance director or designee.~~

~~Conduct training sessions involving purchasing personnel and others on an annual basis, or more frequently, as required, and ascertain that training sessions include complete responsibilities associated with the purchase of safety-related items and services.~~

~~1.7.2~~ ~~QUALITY ASSURANCE PROGRAM~~

~~1.7.2.1~~ ~~SCOPE~~

~~Policies that define and establish the Cook Nuclear Plant QA Program are summarized in the individual sections of this document. The program is implemented through procedures and instructions responsive to provisions of the QAPD, and will be carried out for the life of the Cook Nuclear Plant.~~

This section is addressed in A.1.d of the new QAPD.



This section is now addressed in A.1.c of the new QAPD.

~~Quality assurance controls apply to activities affecting the quality of safety-related structures, systems and components to an extent based on the importance of those structures, systems, components, etc., (items) to safety. Such activities are performed under controlled conditions, including the use of appropriate equipment, environmental conditions, assignment of qualified personnel, and assurance that all applicable prerequisites have been met.~~

~~Safety related items are defined as items:~~

~~Which are associated with the safe shutdown (hot) of the reactor; or isolation of the reactor; or maintenance of the integrity of the reactor coolant system pressure boundary.~~

~~OR~~

~~Whose failure might cause or increase the severity of a design basis accident as described in the Updated FSAR; or lead to a release of radioactivity in excess of 10CFR100 guidelines.~~

~~In general, safety related items are those which are classified Seismic Class I, or Electrical Class 1E; or associated with the Engineered Safety Features Actuation System (ESFAS); or associated with the Reactor Protection System (RPS). Note: Some nonsafety related items have been designed to Seismic Class I and/or Electrical Class 1E requirements. For example: post accident monitoring instrumentation is not safety related but is qualified Seismic Class 1 and Electrical Class 1E to meet the requirements of Reg. Guide 1.97.~~

This expanded definition of the Structures Systems or Components (SSC) to which the QAPD applies is detail information that is more appropriate in implementing procedures, not the QAPD. See I&M Discussion of Change L.9.

Addressed in A.7.a.6 of the new QAPD and implemented by the Cook Plant fire protection program manual (FPPM).

~~A special QA Program has been implemented for Fire Protection items (Section 1.7.19 herein).~~

This is addressed in A.1.c of the new QAPD.

~~The QA Program also includes provision for Radwaste QA in accordance with the requirements of 10CFR71, Subpart H.~~

This is addressed in A.3.c of the new QAPD.

~~QA Program status, scope, adequacy, and compliance with 10CFR50, Appendix B, are regularly reviewed by management through reports, meetings, and review of audit results.~~

This is addressed in A.3.b of the new QAPD.

~~The implementation of the QA program may be accomplished by I&M or delegated in whole or in part to other AEP System companies or outside parties. However, I&M retains full responsibility for all activities affecting safety related items. The performance of the delegated organization is evaluated by audit or surveillances on a frequency commensurate with their scope and importance of assigned work.~~

This last sentence is a specific audit / surveillance requirement that is addressed by the audit program in sections C.1.d and C.2.a of the new QAPD.

1.7.2.2 IMPLEMENTATION

1.7.2.2.1

Statement of fact. This information exists in the policy statement.

~~The chairman of the board, president, and chief executive officer of AEP has stated in a signed, formal "Statement of Policy", that it is the corporate policy to comply with the provisions of applicable codes, standards and regulations pertaining to quality assurance for nuclear power plants as required by the Cook Nuclear Plant operating licenses.~~

~~The statement makes this QAPD and the associated implementing procedures and instructions mandatory, and requires compliance by all responsible organizations and~~

This statement is addressed in A.1.b of the new QAPD.

This sentence is addressed in A.2 of the new QAPD.

~~individuals. The statement also identifies the management positions within the companies vested with responsibility and authority for implementing the program and assuring its effectiveness.~~

This is a requirement that exists in N18.7 (5.1). No need to repeat it in the QAPD.

~~A summary document shall be compiled to identify source documents, to index such source documents to the requirements of ANSI N18.7-1976 and to provide a consolidated base for description of the QA program.~~

1.7.2.2.2

~~The QA program at I&M consists of controls exercised by organizations responsible for attaining quality objectives, and by organizations responsible for assurance functions.~~

These descriptive statements are contained in N18.7 (1 & 3)

This is addressed in A.3.c and A.2.d of the new QAPD and N18.7 (4.5).

~~The QA Program effectiveness is continually assessed through management review of various reports, NSDRC review of the audit program and shall also be periodically reviewed by independent outside parties as deemed necessary by management.~~

~~The QA program described in the QAPD is intended to apply for the life of the Cook Nuclear Plant.~~

This section is addressed in A.1.c of the new QAPD. The FDB is a detailed listing of SSC and is controlled by procedures. This level of detail is not required in the QAPD.

~~The QA program applies to activities affecting the quality of safety related structures, components, and related consumables during plant operations; maintenance, testing and all design changes. Safety related structures, systems and components are identified in the Facility Data Base and other documents which are developed and maintained for the plant.~~

~~As deemed necessary by management, applicable portions of the QA program controls will be applied to nonsafety related activities associated with the implementation of the QA program to ensure that commitments are met (e.g., off-site records storage, training services etc.).~~

This statement is not a 10CFR50 Appendix B issue and is not required to be in the QAPD.

1.7.2.2.3

The change process for the QAPD is addressed in A.7.b of the new QAPD. Changes are processed per 10CFR50.54.

~~This QAPD, organized to present the QA Program for the Cook Nuclear Plant in the order of the 18 criteria of 10CFR50, Appendix B, states I&M policy for each of the criteria and describes how the controls pertinent to each are carried out. Any changes made to this QAPD that do not reduce the commitments previously accepted by the NRC must be submitted to the NRC at least annually. Any changes made to this QAPD that do reduce the commitments previously accepted by the NRC must be submitted to the NRC and receive NRC approval prior to implementation. The submittal of the changes described above shall be made in accordance with the requirements of 10CFR50.54.~~

~~Changes made to this QAPD that do not reduce commitments and do not require prior approval by the NRC before implementation will be identified by an alpha numeric addendum for each changed page and be issued to the organization. All addenda generated since the last QAPD submitted to the NRC for review and approval will be included in the next revision submitted to the NRC. Each page of this QAPD will carry an applicable revision level and date.~~

~~The program described in this QAPD will not be intentionally changed in any way that would prevent it from meeting the criteria of 10CFR50, Appendix B and other applicable operating license requirements.~~

1.7.2.2.4

Addressed in A.1.d of the new QAPD. Detailed discussion of procedure hierarchy in the QAPD is not required, but belongs in administrative procedures The requirement for procedures; however, remains and detail discussion of procedure hierarchy is included in implementing procedures.

~~Documents used for implementing the provisions of this QAPD include the following:~~

~~Plant Manager Instructions (PMIs) establish the policy at the plant for compliance with specified criteria, and assign responsibility to the various departments, as required, for implementation. Performance~~

~~Assurance Department Policies (POLs) establish policies for the Performance Assurance Department for compliance with specified criteria and to assign responsibility to the various sections, as required, for implementation. Plant Manager Procedures (PMPs), Department Head Procedure (DHPs), and in some cases Department Head Instructions (DHIs), have been~~

~~prepared to describe the detailed activities required to support safe and effective plant operation as per the PMIs.~~

~~The PMIs are reviewed by performance assurance for concurrence that they will satisfactorily implement regulatory requirements and commitments. PMIs and PMPs are reviewed by the PORC prior to approval by the site vice president.~~

~~DHPs and DHIs are reviewed within the departments prior to approval by the department head of origination. DHPs and DHIs that might involve a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59, are reviewed by PORC prior to approval by the department head of origination.~~

~~AEP Nuclear Organization Policy & Procedure Manual and General Procedures (GP's) are utilized to define policies and requirements for quality assurance, and to implement certain QA program requirements. Division/department and/or section procedures are also used to implement QA program requirements.~~

~~When contractors perform work on site under their own quality assurance programs, the programs are audited for compliance and consistency with the applicable requirements of the Cook Nuclear Plant's QA Program and the contract, and are approved by performance assurance prior to the start of work. Implementation of on site contractor's QA programs, will be audited to assure that the contractor's programs are effective.~~

See the explanation on page 1.7-39 for these attributes.

This is addressed in A.3.d of the new QAPD.

1.7.2.2.5

This is addressed in A.7.a of the new QAPD.

~~Provisions of the QA program for the Cook Nuclear Plant apply to activities affecting the quality of safety related items. Appendix A to this QAPD lists the Regulatory/Safety Guides and ANSI Standards that identify I&M commitment. Appendix B describes necessary exceptions and clarifications to the requirements of those documents. The scope of the program, and the extent to which its controls are applied, are established as follows:~~

- ~~a) I&M uses the criteria specified in the Cook Nuclear Plant Updated FSAR for identifying structures, systems and components to which the QA program applies.~~
- ~~b) This identification process results in the Facility Data Base for the Cook Nuclear Plant. This Facility Data Base is controlled by authorized personnel. Facility Data Base items are determined by engineering analysis of the function(s) of plant items in relation to safe operation and shutdown.~~
- ~~c) The extent to which controls specified in the QA program are applied to Facility Data Base items is determined for each item considering its relative importance to safety. Such determinations are based on data in such documents as the Cook Nuclear Plant Technical Specifications and the Updated FSAR.~~

This extensive and repetitive description of to what the QAPD applies has been reduced to the statement contained in A.1.c of the new QAPD. This type of reduction of the level of detail and process descriptions has been endorsed by the NRC through their approval of the approach in the SERs for Entergy.

This is addressed in A.2.e of the QAPD.

~~Appendix C to this QAPD identifies administrative controls, such as onsite and offsite review committee activities which either supplement or complement the quality assurance program, described herein.~~

These items are addressed in N18.7 (5.2.7).

1.7.2.2.6

~~Activities affecting safety related items are accomplished under controlled conditions. Preparations for such activities include consideration of the following:~~

- ~~a) Assigned personnel are qualified.~~
- ~~b) Work has been planned to applicable engineering and/or Technical Specifications.~~
- ~~c) Specified equipment and/or tools are available.~~
- ~~d) Items are in an acceptable status.~~
- ~~e) Items on which work is to be performed are in the proper condition for the task.~~
- ~~f) Proper approved instructions/procedures for the work are available for use.~~
- ~~g) Items and facilities that could be damaged by the work have been protected, as required.~~
- ~~h) Provisions have been made for special controls, processes, tests and verification methods.~~

1.7.2.2.7

~~Responsibility and authority for planning and implementing indoctrination and training of I&M personnel are specifically designated, as follows:~~

- ~~a) The training and indoctrination program provides for on going training and periodic familiarization with the QA program for the Cook Nuclear Plant.~~

Training and qualification is addressed in A.5 of the new QAPD.

Training and qualification attributes listed below are addressed in A.5 of the new QAPD. Also see A.3.e and A.3.d of the new QAPD.

- ~~b) Personnel who perform inspection and examination functions are qualified in accordance with requirements of Regulatory Guide 1.8, ANSI N18.1, Regulatory Guide 1.58, ANSI N45.2.6, the ASME B&PV Code, or SNT TC 1A, as applicable, and with exceptions as noted in Appendix B hereto.~~
- ~~c) Performance assurance auditors are qualified in accordance with Regulatory Guide 1.146 and ANSI N45.2.23.~~
- ~~d) Personnel assigned duties such as special cleaning processes, welding, etc., are qualified in accordance with applicable codes, standards, regulatory guides and/or plant procedures.~~
- ~~e) The training, qualification and certification program includes, as applicable, provisions for retraining, reexamination and recertification to ensure that proficiency is maintained.~~
- ~~f) Training, qualification, and certification records including documentation of objectives, waivers/exceptions, attendees and dates of attendance, are maintained at least as long as the personnel involved are performing activities to which the training, qualification and certification is relevant.~~
- ~~g) Personnel responsible for performing activities that affect safety-related items are instructed as to the purpose, scope and implementation of the applicable manuals, instructions and procedures.~~

~~Management/supervisory personnel receive functional training to the level necessary to plan, coordinate and administer the day to day verification activities of the QA Program for which they are responsible.~~

Addressed
in A.3.d
A.3.e and
A.5 of the
new
QAPD.

~~Training of I&M personnel is performed employing the following techniques, as applicable: 1) on the job and formal training administered by the department or section the individual works for; 2) formal training conducted by qualified instructors from the training department or other entities (internal and external to the AEP System); and 3) formal, INPO accredited training conducted by the training department. Records of training sessions for such training are maintained. Where personnel qualifications or certifications are required, these certifications are performed on a scheduled basis (consistent with the appropriate code or standard).~~

~~Cook Nuclear Plant employees receive introductory training in quality assurance usually within the first two weeks of employment. In addition, I&M personnel receive training prior to being allowed unescorted access to the plant. This training includes management's policy for implementation of the QA program through plant manager and department head instructions and procedures. These instructions also include a description of the QA program, the use of instructions and procedures, personnel requirements for procedure compliance and the systems and components controlled by the QA program.~~

~~1.7.3 DESIGN CONTROL~~

~~1.7.3.1 SCOPE~~

The scope section is general in nature and is covered by the text in ANSI N45.2.11. Section B.2.a of the new QAPD provides sufficient coverage as well as the commitments to meet N45.2.11 as specified in B.2.i and B.3.g.

~~Design changes are accomplished in accordance with approved design. Activities to develop such designs are controlled. Depending on the scope of the design change, these activities include design and field engineering; the performance of physics, seismic, stress, thermal, hydraulic and radiation evaluations; update of the FSAR; review of accident analyses; the development and control of associated computer programs; studies of material compatibility; accessibility for inservice inspection and maintenance; determination of quality standards; and requirement for equipment qualification. The controls apply to preparation and review of design documents, including the correct translation of applicable regulatory requirements and design bases into design, procurement and procedural documents.~~

~~1.7.3.2 IMPLEMENTATION~~

~~1.7.3.2.1~~

This is addressed in B.2.e of the new QAPD.

This is addressed by N18.7, 4.3.4(2), and B.2.h and exception 2k of the new QAPD. The control of procedures is specified in N18.7, 5.2.15 and 4.3.4.

~~Design changes are controlled by procedures and instructions and are reviewed as required by 10CFR50.59 and Appendix C to this QAPD.~~

~~A documented evaluation is made of safety related and non safety related design changes to determine which approved change process is most appropriate for implementation.~~

~~1.7.3.2.2~~

~~Design changes are reviewed to determine their impact on nuclear safety and to determine if the proposed changes~~

Design impact is addressed by N18.7, Sec. 4.3.4 and exception 2k of the new QAPD.

This is addressed in N18.7, 4.3.4 and 4.4, which specifies this review. See also exception 2k of the new QAPD.

~~involve a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined by 10CFR50.59. If a design change were to involve a condition requiring a license amendment pursuant to 10 CFR 50.90, it would not be approved for implementation until the required NRC approval was received.~~

This is addressed by N18.7, 5.2.7.2, and in B.3.d of the new QAPD

~~Design Change Packages (DCPs) are reviewed and approved prior to implementation, by the DCP team members and cognizant managers. The PORC also reviews those DCPs, for which evaluations are deemed necessary, pursuant to 10CFR50.59 and paragraph 6.5.1.6 of Appendix C to this QAPD.~~

1.7.3.2.3

This is addressed by N45.2.11, Sec. 5, and in B.2.g of the new QAPD.

~~When DCPs involve design interfaces between internal or external design organizations, or across technical disciplines, these interfaces are controlled. Procedures are used for the review, approval, release, distribution and revision of documents involving design interfaces to ensure that structures, systems and components are compatible geometrically and functionally with processes and the environment. Lines of communication are established for controlling the flow of needed design information across design interfaces, including changes to the information as work progresses. Decisions and problem resolutions involving design interfaces are made by the organization having responsibility for engineering direction of the design effort.~~

1.7.3.2.4

Addressed in B.2.c of the new QAPD

~~Checks are performed and documented to verify the dimensional accuracy and completeness of design drawings and specifications.~~

1.7.3.2.5

Addressed in N45.2.11, Sec. 11, and C.2 of the new QAPD.

~~Design change document packages are audited by performance assurance to assure that the documents have been prepared, verified, reviewed and approved in accordance with company procedures.~~

1.7.3.2.6

Addressed in N45.2.11, Sec. 2.2.11, and B.2.f and B.3.b of the new QAPD.

~~The extent of, and methods for, design verification are documented. The extent of design verification performed is a function of the importance of the item to safety, design complexity, degree of standardization, the state of the art, and similarity with previously proven designs. Methods for design verification include evaluation of the applicability of standardized or previously proven designs, alternate calculations, qualification testing and design reviews. These methods may be used singly or in combination, depending on the needs for the design under consideration.~~

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

Addressed in N45.2.11, Sec. 6.2, and in B.3.b of the new QAPD.

Addressed in N45.2.11, Sec 6.3.3, and in B.3.c of the new QAPD.

~~Qualification testing of prototypes, components, or features is used when the ability of an item to perform an essential safety function cannot otherwise be adequately substantiated. This testing is performed before plant equipment installation, where possible, but always before reliance upon the item to perform a safety related function. Qualification testing is performed under conditions that simulate the most adverse design conditions, considering all relevant operating modes. Test requirements, procedures and results are documented. Results are evaluated to assure that test requirements have been satisfied. Design changes shown to be necessary through testing are made, and any necessary retesting or other verification is performed. Test configurations are clearly documented.~~

~~Design reviews are performed by multi-organizational or interdisciplinary groups, or by single individuals. Criteria are established to determine when a formal group review is required, and when review by an individual is sufficient.~~

Addressed in N45.2.11, Sec. 6.3.1 and in B.3.e of the new QAPD.

1.7.3.2.7

~~Persons representing applicable technical disciplines are assigned to perform design verifications. These persons are qualified by appropriate education or experience, but are not directly responsible for the design. The designer's immediate supervisor may perform the verification, provided that:~~

- ~~1) The supervisor is the only technically qualified individual.~~

~~_____ or _____~~

Addressed in N45.2.11, Sec. 6.1 - Par. 2, and in B.3.e of the new QAPD.

Addressed in N45.2.11, Sec. 6.1 - Par. 2, and in B.3.e of the new QAPD.

~~2) The supervisor has not specified a singular design approach, ruled out design considerations, nor established the design inputs.~~

~~and~~

~~3) The need is documented and approved by the supervisor's management. Regularly scheduled QA audits verify conformance to previous items 1 through 3.~~

Addressed in N45.2.11, Sec. 11, and C.2 of the new QAPD.

~~Design verification of safety related design changes shall be completed prior to declaring a design change, or portions thereof, operational.~~

Addressed in B.3.d. of the new QAPD.

1.7.3.2.8

Information only. See A.2.d of the new QAPD.

~~Implementation of design changes is coordinated on site by nuclear engineering. Material to perform the design change must meet the specifications established for the original system, or as specified by the DCP. For those design changes where testing after completion is required, the testing documentation is reviewed by the organization performing the test and, when specified, by the DCP. Further, completed design changes are audited/surveilled by performance assurance following installation and testing.~~

Addressed by N18.7, Sec.5.2.7.2 and in B.2.f of the new QAPD.

Addressed in C.2 of the new QAPD.

1.7.3.2.9

~~Changes to design documents, including field changes, are reviewed, approved and controlled in a manner commensurate with that used for the original design. Such changes are~~

Addressed by N18.7, Sec. 5.2.17 - last Paragraph and B.3.c of the new QAPD.

Addressed by N45.2.11, Sec. 7.2 & 8.2 and by B.2.f of the new QAPD.

Addressed by N45.2.11, Sec. 7 & 8 and by B.2.f of the new QAPD.

~~evaluated for impact. Information on approved changes is transmitted to all affected organizations.~~

1.7.3.2.10

Addressed by N45.2.11, Sec. 9.

~~Error and deficiencies in, and deviations from, approved design documents are identified and dispositioned in accordance with established design control and/or corrective action procedures.~~

1.7.3.2.11

Addressed by N45.2.11, Sec. 2.2 and in B.2.h and B.3.f of the new QAPD.

~~Established design control procedures provide for:~~

- ~~1) controlled submission of design changes,~~
- ~~2) engineering evaluation,~~
- ~~3) review for impact on nuclear safety,~~
- ~~4) audit by performance assurance,~~
- ~~5) design modification,~~
- ~~6) managerial review, and~~
- ~~7) approval and record keeping for the implemented design change.~~

~~1.7.4 PROCUREMENT DOCUMENT CONTROL~~

~~1.7.4.1 SCOPE~~

~~Procurement documents define the characteristics of item(s) to be procured, identify applicable regulatory and industry codes/standards requirements, and specify supplier QA Program requirements to the extent necessary to assure adequate quality.~~

Addressed in B.4.a and B.4.c of the new QAPD.

1.7.4.2 IMPLEMENTATION

1.7.4.2.1

Addressed by N45.2, Sec. 5.

~~Procurement control is established by instructions and procedures. These documents require that procurement documents be sufficiently detailed to ensure that purchased safety related items and services are: 1) purchased to specification and code requirements equivalent to those of the original equipment or service (except when the Code of Federal Regulations requires upgrading), 2) properly documented to show compliance with the applicable specifications, codes and standards, and 3) purchased from vendors or contractors who have been evaluated and deemed qualified, or by the commercial-grade dedication process.~~

Addressed by N45.2 – Sec. 5, N18.7- Sec. 5.2.13.1 and N45.2.13- Sec. 3.2.

~~Procedures establish the review of procurement documents to determine that: appropriate technical and quality requirements are correctly stated, inspectable and controllable; there are adequate acceptance criteria; and procurement documents have been prepared, reviewed and approved in accordance with established requirements.~~

Addressed by B.4.e of the new QAPD

~~The manager of the originating group, with support of the cognizant engineering group, is responsible for assuring that applicable requirements are set forth in procurement documents.~~

~~I&M may use cognizant engineers in any procurement activity.~~

1.7.4.2.2

The FDB is a detailed listing of SSC and is controlled by procedures. This level of detail is not required in the QAPD. QA program requirements that the FDB must meet are addressed in A.1.c of the new QAPD. Procurement related requirements are addressed in B.4.e.

~~The Facility Data Base, in conjunction with other sources, is used for equipment safety classification and procurement grade. Engineering specifications are used to determine requirements, codes or standards that items must fulfill, and define the documentation that must accompany the item to the plant.~~

~~Procurement documents for safety related items and services are reviewed to ensure that: correct classification is made; the requirements are properly stated; and that measures have been, or will be, implemented to assure the requirements are met and adequately provided for.~~

Addressed by N45.2.13, Sec. 3.3.

~~Procurement documents for new safety related items are initiated by the cognizant engineering group which establishes initial requirements.~~

Addressed in B.4.a of the new QAPD.

~~Replacement/spares are purchased to requirements equivalent to the original unless upgrading is required by federal regulations, or deemed necessary by the cognizant engineering group.~~

Addressed in B.4.h of the new QAPD.

1.7.4.2.3

~~The contents of procurement documents vary according to the item(s) being purchased and its function(s) in the Cook Nuclear Plant. Provisions of this QAPD are considered for application to service contractors, also. As applicable, procurement documents include:~~

- ~~a) Scope of work to be performed.~~

Addressed by N45.2.13 Sec. 3.2

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

Addressed by N45.2.13, Sec. 3.2.2

~~Imposition of guides/standards on I&M suppliers and sub-tier suppliers will be on a case by case basis depending upon the item or service to be supplied and upon the degree that I&M relies on suppliers to invoke guides/standards. I&M recognizes that certain suppliers have acceptable 10CFR50, Appendix B QA programs, even though, the suppliers are not committed to Regulatory Guides or industry standards (e.g. ANSI N45.2.6.). In those cases, in which suppliers are not committed to the same guides/standards as I&M, I&M will assure that (1) the supplier's QA program provides adequate QA controls, regardless of the lack of specific commitment, or (2) controls will be invoked directly by I&M to assure adequate quality of items/services received by suppliers.~~

Addressed by N45.2, Sec. 5(1).

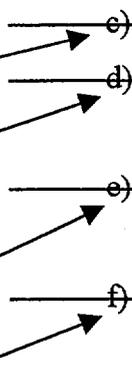
~~c) Regulatory, administrative and reporting requirements.~~

~~d) Quality requirements appropriate to the complexity and scope of the work, including necessary tests and/or inspections.~~

~~e) A requirement for a documented QA Program, subject to QA review and written concurrence prior to the start of work.~~

~~f) A requirement for the supplier to invoke applicable quality requirements on sub-tier suppliers.~~

Addressed by N45.2.13, Sec. 3.2.



Addressed by
N45.2.13,
Sec. 3.2.

- ~~g) Provisions for access to supplier, and sub-tier suppliers', facilities and records for inspections, surveillances and audits.~~
- ~~h) Identification of documentation to be provided by the supplier, the schedule of submittals and documents requiring I&M approval.~~

~~1.7.4.2.4~~

Addressed in
C.2 of
the new
QAPD.

~~Performance assurance performs audits of procurement documents to assure that QA program requirements have been met. These audits are conducted in accordance with performance assurance procedures.~~

~~1.7.4.2.5~~

Addressed by
N45.2 - 5 and -7;
N18.7 -5.2.13.1
and
N45.2.13-3.1

~~Changes to procurement documents are controlled in a manner commensurate with that used for the original documents.~~

~~1.7.5 INSTRUCTIONS, PROCEDURES, AND DRAWINGS~~

~~1.7.5.1 SCOPE~~

~~Activities affecting the quality of safety related structures, systems and components are accomplished using instructions, procedures and drawings appropriate to the circumstances, including acceptance criteria for determining if an activity has been satisfactorily completed.~~

Addressed in A.1.d of the new QAPD.

1.7.5.2 IMPLEMENTATION

1.7.5.2.1

~~Instructions and procedures incorporate: 1) A description of the activity to be accomplished, and 2) appropriate quantitative (such as tolerances and operating limits) and qualitative (such as workmanship and standards) acceptance criteria sufficient to determine that the activity has been satisfactorily accomplished. Hold points for inspection are established when required.~~

Addressed by N45.2 sec. 6 and N18.7 Sec. 5.3.

Addressed by N45.2 - 11 and N18.7-5.2.17, para. 4.

Addressed by N18.7-5.2.15.

~~Instructions and procedures pertaining to the specification of, and/or implementation of, the QA Program receive multiple reviews for technical adequacy and inclusion of appropriate quality requirements. Top tier instructions and procedures that define the quality assurance program requirements are reviewed and/or approved by performance assurance. Lower tier documents are reviewed and approved, as a minimum, by management/supervisory personnel trained to the level necessary to plan, coordinate and administer those day to day verification activities of the QA Program for which they are responsible.~~

Added as exception/ interpretation 2u. in the new QAPD.

N18.7-5.2.5

~~Special procedures may be issued for activities which have short term applicability.~~

1.7.5.2.2

~~I&M activities are outline by procedures which provide the controls for the implementation of these activities. I&M has the following categories of QA program implementation instructions and procedures:~~

- ~~• Policy statements~~
- ~~• Administrative documents~~
- ~~• Technical documents~~

Addressed by Regulatory Guide 1.33, Appendix A and Technical Specification 6.8.1

1.7.5.2.3

Added as exception 2y. in the new QAPD.

~~Instructions and procedures identify the regulatory requirements and commitments [A1] which pertain to the subject that it will control and establish responsibilities for implementation. Instructions and procedures may either provide the guidance necessary for the development of supplemental instructions and/or procedures to implement their requirements, or provide comprehensive guidance based on the subject matter.~~

Detail guidance on the hierarchy/development of procedures that is controlled by implementing procedures. This level of information is not required by the standards and not required in the new QAPD.

1.7.5.2.4

Addressed by N45.2.11 Sec. 7.1 & 8.

Cook Nuclear Plant drawings are produced, controlled and distributed under the control of I&M. I&M design drawings are produced by, or under the control of, nuclear engineering under a set of procedures which direct their development and review. These procedures specify requirements for inclusion of quantitative and qualitative acceptance criteria. Specific drawings are reviewed and approved by the cognizant engineering organization.

1.7.5.2.5

Addressed by N18.7 - 5.2.2, Procedure Adherence.

I&M technical procedures developed for extensive or complex tasks where reliance on memory cannot be trusted are designated as "Continuous Use." These procedures are continuously used at the controlling job site to ensure verification of completion of significant steps and recording of necessary data as the task is completed.

~~1.7.6~~ — ~~DOCUMENT CONTROL~~

~~1.7.6.1~~ — ~~SCOPE~~

Addressed by:
N18.7 - 5.2.15
Review,
Approval and
Control of
Procedures
N45.2.11 - 7.1
Document
Control
N45.2 - 7
Document
Control
N45.2.13 - 3
Procurement
Document
Preparation and
Change Control
B.14 of the new
QAPD

~~Documents controlling activities within the scope defined in 1.7.2 herein are issued and changed according to established procedures.~~

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

~~Changes to controlled documents are reviewed and approved by the same organizations that performed the original review and approval, or by other qualified, responsible organizations specifically designated in accordance with the procedures governing these documents. Obsolete or superseded documents are controlled to prevent inadvertent use.~~

~~1.7.6.2~~ — ~~IMPLEMENTATION~~

~~1.7.6.2.1~~

~~Controls are established for approval, issue and change of documents in the following categories:~~

- ~~a) Design documents (e.g., calculations, specifications, analyses)~~
- ~~b) Drawings and related documents~~
- ~~c) Procurement documents~~

- ~~d) Instructions and procedures~~
- ~~e) Updated Final Safety Analysis Report (UFSAR)~~
- ~~f) Plant Technical Specifications~~
- ~~g) Safeguards documents~~

Addressed in B.14.b of the new QAPD.

1.7.6.2.2

~~The review, approval, issuance and change of documents are controlled by:~~

- ~~a) Establishment of criteria to ensure that adequate technical and quality requirements are incorporated.~~
- ~~b) Identification of the organization responsible for review, approval, issue and maintenance.~~
- ~~c) Review of changes to documents by the organization that performed the initial review and approval, or by the organization designated in accordance with the procedure governing the review and approval of specific types of documents.~~

Addressed in B.14.a and B.14.c of the new QAPD and N45.2, Sec. 7 and N45.2.11, Sec. 7.

1.7.6.2.3

~~Documents are issued and controlled so that:~~

- ~~a) The documents are available prior to commencing work.~~
- ~~b) Obsolete documents are replaced by current documents in a timely manner.~~

Addressed by B.14.d and B.14.e of the new QAPD.

1.7.6.2.4

Addressed by N45.2.11, Sec. 7.1, N45.2, Sec. 7 and N18.7, Sec. 5.2.15.

~~Master lists, or equivalent controls, are used to identify the current revision of instructions, procedures, specifications and drawings. These control documents are updated and distributed to designated personnel who are responsible for maintaining current copies of the applicable documents. The distribution of controlled documents is performed under procedures requiring receipt acknowledgement and in accordance with established distribution lists.~~

1.7.6.2.5

This is a carried over from when AEPSC controlled all Cook Plant drawings and is no longer needed. The process is a detailing of information in 1.7.6.2.4 above.

~~In the event a drawing is developed on site to reflect an as-built configuration, the marked up drawing is maintained in the Master Plant File and all holders of the drawing are issued appropriate notification to inform them the revision they hold is not current, cannot be used and, if required, reference must be made to the Master Plant File drawing.~~

1.7.6.2.6

~~Documents prepared for use in training are appropriately marked to indicate that they cannot be used to operate or maintain the facility or to conduct activities affecting the quality of safety related items. At the Cook Nuclear Plant, unless a document is identified as 'controlled' or 'working copy' only, it is automatically assumed that the document is for information use only.~~

This section is additional descriptive text of the processes in 1.7.6.2.4 above and is covered in ANSI standards N18.7-5.2.15-para 8, N45.2-7, and N45.2.11-7.1.

1.7.7

CONTROL OF PURCHASED ITEMS AND SERVICES

1.7.7.1 SCOPE

This general statement is addressed in B.4.a of the new QAPD.

~~Activities that implement approved procurement requests for items and services are controlled to assure conformance with procurement document requirements. Controls include a system of supplier evaluation and selection audits, acceptance of items and documentation upon delivery, and periodic assessment of supplier performance. Objective evidence of quality that demonstrates conformance with specified procurement document requirements is available to the Cook Nuclear Plant site prior to use of equipment, material, or services.~~

B.4.b & d of the new QAPD

B.4.f of the new QAPD

1.7.7.2 IMPLEMENTATION

1.7.7.2.1

Addressed by N45.2.13 Sec. 4.2a. The phrase in about 'distributors' was added in 1993 as an editorial clarification. See letter 0847Y. Can be removed for the same reason.

~~I&M qualifies suppliers (including distributors to the extent they perform quality related activities) by performing a documented evaluation of their capability to provide items or services specified by procurement documents. Items and services designated as safety related are purchased from suppliers whose QA programs have been accepted in accordance with I&M requirements, or from commercial grade suppliers through the I&M dedication program. Suppliers of other items/services are subject to evaluation and approval based on acceptance criteria applicable to these items/services.~~

Addressed by N45.2.13, Sec. 4.2.b and N18.7, 5.2.13 (1).

Same basic statement.

~~Qualification of such suppliers is determined performance assurance. In the discharge of this responsibility, performance assurance may use information generated by other utilities. The supplier must be~~

This is an understanding the NRC documented in NRC:AEP letter dated JUN 13, 1991.

See the next page

Addressed in B.4.f & g of the new QAPD.

Information only--I&M still maintains responsibility for the quality of suppliers--see new QAPD A.3.d.

~~approved before procurement can be completed. I&M is a member of the Nuclear Procurement Issues Committee (NUPIC), participates in joint supplier audits, and shares audit information consistent with NUPIC requirements. The supplier must be acceptable, or acceptable subject to follow up, before a procurement can be approved and processed. Additional audits will be conducted, as necessary, to meet requirements. Acceptance is not complete until it has been determined that the suppliers' QA program can meet the requirements for the item(s)/service(s) offered.~~

Addressed in B.4.b & f of the new QAPD



1.7.7.2.2

Addressed in B.4.i of the new QAPD



~~For items that are not unique to a nuclear power plant ("Commercial Grade") where application specific requirements cannot be contractually imposed in a practical manner at the time of procurement, programs for dedication to safety related standards are established by engineering personnel and accomplished prior to the item being accepted for safety related use.~~

1.7.7.2.3

Addressed by N45.2.13-7.1 & 7.2, and N45.2 Sec. 8.

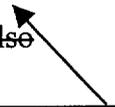


~~In process audits of suppliers' activities during fabrication, inspection, testing and shipment of items are performed when deemed necessary, depending upon supplier qualification status, complexity of the item(s) being furnished, the items' importance to safety, and/or previous supplier history. These audits are performed by performance assurance. The cognizant engineer and/or responsible Cook Nuclear Plant personnel may also participate, if deemed necessary.~~

Addressed in A.2.b.1 of the new QAPD.



Information only--This is not a requirement, only an option.



1.7.7.2.4

a), b), and c) below are addressed in N18.7-5.2.13 (1)

~~Spare and replacement parts are procured in such a manner that their performance and quality are at least equivalent to those of the parts that will be replaced.~~

~~a) Specifications and codes referenced in procurement documents for spare or replacement items are at least equivalent to those for the original items or to properly reviewed and approved revisions.~~

~~b) Parts intended as spares or replacement for "off the shelf" items, or other items for which quality requirements were not originally specified, are evaluated for performance at least equivalent to the original.~~

~~c) Where quality requirements for the original items cannot be determined, requirements and controls are established by engineering evaluation performed by qualified individuals. The evaluation assures there is no adverse effect on interfaces, safety, interchangeability, fit, form, function, or compliance with applicable regulatory or code requirements. Evaluation results are documented.~~

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

Addressed by N18.7-5.2.13(1), first Par. first sentence.

1.7.7.2.5

Addressed by N18.7-5.2.13 (1st Par. last sentence) and 5.2.13.1-1st sentence.

~~Instructions and procedures address the requirements for supplier selection and control, as well as procurement document control. The program for receipt inspection of safety related items addresses inspection of incoming items, including a review of the documentation required under the procurement. Receipt inspection personnel are qualified and certified in accordance with the requirements of ANSI N45.2.6. Provisions for receipt inspection apply regardless of where the procurement originates. Additional inspections may apply if required by the procurement document.~~

Addressed by N45.2.13 Sec. 7.2.2 & 7.3.2.

Addressed by N45.2.13-7.5

This sentence provided for items that were procured at the plant or AEPSC. Since procurement is now done as the plant, this statement is no longer necessary.

States an option that is not required by the standards and is covered by implementing procedures.

~~Items, which have special procurement requirements (such as nuclear fuel and nuclear fuel components), may involve detailed source evaluations or audits at the supplier's facility prior to shipment to supplement receipt inspection. Personnel performing these evaluations and audits will be qualified in accordance with ANSI N18.1 and/or ANSI N45.2.23. Receipt inspections at the site will be performed by personnel certified to ANSI N45.2.6. In addition, reviews of special procurement documents or shipping manifests will be performed by personnel trained in the procurement and qualified in accordance with ANSI N18.1.~~

Addressed by N45.2.13-7.2 & 7.2.1, 7.3.1

Addressed by N18.7-3.2 (2)

Addressed by N45.2.2-2.4 and N45.2.13-7.5

~~Where items and/or services are safety related and procurement is accomplished without assistance of I&M, supplier selection is limited to those companies identified as being qualified.~~

This section permits the use of technical experts to perform specialized inspections utilizing skill sets not available with certified QC inspectors. This approach is addressed by ANSI N18.7 section 3.2 (2).

This section addressed when AEPSC provided the majority of procurement activities. Procurement is now performed by I&M. The requirement that suppliers are qualified is fundamental in ANSI N45.2, N18.7 and N45.2.13.

1.7.7.2.6

This section permits the use of technical experts to perform specialized inspections utilizing skill sets not available with certified QC inspectors. This approach is Addressed by ANSI N18.7 section 3.2 (2).

Addressed by ANSI N45.2.2-section 5 and 5.2.

~~Items received at the site are tagged with a "HOLD" tag and/or placed in a designated area (e.g. new nuclear fuel) until receipt inspected. During receipt inspection, designated material characteristics and attributes are checked, and documentation is checked against the procurement documents. When the receipt inspection of items is supplemented by source evaluations or audits at the vendor prior to shipment, appropriate visual and/or mechanical inspections will be completed to ensure that shipping damage has not occurred. If found acceptable, the "HOLD" tag is removed and replaced with an "ACCEPTED" tag and/or the item is placed in a designated area.~~

Addressed by N18.7-5.2.13.3, Para 1.

~~Item traceability to procurement documents and to end use is maintained through recording of identification numbers or, "HOLD" and "ACCEPTED" tag numbers on applicable documents.~~

~~Nonconforming items, or missing or questionable documentation results in items being placed on "HOLD" and maintained in a designated, controlled area. If the nonconformance cannot be cleared, the item is either scrapped, returned to manufacturer, or dispositioned through engineering analysis.~~

1.7.7.2.7

Addressed by N18.7-5.2.14, N45.2.2-5.3 & 5.5, N45.2.13-8, N45.2-16. 'Hold' tags are not specifically addressed but is generically referred to as a marking.

~~Contractors providing services (on site) for safety related components are required to have either a formal quality assurance program and procedures, or they must abide by the I&M QA Program and procedures. Prior to their working at~~

N45.2.13-3.2 requires procurement documents for services to specify QA program requirements. Section 4 requires review of the QA Program Manual and procedures for bases of selection. Section 10 describes the requirements for review after selection.

See comment at the bottom of page 1.7-65 for this attribute.

~~the Cook Nuclear Plant, contractors working under their own quality assurance programs must be audited and approved by performance assurance. Contractor procedures must be reviewed and approved by the originating/sponsoring department head. Further, periodic audits of site contractor activities are conducted under the direction of performance assurance.~~

1.7.7.2.8

General statements that are more specifically addressed by N45.2.13-3.2.5 and 10.2, and N18.7-5.2.13.1 (4).

Addressed by N45.2-8, par. 4, and N45.2.13-8.

~~To the extent prescribed in specific procurement documents, suppliers furnish quality records; documentary evidence that material and equipment either conforms to requirements or identifies any requirements that have not been met; and descriptions of those nonconformances from the procurement requirements, which have been dispositioned "use as is" or "repair." This evidence is retained by I&M.~~

~~To the extent prescribed in specific procurement agreements, suppliers are required to maintain additional (backup) documents in their record system.~~

~~In some cases, such as with NSSS, suppliers are designated primary record retention responsibility.~~

1.7.7.2.9

~~The capability of suppliers to furnish valid documentation is evaluated during procurement document reviews, annual supplier evaluations, and during audits.~~

This section historically referred to Certificate of Conformances. This attribute is addressed by N45.2.13, Sec. 10.2 f, Sec. 12 and Sec. 3.2.5 & 3.3.

1.7.8 IDENTIFICATION AND CONTROL OF ITEMS

1.7.8.1 SCOPE

Addressed by
N45.2.2--3.9
and
N18.7--5.2.13.3

~~Items are identified and controlled to prevent their inadvertent use.
Identification of items is maintained either on the items, their storage areas
or containers, or on records traceable to the items.~~

1.7.8.2 IMPLEMENTATION

1.7.8.2.1

Addressed by
N18.7-5.2.13.3

~~Controls are established that provide for the identification and control of
items (including partially fabricated assemblies).~~

1.7.8.2.2

~~Items are identified by physically marking the item or its container, and by
maintaining records traceable to the item. The method of identification is
such that the quality of the item is not degraded.~~

1.7.8.2.3

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

Addressed by N18.7-5.2.13.3

'Marking and Identification' is addressed by
N18.7--5.2.13.3
N45.2--9
N45.2.2--3.9, 4.4, 4.5.4, 5.1, 5.2.2, 5.4, 6.3.4, Appendix, A 3.9
N45.2.8--3.2
N45.2.13--3.2.2 (identification)

1.7.8.2.4

Addressed by N18.7-5.2.13.3

~~Requirements for the identification by use of heat number, part number, serial number, etc., are included in engineering specifications and/or the procurement document.~~

1.7.8.2.5

Addressed by N45.2.2-5.3.2 & 5.4 and N18.7-5.2.14. 3rd paragraph

~~Separate storage is provided for incorrect or defective items that are on hold and material which has been accepted for use. All safety related items are appropriately tagged or identified (stamping, etc.) to provide easy identification as to the items' usage status. Records are maintained for the issue of items to provide traceability from storage to end use in the Cook Nuclear Plant.~~

Addressed by N18.7-5.2.13.3 1st paragraph

1.7.8.2.6

Addressed by N18.7-5.2.13.3 Paragraph 3a

~~When materials are subdivided, appropriate identification numbers are transferred to each section of the material, or traceability is maintained through documentation.~~

1.7.9 ~~CONTROL OF SPECIAL PROCESSES~~

1.7.9.1 ~~SCOPE~~

Addressed by N18.7-5.2.18 1st paragraph and in B.11.c of the new QAPD.

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

1.7.9.2 ~~IMPLEMENTATION~~

Addressed by N18.7--5.2.18, and in B.11.b of the new QAPD.

1.7.9.2.1

~~Processes subject to special process controls are those for which full verification or characterization by direct inspection is impossible or impractical. Such processes include welding, heat treating, chemical cleaning, application of protective coatings, concrete placement and NDE.~~

1.7.9.2.2

Addressed in B.11.c of the new QAPD. These sections details B.11.c and are addressed in implementing procedures.

~~Special process requirements for chemical cleaning, application of protective coatings and concrete placement are set forth in engineering specifications and/or directives prepared by the responsible cognizant engineer. These documents are reviewed and approved by other personnel with the necessary technical competence.~~

~~Special process requirements for welding, heat treating and NDE are set forth in engineering specifications, the Welding Manual and plant procedures. Special process requirements for welding and heat treating are prepared by, or are reviewed and approved by, the cognizant engineer welding. Special process requirements for NDE are prepared by, or are reviewed and approved by, the NDE administrator and/or Cook Nuclear Plant NDE Level III personnel.~~

Regulatory Guide 1.58 section C.2.a, b.

~~Special process procedures, with the exception of welding and heat treating, are prepared by Cook Nuclear Plant personnel with technical knowledge in the discipline~~

Addressed in B.11.c of the new QAPD. These sections details B.11.c and are addressed in implementing procedures.

~~involved. These procedures, which are also reviewed by other personnel with the necessary technical competence, are qualified by testing.~~

~~Welding is performed in accordance with procedures contained in the Welding Manual, or by approved contractor's procedures. These procedures are qualified in accordance with applicable codes, and Procedure Qualification Records are prepared. Weld procedure specifications are reviewed and approved by the cognizant engineer welding. Weld procedure qualification documentation is retained in the AEP Welding Manual, or the approved contractor's manual.~~

~~Contractor welding procedures are qualified by the contractor. These procedures and the qualification documentation are reviewed and approved by the cognizant engineer welding. This documentation is retained by the contractor.~~

Addressed in B.11.c of the new QAPD. This section details B.11.c and are addressed in implementing procedures. N18.7--3.1 permits the delegation of QA controls. N45.2.13--3.2.5 specify documentation retention requirements.

1.7.9.2.3

~~NDE personnel are qualified and certified by a Cook Nuclear Plant NDE Level III who has been qualified and certified by the designated NDE administrator. Certification is by examination. Personnel qualification is kept current by re-examination at time intervals specified in qualification/certification procedures which are in accordance with the ASME Code.~~

Regulatory Guide 1.58 section C.2.a, .b.

~~Cook Nuclear Plant welders are qualified by the maintenance organization, and/or the project [A1] management and installation services organization using approved welding procedure specifications. Administration of Cook Nuclear Plant welder qualifications is performed by the maintenance, and/or the project management and installation services organizations. Examination of qualification specimens is performed under the supervision of the performance assurance organization in accordance with the Welding Manual and nuclear engineering specifications covering welder qualification. Cook Nuclear Plant welder qualification records are maintained for maintenance and contractor welders by nuclear engineering. Contractor welders are qualified by the contractor using procedures approved by the cognizant engineer welding in accordance with I&M procedures. Contractor qualification records are maintained by the contractor.~~

1.7.9.2.4

These sections are addressed in A.5 of the new QAPD and are further detailing of the requirement specified therein that are included in implementing procedures. In addition, Regulatory Guide 1.58 provides requirements for NDE qualifications and records.

~~QC/NDE technicians assigned [A2] to performance assurance perform nondestructive testing for work performed by Cook Nuclear Plant and contractor personnel. These individuals are qualified to either SNT TC 1A, or ANSI N45.2.6, and records of the qualifications/certifications are maintained by I&M.~~

1.7.9.2.5

Addressed by N18.7, Sec. 5.2.18 and in section B.11.c of the new QAPD.

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

1.7.9.2.6

Addressed in C.2.a.1.d of the new QAPD

~~Special process qualifications are reviewed during regularly scheduled QA audits. Qualification records are maintained in accordance with 1.7.17 herein.~~

Addressed in B.15 of the new QAPD

1.7.9.2.7

~~The documentation resulting from welding and nondestructive testing is reviewed by appropriate personnel.~~

Addressed by N18.7--5.3.10

1.7.10 INSPECTION

1.7.10.1 SCOPE

Addressed by N18.7--5.2.17 Par. 1, 1st sentence

~~Activities affecting the quality of safety related structures, systems and components are inspected to verify their conformance with requirements.~~

Addressed by N18.7--5.2.17, 4th par., 1st sentence.

Addressed by N18.7--5.2.17, 2nd par., 2nd sentence

~~These inspections are performed by personnel other than those who perform the activity. Inspections are performed by qualified personnel utilizing~~

~~written procedures which establish prerequisites and provide documentation for evaluating test and inspection results. Direct inspection, process monitoring, or both, are used as necessary. When applicable, hold points are used to ensure that inspections are accomplished at the correct points in the sequence of activities.~~

Addressed by N18.7--5.2.17, 5th par., sentences 1&2.

Addressed by N18.7--5.3.10, 2nd Par., 1st sentence.

1.7.10.2 IMPLEMENTATION

1.7.10.2.1

~~Inspections are applied to appropriate activities to assure conformance to specified requirements.~~

Addressed by N18.7--5.2.17, 1st par.

~~Hold points are provided in the sequence of procedures to allow for the inspection, witnessing, examination, measurement, or review necessary to assure that the critical, or irreversible, elements of an activity are being performed as required. Note that hold points may not apply to all procedures but each procedure which includes inspections must be reviewed for this attribute.~~

Addressed by N18.7--5.2.17, par. 4, 5.3.10, Par. 1&2, and 5.3.5(2)

~~Hold points specify exactly what is to be done (e.g., type of inspection or examination, etc.), acceptance criteria, or reference to another procedure, etc., for the satisfactory completion of the hold point. When hold points are included in the sequence of a procedure, the activities required by hold points are completed prior to continuing work beyond that point.~~

~~Process monitoring is used in whole, or in part, where direct inspection alone is impractical or inadequate.~~

Addressed by N18.7--5.2.17, para 5

1.7.10.2.2

Addressed in A.5 of the new QAPD.

~~Training, qualification and certification programs for personnel who perform inspections are established, implemented and documented in accordance with 1.7.2 herein and as described in Appendix B hereto, item 9b, with exceptions as noted therein.~~

1.7.10.2.3

~~Inspection requirements are specified in procedures, instructions, drawings or checklists as applicable. They provide for the following, as appropriate:~~

Addressed by N18.7--5.2.17 Para 3

Addressed in B.12 of the new QAPD and by N18.7--5.3.10.

- ~~a) Identification of applicable revisions of required instructions, drawings and specifications.~~
- ~~b) Identification of characteristics and activities to be inspected.~~
- ~~c) Inspection methods.~~
- ~~d) Specification of measuring and test equipment having the necessary accuracy.~~
- ~~e) Identification of personnel responsible for performing the inspection.~~
- ~~f) Acceptance and rejection criteria.~~
- ~~g) Recording of the inspection results and the identification of the inspector.~~

1.7.10.2.4

Inspections are conducted using the following programs:

- ~~a. Peer Inspection Program. The Peer Inspection Program is based on the premise that I&M personnel are qualified to ANSI N18.1 (1971), Selection and Training of Nuclear Power Plant Personnel, and are periodically trained in their skill area using INPO accredited training. As a result of their experience, qualifications, and training, I&M personnel may perform inspections of work functions associated with normal operation of the Plant, routine maintenance, and certain routine technical~~

Added as exception / interpretation 2x. in the new QAPD.

Addressed by N18.7-5.2.17, Para 2.

Addressed by N18.7--5.2.17, Para 2.

~~activities which are routinely performed by I&M personnel (peers). Peer inspection personnel are independent in that they do not perform or directly supervise the work being inspected, but they may be from the same work group.~~

Addressed by N18.7--5.2.17, Para 2.

- b. ~~ANSI N45.2.6 Inspection Program. Major modification and non-routine maintenance work on safety related equipment is inspected per ANSI N45.2.6, Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants, whether it is performed by I&M or contractor personnel. All safety related work performed by contract personnel is inspected per ANSI N45.2.6. Inspections of these work activities are performed by inspectors qualified and certified in accordance with Regulatory Guide 1.58 and ANSI N45.2.6. Contractors performing work on safety related equipment are required to comply with the applicable requirements of Regulatory Guide 1.33 and ANSI N45.2[A1].~~

Added as exception/interpretation 2x. in the new QAPD.

1.7.10.2.5[A2]

~~Inspections associated with the packaging and shipment of radioactive waste and materials are conducted using the following program:~~

- a) ~~NRC Licensed Packagings [A3] Inspections of NRC licensed radioactive material packagings shall be performed by individuals independent from the work being performed. The independent inspectors shall be I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.~~

NRC licensed packaging is addressed in A.1.c (10CFR71, Subpart H) and inspection activities is addressed in B.12 of the new QAPD.

Added as exception/interpretation 2x. in the new QAPD.

~~Additionally, the inspector shall be familiar with the activities being performed.~~

~~b) Non NRC Licensed Packagings and Containers [A1] Inspections of non NRC licensed radioactive material packagings and containers (shipping and/or burial) shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.~~

~~c) Transportation Vehicles Inspection of transportation vehicles being shipped as "exclusive use", shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.~~

~~d) Other inspections and Verification Inspections and verifications of other activities associated with the packaging and shipment of radioactive materials and waste shall be performed by I&M personnel, qualified in accordance with Regulatory Guide 1.8 and ANSI N18.1, as a minimum.~~

1.7.10.2.6

~~Inspections are performed, documented, and the results evaluated by designated personnel in order to ensure that the results substantiate the acceptability of the item or work. Evaluation and review results are documented.~~

Added as exception/interpretation 2x. in the new QAPD.

N18.7--5.2.17,
Para 6.

1.7.11 TEST CONTROL

1.7.11.1 SCOPE

Addressed in B.8.a of the new QAPD

~~Testing is performed in accordance with established programs to demonstrate that structures, systems and components will perform satisfactorily in service. The testing is performed by qualified personnel in accordance with written procedures that incorporate specified requirements and acceptance criteria. Types of tests are:~~

Addressed by N18.7--5.3.10 and section A.5 of the new QAPD.

Scheduled

~~— Surveillance, preventive maintenance, post design, qualification.~~

Unscheduled

~~— Pre maintenance and post maintenance.~~

Addressed by N18.7--5.2.19(3) & (4). Also Sections 5.2.7.1 par. 4 and 5.3.5(3).

~~Test parameters (including any prerequisites), instrumentation requirements, and environmental conditions are specified in test procedures. Test results are documented and evaluated.~~

Addressed by N18.7--5.3.10

1.7.11.2 IMPLEMENTATION

1.7.11.2.1

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

Addressed by N18.7--5.2.19, 1st Par. and 5.2.8

Addressed by N45.2.11--6.3.3

~~a) Qualification tests, as applicable, to verify design adequacy.~~

Addressed by N45.2.13--10.3.1.c

~~b) Acceptance tests of equipment and components to assure their operation prior to delivery or installation.~~

Addressed by N18.7--5.2.19(4) 5.2.19.3

~~e) Post design tests to assure proper and safe operation of systems and equipment prior to unrestricted operation.~~

~~d) Surveillance tests to assure continuing proper and safe operation of systems and equipment. The PMI on surveillance testing controls the periodic testing of equipment and systems to fulfill the surveillance requirements established by the Technical Specifications and the Administrative Technical Requirements. Controls have been established to identify uncompleted surveillance testing to assure it is rescheduled for completion to meet Technical Specification and the Administrative Technical Requirements frequency requirements. Data taken during surveillance testing is reviewed by appropriate management personnel to assure that acceptance criteria is fulfilled, or corrective action is taken to correct deficiencies.~~

Addressed by N18.7--5.2.19.3 and 5.3.5(3)

~~e) Maintenance tests after preventive or corrective maintenance.~~

1.7.11.2.2

~~Test procedures, as required, provide mandatory hold points for witness or review.~~

Addressed by N18.7--5.3.10

N18.7--5.2.8 provides the commitment to have a prescribed surveillance testing program. This section is further detailing of the requirement to have a prescribed program and is addressed in implementing procedures. Elimination of these statements is permitted by 50.54(a)(3) as an administrative clarification.

Addressed by N18.7--5.2.19.3 and 5.2.19(4)

1.7.11.2.3

This statement basically indicates we will comply with the technical specifications. Its basis is documented in AEP letter 0847AG. Elimination permitted by 50.54(a)(3) as a non-reduction editorial enhancement.

~~Testing is accomplished after installation, maintenance, or repair, by surveillance test procedures, or performance tests, which must be satisfactorily completed prior to determining the equipment is in an operable status, or as specified by the governing technical specification for the equipment addressed. All data resulting from these tests is retained at the Cook Nuclear Plant after review by appropriate management personnel.~~

Addressed by N18.7--5.3.10, last sentence 1st paragraph.

1.7.12

CONTROL OF MEASURING AND TEST EQUIPMENT

1.7.12.1

SCOPE

~~Measuring and testing equipment used in activities affecting the quality of safety related structures, systems and components are properly identified, controlled, calibrated and adjusted at specified intervals to maintain accuracy within necessary limits.~~

Addressed in B.9.a, b, and c. of the new QAPD

1.7.12.2

IMPLEMENTATION

1.7.12.2.1

~~Established procedures and instructions are used for calibration and control of measuring and test equipment utilized in the measurement, inspection and monitoring of~~

~~structures, systems and components. These procedures and instructions describe calibration techniques and frequencies, and maintenance and control of the equipment.~~

Addressed by
N18.7--5.2.16
1st Par.

~~Performance assurance periodically assesses the effectiveness of the calibration program via the audit program.~~

Addressed in
C.2.a of the
new QAPD.

1.7.12.2.2

~~Measuring and test equipment is uniquely identified and is traceable to its calibration source.~~

Addressed in B.9.d
of the new QAPD.

1.7.12.2.3

~~A system has been established for attaching, or affixing labels, to measuring and test equipment to display the date calibrated and the next calibration due date, or a control system is used that identifies to potential users any equipment beyond the calibration due date.~~

1.7.12.2.4

~~Measuring and test equipment is calibrated at specified intervals. These intervals are based on the frequency of use, stability characteristics and other conditions that could adversely affect the required measurement accuracy. Calibration standards are traceable to nationally recognized standards; or where such standards do not exist, provisions are established to document the basis for calibration.~~

Addressed by
N18.7--5.2.16
1st Par.

Addressed in B.9.f
of the new QAPD.

Addressed in B.9.e of the new QAPD.

~~The primary standards used to calibrate secondary standards have, except in certain instances, an accuracy of at least four (4) times the required accuracy of the secondary standard. In those cases where the four (4) times accuracy cannot be achieved, the basis for acceptance is documented and is authorized by the responsible manager. The secondary standards have an accuracy that assures equipment being calibrated will be within required tolerances. The basis for acceptance is documented and authorized by the responsible manager.~~

1.7.12.2.5

Addressed in B.9.a of the new QAPD.

~~Cook Nuclear Plant procedures define the requirements for the control of standards, test equipment and process equipment.~~

1.7.12.2.6

Addressed in B.9.g of the new QAPD.

~~When measuring and testing equipment used for inspection and testing is found to be outside of required accuracy limits at the time of calibration, evaluations are conducted to determine the validity of the results obtained since the most recent calibration. Retests, or reinspections, are performed on suspect items. The results of evaluations are documented.~~

Addressed by N18.7-5.2.16, 2nd paragraph

1.7.13 **HANDLING, STORAGE, AND SHIPPING**

1.7.13.1 **SCOPE**

~~Activities with the potential for causing contamination or deterioration, by environmental conditions such as temperature or humidity that could adversely affect the~~

Addressed by 45.2--14, 1st paragraph

Addressed by 45.2--14, 1st paragraph

~~ability of an item to perform its safety related functions and activities necessary to prevent damage or loss, are identified and controlled. These activities are cleaning, packaging, preserving, handling, shipping and storing. Controls are effected through the use of appropriate procedures and instructions.~~

~~1.7.13.2~~ **IMPLEMENTATION**

~~1.7.13.2.1~~

Addressed by
N45.2.2--2.2,
N45.2.13--3.2.2 &
N18.7--5.2.13.4

~~Procedures are used to control the cleaning, handling, storing, packaging, preserving and shipping of materials, components and systems in accordance with designated procurement requirements. These procedures include, but are not limited to, the following functions:~~

- ~~a) Cleaning to assure that required cleanness levels are achieved and maintained.~~
- ~~b) Packaging and preservation to provide adequate protection against damage or deterioration. When necessary, these procedures provide for special environments, such as inert gas atmosphere, specific moisture content levels and temperature levels.~~
- ~~c) Handling to preclude damage or safety hazards.~~
- ~~d) Storing to minimize the possibility of loss, damage or deterioration of items in storage, including consumables such as chemicals, reagents and lubricants.~~

The expanded discussion in a) through d) above is general in nature and are addressed in greater detail in N45.2.2.

This section is further detailing of the requirement specified in N45.2.2--6.5 and is covered in implementing procedures. Removal is considered non-reduction in commitment administrative improvement permitted by 10CFR50.54(a)(3).

1.7.13.2.2

~~Controls have been established for limited shelf life items such as "O" rings, epoxy, lubricants, solvents and chemicals to assure they are correctly identified, stored and controlled to prevent shelf life expired materials from being used in the Cook Nuclear Plant. Controls are established in plant procedures.~~

1.7.13.2.3

~~Packaging and shipping requirements are provided to vendors in engineering specifications (DCCs) which are a part of the procurement document, or are otherwise specified in the procurement document. Controls for receipt inspection, damaged items and special handling requirements at the Cook Nuclear Plant are established by plant procedures. Special controls are provided to assure that stainless steel components and materials are handled with approved lifting slings.~~

Addressed by
N45.2.13--3.2.2
N18.7--5.2.13.1(2)

Addressed
by
N45.2.2-5

Addressed by N45.2.2
- 4.3.3 and 2.2.

1.7.13.2.4

~~Storage and surveillance requirements have been established to assure segregation of storage. Special controls have been implemented for critical, high value, or perishable items. Routine surveillance is conducted on stored material to provide inspection for damage, rotation of stored pumps and motors, inspection for protection of exposed surfaces and cleanliness of the storage area.~~

Addressed by N45.2.2-6.1-6.6.

1.7.13.2.5

Addressed in N45.2.2--2.2, 2.7.1
and N18.7--5.3.4.5

~~Special handling procedures have been implemented for the processing of nuclear fuel during refueling outages. These procedures minimize the risk of damage to the new and spent fuel and the possible release of radioactive material when placing the spent fuel into the spent fuel pool.~~

1.7.14 ~~INSPECTION, TEST, AND OPERATING STATUS~~

1.7.14.1 ~~SCOPE~~

Addressed in
B.10.a & b of
the new QAPD

~~Operating status of structures, systems and components is indicated by tagging of valves and switches, or by other specified means, in such a manner as to prevent inadvertent operation. The status of inspections and tests performed on individual items is clearly indicated by markings and/or logging under strict procedural controls to prevent inadvertent bypassing of such inspections and tests.~~

1.7.14.2 ~~IMPLEMENTATION~~

1.7.14.2.1

Addressed by N18.7--5.2.13.3 and in
B.10.a & b of the new QAPD.

~~For design change activities, including item fabrication, installation and test, a program exists which specifies the degree of control required for the identification of inspection and test status of structures, systems and components.~~

Addressed by N18.7--5.2.6
Paragraph 6

~~Physical identification is used to the extent practical to indicate the status of items requiring inspections, tests, or examinations. Procedures exist which provide for the use of calibration and rejection stickers, tags, stamps and other forms of identification to indicate test and~~

Addressed by N18.7--5.2.6
Paragraph 6 and N45.2-15

~~inspection status. The Clearance Permit System uses various tags to identify equipment and system operability status. Another program establishes a tagging system for lifted leads, etc. For those items requiring calibration, the program provides for physical indication of calibration status by calibration stickers, or a control system is used.~~

Addressed by
N18.7--5.2.6
Paragraph 5

1.7.14.2.2

~~Application and removal of inspection and welding stamps, and of such status indicators as tags, markings, labels, etc., is controlled by plant procedures.~~

Addressed
by N45.2.2--
5.3 and 5.4.

~~The inspection status of materials received at the Cook Nuclear Plant is identified in accordance with established instructions. The status is identified as Hold, Hold for Quality Control Clearance, Reject, or Accept.~~

~~The inspection status of work in progress is controlled by the use of hold points in procedures. Performance assurance, or departmental ANSI N18.1 qualified personnel (reference 1.7.10.2.4 herein), inspect an activity at various stages and sign off the procedural inspection steps.~~

Addressed by
N18.7--5.2.17
Paragraph 2 & 4.

~~The status of welding is controlled through the use of a weld data block which identifies the inspection and NDE status of each weld.~~

Addressed by
N18.7--5.3.5(2)

1.7.14.2.3

Addressed by N18.7--5.2.6 and B.10.a of the new QAPD.

~~Required surveillance test procedures are defined in PMIs. These instructions provide for documenting bypassed tests and rescheduling of the test.~~

~~The status of testing after minor maintenance is recorded as part of the Job Order and/or procedure. The status of testing after major maintenance is included as part of the procedure, and includes the performance of functional testing and approval of data by supervisory personnel.~~

Addressed by N18.7--5.2.6, 6th Par. and 5.2.7, 1st Par.

~~Testing, inspection and other operations important to safety are conducted in accordance with properly reviewed and approved procedures. The PMI for plant procedures requires that procedures be followed as written. Alteration to the sequence of a procedure can only be accomplished by a procedure change which is subject to the same controls as the original review and approval. When an immediate procedure change is required to continue in-process work or testing and the required complete review and approval process cannot be accomplished, an "On The Spot" change is processed in accordance with the PMI on plant procedures.~~

Addressed by N 18.7--5.2.2; 5.2.5; 5.2.15 and 5.3.10.

Addressed by N18.7-5.2.2

Addressed by N18.7-5.2.15, Par. 6 & 7.

Addressed by N18.7-5.2.2. The "On-The-Spot" change is a temporary changes per PMP-2010.

1.7.14.2.4

~~Nonconforming, inoperable, or malfunctioning structures, systems and components are clearly identified by tags, stickers, stamps, etc., and documented to prevent inadvertent use.~~

Addressed by N18.7--5.2.14 Paragraph 3

Nonconforming conditions are described principally in N18.7-5.2.14. However, they are also mentioned in N18.7-5.2.13, N45.2, section 9, N45.2.13 section 8.1, N45.2.2 sections 5.3, 5.4 and 5.5.

~~1.7.15~~ ~~NONCONFORMING ITEMS~~

~~1.7.15.1~~ ~~SCOPE~~

~~Materials, parts, or components that do not conform to requirements are controlled in order to prevent their inadvertent use. Nonconforming items are identified, documented, segregated when practical and dispositioned. Affected organizations are notified of nonconformances.~~

~~1.7.15.2~~ ~~IMPLEMENTATION~~

~~1.7.15.2.1~~

~~Items, services, or activities that are deficient in characteristic, documentation, or procedure, which render the quality unacceptable or indeterminate, are identified as nonconforming and any further use is controlled. Nonconformances are documented and dispositioned, and notification is made to affected organizations. Personnel authorized to disposition, conditionally release and close out nonconformances are designated.~~

Addressed by N18.7--5.2.14 1st Par. And A.6.d of the new QAPD.

~~The Job Order System and/or the Corrective Action Program (refer to 1.7.16 herein) are used at Cook Nuclear Plant to identify nonconforming items and initiate corrective action for items which are installed or have been released to the Cook Nuclear Plant. Systems, components, or materials which require repair or inspection are controlled under the Job Order System. In addition, the various procedures identified in 1.7.14 herein provide for identification, segregation and documentation of nonconforming items.~~

A

A.6.d of the new QAPD describes corrective actions and the control of nonconforming conditions.

The last two sentences provide implementing details and are described in implementing procedures. Elimination of such text is permitted as a non-reduction administrative improvement by 10 CFR50.54(a)(3).

Addressed by N18.7--5.2.14, 1st Par., 2nd sentence and A.6.d of the new QAPD.

1.7.15.2.2

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

The last sentences provide implementing details and are described in implementing procedures.

~~Completed Job Order activities are reviewed by the supervisor responsible for accomplishing the work. Performance assurance periodically audits the Job Order System, and on a sample basis, Job Orders.~~

Included as exception/interpretation 2q. in Table 2 of the new QAPD.

1.7.15.2.3

Addressed by N18.7--5.2.14, 1st Par., sentence 5.

~~Items that have been repaired or reworked are inspected and tested in accordance with the original inspection and test requirements, or alternatives, that have been documented.~~

Addressed by N18.7--5.2.14, 2nd Par., sentence 4 & 5.

~~Items that have the disposition of "repair" or "use as is" require documentation justifying acceptability. The changes are recorded to denote the as built condition.~~

Addressed by N18.7--5.2.7, 1st Par., 2nd Sentence.

~~When required by established procedures, surveillance or operability tests are conducted on an item after rework, repair or replacement.~~

1.7.15.2.4

~~Disposition of conditionally released items are closed out before the items are relied upon to perform safety related functions.~~

Addressed by N45.2.2-5.3.3, 5.4 and 5.5 and by N18.7--5.2.6, 6th Par., Sentence 4 & 5

N45.2--Section 17
N18.7--5.2.11
A.6.b of the new QAPD.

1.7.16 CORRECTIVE ACTION

1.7.16.1 SCOPE

~~Conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are identified promptly and corrected as soon as practical in accordance with the approved QA program and incorporate safety reviews, as necessary.~~

The reference to safety reviews is a "50.59 evaluation" per the revised rule and is addressed by 10 CFR 50.59 and in implementing procedures.

~~For significant conditions adverse to quality, the cause of the condition is determined, immediate and/or interim corrective action is taken to correct the condition, as well as long term action to prevent recurrence. In these cases, the condition, cause and corrective action taken is documented and reported to appropriate levels of management.~~

Addressed by
N45.2--Section 17
& N18.7--5.2.11

1.7.16.2 IMPLEMENTATION

1.7.16.2.1

~~Instructions are established that define the corrective action program. These instructions are reviewed and concurred with by performance assurance. Procedures that implement the corrective action program are reviewed and approved, as a minimum, by management/supervisory personnel trained to the level necessary to plan, coordinate and administer those day to day activities of the corrective action program.~~

Procedural controls, addressed by N18.7--5.2.15 and in B.13.a of the new QAPD.

1.7.16.2.2

~~The Corrective Action Program provides the mechanism for personnel to notify management of conditions adverse to quality. The Corrective Action Program is also used to report violations to codes, regulations and the Technical Specifications. A screening committee assesses reported conditions for significance, and assignment to responsible organizations. Results of the screening committee's activities are provided to management to help management maintain cognizance of reported conditions and assignments. For conditions adverse to quality, the Corrective Action Program is used to initiate corrective actions and conduct any investigation requested by the screening committee. In the case of significant conditions adverse to quality, the Corrective Action Program is used to identify corrective actions, investigations and those actions necessary to prevent recurrence of the reported condition.~~

Addressed in A.6.a & b of the new QAPD. Screening of issues is also described in N18.7--4.4, 2nd par.

Addressed by
N45.2--Section 17
N18.7--5.2.11

Addressed in A.6.e of the new QAPD.

~~Corrective Action Program data is analyzed to identify potential trends and the results are provided in regular reports to management. Those trends determined to be adverse are considered significant conditions adverse to quality.~~

~~The Corrective Action Review Board (CARB) evaluates actions taken or being taken to correct and prevent recurrence of significant conditions adverse to quality.~~

N18.7 – 4.3.4(5) and 4.4 describes reviews of subjects of potential concern to the independent review body (NSRB) by the onsite operating organization. N18.7 does not require only 1 onsite review group (usually considered the PORC); therefore, the activities of the CARB are considered under these requirements. Removal of this text is permitted under 10CFR50.54(3)(v). Review of violations is addressed in N18.7 4.3.4 (4).

~~The CARB will provide a report of review activities to the NSDRC.~~

~~The NSDRC is responsible for assuring that independent reviews of violations that have nuclear safety significance (as specified in Appendix C) are performed. These violations are considered significant conditions adverse to quality that are documented in the Corrective Action Program. The reviews will provide an independent evaluation of the reported conditions and corrective actions.~~

Addressed in C.2.a and C.2.a.1.c of the new QAPD.

~~Performance Assurance periodically audits the Corrective Action Program for compliance and effectiveness.~~

A

A

A

~~1.7.17~~ ~~QUALITY ASSURANCE RECORDS~~

Addressed by N45.2.9--3.2.1 and 6 and in B.15.a & b of the new QAPD.

~~1.7.17.1~~ ~~SCOPE~~

~~Records that furnish evidence of activities affecting the quality of safety-related structures, systems and components are maintained. They are accurate, complete, legible and are protected against damage, deterioration, or loss. They are identifiable and retrievable.~~

~~1.7.17.2~~ ~~IMPLEMENTATION~~

Addressed by N45.2.9--3.2.1

~~1.7.17.2.1~~

~~Documents that furnish evidence of activities affecting the quality of safety-related items are generated and controlled in accordance with the procedure that governs those activities. Upon completion, these documents are considered records. These records include:~~

- ~~a) Results of reviews, inspections, surveillances, tests, audits and material analyses.~~
- ~~b) Qualification of personnel, procedures and equipment.~~
- ~~c) Operation logs.~~
- ~~d) Maintenance and modification procedures and related inspection results.~~
- ~~e) Reportable occurrences.~~
- ~~f) Records required by the plant Technical Specifications and Appendix C to this QAPD.~~
- ~~g) Corrective Action Program documents.~~
- ~~h) Other documentation such as drawings, specifications, dedication plans, procurement documents, calibration procedures and reports.~~
- ~~i) Radiographs.~~

A

Items a through i are general categories and are enveloped by the more specific items listed in Appendix A to N45.2.9. Item i is also addressed in B.15.a of the new QAPD.

1.7.17.2.2

Addressed by N45.2.9--2, 2.1

~~Instructions and procedures establish the requirements for the identification and preparation of records for systems and equipment under the QA Program, and provide the controls for retention of these records.~~

~~Criteria for the storage location of quality related records, and a retention schedule for these records, has been established.~~

N45.2.9--section 5 for storage, section 3 for index and retention, and section 6 for retrieval requirements.

~~File Indexes have been established to provide direction for filing, and to provide for the retrievability of the records.~~

~~Controls have been established for limiting access to the Plant Master File to prevent unauthorized entry, unauthorized removal, and for use of the records under emergency conditions. The Nuclear Records Management Supervisor is responsible for the control and operation of the Plant Master File Room.~~

N45.2.9--section 5 for unauthorized removal, 5.5 for unauthorized entry and 6.2 for accessibility. Specific title of the individual responsible for the storage facility is not required (See 10CFR 50.54(3)(iii). Also see A.2.d.4 of the new QAPD.

1.7.17.2.3

~~Within I&M, each manager is responsible for the identification, collection, maintenance and storage of records generated by their organization.~~

~~Procedures ensure the maintenance of records sufficient to furnish objective evidence that activities affecting quality are in compliance with the established QA Program.~~

N45.2.9--section 2

This attribute is addressed in A.2.d.5 and B.15.b of the new QAPD. The person responsible for records is responsible for identifying the program requirements, and for the maintenance and storage of records, which is more restrictive than this section. Removal should be appropriate because N45.2.9 is more restrictive is specification of administrative controls.

1.7.17.2.4

Addressed by N45.2.9--2.2 3.2.5

~~When a document becomes a record, it is designated as permanent, or nonpermanent, and then transmitted to file. Nonpermanent records have specified retention times. Permanent records are maintained for the life of the plant or equipment, as applicable.~~

1.7.17.2.5

Addressed by N45.2.9--3.2 paragraph 2, and 3.2.6.

~~Only authorized personnel may issue corrections or supplements to records.~~

1.7.17.2.6

Addressed by N45.2.9--3.2 paragraph 1, sentence 3, and 3.2.4.

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

1.7.17.2.7

Addressed by N45.2.9--5.6 Paragraph 2, 3, 4 and 5.

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

~~When optical disk technology is used for records storage, the following quality controls are used:~~

The use of optical disk technology has been added as Exception/ Interpretation 11a in the new QAPD.

~~The optical disk technology does not allow deletion or modification of record images.~~

~~The image of each record is written onto two optical disks.~~

- ~~The legibility of each record image is verified to ensure that the image is legible on both disks. If the image is illegible, the hard copy record is maintained as the record copy.~~

The use of optical disk technology has been added as Exception/ Interpretation 11a in the new QAPD. The use of optical disk technology addressed in NRC GL 88-18.

Also, this section is detailing of the N45.2.9 storage requirements and is included in plant implementing procedures

~~One optical disk is stored in the document imaging system for on line retrieval.~~

~~The second (backup) optical disk is stored in a special fire-rated facility or in a separate remote location.~~

~~To ensure permanent retention of records, the records stored on an optical disk are acceptably copied onto a new optical disk before the manufacturer's certified useful life of the original disk is exceeded. This includes verification of the records so copied.~~

~~Periodic random inspections of images stored on optical disks are performed to verify that there has been no degradation of image quality.~~

~~If the optical disk document imaging system in use is to be replaced by an incompatible new system, the records stored on the old system's disks are acceptably converted into the new system before the old system is taken out of service. This includes verification of the records so copied.~~

~~1.7.18~~ ~~AUDITS~~

~~1.7.18.1~~ ~~SCOPE~~

Addressed in C.2.a of the new QAPD.

~~A comprehensive system of audits is carried out to provide independent evaluation of compliance with, and the effectiveness of, the QA Program including those elements of the program implemented by suppliers and contractors.~~

Addressed by N45.2--Section 19. Per AEP:NRC letter 0847Z dated 05/23/94 (AEP response to IR 50-315/83-12 & 50-316/83-13), surveillances supplements audits and does not replace them. This level of detail is included in implementing procedures

~~The system of audits includes limited scope surveillances, which provide flexibility for more timely coverage of certain activities. Audits are performed in accordance with written procedures or checklists by qualified personnel not having direct responsibility in the areas audited. Audit results are documented and reviewed by management. Follow up action is taken where indicated.~~

~~1.7.18.2 IMPLEMENTATION~~

~~1.7.18.2.1 Performance Assurance Responsibilities~~

Addressed in A.2.b.1 of the new QAPD.

~~The basic responsibility for the assessment of the QA Program is vested in performance assurance. Performance assurance is primarily responsible for ensuring that proper QA programs are established and for verification of their implementation. These responsibilities are discharged in cooperation with I&M management and their staffs.~~

~~1.7.18.2.2~~

Addressed by N18.7--4.5, 1st Paragraph.

~~Internal audits are performed in accordance with established schedules that reflect the status and importance of safety to the activities being performed. All areas where the requirements of 10CFR50, Appendix B apply are audited within a period of one to two years.~~

~~1.7.18.2.3~~

Addressed by N18.7--4.5, Paragraph 1 and 2.

~~Performance assurance conducts audits to verify the adequacy and implementation of the QA Program at I&M and within the AEP System. QA audit reports are distributed to the appropriate management and the NSDRC (all audits).~~

1.7.18.2.4

Addressed by N18.7--section 4.2 for procedure requirement, section 4.3.1 for personnel requirements.

~~The independent off site review and audit organization is the NSDRG. This committee is described in Appendix C to this QAPD. An NSDRG Manual has been developed for this committee which contains the NSDRG Charter and procedures. The NSDRG conducts periodic audits of Cook Nuclear Plant operations pursuant to Appendix C to this QAPD.~~

This text is detailing of implementing instructions contained with the procedures prescribed in the previous paragraph and as addressed in N18.7--4.2.

~~NSDRG audit reports are submitted for review to the NSDRG membership and the Chair of the NSDRG. Corrective Action Program documents and/or audit reports provide for the recording of actions taken to correct deficiencies found during these audits.~~

A

1.7.18.2.5

PORC is addressed in N18.7-4.4 and in A.2.e of the new QAPD.

~~The I&M on site review group is the PORC. This committee reviews plant operations as a routine evaluation and serves to advise the site vice president on matters related to nuclear safety. The composition of the committee is defined in Appendix C to this QAPD.~~

~~The PORC also reviews instructions, procedures, and design changes for safety related systems prior to approval by the site vice president. In addition, this committee serves to conduct investigations of violations of Technical Specifications. The Corrective Action Review Board (CARB) reviews significant Corrective Action Program documents to determine if appropriate action has been taken.~~

A

The functions of the onsite operating organization units is described in N18.7--4.4 and in A.2.e of the new QAPD.

1.7.18.2.6

Addressed by N45.2.13--Section 6.1, 7.1 and 7.2.
Also N45.2.12 section 3.5.

~~_____ Audits of suppliers and contractors are scheduled based on the status of safety importance of the activities being performed, and are initiated early enough to assure effective quality assurance during design, procurement, manufacturing, construction, installation, inspection and testing.~~

~~_____ Principal contractors are required to audit their suppliers systematically in accordance with the criteria established within their quality assurance programs.~~

1.7.18.2.7

Addressed by N45.2.12--
Section 3.5.3

~~_____ Regularly scheduled audits are supplemented by "special audits" when significant changes are made in the QA program, when it is suspected that quality is in jeopardy, or when an independent assessment of program effectiveness is considered necessary.~~

1.7.18.2.8

~~Audits include an objective evaluation of practices, procedures, instructions, activities and items related to quality; and a review of documents and records to confirm that the QA Program is effective and properly implemented.~~

Addressed by N18.7-4.5
paragraphs 1 and 2 and in
N45.2.12--3.2.2 (Objective
evidence).

1.7.18.2.9

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

Addressed by N45.2.12--3.1

1.7.18.2.10

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

Addressed by N45.2.12--4.2.2 and 4.2.3, and N18.7--4.5, paragraph 3.

1.7.18.2.11

~~Management of the audited organization identifies and takes appropriate action to correct observed deficiencies. In the case of significant conditions adverse to quality, appropriate action is taken to prevent recurrence. Follow-up is performed by the auditing organization on selected adverse conditions, to ensure that the appropriate actions were taken. Such follow up actions may include, but are not limited to, re-audits, subsequent audits, surveillances, or other appropriate means.~~

Addressed by N45.2.12--4.5 (follow-up) and N18.7-5.2.11 (significant conditions adverse to quality).

1.7.18.2.12

~~The adequacy of the QA Program is regularly assessed by management. The following activities constitute formal elements of that assessment:~~

Addressed by N18.7--4.5 paragraph 4.

- a) ~~Audit reports, including follow up on corrective action accomplishment and effectiveness, are distributed to appropriate levels of management.~~

Addressed by N18.7--4.5

Addressed by N18.7--4.1, paragraph 2, and 4.5, paragraph 4; and by A.2.b of the new QAPD.

- b) ~~Individuals independent from the QA organization, but knowledgeable in auditing, and quality assurance, periodically review the effectiveness of the QA programs. Conclusions and recommendations are reported to the I&M vice president.~~

~~1.7.19 FIRE PROTECTION QA PROGRAM~~

~~1.7.19.1 Introduction~~

Addressed by A.7.a and item 21, on Table 1, of the new QAPD

~~The Cook Nuclear Plant Fire Protection QA Program has been developed using the guidance of NRC Branch Technical Position (APCSB) 9.5 1, Appendix A, Section C, "Quality Assurance Program," and NRC clarification "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance," dated June 14, 1977. As such, the Fire Protection QA Program is part of the overall QA Program for the plant. The Fire Protection QA Program encompasses design, procurement, fabrication, construction, surveillance, inspection, operation, maintenance, modification, and audits.~~

Addressed by A.2.b of the new QAPD.

~~Implementation and assessment of the Fire Protection QA Program is the responsibility of I&M.~~

~~1.7.19.2 Organization~~

Addressed by Attachment 1 of Nuclear Plant
Fire Protection Functional Responsibilities,
Administrative Controls, and Quality Assurance

~~The Fire Protection QA Program is under the management and control of I&M. This control consists of:~~

- ~~1) Verifying the effectiveness of the Fire Protection QA Program through review, surveillance, and audits.~~
- ~~2) Directing formulation, implementation, and assessment of the Fire Protection QA Program by procedural controls.~~
- ~~3) Assuring the QA program is acceptable to the management responsible for fire protection.~~

~~The site vice president has delegated responsibility to various Cook Nuclear Plant departments for the following fire protection activities:~~

- ~~a) Maintenance of fire protection systems.~~
- ~~b) Testing of fire protection equipment.~~
- ~~c) Fire safety inspections.~~
- ~~d) Fire pre plans.~~
- ~~e) Fire drills.~~
- ~~f) Emergency remote shutdown procedures.~~
- ~~g) Emergency repair procedures (10CFR50, Appendix R).~~

~~The Fire Protection QA Program at the Cook Nuclear Plant also provides for inspection of fire hazards, explosion hazards, and training of fire brigade and responding fire departments.~~

Addressed by Attachment 1 of Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance

~~The plant protection department's fire protection shift supervisor on duty, or designee, is designated as the fire brigade leader and coordinates the fire fighting efforts of the fire brigade. The operations department provides an individual with plant systems knowledge to serve as an advisor to the fire brigade leader.~~

~~1.7.19.3 Design Control and Procurement Document Control~~

~~Quality standards are specified in the design documents such as appropriate fire protection codes and standards, and, as necessary, deviations and changes from these quality standards are controlled.~~

~~The Cook Nuclear Plant design was reviewed by qualified personnel to ensure inclusion of appropriate fire protection requirements. These reviews include items such as:~~

~~1) Verification as to the adequacy of electrical isolation and cable separation criteria.~~

~~2) Verification of appropriate requirements for room isolation (sealing penetrations, floors and other fire barriers).~~

~~3) Determination for increase in fire loadings.~~

~~4) Determination for the need of additional fire detection and suppression equipment.~~

~~Procurement of fire protection equipment and related items are subject to the requirements of the fire protection~~

Addressed by Attachment 6, section 1.0 of Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance

Addressed by Attachment 6, section 1.0 of Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance

~~procurement documents. A review of these documents is performed to assure fire protection requirements and quality requirements are correctly stated, verifiable, and controllable, and that there is adequate acceptance and rejection criteria. Procurement documents must be prepared, reviewed, and approved according to QA Program requirements.~~

~~Design and procurement document changes, including field changes and design deviations, are controlled by procedure.~~

~~1.7.19.4 Instructions, Procedures and Drawings~~

~~Inspections, tests, administrative controls, fire drills and training that assist in implementing the fire protection program are prescribed by approved instructions or procedures.~~

Addressed by Attachment 2 of Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance

~~Indoctrination and training programs for fire prevention and fire fighting are implemented in accordance with approved procedures. Activities associated with the fire protection systems and fire protection related systems are prescribed and accomplished in accordance with documented instructions, procedures, and drawings. Instructions and procedures for design, installation, inspection, tests, maintenance, modification and administrative controls are reviewed through audits to assure that the fire protection program is maintained.~~

Addressed by
BTP-9.5-1,
Appendix A,
Sections C, C.2

~~Operation and maintenance information has been provided to the plant in the form of System Descriptions and equipment supplier information.~~

Implementing details. This information does not represent QA program requirements. Removal of this test is an administrative improvement permitted by 10CFR50.54(a)(3)

Addressed by Attachment 6, section 3.0 of Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance (FPACQA).

~~1.7.19.5 Control of Purchased Items and Services~~

~~Measures are established to assure that purchased items and services conform to procurement documents. These measures include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor, inspections at suppliers, or receipt inspection.~~

~~Source or receipt inspection is provided, as a minimum, for those items where quality cannot be verified after installation.~~

~~1.7.19.6 Inspection~~

Addressed by Attachment 6, section 4.0 of the FPACQA.

~~A program for independent inspection of the fire protection activities has been established and implemented.~~

~~These inspections are performed by personnel other than those responsible for implementation of the activity. The inspections include:~~

~~a) Inspection of installation, maintenance and modification of fire protection systems and equipment.~~

~~b) Inspections of penetration seals and fire retardant coating installations to verify the activity is satisfactorily completed in accordance with installation specifications.~~

Items c) through h) below are addressed by Attachment 6, section 3.0 of the FPACQA and exception 17a on Table 2 of the new QAPD.

- ~~e) Inspections of cable routing to verify conformance with design requirements as specified in engineering specifications and/or plant procedures.~~
- ~~d) Inspections to verify that appropriate requirements for fire barriers are satisfied following installation, modification, repair or replacement activities.~~
- ~~e) Measures to assure that inspection personnel are independent from the individuals performing the activity being inspected and are knowledgeable in the design and installation requirements for fire protection.~~
- ~~f) Inspection procedures, instructions or checklists for required inspections.[A1]~~
- ~~g) Periodic inspections of fire protection systems[A2], emergency breathing and auxiliary equipment.~~
- ~~h) Periodic inspections of materials subject to degradation, such as fire stops, seals and fire retardant coating as required by the Administrative Technical Requirements or manufacturer's recommendations.~~

~~1.7.19.7 Test and Test Control~~

Addressed by FPACQA-1977 section 5.0 and exception 17b on Table 2 of the new QAPD.

- ~~a) Installation testing [A3] Following installation, modification, repair, or replacement, sufficient testing is performed to demonstrate that the fire protection systems and equipment will perform~~

Addressed by FPACQA-1977 section 5.0 and exceptions 17c & 17d on Table 2 of the new QAPD.

~~satisfactorily. Written test procedures for installation tests incorporate the requirements and acceptance limits contained in applicable design documents.~~

- ~~b) Periodic testing [A1] Periodic testing occurs to document that fire protection equipment functions in accordance with its design.~~
- ~~c) Programs have been established [A2] to verify the testing of fire protection systems, and to verify that test personnel are effectively trained.~~
- ~~d) Test results are documented, evaluated, and their acceptability determined by a qualified responsible individual or group.~~

~~1.7.19.8 Inspection, Test and Operating Status~~

~~The inspection, test and operating status for plant Administrative Technical Requirements fire protection systems are performed as described in 1.7.14 herein.~~

~~1.7.19.9 Nonconforming Items~~

~~Administrative Technical Requirements fire protection equipment nonconformances are identified and dispositioned as described in 1.7.15 herein.~~

Since we commit to our previously approved Appendix B program we meet the requirements of FPACQA section 6.0 and 7.0 as stated in item 1) of the opening paragraph of FPACQA-1977, Attachment 6.

~~1.7.19.10~~ Corrective Action

Since we commit to our previously approved Appendix B program we meet the requirements of FPACQA section 6.0 and 7.0 as stated in item 1) of the opening paragraph of FPACQA-1977, Attachment 6.

~~The corrective action mechanism described in 1.7.16 herein applies to the Administrative Technical Requirements fire protection equipment.~~

~~1.7.19.11~~ Records

Addressed by Attachment 6, section 9.0, of the FPACQA-1977.

~~Records that furnish evidence of the quality of activities, and of systems, structures and components associated with the fire protection program are maintained. The maintenance of the records includes assuring that records are accurate, complete, legible, and protected against damage, deterioration, or loss. The records are identifiable and retrievable. The records include results of reviews, inspections, tests, audits, monitoring of work performance, and qualifications of personnel and equipment. Inspection and test records identify the inspector or data recorder, the type of observations, results, acceptability, and actions taken in connection with any deficiencies noted. Records provide for traceability of activities that occur at the plant that affect the quality of fire protection systems, structures and components.~~

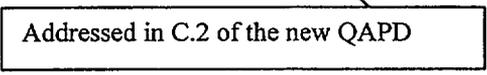
~~1.7.19.12~~ Audits

Addressed in section C.2 of the new QAPD.

~~Audits are conducted and documented to verify compliance with the Fire Protection QA Program as described in 1.7.18.1 herein.~~

~~Audits are periodically performed to verify compliance with the administrative controls and implementation of fire~~

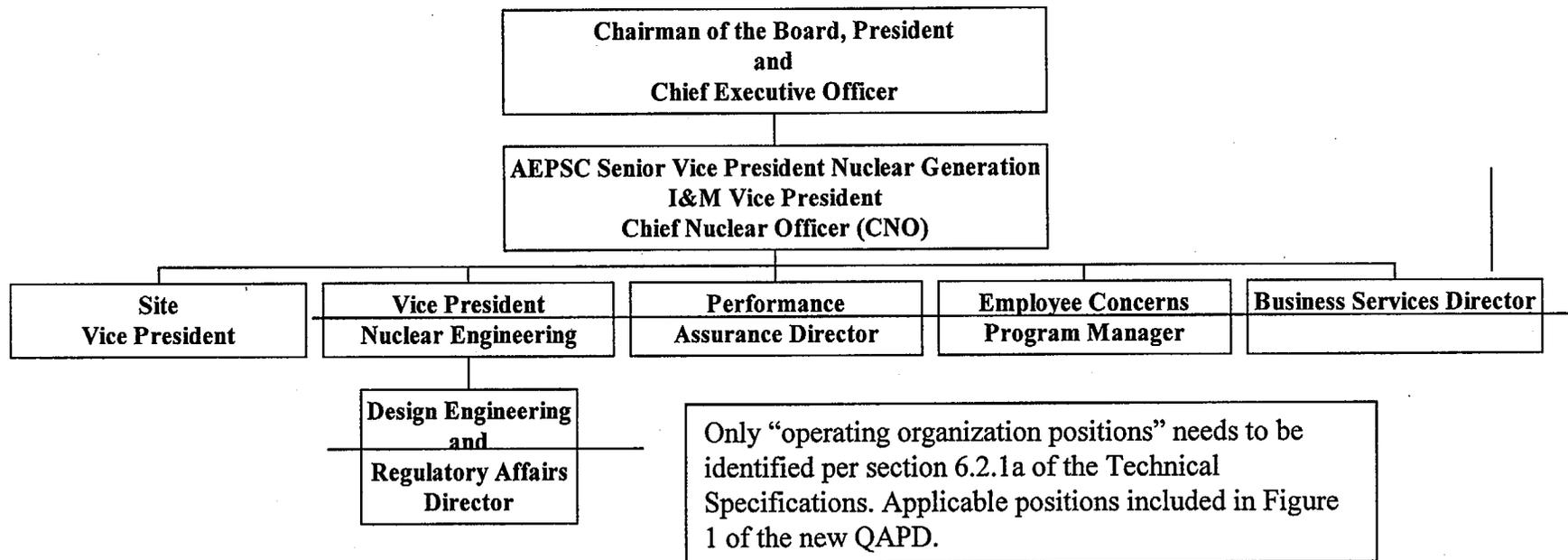
~~protection quality assurance criteria. The audits are performed in accordance with pre-established written procedures or checklists. Audit results are documented and reviewed by management having responsibility in the area audited. Follow up action is taken by responsible management to correct the deficiencies revealed by the audit.~~



Addressed in C.2 of the new QAPD

Figure 1.7-1

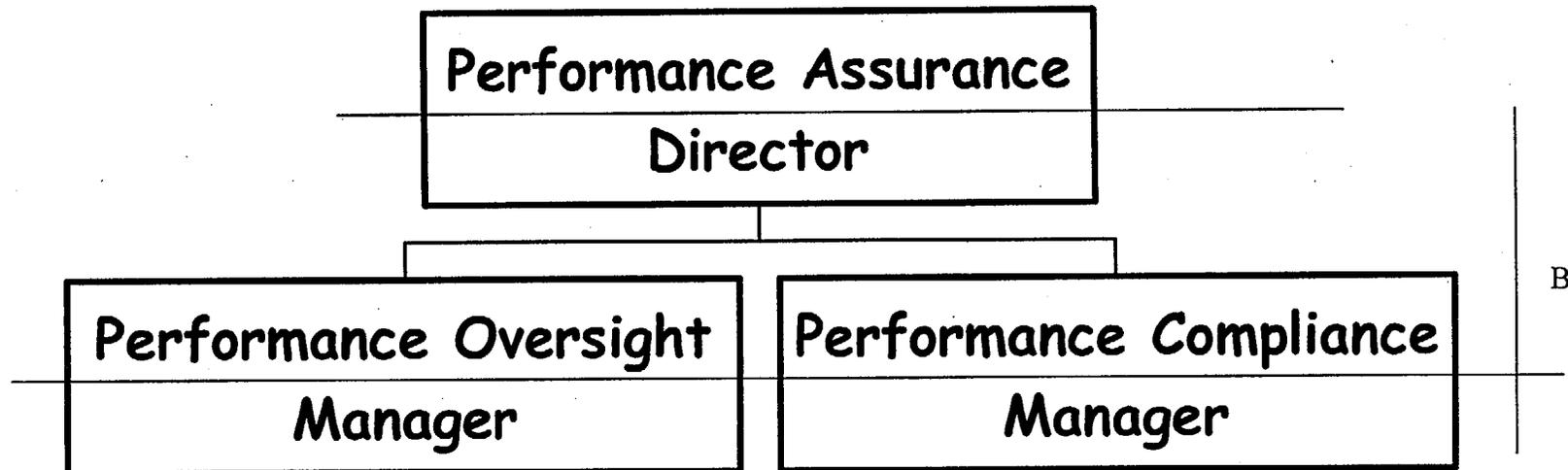
AMERICAN ELECTRIC POWER



B

Figure 1.7-2

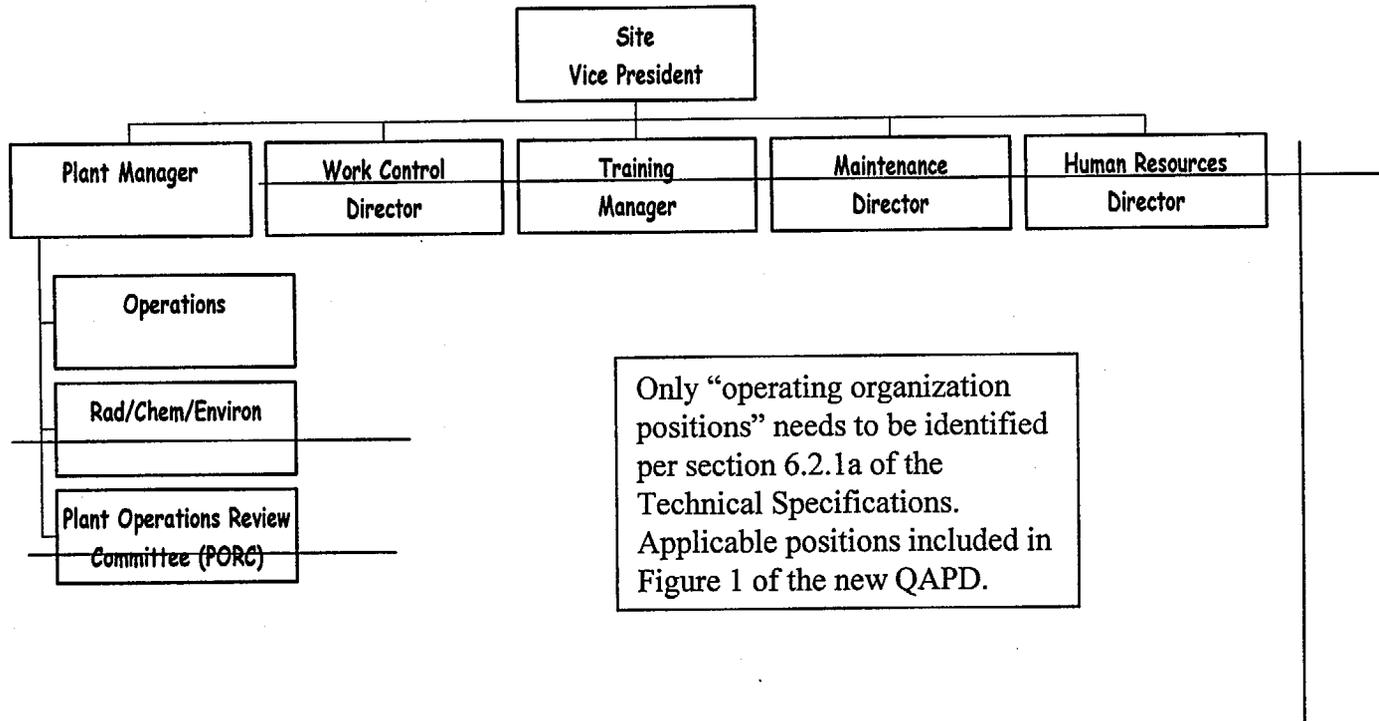
PERFORMANCE ASSURANCE



Only "operating organization positions" needs to be identified per section 6.2.1a of the Technical Specifications.

Figure 1.7-3

Site Operations



APPENDIX A

These guides and standards listed on this page have been included on table 1 of the new QAPD

REGULATORY AND SAFETY GUIDES/ANSI STANDARDS

1. ~~Reg. Guide 1.8 (9/75)~~ ~~Personnel Selection and Training~~
~~ANSI N18.1 (1971)~~ ~~Selection and Training of Nuclear
Power Plant Personnel~~

2. ~~Reg. Guide 1.14 (8/75)~~ ~~Reactor Coolant Pump Flywheel
Integrity~~

3. ~~Reg. Guide 1.16 (8/75)~~ ~~Reporting of Operating Information;
Appendix A Technical Specifications~~

4. ~~Safety Guide 30 (8/72)~~ ~~Quality Assurance Requirements for
the Installation, Inspection, and Testing
of Instrumentation and Electric
Equipment~~
~~ANSI N45.2.4 (1972)~~ ~~Installation, Inspection, and Testing
Requirements for Instrumentation and
Electric Equipment During the
Construction of Nuclear Power
Generating Stations~~

5. ~~Reg. Guide 1.33 (02/78)~~ ~~Quality Assurance Program
Requirements (Operation)~~
~~ANSI N18.7 (1976)~~ ~~Administrative Controls and Quality~~

These guides and standards listed on this page
have been included on table 1 of the new
QAPD

- ~~(ANS 3.2 1976)~~ ~~Assurance for the Operational Phase of
Nuclear Power Plants~~
- ~~ANSI N45.2 (1977)~~ ~~Quality Assurance Program
Requirements for Nuclear Facilities~~
6. ~~Reg. Guide 1.37 (3/73)~~ ~~Quality Assurance Requirements for
Cleaning of Fluid Systems and
Associated Components of Water-
Cooled Nuclear Power Plants~~
- ~~ANSI N45.2.1 (1973)~~ ~~Cleaning of Fluid Systems and
Associated Components During
Construction Phase of Nuclear Power
Plants~~
7. ~~Reg. Guide 1.38 (10/76)~~ ~~Quality Assurance Requirements for
Packaging, Shipping, Receiving,
Storage and Handling of Items for
Water Cooled Nuclear Power Plants~~
- ~~ANSI N45.2.2 (1972)~~ ~~Packaging, Shipping, Receiving,
Storage and Handling of Items for
Nuclear Power Plants (During the
Construction Phase)~~

These guides and standards listed on this page have been included on table 1 of the new QAPD

- ~~8. Reg. Guide 1.39 (10/76) Housekeeping Requirements for Water Cooled Nuclear Power Plants~~
~~ANSI N45.2.3 (1973) Housekeeping During the Construction Phase of Nuclear Power Plants~~
- ~~9. Reg. Guide 1.54 (6/73) Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants~~
~~ANSI N101.4 (1972) Quality Assurance for Protective Coatings Applied to Nuclear Facilities~~
- ~~10. Reg. Guide 1.58 (9/80) Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel~~
~~ANSI N45.2.6 (1978) Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants~~
- ~~11. Reg. Guide 1.63 (7/78) Electric Penetration Assemblies in Containment Structures for Light-Water Cooled Nuclear Power Plants~~

These guides and standards listed on this page have been included on table 1 of the new QAPD.

Reg. Guide 1.64(10/73) was updated to 1.64 (6/76) because it is the Reg. Guide that endorses ANSI N45.2.11 (1974) that I&M has committed to in previous versions of the QAPD. This is not a reduction in commitment per 10 CFR50.54(a)-(3)(I).

12. ~~Reg. Guide 1.64 (10/73)~~ — ~~Quality Assurance Requirements for the Design of Nuclear Power Plants~~
- ~~ANSI N45.2.11 (1974)~~ — ~~Quality Assurance Requirements for the Design of Nuclear Power Plants~~
13. ~~Reg. Guide 1.74 (2/74)~~ — ~~Quality Assurance Terms and Definitions~~
- ~~ANSI N45.2.10 (1973)~~ — ~~Quality Assurance Terms and Definitions~~
14. ~~Reg. Guide 1.88 (10/76)~~ — ~~Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records~~
- ~~ANSI N45.2.9 (1974)~~ — ~~Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants~~
15. ~~Reg. Guide 1.94 (4/76)~~ — ~~Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants~~

These guides and standards listed on this page have been included on table 1 of the new QAPD.

- ~~ANSI N45.2.5 (1974)~~ ~~Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants~~
16. ~~Reg. Guide 1.123 (7/77)~~ ~~Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants~~
- ~~ANSI N45.2.13 (1976)~~ ~~Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants~~
17. ~~Reg. Guide 1.144 (1/79)~~ ~~Auditing of Quality Assurance Programs for Nuclear Power Plants~~
- ~~ANSI N45.2.12 (1977)~~ ~~Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants~~
18. ~~Reg. Guide 1.146 (8/80)~~ ~~Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants~~

These guides and standards listed on this page have been included on table 1 of the new QAPD.

- ~~ANSI N45.2.23 (1978)~~ ~~Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants~~
19. ~~ANSI N45.2.8 (1975)~~ ~~Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants~~
20. ~~ANSI N45.4 (1972)~~ ~~Leakage Rate Testing of Containment Structures for Nuclear Reactors~~

APPENDIX B

I&M EXCEPTIONS TO OPERATING PHASE STANDARDS AND REGULATORY GUIDES

1. ~~GENERAL~~

~~Requirement~~

~~Certain Regulatory Guides invoke, or imply, Regulatory Guides and standards in addition to the standard each primarily endorses.~~

~~Certain ANSI Standards invoke, or imply, additional standards.~~

~~Exception/Interpretation~~

~~The I&M commitment refers to the Regulatory Guides and ANSI Standards specifically identified in Appendix A. Additional Regulatory Guides, ANSI Standards and similar documents implied, or referenced, in those specifically identified are not part of this commitment.~~

Item 1 has been replaced by paragraph A.7.a of the new QAPD.

2. ~~N18.7, General~~

~~Clarification~~

~~I&M have established both an on site (Plant Operating Review Committee (PORC)) and off site standing safety review committee (Nuclear Safety and Design Review Board)) for independent review activities. Together these committees form the independent review body of section 4.3.2.~~

~~The standard numeric and qualification requirement may not be met by each group individually. Procedures will be established to specify how each group will be involved in review activities. This exception/interpretation is consistent with Appendix C to this QAPD.~~

Item 2 is listed as item 2a on Table 2 of the new QAPD.

~~2a.~~ Sec. 4.3.1

Item 2a is listed as item 2b on Table 2 of the new QAPD.

Requirement

~~"Personnel assigned responsibility for independent reviews shall be specified in both number and technical disciplines, and shall collectively have the experience and competence required to review problems in the following areas:...."~~

The word "will" has been changed to "may." This is not a reduction in commitment per 10CFR50.54(a).

Exception/Interpretation

~~The Nuclear Safety and Design Review Committee (NSDRC) and Plant Operating Review Committee (PORC) will not have members specified by number, nor by technical disciplines, and its members may not have the experience and competence required to review problems in all areas listed in this section. This exception/interpretation is consistent with Appendix C to this QAPD.~~

~~The NSDRC and PORC will not specifically include a member qualified in nondestructive testing, but will use qualified technical consultants to perform this and other functions as determined necessary by the respective committee chair.~~

~~2b.~~ Sec. 4.3.2.1

Item 2b is listed as item 2c on Table 2 of the new QAPD.

Requirement

~~"When a standing committee is responsible for the independent review program, it shall be composed of no less than five persons of whom no more than a minority are members of site operations. Competent alternates are permitted if designated in advance. The use of alternates shall be restricted to legitimate absences of principals."~~

~~Exception/Interpretation~~

See explanation for item 2a on page 1.7-118.

~~See Item 2a.~~

2c. ~~Sec. 4.3.3.1~~

Item 2c is listed as item 2i on Table 2 of the new QAPD.

~~Requirement~~

~~"... recommendations ... shall be disseminated promptly to appropriate members of management having responsibility in the area reviewed."~~

~~Exception/Interpretation~~

~~Recommendations made as a result of review will generally be conveyed to the on site, or off site, standing committee. Procedures will be maintained specifying how recommendations are to be considered.~~

2d. ~~Sec. 4.3.4~~

Item 2d is listed as item 2j on Table 2 of the new QAPD.

~~Requirement~~

~~"The following subjects shall be reviewed by the independent review body:"~~

~~Exception/Interpretation~~

~~Subjects requiring review will be as specified in the plant Technical Specifications and Appendix C to this QAPD~~

2e ~~Sec. 4.3.4(2)~~

Item 2e is listed as item 2k on Table 2 of the new QAPD.

~~Requirement~~

~~"Proposed changes in procedures, proposed changes in facility, or proposed test or experiments, any of which involves a change in the technical specifications or an unreviewed safety question as defined in 10CFR50.59(e). [1]"~~

See the explanation for item 2e on page 1.7-119

Exception/Interpretation

As a result of the 1999 10CFR50.59 rule change, the phrase "unreviewed safety question" will be replaced with the phrase "requires a license amendment pursuant to 10 CFR 50.90."

C

Item 2f is listed as item 2l on Table 2 of the new QAPD.

~~2f. Sec. 4.3.4(3)~~

Requirement

~~"Changes in the Technical Specifications or License Amendments relating to nuclear safety are to be reviewed by the independent review body prior to implementation, except in those cases where the change is identical to a previously reviewed proposed change."~~

See explanation for item 2f on page 1.7-119a.

Exception/Interpretation

~~Although the usual practice is to meet this requirement, exceptions are made to NSDRC review and approval prior to implementation in rare cases with the permission of the NSDRC Chair and Secretary. PORC review and approval is always done prior to implementation of Technical Specification changes.~~

2g. ~~Sec. 4.4~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

Requirement

~~"The on site operating organization shall provide, as part of the normal duties of plant supervisory personnel...."~~

Exception/Interpretation

~~Some of the responsibilities of the on site operating organization described in Section 4.4 may be carried out by the PORC and/or NSDRC as described in Appendix C to this QAPD.~~

2h. ~~Sec. 5.2.2~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

Requirement

~~"Temporary changes, which clearly do not change the intent of the approved procedure, shall as a minimum be approved by two members of the plant staff knowledgeable in the areas affected by the procedures. At least one of these individuals shall be the supervisor in charge of the shift and hold a senior operator's license on the unit affected."~~

Exception/Interpretation

~~I&M considers that this requirement applies only to procedures identified in plant Technical Specifications. Temporary changes to these procedures shall be approved as described in Appendix C to this QAPD.~~

2i. ~~Sec. 5.2.6~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

~~Requirement~~

~~"In cases where required documentary evidence is not available, the associated equipment or materials must be considered nonconforming in accordance with Section 5.2.14. Until suitable documentary 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."~~

~~Exception/Interpretation~~

~~I&M initiates appropriate corrective action when it is discovered that documentary evidence does not exist for a test or inspection which is a requirement to verify equipment acceptability. This action includes a technical evaluation of the equipment's operability status.~~

2j. ~~Sec. 5.2.~~

Item 2j is listed as item 2p on Table 2 of the new QAPD. Also corrected the reference to read "5.2.8."

~~Requirement~~

~~"A surveillance testing and inspection program ... shall include the establishment of a master surveillance schedule reflecting the status of all planned in plant surveillance tests and inspections."~~

~~Exception/Interpretation~~

~~Separate master schedules may exist for different programs, such as ISI, pump and valve testing, and Technical Specification surveillance testing.~~

~~2k. Sec. 5.2.13.1~~

~~Requirement~~

~~"To the extent necessary, procurement documents shall require suppliers to provide a Quality Assurance Program consistent with the pertinent requirements of ANSI N45.2-1977."~~

~~Exception/Interpretation~~

~~To the extent necessary, procurement documents require that the supplier has a documented Quality Assurance Program consistent with the pertinent requirements of 10CFR50, Appendix B; ANSI N45.2; or other nationally recognized codes and standards.~~

Item 2k is listed as item 2r on Table 2 of the new QAPD.

~~2l. Sec. 5.2.13.2~~

~~Requirement~~

~~ANSI N18.7 and N45.2.13 specify that where required by code, regulation, or contract, documentary evidence that items conform to procurement requirements shall be available at the nuclear power plant site prior to installation or use of such items.~~

Item 2l is listed as item 2s on Table 2 of the new QAPD.

~~Exception/Interpretation~~

~~The required documentary evidence is available at the site prior to use, but not necessarily prior to installation. This allows installation to proceed while any missing documents are being obtained, but precludes dependence on the item for safety purposes.~~

~~2m. Sec. 5.2.15~~

~~Requirement~~

~~"Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less~~

Item 2m is listed as item 2t on Table 2 of the new QAPD.

See explanation for item 2m on page 1.7-122.

~~frequently than every two years to determine if changes are necessary or desirable."~~

~~Exception/Interpretation~~

~~Biennial reviews are not performed in that I&M has programmatic control requirements in place that make the biennial review process redundant from a regulatory perspective. These programmatic controls were effected in an effort to ensure that plant instructions and procedures are reviewed for possible revision when pertinent source material is revised, therefore maintaining the procedures current. We believe that this approach, addition to an annual random sampling of procedures, better addresses the intent of the biennial review process and is more acceptable from both a technical and practical perspective than a static two year review process.~~

Item 2n is listed as item 2w on Table 2 of the new QAPD.

~~2n. Sec. 5.2.16~~

~~Requirement~~

~~Records shall be made, and equipment suitably marked, to indicate calibration status.~~

~~Exception/Interpretation~~

~~See Item 6b.~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

~~2o. Sec. 5.3.5(4)~~

~~Requirement~~

~~This section requires that where sections of documents such as vendor manuals, operating and maintenance instructions, or drawings are incorporated directly, or by reference into a maintenance procedure, they shall receive the same level of review and approval as operating procedures.~~

See the explanation for item 2o on page 1.7-123

Exception/Interpretation^[A1]

~~Such documents are reviewed by appropriately qualified personnel prior to use to ensure that, when used as instructions, they provide proper and adequate information to ensure the required quality of work. Maintenance procedures which reference these documents receive the same level of review and approval as operating procedures.~~

2p. ~~Sec. 5.3.9~~^[A2]

Item 2p is listed as item 2z. on Table 2 of the new QAPD.

Requirement

~~This section establishes the format and content of Emergency Operating Procedures (EOPs) for prescribing operator actions and observations.~~

Exceptions/Interpretations

~~NUREG 0730, Items 1.C1 and 1.C9 required plants to upgrade and expand guidance for preparation in light of the events at TMI 2. Generic Letter 82-33, Supplement 1 to NUREG 0737 required each plant to submit the technical guidelines for EOP content, preparation and validation. The Cook Plant submitted this material to the NRC in a letter dated September 28, 1984. The NRC responded with a Safety Evaluation Report dated February 14, 1990. Although the EOP content and format is different from the format and content specified in ANSI N18.7-1976, the upgraded EOP format and content were reviewed and approved by the NRC.~~

3. ~~N45.2.1,~~

3a. ~~Sec. 3~~^[A3]

Item 3a is listed as item 3a on Table 2 of the new QAPD.

Requirement

~~N45.2.1 establishes criteria for classifying items into "cleanness levels," and requires that items be so classified.~~

Exception/Interpretation

~~Instead of using the cleanness level classification system of N45.2.1, the required cleanness for specific items and activities is addressed on a case-by-case basis.~~

~~Cleanness is maintained, consistent with the work being performed, so as to prevent the introduction of foreign material. As a minimum, cleanness inspections are performed prior to closure of "nuclear" systems and equipment. Such inspections are documented.~~

3b. ~~Sec. 5~~

Item 3b is listed as item 3b on Table 2 of the new QAPD.

Requirement

~~"Fitting and tack welded joints (which will not be immediately sealed by welding) shall be wrapped with polyethylene or other nonhalogenated plastic film until the welds can be completed."~~

See the explanation for item 3b on page 1.7-124.

Exception/Interpretation

~~I&M sometimes uses other nonhalogenated material, compatible with the parent material, since plastic film is subject to damage and does not always provide adequate protection.~~

4. ~~N45.2.2, General Requirement~~

Item 4 is listed as item 4a on Table 2 of the new QAPD.

~~N45.2.2 establishes requirements and criteria for classifying safety related items into protection levels.~~

Exception/Interpretation

~~Instead of classifying safety related items into protection levels, controls over the packaging, shipping, handling and storage of such items are established on a case by case basis with due regard for the item's complexity, use and sensitivity to damage. Prior to installation or use, the items are inspected and serviced, as necessary, to assure that no damage or deterioration exists which could affect their function.~~

4a. ~~Sec. 3.9 and Appendix A3.9 Requirement~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

~~"The item and the outside of containers shall be marked."
(Further criteria for marking and tagging are given in the Appendix.)~~

Exception/Interpretation

~~These requirements were originally written for items packaged and shipped to construction projects. Full compliance is not always necessary in the case of items shipped to operating plants and may, in some cases, increase the probability of damage to the item. The~~

See the explanation for item 4a on page 1.7-125

~~requirements are implemented to the extent necessary to assure traceability and integrity of the item.~~

4b. ~~Sec. 5.2.2~~

~~Requirement~~

~~"Receiving inspections shall be performed in an area equivalent to the level of storage."~~

Item 4b is listed as item 4g on Table 2 of the new QAPD.

~~Exception/Interpretation~~

~~Receiving inspection area environmental controls may be less stringent than storage environmental requirements for an item. However, such inspections are performed in a manner and in an environment which do not endanger the required quality of the item.~~

4c. ~~Sec. 6.2.4~~

~~Requirement~~

~~"The use or storage of food, drinks and salt tablet dispensers in any storage area shall not be permitted."~~

Item 4c is listed as item 4j on Table 2 of the new QAPD.

~~Exception/Interpretation~~

~~Packaged food for emergency or extended overtime use may be stored in material stock rooms. The packaging assures that materials are not contaminated. Food will not be "used" in storage areas.~~

4d. ~~Sec. 6.3.4~~

~~Requirement~~

~~"All items and their containers shall be plainly marked so that they are easily identified without excessive handling or unnecessary opening of crates and boxes."~~

This exception has been deleted. This is not a reduction in commitment per 10CFR50.54(a).

See the explanation for item 4d on page 1.7-126

Exception/Interpretation

~~See N45.2.2, Section 3.9 (Exception 4a. above).~~

4e. ~~Sec. 6.4.1~~

Item 4e is listed as item 4m on Table 2 of the new QAPD.

Requirement

~~"Inspections and examinations shall be performed and documented on a periodic basis to assure that the integrity of the item and its container ... is being maintained."~~

Exception/Interpretation

~~The requirement implies that all inspections and examinations of items in storage are to be performed on the same schedule. Instead, the inspections and examinations are performed in accordance with material storage procedures which identify the characteristics to be inspected and include the required frequencies. These procedures are based on technical considerations which recognize that inspections and frequencies needed vary from item to item.~~

5. ~~N45.2.3,~~

5a. ~~Sec. 2.1~~

Item 5a is listed as item 5a on Table 2 of the new QAPD.

Requirement

~~Cleanliness requirements for housekeeping activities shall be established on the basis of five zone designations.~~

Exception/Interpretation

~~Instead of the five level zone designation system referenced in ANSI N45.2.3, I&M bases its controls over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions. Factors considered in developing the procedures and~~

See the explanation for item 5a on page 1.7-127

~~instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible. However, in preparing these procedures, consideration is also given to the recommendations of Section 2.1 of ANSI N45.2.3.~~

6. N45.2.4,

~~6a. Sec. 2.2~~

Item 6a is listed as item 6a on Table 2 of the new QAPD.

~~Requirement~~

~~Section 2.2 establishes prerequisites which must be met before the installation, inspections and testing of instrumentation and electrical equipment may proceed. These prerequisites include personnel qualification, control of design, conforming and protected materials and availability of specified documents.~~

~~Exception/Interpretation~~

~~During the operations phase, this requirement is considered to be applicable to modifications and initial start-up of electrical equipment. For routine or periodic inspection and testing, the prerequisite conditions will be achieved, as necessary.~~

~~6b. Sec. 6.2.1~~

Item 6b is listed as item 6b on Table 2 of the new QAPD.

~~Requirement~~

~~"Items requiring calibration shall be tagged or labeled on completion, indicating date of calibration and identity of person that performed calibration."~~

See the explanation for item 6b on page 1.7-128

Exception/Interpretation

Frequently, physical size and/or location of installed plant instrumentation precludes attachment of calibration labels or tags. Instead, each instrument is uniquely identified and is traceable to its calibration record.

A scheduled calibration program assures that each instrument's calibration is current.

7. ~~N45.2.5,~~
7a. ~~Sec. 2.5.2~~

Item 7a is listed as item 7a on Table 2 of the new QAPD.

Requirement

~~"When discrepancies, malfunctions or inaccuracies in inspection and testing equipment are found during calibration, all items inspected with that equipment since the last previous calibration shall be considered unacceptable until an evaluation has been made by the responsible authority and appropriate action taken."~~

Exception/Interpretation

I&M uses the requirements of N18.7, Section 5.2.16, rather than N45.2.5, section 2.5.2. The N18.7 requirements are more applicable to an operating plant.

7b. ~~Sec. 5.4~~

Item 7b is listed as item 7b on Table 2 of the new QAPD.

Requirement

~~"Hand torque wrenches used for inspection shall be controlled and must be calibrated at least weekly and more often if deemed necessary. Impact torque wrenches used for inspection must be calibrated at least twice daily."~~

Exception/Interpretation

Torque wrenches are controlled as measuring and test equipment in accordance with ANSI N18.7, Section 5.2.16. Calibration intervals are based on use and calibration history rather than as per N45.2.5.

7c. ~~Sec. 4.9 Mechanical (Cadmold) Splice~~

Item 7c is listed as item 7c on Table 2 of the new QAPD.

Requirement

~~4.9.1 Qualification of Operators. Prior to the production splicing of reinforcing bars, each member of the splicing crew (or each crew if the members work as a crew) shall prepare two qualification splices for each of the splice positions (e.g., horizontal, vertical, diagonal) to be used. The qualification splices shall be made using the same materials (e.g., bar, sleeve, powder) as those to be used in the structure. To qualify, the completed splices must meet the specified visual inspection acceptance requirements and meet the tensile test requirements of Section 4.9.3. Each member of the splicing crew (or each crew if members work as a crew) is subject to requalification (1) if the specific splice position (e.g., horizontal, vertical, diagonal) has not been used by member or crew for a period of three months or more or (2) if there is another reason to question their ability, such as the completed splices not passing visual inspection or tensile testing. The requalification procedure should be identical to the original qualification procedure.~~

See the explanation for item 7c on page 1.7-129.

~~4.9.3 Tensile testing. Splice samples may be production splices (i.e., those cut directly from in place reinforcing) or sister splices (i.e., those removable splices made in place next to production splices and under the same conditions).~~

~~4.9.4 Tensile Testing Frequency. Separate test cycles shall be established for mechanical splices in horizontal, vertical, and diagonal bars, for each bar size, and for each splicing crew as follows:~~

~~... 2. Test Frequency for Combinations of Production and Sister Splices. If production and sister splices are tested, the sample frequency shall be:~~

- ~~A) One production splice of the first 10 production splices/~~
- ~~B) One production and three sister splices for the next 90 production splices.~~
- ~~C) Three splices, either production or sister splices for the next and subsequent units of 100 splices. At least 1/4 of the total number of splices tested shall be production splices.~~

Exception/Interpretation

I&M uses the requirements of ASME Sec. III, Div. 2 Sec CC 4333.5.2 and CC 4333.5.3 rather than N45.2.5, Sec. 4.9.3 and 4.9.4. Sec. CC 4333.5.2 and CC 4333.5.3 are more applicable to the restoration and repair of a concrete containment.

CC 4333.4 Initial Qualification Tests

[A95] "Each splicer shall prepare two qualification splices on the largest bar size to be used. In addition, for ferrous filler metal splices, cementitious grouted splices and swaged splices only, each of the splice positions to be used (e.g., horizontal, vertical, diagonal) shall be qualified. The qualification splices shall be made using reinforcing bar identical to that to be used in the structure. The completed qualification splices shall be tensile tested using the loading rates set forth in SA-370 and the tensile results shall meet those specified in Tables CC 4334-1. [A95]"

CC 4333.5.2 Splice Samples

"Splice samples may be production splices (cut directly from in place reinforcement) or straight sister splices (removable splices made in place next to production splices and under the same conditions), in accordance with the schedule established in CC 4333.5.3."

CC 4333.5.3 Testing Frequency

"Splice samples shall be tensile tested in accordance with the following schedule for the appropriate splice system:

- (a) "Separate test cycles shall be established for sleeve with ferrous filler metal splices... Straight sister splices may be substituted for production test samples on radius bent bars and for splicing sleeves are welded to structural steel elements or the liner. (1) For sleeve with ferrous filler metal splices, one splice shall be tested for each unit of 100 production splices."

Item 7d is listed as item 7d on Table 2 of the new QAPD.

7d. Table B - In process Tests

<u>Requirement</u>	<u>Material</u>	<u>Requirement</u>	<u>Test Method</u>	<u>Test Frequency</u>
	Aggregate	Compliance with Requirements for Soft fragments	ASTM C235	Monthly during production
		Potential Reactivity	ASTM C289	Every 6 Months

See the explanation for item 7d on page 1.7-129a

Exception/Interpretation

~~No testing of soft fragments is intended. Testing per ASTM C235 changed designations to ASTM C851 which was deleted in 1985. Aggregate is tested for potential reactivity using C289 or ASTM C586 as determined by the results of an examination using ASTM C295.~~

8. ~~N45.2.6, Sec. 1.2~~

Item 8 is listed as item 8a on Table 2 of the new QAPD.

Requirement

~~“The requirements of this standard apply to personnel who perform inspections, examinations and tests during fabrication prior to or during receipt of items at the construction site, during construction, during preoperational and start-up testing and during operational phases of nuclear power plants.”~~

Exception/Interpretation

~~Personnel participating in testing who take data or make observations, where special training is not required to perform this function, need not be qualified in accordance with ANSI N45.2.6, but need only be trained to the extent necessary to perform the assigned function.~~

9. ~~Reg. Guide 1.58 General~~

Item 9 was deleted. This item only identified Reg. Guide 1.58 and added no value to this appendix. Editorial change.

Requirement

~~Qualification of nuclear power plant inspection, examination and testing personnel.~~

9a. ~~C.2.a(7)~~

Item 9a is listed as item 9a on Table 2 of the new QAPD.

Requirement

~~Regulatory Guide 1.58 endorses the guidelines of SNT TC 1A as an acceptable method of training and certifying personnel conducting leak tests.~~

See the explanation for item 9a on page 1.7-130.

Exception/Interpretation

~~I&M takes the position that the "Level" designation guidelines as recommended in SNT TC 1A, paragraph 4 do not necessarily assure adequate leak test capability. I&M maintains that departmental supervisors are best able to judge whether engineers and other personnel are qualified to direct and/or perform leak tests. Therefore, I&M does not implement the recommended "Level" designation guidelines.~~

~~It is I&M's opinion that the training guidelines of SNT TC 1A, Table I G, paragraph 5.2 specifically are oriented towards the basic physics involved in leak testing, and further, towards individuals who are not graduate engineers. I&M maintains that it meets the essence of these training guidelines. The preparation of leak test procedures and the conduct of leak tests at Cook Nuclear Plant is under the direct supervision of performance engineers who hold engineering degrees from accredited engineering schools. The basic physics of leak testing have been incorporated into the applicable test procedures. The review and approval of the data obtained from leak tests is performed by department supervisors who are also graduate engineers.~~

~~I&M does recognize the need to assure that individuals involved in leak tests are fully cognizant of leak test procedural requirements and thoroughly familiar with the test equipment involved. Plant performance engineers receive routine, informal orientation on testing programs to ensure that these individuals fully understand the requirements of performing a leak test.~~

Item 9b is listed as item 9b on Table 2 of the new QAPD.

9b. ~~C5, C6, C7, C8, C10~~

~~Exception/Interpretation~~

~~I&M takes the position that the classification of inspection, examination and test personnel (inspection personnel) into "Levels" based on the requirements stated in Section 3.0 of ANSI N45.2.6 does not necessarily assure adequate inspection capability. I&M maintains that departmental and first line supervisors are best able to judge the inspection capability of the personnel under their supervision, and that "Level" classification would require an overly burdensome administrative work load, could inhibit inspection activities, and provides no assurance of inspection capabilities. Therefore, I&M does not implement the "Level" classification concept for inspection, examination and test personnel.~~

~~The methodology under which inspections, examinations and tests are conducted at the Cook Nuclear Plant requires the involvement of first line supervisors, engineering personnel, departmental supervisors and plant management. In essence, the last seven (7) project functions shown in Table 1 to ANSI N45.2.6 are assigned to supervisory and engineering personnel, and not to personnel of the inspector category. These management supervisory and engineering personnel, as a minimum, meet the educational and experience requirements of "Level II and Level III" personnel, as required, to meet the criteria of ANSI 18.1 which exceeds those of ANSI N45.2.6. In I&M's opinion, no useful purpose is served by classification of management, supervisory and engineering personnel into "Levels."~~

See the explanation for item 9b on page 1.7-132.

Therefore, I&M takes the following positions relative to regulatory positions C5, 6, 7, 8 and 10 of Regulatory Guide 1.58.

- ~~C 5~~ Based on the discussion in 9b, this position is not applicable to the Cook Nuclear Plant.
- ~~C 6~~ Replacement personnel for Cook Nuclear Plant management, supervisory and engineering positions subject to ANSI 18.1 will meet the educational and experience requirements of ANSI 18.1 and therefore, those of ANSI N45.2.6.
- ~~Replacement inspection personnel will, as a minimum, meet the educational and experience requirements of ANSI N45.2.6, Section 3.5.1 "Level I."~~
- ~~C 7~~ I&M, as a general practice, complies with the training recommendations as set forth in this regulatory position.
- ~~C 8~~ All I&M inspection, examination and test personnel are instructed in the normal course of employee training in radiation protection and the means to minimize radiation dose exposure.
- ~~C 10~~ I&M maintains documentation to show that inspection personnel meet the minimum requirements of "Level I," and that management, supervisory and engineering personnel meet the minimum requirements of ANSI 18.1.

Item 10a is listed as item 10a on Table 2 of the new QAPD.

~~10. N45.2.8,~~

~~10a. Sec. 2.9e~~

~~Requirement~~

~~Section 2.9e of N45.2.8. lists documents relating to the specific stage of installation activity which are to be available at the construction site.~~

~~Exception/Interpretation~~

~~All of the documents listed are not necessarily required at the construction site for installation and testing. AEPSC and I&M assure that they are available to the site, as necessary.~~

Item 10b is listed as item 10b on Table 2 of the new QAPD.

~~10b. Sec. 2.9e~~

~~Requirement~~

~~Evidence that engineering or design changes are documented and approved shall be available at the construction site prior to installation.~~

~~Exception/Interpretation~~

~~Equipment may be installed before final approval of engineering or design changes. However, the system is not placed into service until such changes are documented and approved.~~

Item 10c is listed as item 10c on Table 2 of the new QAPD.

~~10c. Sec. 4.5.1~~

~~Requirement~~

~~"Installed systems and components shall be cleaned, flushed and conditioned according to the requirements of ANSI N45.2.1. Special consideration shall be given to the following requirements:" (Requirements are given for chemical conditioning, flushing and process controls.)~~

See the explanation for item 10c on page 1.7-134.

Exception/Interpretation

~~Systems and components are cleaned, flushed and conditioned as determined on a case by case basis. Measures are taken to help preclude the need for cleaning, flushing and conditioning through good practices during maintenance or modification activities.~~

~~11. N45.2.9~~

~~11a. Sec. 5.4, Item 2~~

Item 11a is listed as item 11b on Table 2 of the new QAPD.

Requirement

~~Records shall not be stored loosely. "They shall be firmly attached in binders or placed in folders or envelopes for storage on shelving in containers." Steel file cabinets are preferred.~~

Exception/Interpretation

~~Records are suitably stored in steel file cabinets, or on shelving in containers. Methods other than binders, folders, or envelopes (for example, dividers) may be used to organize the records for storage.~~

~~11b. Sec. 6.2~~

Requirement

Item 11b is listed as item 11c on Table 2 of the new QAPD.

~~"A list shall be maintained designating those personnel who shall have access to the files".~~

Exception/Interpretation

~~Rules are established governing access to and control of files as provided for in ANSI N45.2.9, Section 5.3, Item 5. These rules do not always include a requirement for a list of personnel who are authorized access. It should be noted that duplicate files and/or microforms may exist for general use.~~

Item 11c is listed as item 11d on Table 2 of the new QAPD.

~~11c. Sec. 5.6~~

~~Requirement~~

~~When a single records storage facility is maintained, at least the following features should be considered in its construction: etc.~~

~~Exception/Interpretation~~

~~The Cook Nuclear Plant Master File Room and other off site record storage facilities comply with the requirements of NUREG 0800 (7/81), Section 17.1.17.4.~~

~~12. Reg. Guide 1.144/ANSI N45.2.12~~

~~12a. Sec. C3a(2)~~

~~Requirement~~

~~Applicable elements of an organization's Quality Assurance program for "design and construction phase activities should be audited at least annually or at least once within the life of the activity, whichever is shorter."~~

~~Exception/Interpretation~~

~~Since most modifications are straight forward, they are not audited individually. Instead, selected controls over modifications are audited periodically.~~

Item 12a is listed as item 13a on Table 2 of the new QAPD.

~~12b. Sec. C3b(1)~~

~~Requirement~~

~~This section identifies procurement contracts which are exempted from being audited.~~

~~Exception/Interpretation~~

~~In addition to the exemptions of Reg. Guide 1.144, I&M considers that the National Institute of Standards and Technology, or other State and Federal Agencies which may provide services to I&M, are not required to be audited.~~

Item 12b is listed as item 13b on Table 2 of the new QAPD.

~~12c. Sec. 3.3[A1]~~

~~Requirement~~

~~An effective audit system shall be established and maintained and shall include the following essential elements.....~~

~~3.3.7 Provision for verification of effective corrective action on a timely basis.~~

~~Exception/Interpretation~~

~~Verification of the implementation of effective corrective action is performed as indicated in Section 1.7.18.2.11 of this QAPD. Only selected corrective/preventive actions, determined by the auditing organization, will be verified by the auditing organization.~~

Item 12c is listed as item 13d. on Table 2 of the new QAPD.

12d. 4.5.1[A2]

~~Requirement~~

~~...In the event that corrective action cannot be completed within thirty days, the audited organization's response shall include a scheduled date for the corrective action. The audited organization shall provide a follow-up report stating the corrective action taken and the date corrective action was completed.~~

~~Exception/Interpretation~~

~~The auditing organization will determine when it is necessary for the audited organization to provide a response within thirty days. If the auditing organization does not designate that the response must be completed within the thirty day timeframe and forwarded to the auditing organization, the corrective action document will~~

Item 12d is listed as item 13e. on Table 2 of the new QAPD.

See the explanation for item 12d on page 1.7-137.

~~be processed in accordance with the corrective action program. The program determines the safety significance, extent of the investigation required, investigation due date, and required level of management review and approval. The audited organization will provide follow up documentation to the appropriate level of management as to the status of the corrective/preventive action. Documentation of follow up will be provided to the auditing organization when specified by the auditing organization.~~

~~13. N45.2.13,~~

~~13a. Sec. 3.2.2~~

Item 13a is listed as item 14c on Table 2 of the new QAPD.

~~Requirement~~

~~N45.2.13 requires that technical requirements be specified in procurement documents by reference to technical requirement documents. Technical requirement documents are to be prepared, reviewed and released under the requirements established by ANSI N45.2.11.~~

~~Exception/Interpretation~~

~~For replacement parts and materials, AEPSC/I&M follow ANSI N18.7, Section 5.2.13, Subitem 1, which states: "Where the original item or part is found to be commercially 'off the shelf' or without specifically identified QA requirements, spare and replacement parts may be similarly procured, but care shall be exercised to ensure at least equivalent performance."~~

Item 13b is listed as item 14d on Table 2 of the new QAPD.

13b. Sec. 3.2.3

Requirement

~~"Procurement documents shall require that the supplier have a documented quality assurance program that implements parts or all of ANSI N45.2 as well as applicable quality assurance program requirements of other nationally recognized codes and standards."~~

Exception/Interpretation

~~Refer to Item 2j~~

Item 13c is listed as item 14e on Table 2 of the new QAPD.

13c. Sec. 3.3(a)

Requirement

~~Reviews of procurement documents shall be performed prior to release for bid and contract award.~~

Exception/Interpretation

~~Documents may be released for bid or contract award before completing the necessary reviews. However, these reviews are completed before the item or service is put into service, or before work has progressed beyond the point where it would be impractical to reverse the action taken.~~

Item 13d is listed as item 14f on Table 2 of the new QAPD.

13d. Sec. 3.3(b)

Requirement

~~Review of changes to procurement documents shall be performed prior to release for bid and contract award.~~

Exception/Interpretation

~~This requirement applies only to quality related changes (i.e., changes to the procurement document provisions identified in ANSI N18.7, Section 5.2.13.1, Subitems 1~~

See the explanation for item 13d on page 1.7-139.

~~through 5). The timing of reviews will be the same as for review of the original procurement documents.~~

~~13e. Sec. 10.1~~

Item 13e is listed as item 14i on Table 2 of the new QAPD.

Requirement

~~"Where required by code, regulation, or contract requirement, documentary evidence that items conform to procurement documents shall be available at the nuclear power plant site prior to installation or use of such items, regardless of acceptance methods."~~

Exception/Interpretation

~~Refer to Item 2k.~~

Requirement

This item is listed as item 14j on Table 2 of the new QAPD.

~~"Post installation test requirements and acceptance documentation shall be mutually established by the purchaser and supplier."~~

Exception/Interpretation

~~In exercising its ultimate responsibility for its quality assurance program, I&M establishes post installation test requirements giving due consideration to supplier recommendations.~~

~~14. Reg. Guide 1.146/ANSI N45.2.23 and ANSI N45.2.12~~

~~14a. ANSI N45.2.23, Sec. 1.1~~

Requirement

~~This standard provides requirements and guidance for the qualification of audit team leaders, henceforth identified as "lead auditors."~~

Item 14a was deleted because the item provided no added value to the QAPD. Editorial change.

14b. ~~ANSI N45.2.12, Section 4.2.2~~

~~Exception withdrawn.~~

Item 14b was deleted because the exception was previously withdrawn and item no longer provided any value to the QAPD. Editorial change.

15. ~~ANSI N18.1~~

~~Sec. 4.2.2~~

~~Requirement~~

~~At the time of initial core loading or appointment to the active position the operations manager shall hold a senior reactor operator's license.~~

Item 15 is listed as item 15a on Table 2 of the new QAPD.

See the explanation for item 15 on page 1.7-141.

Exception/Interpretation

~~The requirement implies that only personnel who currently hold a senior reactor operator's license can be appointed as operations manager. I&M takes the position that the operations superintendent must hold or have held a senior operator license at Cook Nuclear Plant or a similar reactor; or have been certified for equivalent senior operator knowledge. If the operations superintendent does not hold a senior operator license, then a line (v. staff) operations middle manager shall hold a current senior operator license for the purposes of directing operational activities. This exception/interpretation is consistent with Technical Specification 6.2.2.g, previously approved by Nuclear Regulatory Commission.~~

NOTE: The PORC is considered the Onsite Operating Organization independent review group addressed in ANSI N18.7. The administrative controls of section 4 of N18.7 apply to both the PORC and the NSDRC. Exceptions to the controls will be taken as necessary to meet our current practices and NRC commitments.

Appendix C

INDEX ADMINISTRATIVE CONTROLS

6.5 REVIEW AND AUDIT

	PAGE
6.5.1 Plant Operations Review Committee (PORC)	
Function	1.7 143
Composition	1.7 143
Alternates	1.7 144
Meeting Frequency	1.7 144
Quorum	1.7 144
Responsibilities	1.7 144
Authority	1.7 145
Records	1.7 145
6.5.2 Nuclear Safety and Design Review Committee (NSDRC)	
Function	1.7 145
Composition	1.7 146
Alternate Members	1.7 146
Consultants	1.7 146
Meeting Frequency	1.7 146
Quorum	1.7 147
Review	1.7 147
Audits	1.7 148
Authority	1.7 148
Records	1.7 149
6.5.3 TECHNICAL REVIEW AND CONTROL	1.7 149
6.10 RECORD RETENTION	1.7 151

ADMINISTRATIVE CONTROLS

6.5 REVIEW AND AUDIT

6.5.1 Plant Operations Review Committee (PORC)

NOTE: The "PORC" may also be referred to as the "PNSRC" in other documents during a transition period. The function of the committee is unaffected by the name.

FUNCTION

6.5.1.1 The PORC shall function to advise the site vice president, or designee, on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PORC shall be composed of senior, experienced, onsite individuals at the Manager level, or equivalent, representing each of the following disciplines: operations, maintenance, chemistry, radiation protection, engineering, licensing, and performance assurance. These members, including Chair(s) and Vice Chair(s), shall be appointed in writing by the site vice president. Supervisory personnel reporting directly to these Managers (or equivalents) may also serve on this Committee. These personnel must meet the qualifications of ANSI 18.1 - 1971 and shall be designated as alternates, in writing, by the site vice president. The Performance Assurance individual shall be a non-voting member and shall not be included in quorum considerations.

Removal of this text is considered an administrative improvement. The text is information only with no quality of safety in impact.

This item is being deleted. See discussion of change L12.

Addressed by N18.7, section 4.3.1 and exception 2b of the new QAPD.

These implementing details are located in the written procedures required by N18.7-4.2. The experience requirements are addressed in section A.5 of the new QAPD.

Section A.5 and Exception 15a of the new QAPD addresses training and qualification of plant staff. ANSI N18.1 fulfills the remaining discussion in this section. Also addressed by section 4.4 of N18.7.

ADMINISTRATIVE CONTROLS

~~PORC members shall meet or exceed the minimum qualifications of ANSI N18.1 1971 Section 4.2 for comparable positions. The nuclear power plant operations individual shall meet the qualifications of section 4.2.2 of ANSI N18.1 1971 except for the requirement to hold a current Senior Operator License. The operations individual must hold or have held a Senior Operator License or have been certified for equivalent senior operator knowledge at Cook Nuclear Plant or a similar reactor. The maintenance individual shall meet the qualifications of section 4.2.3 of ANSI N18.1 1971. PORC members in positions not specified in 4.2.1, 4.2.2, or 4.2.3 of ANSI N18.1 1971 shall meet the requirements of 4.2.4 of ANSI N18.1 1971. The Plant Manager shall meet the qualifications of ANSI N18.1 section 4.2.1.~~

ALTERNATES

6.5.1.3 ~~No more than two alternates shall participate as voting members in PORC activities at any one time.~~

Addressed by N18.7--4.3.2.1 and exception 2c of the new QAPD.

MEETING FREQUENCY

6.5.1.4 ~~The PORC shall meet at least once per calendar month and as convened by the Chair or the Vice Chair.~~

Addressed by N18.7--4.3.2.2 and exception 2e of the new QAPD.

QUORUM

6.5.1.5 ~~The quorum of the PORC shall consist of the Chair or the Vice Chair and at least four members including alternates. The Vice Chair may vote as a member when not acting as the Chair.~~

Addressed by N18.7--4.3.2.3 and exception 2f of the new QAPD.

RESPONSIBILITIES

6.5.1.6 The PORC shall be responsible for:

Addressed by exception 2j on Table 2 of the new QAPD.

- a. ~~Review of all Plant Manager Instructions (PMIs) and revisions thereto.~~
- b. ~~Review of 10CFR 50.59 evaluations for (1) plant site procedures and revisions thereto which affect the nuclear safety of the plant; (2) changes or modifications to nuclear safety related structures, systems or components; and (3) tests or experiments which affect plant nuclear safety to verify that such actions did not constitute a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59.~~
- e. ~~Review of (1) proposed procedures and revisions to procedures, (2) changes to equipment, systems, or facilities, and (3) proposed test or experiments which may involve a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59.~~
- d. ~~Review of proposed changes to Appendix "A" Technical Specifications or the Operating License and rendering determinations in writing with regard to whether or not the proposed change constitutes a Significant Hazards Consideration.~~
- e. ~~Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Chair of the NSDRC.~~
- f. ~~Review of all REPORTABLE EVENTS.~~

Attributes b-f above are addressed in N18.7-4.3.4(1)-(5).

ADMINISTRATIVE CONTROLS

- g. ~~Review of facility operations to detect potential nuclear safety hazards.~~
- h. ~~Performance of special reviews, investigations of analyses and reports thereon as requested by the Chair of the NSDRC.~~
- i. ~~Deleted~~
- j. ~~Deleted~~
- k. ~~Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluations, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the chief nuclear officer (CNO) and to the NSDRC.~~
- l. ~~Review of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and radwaste treatment system.~~

Added to exception 2j on Table 2 of the new QAPD.

Addressed by N18.7-4.3.4(5)

Added to exception 2j on Table 2 of the new QAPD.

AUTHORITY

6.5.1.7 The PORC shall:

- a. ~~Recommend to the site vice president, or designee, written approval or disapproval of items considered under 6.5.1.6 (a) through (d) above.~~
- b. ~~Render determinations in writing with regard to whether or not each item considered under 6.5.1.6 (a) through (e) and (e) above constitutes a condition requiring a license amendment pursuant to 10 CFR 50.90.~~
- e. ~~Provide written notification within 24 hours to the chief nuclear officer (CNO) and the NSDRC of disagreement between the PORC and the site vice president; however, the site vice president shall have responsibility for resolution of such disagreements pursuant to Technical Specification 6.1.1.~~

The items of 6.5.1.7 are implementing details that are addressed by procedures required by N18.7-4.2.

C

RECORDS

6.5.1.8 The PORC shall maintain written minutes of each meeting and copies shall be provided to the Chair of the NSDRC.

N18.7-4.3.2.4 and 4.4 2nd paragraph 'screen subjects' assures notification of the NSRB.

6.5.2 NUCLEAR SAFETY AND DESIGN REVIEW COMMITTEE (NSDRC)

FUNCTION

6.5.2.1 The NSDRC shall function to provide independent review and audit of designated activities in the areas of:

- a. nuclear power plant operations
- b. nuclear engineering
- c. chemistry and radiochemistry
- d. metallurgy
- e. instrumentation and control

Addressed by N18.7, sec. 4.3.1.

ADMINISTRATIVE CONTROLS

- f. ~~radiological safety~~
- g. ~~mechanical and electrical engineering~~
- h. ~~quality assurance practices~~

Addressed by N18.7, Sec. 4.3.1

COMPOSITION

6.5.2.2 ~~The NSDRC shall be composed of members that collectively meet the required attributes identified in 6.5.2.1.*~~

Added as exception 2d on Table 2 of the new QAPD.

Implementing details addressed by implementing documents required by N18.7--4.2. (NSRB Manual)

~~Additional members and Vice Chair may be appointed by the chief nuclear officer (CNO).~~

~~* The minimum number of members for composition shall be ten (10) [ref: NRC letter dated December 28, 1998].~~

ALTERNATE MEMBERS

6.5.2.3 ~~Designated alternate members shall be appointed by the chief nuclear officer (CNO) or such other person as he shall designate. In addition, temporary alternate members may be appointed by the NSDRC Chair to serve on an interim basis, as required. Temporary alternate members are empowered to act on the behalf of the regular or designated alternate members for whom they substitute.~~

CONSULTANTS

6.5.2.4 ~~Consultants shall be utilized as determined by the NSDRC Chair to provide expert advice to the NSDRC.~~

Addressed by N18.7--4.2(4)

MEETING FREQUENCY

6.5.2.5 ~~The NSDRC shall meet at least once per six months.~~

Addressed by N18.7--4.3.2.2

ADMINISTRATIVE CONTROLS

QUORUM

Addressed by N18.7--4.3.2.3 and exception/interpretation 2h of the new QAPD.

6.5.2.6 ~~A quorum, the minimum number of regular members and alternates required to hold a NSDRC meeting shall be eight members, of whom no more than two shall be designated or temporary alternates. The Chair or acting Chair shall be present for all NSDRC meetings. If the number of members present* is greater than a quorum, then the majority participating and voting at the meeting shall not have line responsibility for operations of the facility. For the purpose of a quorum, only the Plant Manager is considered to have line responsibility.~~

The remaining information is implementing details contained in documents required by N18.7--4.2 (NSRB Manual)

REVIEW

6.5.2.7 ~~The NSDRC is responsible for assuring that independent** reviews of the following are performed:~~

N18.7--4.3.4(1)-(5) addresses 6.5.2.7 items a. through i.

- a. ~~The 10 CFR 50.59 evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of 10CFR50.59 to verify that such actions did not constitute a condition requiring a license amendment pursuant to 10CFR50.90.~~
- b. ~~Proposed changes to procedures, equipment or systems which involve a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59.~~
- c. ~~Proposed tests or experiments which involve a condition requiring a license amendment pursuant to 10 CFR 50.90, as defined in 10CFR50.59.~~
- d. ~~Proposed changes in Technical Specifications or this operating license.~~
- e. ~~Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.~~
- f. ~~Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.~~
- g. ~~ALL REPORTABLE EVENTS.~~
- h. ~~All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components.~~
- i. ~~Reports and meeting minutes of the PORC~~

~~* Regular NSDRC members are expected to attend the meeting whenever possible, and alternates may attend as voting members only on an irregular basis. If both a regular member and his alternate attend a meeting, only the regular member may participate as a voting member and the alternate is considered a guest.~~

~~** Independent reviews may be performed by groups which report directly to the NSDRC and which must have NSDRC membership participation.~~

This information is implementing details contained in documents required by N18.7--4.2 (NSRB Manual)

ADMINISTRATIVE CONTROLS

I&M will perform audits at frequencies discussed in section C.2.a and exception 2m on Table 2 of the new QAPD instead of this section 6.5.2.8b. See discussion of change L.5.

AUDITS

6.5.2.8 Audits of facility activities shall be performed under the cognizance of the NSDRC. These audits shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training, and qualifications of the entire facility staff at least once per 12 months.
- e. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.
- d. The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10CFR50, at least once per 24 months.
- e. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licensee QA personnel.
- f. The fire protection equipment and program implementation at least once per 12 months using either a qualified offsite licensee fire protection engineer or an outside independent fire protection consultant. An outside independent fire protection consultant shall be used at least every third year.
- g. The Radiological Environmental Monitoring Program and the results thereof at least once per 12 months.
- h. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.
- i. The PROCESS CONTROL PROGRAM and implementing procedures for solidification of radioactive wastes at least once per 24 months.
- j. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 1.21, Rev. 1, June 1974 and Regulatory Guide 4.1, Rev. 1, April 1975 at least once per 12 months.
- k. Any other area of facility operation considered appropriate by the NSDRC.

AUTHORITY

6.5.2.9 The NSDRC shall report to and advise the CNO on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

Addressed by N18.7--4.3.3 and A.2.b of the new QAPD.

Item 'j' is covered by 6.5.2.8a above and is addressed in section C.2.a.1.a of the new QAPD, which identifies provisions contained in the Technical Specifications. Tec Spec section 6.8.1f addresses the quality assurance programs for effluent and environmental monitoring using the guidance of Reg. Guides 1.21 and 4.1.

ADMINISTRATIVE CONTROLS

RECORDS

N18.7--4.3.2.4 addresses NSRB record items a., b. and c. The additional text has been relocated to implementing documents required by N18.7--4.2.

~~6.5.2.10~~ Records of NSDRC activities shall be prepared, approved and distributed as indicated below:

- ~~a.~~ Minutes of each NSDRC meeting shall be prepared, approved and issued within 14 days following each meeting.
- ~~b.~~ Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and issued within 14 days following completion of the review.
- ~~c.~~ Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the CNO and to the management positions responsible for the areas audited within 30 days after completion of the audit.

Addressed by N45.2.12--4.4.6 and A.2.b.1 & C.2.a.7 of the new QAPD.

6.5.3 TECHNICAL REVIEW AND CONTROL

~~6.5.3.1~~ Activities which affect nuclear safety shall be conducted as follows:

Tech Spec sections 6.8.1 and 6.8.2 describe these controls.

~~a.~~ Procedures required by Technical Specification 6.8 and other procedures which affect plant nuclear safety, and changes thereto, shall be prepared, reviewed and approved. Each such procedure or procedure change shall be reviewed by a qualified individual/group other than the individual/group which prepared the procedure or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change. Procedures other than Plant Manager Procedures shall be approved by the appropriate department head as previously designated in writing by the site vice president, or designee. The site vice president, or designee, shall approve Plant Manager Procedures. Temporary changes to procedures which do not change the intent of the approved procedures shall be approved for implementation by two members of the plant staff, at least one of whom holds a Senior Operator license, and documented. The temporary changes shall be approved by the original approval authority within 14 days of implementation. For changes to procedures which may involve a change in intent of the approved procedures, the person authorized above to approve the procedure shall approve the change prior to implementation.

Procedure reviews addressed by N18.7-5.2.15, exceptions 2v on Table 2 of the new QAPD and justification L.7 See TS 6.8.2.

~~b.~~ Proposed changes or modifications to plant nuclear safety related structures, systems and components shall be reviewed as designated by the site vice president, or designee. Each such modification shall be reviewed (reference Section 6.5.3.1.e) by a qualified (reference Section 6.5.3.1.d) individual/group other than the individual/group which designed the modification, but who may be from the same organization as the individual/group which designed the modifications. Proposed modifications to plant nuclear safety related structures, systems and components shall be approved prior to implementation by the site vice president, or designee.

Temporary Changes are described in N18.7-5.2.2 and exceptions 2n. & 2o. on Table 2 of the new QAPDC.

Item 6.5.3.1b has been added to Appendix C of the new QAPD.

Items 6.5.3.1 c. through d. and 6.5.3.2 on this page have been added to Appendix C of the new QAPD.

ADMINISTRATIVE CONTROLS

~~e. Proposed tests and experiments which affect plant nuclear safety and are not addressed in the Final Safety Analysis Report or Technical Specifications shall be prepared, reviewed, and approved. Each such test or experiment shall be reviewed by qualified individuals/groups other than the individual/group which prepared the proposed test or experiment to assure cross-disciplinary review as appropriate for the proposed test or experiment. Proposed tests and experiments shall be approved before implementation by the site vice president, or designee.~~

~~d. Individuals who conducted the reviews performed in the accordance with Section 6.5.3.1a, 6.5.3.1b, and 6.5.3.1c, shall be members of the plant management staff previously designated by the site vice president and shall meet or exceed the minimum qualifications of ANSI N18.1-1971 Section 4.4 for comparable positions. Each such review shall include a determination of whether or not additional, cross-disciplinary review is necessary.~~

~~————— If deemed necessary, such review shall be performed by qualified personnel of the appropriate discipline.~~

~~e. Each review shall include a determination of whether or not a condition requiring a license amendment pursuant to 10 CFR 50.90, is involved. Pursuant to 10 CFR 50.59, NRC approval of items involving a condition requiring a license amendment pursuant to 10 CFR 50.59, shall be obtained prior to the approval of the site vice president, or designee, for implementation.~~

6.5.3.2 ~~Records of the above activities shall be provided to the site vice president or designee, PORC and/or the NSDRC as necessary for required reviews.~~

ADMINISTRATIVE CONTROLS

N45.2.9-Appendix A section A.6.1
addresses items 6.10.1 a-e.

6.10 RECORD RETENTION

6.10.1 ~~_____~~ The following records shall be retained for at least five years:

- a. ~~_____~~ Records and logs of unit operation covering time interval at each power level.
- b. ~~_____~~ Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- e. ~~_____~~ All REPORTABLE EVENTS submitted to the Commission.
- d. ~~_____~~ Records of surveillance activities, inspections and calibrations required by the Technical Specifications.
- e. ~~_____~~ Records of changes made to the procedures required by Technical Specification 6.8.1.
- f. ~~_____~~ Records of sealed source and fission detection leak tests and results.
- g. ~~_____~~ Records of annual physical inventory of all sealed source material on record.

Addressed by 10 CFR 70.51

6.10.2 ~~_____~~ The following records shall be retained for the duration of the Facility Operating License:

- a. ~~_____~~ Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. ~~_____~~ Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- e. ~~_____~~ Records of radiation exposure for all individuals entering radiation control areas.
- d. ~~_____~~ Records of gaseous and liquid radioactive material released to the environment.

N45.2.9-Appendix A section A.6.1
addresses items 6.10.2 a-d.

N45.2.9-Appendix A section A.6.1 addresses items 6.10.2 e. through l.

ADMINISTRATIVE CONTROLS

- e. ~~Records of transient or operational cycles for those facility components identified in the Updated Final Safety Analysis Report.~~
- f. ~~Records of reactor tests and experiments.~~
- g. ~~Records of training and qualification for current members of the Plant Staff.~~
- h. ~~Records of in-service inspections performed pursuant to the Technical Specifications.~~
- i. ~~Records of Quality Assurance activities required by the QA Manual.~~
- j. ~~Records of reviews performed for changes made to procedures or equipment or review of tests and experiments pursuant to 10CFR50.59.~~
- k. ~~Records of meetings of the PORC and NSDRC.~~
- l. ~~Records of radioactive shipments.~~
- m. ~~Records of the service lives of hydraulic snubbers including the date at which service life commences and associated installation and maintenance records.~~
- n. ~~Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.~~

Items 6.10.2 m. & n. have been added to Appendix C of the new QAPD.

ATTACHMENT 3 TO C0501-12

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
EXPLANATION OF CHANGES

DONALD C. COOK NUCLEAR PLANT QUALITY ASSURANCE PROGRAM DESCRIPTION Explanation of Changes

ADMINISTRATIVE CHANGES

- A.1 Information which contained no requirements related to the implementation of the quality assurance program or only provided a cross reference to other available information has been removed. Removal of this information results in no changes to the applicable requirements.
- A.2 Requirements contained in another document requiring NRC review and approval to change or deviate from (e.g., Technical Specification or 10 CFR) were removed. Removing this information has no net affect upon these requirements.
- A.3 Specific subcategories of the document types required to be controlled by the document control program are removed but the requirement remains for the documents to be controlled by the broad document types identified in QAPD Section B.14.b and ANSI N18.7.
- A.4 The specific statement that the functional position has the authority to stop work on activities within the respective scope of functional responsibilities is removed. QAPD Section A.2 identifies that the authority to accomplish the quality assurance functions described in the QAPD is delegated as necessary to fulfill the identified responsibility. Inherent in having sufficient authority to accomplish quality assurance functions is the authority to stop work if needed. Therefore, this discussion can be removed without changing any requirements since QAPD Section A.2 adequately addresses the issue.
- A.5 Currently the QA program states that the necessary measuring and test equipment including accuracy requirements be specified for inspections. QAPD Section B.12.b encompasses this requirement by requiring that the acceptance criteria be specified. Identification of necessary measuring and test equipment including accuracy requirements is an inherent part of specifying the acceptance criteria. Therefore, this discussion can be removed without changing any requirements since QAPD Section B.12 adequately addresses the issue.
- A.6 Requirements and clarifications addressing initial start-up testing are removed since initial construction activities are completed at the Indiana Michigan Power sites.
- A.7 The proposed QAPD Section A.6.b states that the cause of significant conditions adverse to quality shall be determined “when possible”. The revised words have the same intent as the original words. The revised words remove the potential implication that the inability to determine the cause of a condition constitutes a breakdown of the quality assurance program. Since the intent of the requirement remains unchanged, this change is discussed as an administrative change.

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- A.8 The commitment to ANSI N18.7 Section 4.3 4(3) was reworded for clarity. This change is discussed as an administrative change since it continues to reflect the intent of the ANSI N18.7 requirement.
- A.9 An exception to ANSI N18.7 Sections 5.2.2 was added. This exception states that the person who approves a temporary procedure change shall hold a senior reactor operator license for the affected unit but is not required to be in charge of the shift. . This change is discussed as an administrative change since it reflects the intent of the ANSI N18.7 requirement.
- A.10 Changes to the QA program made in accordance with the change controls of 10 CFR 50.54 or submitted to the NRC are identified. These changes have no net affect on the proposed QAPD.
- A.11 The applicability of construction guidance to activities during the operations phase is clarified. This clarification is consistent with ANSI N18.7 Section 5.2.17 which identifies that for modifications and nonroutine maintenance the guidance applicable to construction-like activities is applicable to comparable plant activities. This change is discussed as an administrative change since it only reflects the intent of the requirements.
- A.12 The wording used in section A.6.b of the new QAPD is a combination of the wording used in the approved Entergy QAPD (Rev. B) and FENOC QAPD (Rev. 0) for this section.
- A.13 Section B.1.e, Computer programs used in safety-related design analysis or operational activities, was taken from FENOC's QAPD, Rev. 0.
- A.14 The identification of "brazing" as a special process in section B.11.b.1 of the new QAPD was taken from the FENOC QAPD, Rev. 0.
- A.15 The identification of "protective coatings" as a special process in section B.11.b.3 of the new QAPD was taken from the FENOC QAPD, Rev. 0.
- A.16 The wording "to prevent inadvertent use" in section B.14.e of the new QAPD was taken from the FENOC QAPD, Rev. 0.
- A.17 In section C.2.a.1.a — .f, the term "per" was used in conjunction to audit frequencies rather than the term "every" as used in the Entergy QAPD, Rev. B. The term "per" was used in previous versions of I&M QAPD and its use was continued in the new QAPD.
- A.18 Section C.2.a.1.k, "Any other area of facility operation considered appropriate...", was taken from FENOC QAPD, Rev. 0.

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- A.19 The reference for Reg. Guide 1.64, listed in item 12 on Table 1, was updated from the 07/1973 revision to the 06/1976 revision. This change was made to reflect the Reg. Guide that endorses the 1974 revision of ANSI N45.2.11, which has been referenced in previous revisions of I&M's QAPD.
- A.20 Exception/Interpretation 1b to ANSI N18.1, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.4. This exception was added to address and clarify section 6.5.1.2 of the old QAPD, Rev. 15C.
- A.21 Exception/Interpretation 2k to ANSI N18.7, listed on Table 2 of the new QAPD, was added in addendum 15C to address the term "unreviewed safety question" in response to the 50.59 rule changes.
- A.22 Exception/Interpretation 4p to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.17. This exception was added to identify that a transposition error occurred between the last sentence of A3.4.1 (4) and A3.4.1(5) of ANSI N45.2.2 and that the correct requirements for the sections.
- A.23 Exception/Interpretation 17a, 17b and 17c to the FRACQA dated 06/1977 (Att. 6, sections 4.0g, 5.0a & 5.0b), listed in Table 2, was added to state that periodic inspections, installation testing and periodic testing does not include emergency lighting or communication equipment. Periodic inspections, installation testing and periodic testing did not include emergency lighting or communication equipment in revision 15C of the QAPD.
- A.24 Exception/Interpretation 17d to the FRACQA dated 06/1977 (Att. 6, sections 5.0c), listed in Table 2, was added to state that programs have been established for designated fire protection personnel to verify testing of fire protection systems and to verify that test personnel are effectively trained. "QA/QC" verification of testing and test personnel training was not included in the original text for 1.7.19.7c of the QAPD, revision 15C.

DONALD C. COOK NUCLEAR PLANT

QUALITY ASSURANCE PROGRAM DESCRIPTION

Explanation of Changes

LESS RESTRICTIVE CHANGES

- L.1 The requirement for the manager(s) function described to report directly to a specific executive has been changed to allow there to be a single layer of management between the two positions and no longer identify the specific executive. In the case of the manager responsible for quality assurance the position will maintain authority to escalate matters directly to the chief executive officer when needed and will continue to advise the off-site safety review committee. In all cases, the positions will maintain sufficient authority and organizational freedom to implement the assigned responsibilities. This change was taken from Entergy QAPD, Rev. B and was listed as L.1 in their Discussions of Change.
- L.2 Details associated with the implementation of this requirement are removed from the QAPD. Removal of this information result in no change to the requirement but this level of detail in the implementation method does not require the change controls of 10 CFR 50.54 to be applied since the acceptance criteria for the requirement remains in the QAPD. This change was taken from Entergy QAPD, Rev. B and was listed as L.4 in their Discussions of Change.
- L.3 Plant specific management positions titles and descriptions in the current quality assurance program have been replaced with functional titles and descriptions. The QAPD provides the functional descriptions to implement the quality assurance requirements; therefore, the existence of these functions will continue to be controlled by the change of controls of 10 CFR 50.54. This approach of removing the specific titles is consistent with the intent of generic Letter 88-06. The intent of the Generic Letter, and of this proposed change, is to reduce the unnecessary burden on NRC and licensee resources being used to process changes due solely to personnel titles and position description changes during reorganizations and to allow one set of requirements to apply. The relationship of the QAPD function position descriptions and the plant specific position titles will be contained in procedures as required by QAPD Section A.2 and detailed position descriptions and organization structure will be controlled in accordance with commitments to ANS N18.7 Section 3.2. This change was taken from Entergy QAPD, Rev. B and was listed as L.6 in their Discussions of Change.
- L.4 The commitment to ANSI N45.2.4 Section 6.2 is clarified by indicating that the specific methods identified are not the only acceptable ways to insure that measuring and test equipment is calibrated when required and traceable to the person who performed the calibration. This section is clarified to identify that equipment shall be suitably marked to indicate date of next required calibration. The use of identifying numbers and cross-referencing systems to maintain and retrieve the necessary information may be used. These methods will continue to be acceptable methods of implementing the requirements with the proposed clarification to ANSI N45.2.4. The specific methods of marking are not specific methods of control. This results in no change to the

DONALD C. COOK NUCLEAR PLANT

QUALITY ASSURANCE PROGRAM DESCRIPTION

Explanation of Changes

requirement but this level of detail in the implementation method does not require the change controls of 10 CFR 50.54 to be applied since the acceptance criteria for the requirement remains in the QAPD. This change was taken from Entergy QAPD, Rev. B and was listed as L.8 in their Discussions of Change.

- L.5 The required minimum audit frequency is changed to once every 2 years (except for the fire protection, ODCM, and REMP audits, that are maintained at the current frequencies), unless the performance based audit program described in QAPD Section C.2.a.1 is implemented. The revised audit frequency provides adequate assurance that degradation in performance is detected in a timely manner considering the mature state of the quality assurance program and the associated implementing procedures. In addition to the minimum required two-year audit frequency, QAPD Section A.6 provides a mechanism for performance issues to be identified and subsequently addressed.

The proposed minimum audit frequencies are consistent with the requirements of ANSI N18.7-1976, Section 4.5, and the frequencies approved by the NRC. This change was taken from Entergy QAPD, Rev. B and was listed as L.9 in their Discussions of Change.

- L.6 Specifics associated with cleanliness levels are removed and a generic position that requires cleanliness for specific items are determined on a case-by-case basis is provided. The clarification will continue to insure that adequate cleanliness is maintained and sets minimum requirements. This change was taken from Entergy QAPD, Rev. B and was listed as L.10 in their Discussions of Change.

- L.7 Consistent with the proposed removal of plant specific management titles, the specific procedure types which implement QAPD requirements and the plant specific management positions responsible for reviewing and approving changes to the procedures are removed. The specific discussions of the policies that the functional position is responsible for approving is removed but the requirement that the appropriate position approve changes remains in the QAPD. QAPD Section A.2 identifies the position functional responsibilities while QAPD Section A.3.f states that "Procedures that implement the QA program are approved by the management responsible for the applicable quality function." Therefore, the appropriate review and approval requirements will continue to be required by the QAPD and the specific management position responsible for approval will be maintained in approved documents as required by QAPD Section A.1. The specific procedures that implement QAPD requirements and the plant specific management positions responsible for reviewing and approving changes to these procedures will be documented in procedures. This change was taken from Entergy QAPD, Rev. B and was listed as L.21 in their Discussions of Change.

DONALD C. COOK NUCLEAR PLANT

QUALITY ASSURANCE PROGRAM DESCRIPTION

Explanation of Changes

- L.8 The requirement that the Director of Performance Assurance (manager responsible for quality assurance) have responsibility for performing reviews of quality related indoctrination and training programs for which another department is responsible is removed. The Director of Performance Assurance will remain responsible for insuring personnel under his direction have adequate training in accordance with QAPD Section A.3.e. Additionally, the Director of Performance Assurance will maintain responsibility for performing audits that provide an objective evaluation of quality-related practices, procedures, instructions, activities, and items in accordance with QAPD Section C.2.a. The remaining requirements discussed above provide adequate assurance that the requirements of the quality assurance program remain reflected in the applicable procedures. This change was taken from Entergy QAPD, Rev. B and was listed as L.22 in their Discussions of Change.
- L.9 The explicit commitments to include non-safety related structures, systems, components, or activities within the scope of the QA program is removed. The information previously contained in the QA manual will be controlled as an item to which the QA program is applied as discussed in QAPD Section A.1.c. Removal of this information results in no change to the requirement but this level of detail in the applicability to safety related items or services does not require the change controls of 10 CFR 50.54 to be applied since adequate requirements to meet 10 CFR 50 Appendix B remain in the QAPD.
- L.10 In all cases the previous requirement for participation in five audits does not adequately ensure the necessary skill level of prospective lead auditors while in other cases, participation in five audits is not necessary; therefore, an option is provided for the licensee management to invoke alternate requirements. Requiring prospective lead auditors to demonstrate proficiency in audit skills, rather than a pre-defined number of audits, ensures the needed skill level of the prospective lead auditor. The new requirement allows management to forego the unnecessary time and expense of sending skilled personnel on unnecessary audits to fulfill a numeric requirement and provides the flexibility to require additional training when it is needed. The proposed requirement is adequate to implement 10 CFR 50 Appendix B. This change was taken from Entergy QAPD, Rev. B and was listed as L.31 in their Discussions of Change.
- L.11 The explicit commitment to include certain non-safety related fire protection structures, systems, components or activities within the scope of the QAPD is removed. The information previously contained in the QA manual will be relocated to other I&M procedures. As part of this relocation the information may be reformatted and reworded consistent with current procedure wording and format. Not including this detail information directly in the QAPD is consistent with the QA programs previously approved by the NRC for Entergy. Removal of this information results in no change to the requirement and I&M is still committed to the Branch Technical Position 9.5-1 (1976) and FRACQA (6/77) as shown in Table 2 of the QAPD. This level of detail in the applicability to non safety related items or services does not require the change

DONALD C. COOK NUCLEAR PLANT

QUALITY ASSURANCE PROGRAM DESCRIPTION

Explanation of Changes

controls of CFR 50.54 to be applied since adequate requirements to meet 10 CFR 50 Appendix B remain in the QAPD. This change was taken from Entergy QAPD, Rev. B and was listed as L.35 in their Discussions of Change.

- L.12 The reporting of the on-site review committee (PORC) to the Site Vice President, or designee, is being changed to the Plant Manager. This change of reporting requirement is consistent with the requirements of section 4.4 of ANSI N18.7 (1976) and the Quality Assurance Program Manual approved by the NRC for Entergy. Also, by “designation” of the Site Vice President, PORC currently reports to the Plant Manager. Therefore, the reporting requirements for the PORC will be as stated in ANSI N18.7 and specific directions in the QAPD has been removed.
- L.13 The grace period allowance for audits identified in section C.2.a.2 was taken from RG&E – Ginna QAPD, Rev. 25.
- L.14 Exception/Interpretation 1a to ANSI N18.1, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception A.2. This exception was added to provide equivalency for a Bachelor’s degree.
- L.15 Exception/Interpretation 2f to ANSI N18.7, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.5. This exception was added to allow for more than a minority of the quorum for the on-site review committee to have line responsibility for the operation of the plant.
- L.16 Exception/Interpretation 2l to ANSI N18.7 (2f in revision 15) was changed to clarify that the review and approval, by the independent review bodies, of changes to the Technical Specifications or license amendments are normally performed prior to submittal to the NRC, however, in rare cases, exceptions may be authorized.
- L.17 Exception/Interpretation 2m to ANSI N18.7, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.10. This exception was added to identify that audit frequencies will be as stated in the QAPD rather than section 4.5 of ANSI N18.7.
- L.18 Exception/Interpretation 2n to ANSI N18.7, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.13. This exception was added to allow the licensed senior reactor operator approving a temporary change to not be in charge of the shift for the affected unit.
- L.19 Exception/Interpretation 2o to ANSI N18.7, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.14. This exception was added to allow temporary changes, which clearly do not change the intent of the approved procedure, to be approved by the original approval authority within 14 days of implementation.

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- L.20 Exception/Interpretation 2v to ANSI N18.7, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception C.22. This exception/interpretation was added to state that procedure reviews following an unusual incident will be determined and controlled in accordance with corrective action requirements of section A.6, instead of Section 5.2.15 of ANSI N18.7.
- L.21 Exception/Interpretation 4b to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.2. This exception was added to provide an alternate for the storage atmosphere for item by controlling the manner in which the item is stored
- L.22 Exception/Interpretation 4c to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.3. This exception was added to allow the maximum weight for cleated, sheathed boxes to be 1000 lb. rather than 500 lb.
- L.23 Exception/Interpretation 4d to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.4. This exception was added to allow skids and runners to be fabricated from a minimum 2 X 4-inch nominal lumber size and laid flat
- L.24 Exception/Interpretation 4e to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.6. This exception was added to allow visual inspection or examination to be performed after unloading to determine if any damage occurred during shipping.
- L.25 Exception/Interpretation 4f to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.7. This exception was added to state that I&M will consider that a source inspection has been conducted if the supplier of the item is required to comply with ANSI N45.2.2 for the purchased item and if the supplier's program has been audited and found acceptable
- L.26 Exception/Interpretation 4h to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.8. This exception was added to allow the "Special Inspection" procedure not to be attached to the item or container, but to be available to inspection personnel.
- L.27 Exception/Interpretation 4i to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.9. This exception was added to allow items classified level D to be stored in areas posted as limited access, but where other positive controls such as fencing or guards may not be provided
- L.28 Exception/Interpretation 4k to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.11. This exception was added to state "Exterminators or other appropriate measures shall be used to control animals to minimize possible contamination and mechanical damage to stored material. If evidence of animal activity is detected, a survey or inspection will be utilized to determine the extent of the damage."

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- L.29 Exception/Interpretation 4l to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.12. This exception was added to allow hazardous chemicals, paints, solvents, and other materials of a like nature to be stored in approved cabinets or containers which are not in close proximity to installed systems required for safe shutdown.
- L.30 Exception/Interpretation 4n to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.13. This exception was added to state “Types of components that could require maintenance while in storage shall be identified and evaluated for specific maintenance requirements. Maintenance activities 6.4.2 (6) through 6.4.2 (8) listed in this requirement shall be considered during this evaluation and any deviations shall be justified and documented.”
- L.31 Exception/Interpretation 4o to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.14. This exception was added to state that the last sentence in section 6.5 of ANSI N45.2.2 is not applicable to the operations phase of the plant.
- L.32 Exception/Interpretation 4q to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.18. This exception was added to allow the use of an inert or dry air purge, rather than a static gas blanket, for the protection of stored items, involving large or complex shapes, requiring a leak proof barrier.
- L.33 Exception/Interpretation 4r to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.22. This exception was added to state that containers will be adequately marked for storage, identification, and retrieval and that multiple marking requirements will be imposed, where necessary
- L.34 Exception/Interpretation 4s to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.23. This exception was added to allow container markings to be of a size that permits easy recognition.
- L.35 Exception/Interpretation 4t to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.24. This exception was added to allow container-marking information to be evaluated on a case-by-case basis instead of specific container marking requirements stated in the standard.
- L.36 Exception/Interpretation 4u to ANSI N45.2.2, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception E.25. This exception was added to allow paragraphs A3.9.(1) and (2) to be used to control marking on the surface of austenitic stainless steels and nickel base alloys based on documented engineering evaluations and that the material used for marking will not be detrimental to the materials marked.

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- L.37 Exception/Interpretation 8b to Regulatory Guide 1.58, listed in Table 2, was taken from RG&E – Ginna QAPD, Rev. 25. This exception was added to allow for a 90-day grace period for the reevaluation of any person who has not performed inspection, examination, or testing activities in his qualified area for a period of one year.
- L.38 Exception/Interpretation 11e to ANSI N45.2.9 (1974), listed in Table 2, was taken from FENOC’s QAPD, Rev. 0. This exception was added to allow for a minimum two-hour fire rating for record storage facilities, as specified in ANSI N45.2.9-1979, rather than a four-hour fire rating as required by section 5.6 of ANSI N45.2.9 (1974).
- L.39 Exception/Interpretation 12a to ANSI N45.2.11, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception H.1. This exception was added to allow for documenting acceptability of design documents, or portions thereof, prior to release, on the document or on a separate form traceable to the document for inter-disciplinary design reviews.
- L.40 Exception/Interpretation 13c to ANSI N45.2.12, listed in Table 2, was taken from RG&E – Ginna QAPD, Rev. 25. This exception was added to allow for a 90-day grace period for performing triennial audits and annually evaluations of suppliers.
- L.41 Exception/Interpretation 14a to ANSI N45.2.13, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception M.4. This exception was added to state that the “same degree of control” is stipulated to mean “equivalent level of review and approval,” and that changed document may be reviewed and approved by an equivalent level of management/supervision rather than the originator
- L.42 Exception/Interpretation 14b to ANSI N45.2.13, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception M.5. This exception was added to state that changes to procurement documents that do not affect the quality of the item or service being procured do not require an equivalent level of review and approval as the original document
- L.43 Exception/Interpretation 14g to ANSI N45.2.13, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception M.7. This exception was added to allow Supplier evaluations to be performed any time prior to placing the purchased item in service.
- L.44 Exception/Interpretation 14h to ANSI N45.2.13, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception M.8. This exception was added to allow non-conformance conditions described in section 8.2, item b, to be submitted to I&M only when the non-conformance could adversely affect the end use of an item relative to safety, interchangeability, operability, reliability, integrity or maintainability.

DONALD C. COOK NUCLEAR PLANT
QUALITY ASSURANCE PROGRAM DESCRIPTION
Explanation of Changes

- L.45 Exception/Interpretation 14k to ANSI N45.2.13, listed in Table 2, was taken from Entergy QAPD, Rev. B, Exception M.9. This exception was added to allow supplier personnel attesting to a certificate to be an authorized and responsible employee of the supplier, and to be identified by the supplier.

- L.46 Exception/Interpretation 16a to ANSI N45.2.23, listed in Table 2, was taken from RG&E – Ginna QAPD, Rev. 25. This exception was added to allow a 90-day grace period for management annual assessment of Lead Auditor qualification and the annual update of the Lead Auditor records.

ATTACHMENT 4 TO C0601-19

COMMITMENTS

The following table identifies those actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments.

Commitment	Date
I&M will begin implementation of the revised Quality Assurance Program Description.	90 days from the date of this letter.