



Carolina Power & Light Company

P.O. Box 1551 • Raleigh, N.C. 27602

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SERIAL: NLS-92-214
10CFR50.54(a)(3)

R. B. STARKEY, JR.
Vice President
Nuclear Services Department

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
QUALITY ASSURANCE PROGRAM CHANGES

Gentlemen:

Carolina Power & Light Company (CP&L) hereby submits for approval a change to the quality Assurance (QA) Program for the Brunswick Steam Electric Plant (BSEP). This request is submitted in accordance with 10CFR50.54(a)(3) and is detailed in Enclosure 1.

Enclosure 2 provides the FSAR marked-up pages associated with the QA Program change.

The proposed changes reflect CP&L's efforts to place the responsibility for quality at the appropriate level in the line organization and to make improvements in the assessment process. These improvements include enhancements to the corrective action program, emphasis on line organization self-assessment, and new direction for the independent assessment group. The new QA Program description is provided in Enclosure 3.

The revised program is expected to provide increased assurance that activities at CP&L's nuclear projects are accomplished in a safe and controlled manner by allowing more effective use of assessment resources. The BSEP QA Program will continue to meet the applicable 10CFR50, Appendix B criteria.

These changes will be incorporated into the FSAR in accordance with the provisions of 10CFR50.71(e).

Should you have any questions regarding these changes, please contact Mr. D. G. McCarthy at (919) 546-6961.

Yours very truly,

R. B. Starkey, Jr.

DBB/jbw

Enclosures

cc: Mr. S. D. Ebner
Mr. R. H. Lo
Mr. R. L. Prevatte

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ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

QUALITY ASSURANCE PROGRAM CHANGE

QA PROGRAM CHANGE FSAR, SECTION 1.8, REGULATORY GUIDE 1.33 PAGE 1.8-14

Proposed Change #1

The proposed change deletes the existing clarification "a" and replaces it with new clarifications "a & b" concerning CP&L's independent review and assessment programs. The new clarifications are provided to reference the plant Technical Specifications and Section 17.3 of the FSAR for details of these programs.

Reason for Changes

These new clarifications and references to the plant Technical Specifications and Section 17.3 of the FSAR eliminate duplication and potential misunderstandings.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

CP&L's NAD will implement Independent Assessments as described in Section 17.3. Results of Independent Assessments and reviews of those results by Senior Management will be in accordance with Section 17.3.

CP&L's Independent Review Program will be implemented in accordance with the plant's Technical Specifications.

QA PROGRAM CHANGE - FSAR, SECTION 1.8, REGULATORY GUIDE 1.58 PAGE 1.8-19

Proposed Change #1A

The proposed change eliminates the commitment to the Regulatory Guide 1.58 listed on page 1.8-19 of the FSAR.

Reason for Change

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

The ANSI Standard (N45.2.6-1978) endorsed by this regulatory guide is remaining in effect and CP&L will continue to comply with ANSI N45.2.6-1978.

Proposed Change #2

The proposed change deletes "Operating Plant QA" and Identifies the Quality Control (QC) personnel are qualified per this standard as stated in this position.

Reason for Change

Clarify organization description of personnel.

Basis for Concluding That the Revised program Incorporating the change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Qualification of NAD personnel will be in accordance with Section 17.3.

Qualification of QC personnel will be in accordance with CP&L's commitment to Regulatory Guide 1.58 and Section 17.3.

QA PROGRAM CHANGE - FSAR, SECTION 1.8, REGULATORY GUIDE 1.88 PAGE 1.8-23

Proposed Change #2A

The proposed change eliminates the commitment to the Regulatory Guide 1.88 listed on page 1.8-23 of the FSAR.

Reason for Change

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

The ANSI Standard (N45.2.9-1974) endorsed by this regulatory guide is remaining in effect and CP&L will continue to comply with ANSI N45.2.9-1974.

Proposed Change #3

This proposed change adds a reference to Section 17.3.

Reason for Change

Addition of this clarification does not change the manner in which business is conducted, but simply references where additional clarifications and controls on QA records are located in the FSAR. These controls/clarifications were previously included in Section 17.2 but were not referenced here. This provides a better description of where the controls for QA records are located in the program.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.2 is being replaced in its entirety by Section 17.3, which describes the QA Program. Controls in 17.3 contain the elements previously contained in Section 17.2.

QA PROGRAM CHANGE - FSAR, SECTION 1.8, REGULATORY GUIDE 1.144 PAGE 1.8-31

Proposed Change #3A

The proposed change eliminates the commitment to the Regulatory Guide 1.144 listed on page 1.8-31 of the FSAR.

Reason for Change

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

The ANSI Standard (N45.2.12-1977) endorsed by this regulatory guide is remaining in effect and CP&L will continue to comply with ANSI N45.2.12-1977.

Proposed Change #4

The proposed change deletes the current clarifications relative to the Regulatory Guide 1.144 and replaces them with clarification statements to ANSI N45.2.12-1977.

Reason for Change

There is no change for external audits. The internal assessment process included in Section 17.3 better describes the methods to be accomplished than this Regulatory Guide or Standard.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Independent assessment of internal activities will be accomplished as outlined in FSAR Section 17.3.3.

QA PROGRAM CHANGE - FSAR, SECTION 1.8, REGULATORY GUIDE 1.146 PAGES 32 & 1.8-33

Proposed Change #4A

The proposed change eliminates the commitment to the Regulatory Guide 1.146 listed on page 1.8-32 of the FSAR.

Reason for Change

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

The ANSI Standard (N45.2.23-1978) endorsed by this regulatory guide is remaining in effect and CP&L will continue to comply with ANSI N45.2.23-1978.

Proposed Change #5

The proposed change replaces existing clarifications relative to audits and the lead auditor qualification. Qualification for External (vendor) auditors will continue to be accomplished in accordance with this standard. Qualification of internal independent assessment personnel will be accomplished in accordance with the requirements outlined in Section 17.3. A reference to Section 17.3 is being added to this page.

Reason for Change

The qualification for internal independent assessment personnel included in Section 17.3 better describes the methods to be accomplished than this Regulatory Guide or Standard.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Qualification of internal assessment personnel shall be accomplished as outlined in Section 17.3 based on education and experience needed to evaluate the activity being assessed.

QA PROGRAM CHANGE - FSAR, SECTION 9.5, FIRE PROTECTION PAGES 9.5.1-5, 7, 9, 10, 12, & 13

Proposed Change #6

The proposed change deletes the Corporate Quality Assurance Department from the organization that reports to the Executive Vice President, Power Supply.

Reason for Change

CP&L reorganization of the Corporate Quality Assurance Department and creation of the Nuclear Assessment Department has resulted in the elimination of this position.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

The Nuclear Assessment Department will implement a program of Independent Assessments in accordance with Section 17.3.3 that will assess the effectiveness of the Fire Protection Program.

A summation of assessment reports, along with any potential issues and recommendations shall be presented to the Executive Vice President - Power Supply and Senior Vice President - Nuclear Generation Group on an approximately bimonthly frequency.

Proposed Change #7

The proposed change deletes the reference to Quality Assurance and deletes the words "surveillance of fire protection activities."

Reason for Change

The specific responsibilities are being moved from this section to eliminate redundancy and possible conflicts.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.3 describes the QA Program. The operational fire protection QA elements are included in Section 17.3.

The Nuclear Assessment Department will evaluate the effectiveness of the Fire Protection Program through the use of Independent Assessment.

Proposed Change #8

The proposed change deletes the reference to the Corporate QA Manual.

Reason for Change

The deletion of these words does not affect the way that the QA Program will be implemented. They are being deleted to eliminate redundancy and possible conflicts.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.2 is being replaced in its entirety by Section 17.3, which describes the QA Program. Deletion of this reference will not affect the implementation of 17.3.

Proposed Change #9

The proposed change deletes the reference to QA personnel performing receipt inspection of FPQ items.

Reason for Change

This activity is performed by QC personnel and this reference is redundant to Section 9.5.1.3.1.d which already addressed this.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

CP&L's reorganization of the Corporate Quality Assurance organization places the responsibility of receipt inspection in the Quality Verification Section in the Nuclear Services Department. These functions have not changed as a result of this reorganization.

Proposed Change #10

The proposed change deletes references to audit requirements and responsibilities contained in this section.

Reason for Change

This change is being made to eliminate redundancy with the audit requirements of the Technical Specifications and the assessment function contained in Section 17.3.3.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.3.3 describes the Independent Assessment process which replaces the audit responsibilities described here.

The NAD will implement the Independent Assessment Process. This process will ensure an effective means of reviewing and evaluating the CP&L QA Program.

Proposed Change #11

The proposed change deletes references to the QA organization and specific responsibilities assigned to the QA organization relative to fire protection. Section 17.3 is referenced to address the NAD.

Reason for Change

The specific responsibilities are being deleted from this section, included in Section 17.3 to eliminate duplication and possible conflicts. QA organization is deleted based on creation of the NAD.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.3 describes the QA Program. The operational fire protection QA elements are included in Section 17.3.

The NAD will evaluate the effectiveness of the Fire Protection Program through the use of Independent Assessment.

QA PROGRAM CHANGE - FSAR SECTION 13.4, Page 13.4.0-1

Proposed Change #12

The proposed change deletes reference to the Review and Audit Program and references Section 17.3 for this information.

Reason for Change

Deletion of the specific details from this section eliminates duplication within the FSAR.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

Section 17.3.3 describes the Independent Assessment process which replaces the Audit Program described in FSAR Section 13.4.

The Nuclear Assessment Department will implement the Independent Assessment Process. This process will ensure an effective means of reviewing and evaluating the CP&L QA Program.

QA PROGRAM CHANGE - FSAR SECTION 17.2, QA PROGRAM DESCRIPTION PAGES 17.2.0-1 THROUGH 17.2.R-1

Proposed Change 13

The proposed change deletes FSAR Section 17.2 in its entirety and replaces it with FSAR Section 17.3 which describes the QA Program.

Reason for Change

The proposed FSAR Section 17.3 describes the use of performance-based assessment concepts which CP&L is using in the NAD and line organizations. The program content is the same as was in FSAR Section 17.2, except in the area of audit/assessment.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10CFR50 Appendix B and the FSAR Quality Program

FSAR Section 17.3 replaces FSAR Section 17.2 in its entirety. The program content is the same as was in FSAR Section 17.2, except in the area of assessments. These controls will ensure an effective QA Program at CP&L.

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

FSAR PAGE MARK-UPS

BSEP 1 & 2
UPDATED FSAR

Regulatory Guide 1.33

QUALITY ASSURANCE PROGRAM REQUIREMENTS
(OPERATION) (NOVEMBER 1972)

ANSI Standard N18.7-1976

ADMINISTRATIVE CONTROLS AND QUALITY ASSURANCE FOR
THE OPERATIONAL PHASE OF NUCLEAR POWER PLANTS

Comply with the provisions of Regulatory Guide 1.33, November 1972, and the requirements and recommendations for administrative controls described in ANSI N18.7-1976 except as stated below:

Proposed Change #1
Insert New Paragraphs
a) ~~Section 4.5, next to last paragraph states, "Periodic review of the audit program shall be performed by the independent review body or by a management representative at least semi-annually to assure that audits are being accomplished in accordance with requirements of Technical Specifications and of this Standard." CP&L's Performance Evaluation Unit is an independent section that monitors all other sections within our organization. Each audit report is reviewed by the Executive Vice President - Power Supply and Engineering & Construction. CP&L feels that these arrangement reviews stated satisfy the requirements of the above paragraph.~~

c) ~~Section 5.2.2 titled Procedure Adherence: Temporary changes to approved procedures shall be approved by persons specified in the BSEP 1 & 2 Technical Specifications.~~

d) ~~The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November 1972, shall be established, implemented, and maintained as specified in the BSEP 1 & 2 Technical Specifications.~~

e) ~~Section 5.2.17, second to the last sentence in the last paragraph, "Deviations, their cause, and any . . .," to be consistent with Paragraph 5.2.11 and 10CFR50, Appendix B, the cause of the deviation will be determined for only significant conditions adverse to safety.~~

f) ~~Section 5.3.9.1, titled Emergency Procedure Format and Content: Emergency procedures shall be in the format as committed to in NUREG-0737, TMI Action Plan.~~

ANSI N18.7-1976, Section 5.2.16. See FSAR Section 17.2.12 for clarification.

Proposed Change 1

Insert for Reg. Guide 1.33

- a.) Section 4.3 titled Independent Review Program: CP&L will implement the independent review program outlined in the plant Technical Specifications. 6.5.2.
- b.) Section 4.5 titled Audit Program: CP&L will implement an assessment program outlined in Section 17.3.3 of the FSAR.

BSEP 1 & 2
UPDATED FSAR

Regulatory Guide 1.58

QUALIFICATION OF NUCLEAR POWER PLANT INSPECTION,
EXAMINATION, AND TESTING PERSONNEL (SEPTEMBER 1980)

Proposed Change 1A

ANSI Standard N45.2.6-1978 QUALIFICATION OF INSPECTION, EXAMINATION, AND
TESTING PERSONNEL FOR NUCLEAR POWER PLANTS

Insert attachment

BSEP 1 & 2 shall comply with ~~NRG Regulatory Guide 1.58, September 1980, which endorses~~ ANSI N45.2.6-1978, with the following exceptions:

a) Section 1.2 titled Applicability: CP&L elects not to apply the requirements of this guide to those personnel who are involved in the daily operations of surveillance, maintenance, and certain technical and support services whose qualifications are controlled by the Technical Specifications or are controlled by other QA Program commitment requirements. Only personnel in the following listed categories will be required to meet ANSI N45.2.6-1978 requirements:

(1) Nondestructive examination (NDE) personnel;

(2) ~~Operating plant QA/QC inspection personnel.~~

b) The fourth paragraph of Section 1.2 requires that the Standard be imposed on personnel other than CP&L employees. The applicability of the Standard to suppliers and contractors will be documented and applied, as appropriate, in the procurement documents for such suppliers and contractors.

c) Section 1.4 titled Definitions: Definitions in this Standard which are not included in ANSI N45.2.10 will be used; definitions which are included in ANSI N45.2.10 will be used as clarified in CP&L's commitment to Regulatory Guide 1.74.

d) Section 2.5 titled Physical: CP&L will implement the requirements of this Section with the stipulation that, where no special physical characteristics are required, none will be specified. The converse is also true: if no special physical requirements are stipulated by CP&L, none are considered necessary. CP&L employees receive an initial physical examination to assure satisfactory physical condition; however, only the following listed personnel will receive an annual (\pm 2 months) examination:

(1) NDE personnel

(2) ~~Operating plant QA/QC inspection personnel,~~

This annual examination shall consist of the near visual acuity using the standard Jaeger's type chart or equivalent test.

e) Section 3 titled Qualifications: Only personnel performing NDE (such as LP, MT, UT, and RT) will be grouped in levels of capability and certified as such. ~~QA/QC inspection personnel will be certified for inspection, review, and evaluation of inspection data, and reporting of inspection and test results.~~

Proposed Change 1A

Insert Attachment

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Proposed Change 2A

Regulatory Guide 1.88

COLLECTION, STORAGE, AND MAINTENANCE OF NUCLEAR
POWER PLANT QUALITY ASSURANCE RECORDS (August 1974)

ANSI Standard N45.2.9-1974 COLLECTION, STORAGE, AND MAINTENANCE OF QA RECORDS

Insert Attachment

The requirements for collection, storage, and maintenance of QA records at BSEP will be in accordance with ANSI N45.2.9-1974 with the following specific exceptions:

and FSAR SECTION 17.3

Proposed
Change
3

The document control facility at the BSEP shall comply with the requirement of Regulatory Guide 1.88, October, 1976, Regulatory Position C.2 in that the facility will be constructed and maintained in accordance with NFPA 232-1975 as a four-hour facility, with the following exceptions/alternatives/comments:

4

a) Records are classified as Class 1 - Vital Records in accordance with NFPA 232-1975, Chapter 5, Section 3222; however, the records that meet this classification include those determined to be QA records as defined in ANSI N45.2.9-1974, paragraph 1.4.

b) The facility is constructed in accordance with NFPA 232-1975 requirements for a four-hour rated vault, ground-supported as defined in NFPA 232-1975, Chapter 2, Section 2025; however, due to the fact that the facility is to be used exclusively for the storage and handling of records and the interior volume, i.e., greater than 5,000 cu ft, the facility is termed to be a "fire-resistive file room located within a non-fire-resistive building."

c) Due to the construction of the facility and other safety measures described herein, the statement in NFPA 232-1975, Chapter 3, Section 3022(d), "Class 1 . . . records should not be subjected to these possibilities of destruction by fire" is deemed to be inappropriate.

d) The facility is protected by a Halon fire extinguishing system, automatic door closures, and fire detection system.

4

e) The floor of the file room is six inches higher than the floor areas outside the file room.

f) The walls are reinforced concrete, ten inches thick.

4

g) The exterior walls are totally enclosed and insulated from the outside environment and elements.

h) The facility is constructed independently from the building.

4

i) NFPA 232-1975, Chapter 3, Sections 332 and 333 describe methods for heating and ventilation. The facility will have penetrations in the wall for the purposes of heating and ventilation. The facility is equipped with a Heating, Ventilating and Air Conditioning system external to the file room with automatic closing dampers. The temperature and humidity should be controlled between 65 and 75 degrees and 30 and 40 percent, respectively.

Proposed Change 2A

Insert Attachment

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Proposed Change 3A

Regulatory Guide 1.144

AUDITING OF QUALITY ASSURANCE PROGRAMS FOR NUCLEAR
POWER PLANTS (JANUARY 1979)

ANSI Standard N45.2.12-1977 REQUIREMENTS FOR AUDITING OF QUALITY ASSURANCE
PROGRAMS FOR NUCLEAR POWER PLANTS

Insert Attachment

~~Carolina Power & Light Company will follow the requirements and
recommendations of paragraphs C.1, C.2, C.3.a.2, C.3.b, and C.4. Carolina
Power & Light Company's position on paragraph C.3.a.1 is as follows:~~

~~Audits of operational phase activities, as outlined in Section 6, Brunswick
Technical Specifications, shall be performed at the frequencies stated in the
Technical Specifications.~~

| 3

Insert New Paragraph

Proposed Change #4

Proposed Change 3A

Insert Attachment

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

Proposed Change 4

Insert for Reg. Guide 1.444

CP&L shall comply with the requirements of ANSI
N45.2.12(1977) for external (vendor and supplier) audits.

Assessments of internal activities shall be accomplished as
outlined in Section 17.3.3.

Proposed Change 4A

Regulatory Guide 1.146

QUALIFICATION OF QUALITY ASSURANCE PROGRAM AUDIT
PERSONNEL FOR NUCLEAR POWER PLANTS (REV. 0)
(AUGUST 1980)

ANSI Standard N45.2.23-1978

QUALIFICATION OF QUALITY ASSURANCE PROGRAM AUDIT
PERSONNEL FOR NUCLEAR POWER PLANTS

Insert attachment

BSEP 1 & 2 shall comply with NRC Regulatory Guide 1.146, Revision 0, which endorses ANSI N45.2.23-1978, with the following exceptions:

a) ~~Section 1.4 titled Definitions: Definitions in this Standard which are not included in ANFI N45.2.10 will be used; "AUDIT" which is included in ANSI N45.2.10 will be used as clarified in CP&L's commitment to Regulatory Guide 1.74.~~ ^{for external (vendor and supplier) audits}

b) ~~Section 2.2 titled Qualification of Auditors: Subsection 2.2.1 references an ANSI B45.2 which will be assumed to be N45.2. CP&L will comply with an alternate subsection 2.2.1 which reads:~~

Orientation to provide a working knowledge and understanding of the CP&L Quality Assurance Program, including the Regulatory Guides and ANSI standards included in the Program, and CP&L procedures for performing audits and reporting results.

Proposed
Change
5

c) ~~Section 3.2 titled Maintenance of Proficiency: CP&L will comply with the requirements of this Section by defining "annual assessment" as one which takes place every 12 months, plus or minus three months, and which will use the initial date of certification for determining when annual assessment is due.~~

d) ~~Section 4.1 titled Organizational Responsibility: CP&L will comply with this Section with the substitution of the following sentence in place of the last sentence in the Section.~~

The Manager of QA Services, Principal QA Specialist - Performance Evaluation, or Lead Auditor shall, prior to commencing the audit, assign personnel who collectively have experience or training commensurate with the scope, complexity, or special nature of the activities to be audited.

a) Section 5.3 titled Updating of Lead Auditors' Records: CP&L will substitute the following sentence for this Section:

Records for each Lead Auditor shall be maintained and updated during the annual management assessment as defined in Section 3.2 (as clarified).

Change 4A

Insert Attachment

The NRC provided notification for withdrawal of this Regulatory Guide (see 56 Federal Register at 36175) because it has become obsolete.

3 | b ~~2~~ Section 5.4 titled Record Retention: CP&L will substitute the following sentence for this Section:

Qualification records shall be retained as required by ~~the~~ ^{Section 17.3}
~~CP&L Quality Assurance Program.~~

Proposed Change # 5

Insert New Paragraph C

Proposed Change 5

Insert for ANSI Standard N45.2.23-1978

- c.) Qualification of internal assessment personnel shall be accomplished as outlined in Section 17.3.3 based on education and experience needed to evaluate the activity being assessed.

w) Fire Hose, NFPA-STD-1961-1974

x) Fire Protection for Nuclear Power Plants, NFPA-STD-803-1978

9.5.1.2.4 Institute of Electrical and Electronic Engineers, Inc.

a) Standard for Type Test of Class 1E Electrical Cables, Field Splices and Connections for Nuclear Power Generating Stations, IEEE-STD-383-1974

b) Standard Criteria for Independence of Class 1E Equipment and Circuits, IEEE-STD-384-1981

9.5.1.2.5 Nuclear Mutual Limited

Property Loss Prevention Standards for Nuclear Generating Stations

9.5.1.3 Fire Prevention Program

The fire prevention program at BSEP has an administrative organization which implements the procedural, technical, and training aspects of the program. This organization includes off-site management, on-site management, and on-site support functions. Specific responsibilities of organizations involved in the Fire Protection Program can be found in the Fire Protection Program Document, PLP-01.

9.5.1.3.1 Off-Site Organization and Responsibilities

The organization of the various off-site personnel integral to the BSEP Fire Protection Program (FPP) is described in Chapter 13.1. In addition, their responsibilities are described below:

a) The Senior Vice President - Nuclear Generation Group is responsible for the formulation and implementation of a FPP compatible with nuclear safety and the protection of property and personnel. The Senior Vice President is also responsible for having the status and adequacy of the FPP periodically assessed. The Senior Vice-President has within his organization personnel who meet the requirements for Member Grade in the Society of Fire Protection Engineers.

b) The Vice President - Brunswick Nuclear Project (BNP) is responsible for the generation of an effective and acceptable FPP by the nuclear plant.

Proposed
Change
6

~~c) The Manager - Corporate Quality Assurance is responsible for independently formulating and implementing programs to periodically assess the effectiveness of the plant FPP. The results of these independent assessments are reported to the Senior Executive Vice President - Power Supply. In addition, the Manager - Corporate Quality Assurance is also responsible for ensuring that independent audits are conducted in accordance with approved procedures.~~

c) The Manager - Nuclear Engineering Department is responsible for providing engineering and design for fire protection services for Brunswick Nuclear Plant. This is done with both on-site and off-site personnel.

Proposed Change 1117

- d) The Manager - ~~Quality Assurance/Quality Control~~, Brunswick plant, is responsible for material receipt inspection of FP Q-list items ~~and surveillance of fire protection activities.~~
- e) The Manager - Maintenance is responsible for the general maintenance of fire protection systems and equipment and for the timely resolution of maintenance and/or equipment conditions adverse to fire protection as reported to him by the Manager - Operations. In addition, the Manager - Maintenance is responsible for ensuring that all plant maintenance is performed in accordance with established fire protection procedures and in a manner that minimizes transient combustible loads.
- f) The Manager - Regulatory Compliance is responsible for scheduling and tracking various fire protection periodic tests.
- g) The Manager - Environmental & Radiation Control (E&RC) is responsible for providing assistance to the Fire Protection Support group during performance of periodic testing, providing dosimetry and decontamination services to off-site fire department personnel during drill participation and actual fire emergencies, and providing personnel to assist the fire brigade as outlined in the pre-fire plans.
- h) The Manager - Technical Support is responsible to the plant General Manager for providing technical support and acting as Systems Engineers for the Fire Protection Program.

c) Combustible Materials and Ignition Sources - The probability of the occurrence of fires at Brunswick can be minimized through the control of combustible materials and sources of ignition. The plant Operating Manual contains written instructions regarding the storage and use of combustible materials; the use of welding, burning, and other open flame operations; and routine fire inspections of the plant. |6

Welding, flame cutting, grinding, and other operations which may constitute a source of ignition are controlled by a permit system. This permit system is in accordance with the general guidelines specified in NFPA 51B, Cutting and Welding Processes. A multilevel structure of responsibility ensures that carelessness or omission of any step in the system does not compromise fire safety.

Control of combustible material is achieved by providing guidelines regarding the storage and use of flammable and combustible liquids, gases, and solids. Specific guidelines for the control of flammable and combustible liquids generally follow the recommendations of NFPA 30, Flammable and Combustible Liquids Code. Similarly, guidelines for the control of flammable gases generally meet the intent of NFPA recommendations. It is Brunswick's policy to use noncombustible material in the plant. When noncombustible materials are not suitable, a fire retardant material is typically selected. |6

Periodic inspections of all plant areas are performed and documented by the Fire Protection group in accordance with established procedures.

d) Special Structures - The control of any special or temporary structures such as tents, trailers, construction shacks, and other enclosures not covered by a plant modification package require a special structure permit in accordance with the plant Operating Manual. The purpose of the permit is to ensure that the installation of any temporary structure will not result in an unacceptable hazard to any permanent equipment, systems, or structures. Periodic inspections by the Fire Protection group assure that all such special structures have the required permits.

Proposed Change #8

e) Control of Maintenance and In-Plant Work Activities - In accordance with the Corporate Quality Assurance Manual, a program of preventive maintenance has been established for appropriate fire protection items. These preventive maintenance requirements are met by either the preventive maintenance program established by the Maintenance Subunit or by the periodic testing activities performed by the Operations Subunit.

The plant Operating Manual contains procedures which describe the Maintenance Subunit preventive maintenance program.

Surveillance activities performed on fire protection items by Operations is done in accordance with procedures in the plant Operating Manual. Each procedure is specific with regard to frequency, acceptance criteria, and step-by-step instructions.

Corrective maintenance is controlled by procedures which specify the reviews needed to evaluate Fire Protection's involvement. All maintenance work forms involving fire protection items are routed to the Fire Protection group.

A special type of in-plant maintenance is that regarding the removal, repair, or modification of existing fire barrier penetration seals or the creation of new fire barrier penetrations. Prior to performing any such work at Brunswick, a Fire Barrier Penetration Seal/Stop Work Permit or equivalent control program is required. An inspection of the completed work is made by qualified inspectors.

f) Plant Modification and Design Change Review - Plant modifications and design changes are controlled in order to ensure that plant structures, systems, and components continue to meet their performance/functional objectives. The plant Operating Manual includes written instructions that describe the modification process and the means for documenting the required changes and activities. As a part of this process, each engineer responsible for the plant modification is required to consider the effects of the modification on the fire protection program. In addition, the modification package receives an independent fire protection review in accordance with the Nuclear Plant Modification Program.

Specifically, the fire protection review considers the type and quantity of combustibles introduced (both permanent and temporary) and any degradation of any fire protection features to determine if (1) additional fire suppression capability is required, (2) if a limiting condition of operation is involved, and/or (3) if special administrative controls are necessary.

g) Fire Protection Quality List - Fire protection quality (FPQ) components are those which must perform their intended function when required or the loss of safety-related and safe shutdown equipment may result during a postulated fire. FPQ components usually demand special ordering, material handling, installation, and/or testing requirements.

The FPQ list outlines boundaries to fire protection systems within which all FPQ components are contained and is maintained as part of the plant Operating Manual. Maintenance of the FPQ list is defined in the Plant Operating Manual.

h) Procurement Activities - The plant Operating Manual contains written instructions concerning the procurement and storage requirements for safety- and non-safety-related items. These instructions provide for differing levels of quality control depending on the quality classification of the item. For fire protection items, this classification is FPQ (see Section 9.5.1.3.3g).

Upon receipt of fire protection items at the warehouse, a receipt inspection is performed in accordance with the instructions provided in the purchase requisition. In general, fire protection items are visually receipt inspected to ensure that the material being delivered is the type and quantity ordered, that no shipping damage has occurred, that protective coverings and coatings are in place, and that any required documentation is received. ~~FPQ items require inspection by Quality Assurance personnel.~~ Proposed Change #9

~~i) Audits - The plant General Manager is responsible for ensuring the following audits are accomplished:~~

~~1) An annual independent audit by qualified off-site personnel or an outside firm in accordance with technical specifications.~~

Proposed Change #10

Proposed
Change
#10

- ~~2) A triennial audit by or outside fire consultant in accordance with technical specifications.~~

~~The above audits are coordinated and conducted by Corporate Quality Assurance. They establish the framework and content of the audits.~~

9.5.1.3.4 Inspection and Testing Requirements

~~Administrative controls are provided through existing Plant Administrative Procedures, Plant Operating Procedures, and the Quality Assurance Program to ensure that the Fire Protection Program and equipment are properly maintained. This includes QA audits of the program implementation, conduct of periodic tests, and remedial actions for systems and barriers out of service.~~

All fire protection equipment and systems are subject to an inspection and acceptance test in accordance with the NFPA codes and plant procedures after installation is complete. After the system is in operation, periodic inspections and tests are conducted as defined by the Fire Protection Program and NFPA codes.

The following fire protection features are subjected to periodic tests and inspections:

- a) Water Supply System
- b) Barriers and Penetrations
- c) Alarm and Detection Systems
- d) Manual Suppression Systems
- e) Automatic Suppression Systems
- f) Emergency Lighting
- g) Communication Systems

Equipment placed out of service is controlled through the administrative program and appropriate remedial actions are taken. The program requires all impairments to fire protection systems to be identified and, if needed, appropriate notification given to Plant Fire Protection System Engineer. Depending on the condition, an engineering analysis may be required to determine the extent of the impairment to safe plant operations. As conditions warrant remedial actions include compensatory measures to ensure equivalent levels of fire protection, in addition to timely efforts to repair and restore the system to service.

9.5.1.3.5 Quality Assurance

Insert New Paragraph

~~The Quality Assurance Program at Brunswick assures that the requirements for design, procurement, installation, testing, and administrative controls for the fire protection program are met. The responsibility for ensuring the quality of fire protection activities at Brunswick lies with the plant General Manager.~~

Proposed Change #11

Proposed Change 11

Insert new paragraph 9.5.1.3.3

The Quality Assurance program requirements applied to the fire protection program are outlined in FSAR Section 17.3.

A description of measures utilized to satisfy the criteria follows:

- a) Design Control and Procurement Document Control
 - 1) Operations QA/QC reviews procurement documents and changes thereto.
 - 2) All plant modifications are reviewed to assure inclusion of appropriate fire protection requirements and to assure that the protection of safe shutdown capability from fire is not compromised.
- b) Instructions, Procedures, and Drawings
 - 1) Operations Quality Assurance includes in their surveillance of BSEP such items as indoctrination and training and associated documented procedures, documented instructions, procedures, and drawings for fire protection activities.
 - 2) The surveillances performed by Operations QA/QC assures that installation or application of penetration seals and fire retardant coatings is performed by qualified personnel using approved procedures.
- c) Controls of Purchased Material, Equipment, and Services - Operations QA/QC performs receipt inspection of fire protection equipment whose quality cannot be verified after installation. Operations Quality Assurance in concert with the plant Fire Protection Engineer determines source evaluation requirements where materials are neither listed nor approved by a recognized testing authority, or specified by applicable standards.
- d) Inspections
 - 1) Quality control hold points are added to maintenance and modification procedures for fire protection systems, emergency lighting, and communications equipment where appropriate.
 - 2) Personnel, qualified by training, inspect new penetration seals for proper installation. Operations QA/QC inspect fire retardant coating installations to verify satisfactory completion.
 - 3) New cable routing is inspected by Operations QA/QC to verify conformance with design requirements.
 - 4) The existing Corporate Quality Assurance Program assures that inspection personnel are independent from the individuals performing the activity being inspected.
 - 5) Operations QA/QC assures that procedures necessary for inspection of fire protection systems, emergency lighting, and communication equipment are developed.

Proposed Change #11

BSEP 1 & 2
UPDATED PSAR

e) Operations QA/QC performs surveillances to assure that necessary test/inspections/surveillances by the Fire Protection group of fire protection systems, emergency breathing and auxiliary equipment, emergency lighting, and communication equipment are being performed as required.

f) Operations QA/QC performs surveillances of documentation to assure that the necessary test/inspections/surveillances of fire hoods, seals, and fire retardant coatings are being performed.

g) Test and Test Control

1) Operations QA/QC assures that acceptance tests are specified in plant modifications prior to the equipment being declared operable. Post-maintenance tests for repairs/replacements are reviewed by QA following work completion.

2) Corporate Quality Assurance includes fire protection periodic tests in the periodic audits of plant Operations to assure that the test schedule is being met.

3) Acceptance test results are included in plant modifications and post-maintenance test results are attached to Work Request & Authorization Forms (trouble tickets) when it is determined that tests are required. Operations QA/QC review both packages for completed documentation.

h) Inspection, Test, and Operating Status - Operations QA/QC includes in their inspections the review of tags, labels, or other temporary markings used to indicate completion of required inspections and tests, and operating status to assure compliance with procedures.

i) Nonconforming Items - The requirements specified in the Corporate Quality Assurance Manual for nonconforming items are met for fire protection equipment.

j) Corrective Action - Operations QA/QC assures that procedures are written to ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective components, uncontrolled combustible material, and nonconformances are promptly identified, reported, and corrected.

k) Records - Those records required to verify compliance with criteria of the Fire Protection Program are identifiable and retrievable and are assigned retention requirements.

l) Audits - Audits are performed by the Corporate Quality Assurance Audit Section.

9.5.1.3.6 Training

Training is an essential ingredient in developing and maintaining an effective fire protection program. Depending on job responsibilities, the intensity of training may range from a short introduction to fire safety to weeks of extensive training. Three distinct types of training are provided:

Proposed Change

11

13.4 ASSESSMENTS
REVIEW AND AUDIT

ASSESSMENTS

FSAR Section 17.3.3

The description of plans for conducting ~~reviews and audits~~ of operating phase activities that are important to safety is contained in ~~Section 6.5, "Review and Audit" of Plant Technical Specifications issued by the Nuclear Regulatory Commission as Appendix A to the Facility Operating License (Reference 13.1.2-1).~~ Section 6.5, "Review and Audit" of Plant Technical Specifications issued by the Nuclear Regulatory Commission as Appendix A to the Facility Operating License (Reference 13.1.2-1).

Proposed Change 12

Proposed Change 13

Section 17.2 is being deleted in its entirety. It is replaced with the attached 17.3.

ENCLOSURE 3

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

QUALITY ASSURANCE PROGRAM DESCRIPTION

17.3

BNP QUALITY ASSURANCE PROGRAM DESCRIPTION

17.3.1 MANAGEMENT

17.3.1.1 Methodology

It is the policy of Carolina Power & Light Company (CP&L) to operate and maintain nuclear power plants without jeopardy to its employees or to the public health and safety.

This Quality Assurance (QA) program and revisions are approved by the Executive Vice President - Power Supply.

The QA Program and procedures apply to activities affecting quality. (e.g., operation, maintenance, modification, and refueling.) This program applies to individuals and organizations responsible for operating and supporting the nuclear plants. The program and procedures define responsibilities and authorities, prescribe measures for the control and accomplishment of activities for the operation of safety related, fire protection and radwaste structures, systems, and components and requires appropriate verification of conformance to established requirements. A list or system identifying items and activities to which this program applies is maintained at each nuclear plant or work location. Controls and responsibilities for maintaining this list or system are prescribed in procedures.

This QA Program and implementing procedures shall be used and updated as necessary to assure that the Company's nuclear generating units are managed such that they will be operated and maintained in a safe manner.

Deviations from this program shall be permitted only upon written authority from the Executive Vice President - Power Supply.

The QA Program is founded on the principle that the line organization is responsible for quality and safety. Self-assessment practices are used to ensure the desired levels of quality and safety are achieved and maintained. There are three levels of assessment in CP&L. The first level is the line organization and consists of each individual being involved with plant performance to ensure the plant is operated in a safe, reliable, and efficient manner. The second level consists of the Nuclear Services Department, along with the functional area line organization, monitoring the plant operation and processes to ensure that performance goals are set and achieved for the three nuclear projects. The third level consists of the Nuclear Assessment Department (NAD) independently evaluating the performance and effectiveness of plant programs, processes, personnel, and the line organization's self-assessment. These activities are to detect deficiencies in the desired levels of performance and quality, reporting these conditions to Senior Management, and ensuring adequate action is taken to correct and eliminate these conditions.

17.3.1.2 Organization

The CP&L organization responsible for the safe plant operation is described in Section 13.1 of the FSAR and in implementing procedures. The term "line organization" used in this program refers to the production organization reporting to the Senior Vice President - Nuclear Generation Group.

Procurement documents require suppliers to operate in accordance with QA programs which are compatible with the applicable requirements of the CP&L's QA Program and procedures where their services are utilized in support of plant activities.

17.3.1.3 Responsibility

The primary responsibility for quality performance, including the identification and effective correction of problems potentially affecting the safe and reliable operation of the Company's nuclear facilities, resides with the line organization.

The managers of functions involving nuclear fuel, engineering, and operations shall assure that their personnel are adequately trained for their jobs and they have the experience and education required to carry out their assigned responsibilities. These managers shall ensure that adequate resources and procedures are available for correctly implementing the work activities to support this program.

Independent inspections are conducted to verify specific critical quality attributes. Individuals performing these inspections have access to necessary information to ensure that activities and equipment meet established acceptance criteria.

The NAD shall independently monitor and assess the Company's nuclear programs on a continuing basis. The NAD performs assessments which incorporate the previous "QA audits". These evaluations are performance based with emphasis on quality of the end product.

The Manager - NAD shall review with the senior operating officer in the Company on a regular periodic basis the overall effectiveness of the Company's QA Program. He shall have access to the corporate management up to and including the President/Chief Executive Officer to resolve any quality or nuclear safety related concerns if the concerns cannot be resolved satisfactorily at a lower management level.

The results and effectiveness of the assessment organization and processes in accomplishing its assigned objectives will be regularly evaluated.

17.3.1.4 Authority

The program and procedures require that the authority and duties of persons and organizations performing activities affecting quality functions be clearly established and delineated in writing and that these individuals and organizations have sufficient authority and organizational freedom to:

- a) Identify quality, nuclear safety, and performance problems.
- b) Order unsatisfactory work to be stopped and control further processing, delivery, or installation of nonconforming material.
- c) Initiate, recommend, or provide solutions for conditions adverse to quality.
- d) Verify implementation of solutions.

17.3.1.5 Personnel Training and Qualification

Both on-site and off-site personnel within the CP&L organization and contract personnel, who perform activities affecting quality (implement elements of the QA Program) shall be indoctrinated and trained such that they are knowledgeable and capable of performing their assigned tasks.

Training programs and reviews ensure that proficiency of personnel performing activities affecting quality is achieved and maintained by training (formal & OJT) examining, and/or certifying, as appropriate.

Personnel training and qualification records are to be maintained by responsible management to ensure qualified individuals are assigned to activities affecting quality.

Personnel within the Operating organization performing duties of a licensed operator are indoctrinated, trained, and qualified as required by 10CFR55.

17.3.1.6 Corrective Action

The primary goal of the CP&L corrective action program is to improve overall plant operations and performance by identifying and correcting root causes of equipment and human performance problems. Part of this effort is directed toward encouraging individuals to voluntarily report events, near misses, and potential problems. It is the policy of CP&L to seek improvement in each nuclear plant's performance as well as in the performance of supporting departments.

Management will emphasize to all levels in the organization the importance of identifying and effectively correcting situations that can adversely affect human and equipment performance. An important aspect of this program is the assignment of qualified personnel to accurately evaluate equipment/human performance problems, implement appropriate corrective actions, and verify corrective action adequacy.

Management is responsible for fostering a positive environment that encourages the self-identification of adverse conditions and trends.

The program requires that an evaluation of adverse conditions such as conditions adverse to quality, nonconformances, failures, malfunctions, deficiencies, deviations, and defective material and equipment is conducted to determine need for corrective action.

Conditions adverse to quality are identified through inspections, assessments, tests, checks, and review of documents.

The program requires corrective action to be initiated to preclude recurrence of significant conditions adverse to quality.

Procedures require follow-up reviews, verifications, inspections, etc., to be conducted to verify proper implementation of corrective action and to close out the corrective action documentation.

The program outlines the methodology for resolution of disputes involving quality and nuclear safety issues arising from a difference of opinion between identifying personnel and other groups.

Significant conditions adverse to quality are reported to appropriate management for review and evaluation.

Periodic review and evaluation of adverse trends are performed by management.

17.3.1.7 Regulatory Commitments

The operation of nuclear plants shall be accomplished in accordance with the U.S. Nuclear Regulatory Commission (NRC) Regulations specified in Title 10 of the U.S. Code of Federal Regulations.

The operation of the Company's nuclear power plants shall be in accordance with the terms and conditions of the facility operating license issued by the NRC.

The program and procedures are designed to ensure compliance with the NRC Regulatory Guides and ANSI Standards applicable to the operations phase, and to which BNP is committed. The commitment to comply or alternatives for CP&L to follow are presented in Section 1.8 in this FSAR. Where ever the requirements of this section conflict with the commitments to regulatory guides and codes and standards, the requirements of this section shall govern.

The Nuclear Regulatory Commission shall be notified of changes to the QA Program description in accordance with 10CFR50.54(a)(3).

17.3.2 PERFORMANCE/VERIFICATION

17.3.2.1 Methodology

Personnel performing work activities are responsible for achieving the acceptable level of quality.

Personnel performing verification activities are responsible for verifying the achievement of acceptable quality.

Work is accomplished and verified using instructions, procedures, or appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

Criteria that define acceptable quality are specified in procedures and/or other documents, and verification, when required is performed against these criteria.

17.3.2.2 Design Control

Procedures define requirements for the control of design activities associated with modifications of items that are safety-related.

Design changes are subject to appropriate controls which were applicable to the original design. CP&L may designate an organization to make design changes other than the organization which prepared the original design. In any case, CP&L will assure that the organization has access to pertinent background information, including an adequate understanding of the requirements and intent of the original design, and that the organization has demonstrated competence in applicable design areas.

Care shall be taken to assure that the design selected to accomplish a necessary or desirable change does not create "new" problems in off-normal modes of operation or in adjacent inter-tied systems.

Design changes made to the plant are accomplished in a planned and controlled manner in accordance with written, approved procedures. These procedures include provisions, as necessary, to ensure that:

- a) Design documents (such as specifications, drawings, procedures and instructions) reflect applicable regulatory, performance, quality, and quality verification requirements and design bases. These documents are checked for accuracy and completeness by qualified individuals and reviewed to assure that documents are prepared in accordance with procedures.
- b) There is adequate review of the suitability of materials, parts, equipment, and processes which are essential to the safety-related functions of structures, systems, and components.
- c) Materials, parts, and equipment which are commercial grade items or which have been previously approved for a different application are evaluated for suitability prior to selection.

- d) Design documents and procedures are controlled to reflect design modifications and "as-built" conditions.
- e) Internal and external design interfaces between organizations participating in modification activities are adequately defined and controlled, including the review, approval, release, and distribution of design documents and revisions.

The above controls are applied as necessary to such aspects of design as reactor physics; seismic, stress, thermal, hydraulic, radiation, and accident analyses; compatibility of materials; and accessibility for inservice inspection, maintenance, and repair.

Any errors or deficiencies found in the design process or the design itself are documented and corrected, as outlined in the applicable department's corrective action program procedures.

Following completion of the design change/modification, controlled design change information is made available to affected personnel.

Training, on design changes/modifications that affect the operation of the plant, is provided to affected plant operating personnel.

17.3.2.3 Design Verification

Procedures require that the adequacy of design changes be verified by the performance of design reviews, alternate calculations, or qualification testing. The control measures specified in the plan for control of design verification activities are as follows:

- a) Personnel responsible for design verification do not include the original designer or the designer's immediate supervisor unless the immediate supervisor is the only one capable of verifying the design.
- b) Procedures identify the positions or organizations responsible for design verification and define their authority and responsibility. Procedures also provide guidelines as to the method of design verification to be used. Unless otherwise specified, design verification is performed by the method of independent design reviews and includes verification that SAR commitments have been addressed.
- c) Qualification tests, or analyses when appropriate, shall assure that all modes of operation are not adversely affected by the design change.
- d) Design changes are reviewed to assure that design parameters are defined and that inspection and test criteria are identified.
- e) Design verification is completed prior to relying upon the component, system or structure to perform its function.

17.3.2.4 Procurement Control

Procedures define requirements for the control of procurement documents and ensure that purchased material and services are of acceptable quality.

Potential contractors and suppliers are evaluated by Vendor and Equipment Quality Unit personnel prior to award of a procurement document when needed to assure the contractor's or supplier's capability to comply with applicable technical and quality requirements.

Carolina Power & Light Company maintains a program for supplier evaluation, results of supplier evaluation, surveillance of suppliers, supplier furnished records, certificates of conformance, effectiveness of supplier quality control, and the purchase of spare or replacement parts.

Procurement documents, such as purchase specifications, contain or reference the following:

- a) Technical, administrative, regulatory, and reporting requirements, including material and component identification requirements, drawings, specifications, codes and industrial standards, test and inspection requirements, and special process instructions.
- b) Identification of the documentation to be prepared, maintained, or submitted (as applicable) to CP&L for review and approval. These documents may include, as necessary, inspection and test records, qualification records, or code required documentation.
- c) Identification of the records to be retained, controlled, and maintained by the supplier, and those delivered to the purchaser prior to use or installation of the hardware.

Receipt inspections are performed by qualified inspectors in accordance with procedures to assure that:

- a) Materials, equipment, or components are properly identified and correspond with associated documentation.
- b) Inspection records or certificates of conformance attesting to the acceptance of materials, equipment, and components are completed and are available prior to installation or use.
- c) Materials, equipment, and components are inspected and judged acceptable in accordance with predetermined inspection instructions prior to installation or use.
- d) Items not meeting applicable requirements are clearly identified and controlled until proper disposition is made.

Appropriate controls and provisions have been included in procurement procedures for selection, determination of suitability for the intended use, evaluation, receipt, and quality evaluation of commercial grade items to ensure that these items will perform satisfactorily in service.

17.3.2.5 Procurement Verification

Carolina Power & Light Company procurement documents are prepared, reviewed, approved, and controlled in accordance with procedures to assure that requirements are correctly stated, inspectable, verifiable, and controllable, and there are adequate acceptance/rejection criteria. Procurement documents are reviewed by personnel knowledgeable in applicable technical and quality requirements, and documentary evidence of that review and approval is retained and available for verification.

17.3.2.6 Identification and Control of Items

Procedures require spare or replacement parts to be subject to QA program controls, codes and standards, and technical requirements which ensure they are suitable for their intended service.

Items accepted or released are identified as to their inspection status prior to forwarding them to a controlled storage area or releasing them for installation or further work. (Bulk items will not require individual accept tags; however, status of unacceptable bulk items will be so indicated).

Procedures require that materials, parts, and components be identified and controlled to prevent the use of incorrect or defective items. These procedures also require that identification of items be maintained either on the item in a manner that does not affect the function or quality of the item, or on records traceable to the item.

Procedures implementing these requirements provide for the following:

- a) Verification that items received at the plant are properly identified and can be traced to the appropriate documentation, such as drawings, specifications, purchase orders, manufacturing and inspection documents, nonconformance reports, or material test reports.
- b) Verification of item identification consistent with the CP&L inventory control system and traceable to documentation which identifies the proper uses or applications of the item.

Consumables utilized in safety-related structures, systems and components are subject to appropriate controls as described in procedures.

17.3.2.7 Handling, Storage, and Shipping

Procedures define requirements for the control of the handling, storage, and shipping of safety-related items. These procedures require measures to be taken to ensure special handling, storage, cleaning, packaging, shipping, and preservation requirements are established to control these activities in accordance with design and specification requirements to preclude damage, loss or deterioration by environmental conditions such as temperature or humidity.

Provisions are established to control the shelf life and storage of chemicals, reagents, lubricants, and other consumable materials.

17.3.2.8 Test Control

Procedures define requirements for test programs when required and require that items be tested to demonstrate that they will perform satisfactorily in service.

Modifications, repairs, and replacements are accomplished in accordance with the original design and testing requirements or acceptable alternatives.

Test procedures incorporate or reference the following, as required:

- a) Instructions and prerequisites for performing the test,
- b) Use of proper test equipment,
- c) Mandatory inspection hold points,
- d) Acceptance criteria

Test results are documented, evaluated, and their acceptability determined by a qualified, responsible individual or group.

When the acceptance criteria is not met, affected areas are to be retested or evaluated, as appropriate.

17.3.2.9 Measuring and Test Equipment Control

Procedures define requirements for the control of measuring and test equipment used. These procedures include requirements to establish procedures for the calibration technique and frequency, maintenance, and control of measuring and test equipment.

Inspections and test devices are selected to assure accurate measurement (i.e. to overcome inherent inaccuracies associated with environment, human error, equipment, etc.).

Measuring and test equipment (M&TE) is identified and traceable to the calibration test data.

Measuring and test instruments are calibrated at specified intervals (or immediately before and after use) based upon one or more of the following:

- a) Technical Specifications.
- b) Required accuracy.
- c) Intended use.
- d) Frequency of usage.
- e) Stability characteristics.
- f) Other conditions affecting measurement.
- g) Manufacturer's recommendations.

Portable measuring and test equipment are calibrated by standards at least four times as accurate as the portable measuring and test equipment, unless limited by the state of the art.

Status of calibration for measuring and test equipment is provided through the use of tags, stickers, labels, routing cards, computer programs, or other suitable means. The status indicators indicate the date recalibration is due or the frequency of recalibration.

Special tools such as torque wrenches, calipers, and micrometers are calibrated to be at least as accurate as the application(s) for which it is used, using standards which are at least as accurate as the special tool being calibrated.

Installed measuring and test instruments are calibrated by instruments at least as accurate as the installed, unless limited by the state of the art.

Reference and transfer standards are traceable to nationally recognized standards; or where national standards do not exist, provisions are established to document the basis for the calibration.

Measures are required to be taken and documented to determine the validity of previous inspections and test results, if the measuring and test equipment is found to be out of calibration.

17.3.2.10 Inspection, Test, and Operating Status

Procedures define requirements for the identification and control of the inspection, test, and operating status of safety-related structures, systems, and components.

These procedures include the application, removal, and verification of inspection and welding stamps, or other status indicators as appropriate.

Measures are established for indicating the operating status of structures, systems, and components. These measures include the use of checklists, computer programs, logs, stickers, tags, labels, record cards, and test records to indicate the acceptable operating status of installed equipment. Installed equipment which, if operated, could cause damage to other equipment/systems or to personnel is tagged to indicate its non-operational status and to prevent inadvertent use.

Selected plant procedures and subsequent revisions receive separate technical review to ensure required inspections, tests, and other critical operations are included.

Altering the sequence of required tests, inspections, and safety-related operations can only be accomplished by methods outlined in procedures.

17.3.2.11 Special Process Control

Procedures define requirements for the control of special processes, such as welding, heat treating, and nondestructive examination.

Procedures require that special processes be performed by qualified personnel using proper equipment and in accordance with written qualified procedures. These personnel and procedures are to be qualified in accordance with applicable codes, standards, and specifications as described in procedures. Qualification records of special process procedures and personnel performing special processes are maintained and available for verification.

17.3.2.12 Inspection

Procedures define requirements for an inspection program to verify conformance to performance and quality requirements specified for those activities and services.

Inspections are performed by personnel who are not directly responsible for performing or supervising the activity being inspected. Inspection personnel are qualified in accordance with applicable codes and standards, and their qualifications and certifications are maintained current.

Inspections are performed in accordance with procedures or other documents which provide for the following:

- a) Identification of individuals or groups responsible for performing the inspections.
- b) Identification of characteristics and activities to be inspected.
- c) Acceptance criteria.
- d) Inspection techniques
- e) Recording the results of the inspection, review of the results, and identification of the inspector.

- f) Indirect control by monitoring of processing methods, equipment, and personnel when direct inspection is not possible.

Procedures identify inspection holdpoints, beyond which work may not proceed until inspected.

When acceptance criteria are not met, the condition will be documented in accordance with the applicable department's corrective action program procedures and reinspected or evaluated, as appropriate.

17.3.2.13 Corrective Action

Procedures define requirements for a corrective action program that charges personnel working at or supporting the nuclear plants with the responsibility to identify adverse conditions (including conditions adverse to quality).

Procedures include requirements for verification of the acceptability of the rework/repair of items by reinspection and/or testing in accordance with the original inspection or test requirements or by an accepted alternative inspection and testing method.

Conditions that require rework/repairs are identified through the use of maintenance work request forms.

17.3.2.14 Control of Documents

Procedures define requirements for the development, review, approval, issue, use, revision, and control of documents. These procedures define the scope of which documents are to be controlled.

Procedures require the identification of those individuals or organizations responsible for reviewing, approving, and issuing documents and revisions thereto.

Changes to documents are reviewed and approved by the same organization that performed the original review and approval or by other designated qualified responsible organizations.

Controlled documents are to be available at the location where the activity will be performed prior to commencing the work, except in a radioactive contaminated area where the documents will be readily available.

A document control system has been established to identify the current revision number of instructions, procedures, specifications, and drawings.

Superseded documents are controlled to prevent inadvertent use.

17.3.2.15 Records

The program requires that sufficient records be maintained to provide documentary evidence of the quality of items and the accomplishment of activities affecting quality.

Procedures define requirements for the identification, collection, and storage of quality assurance records.

Records are identifiable and retrievable through the use of indexes and filing systems, which are required by the program.

Procedures are required to be developed to indicate responsibilities and retention periods.

Records are maintained within structures designed to prevent destruction, deterioration, or theft. These facilities ensure protection against destruction by fire, flooding, theft, and deterioration by the environmental conditions of temperature and humidity.

17.3.3 ASSESSMENT

17.3.3.1 Methodology

The overall objective at CP&L is to encourage ownership, involvement, and dedication by each individual supporting the Nuclear Program. This involves continually and aggressively looking for ways to improve the overall performance and safety at each plant. This approach of identifying and correcting conditions early, requires active support by management and employees.

A process of assessment is an attitude by personnel that the CP&L Nuclear Program is improving on a continual basis. This process, along with an effective corrective action program, ensures that conditions are identified early, corrected promptly and effectively before becoming significant quality or safety problems.

Personnel responsible for carrying out the assessment functions, including safety committee activities, nuclear safety reviews, verifications, self-assessment and independent assessments, are cognizant of day-to-day activities, events, and have necessary experience to act in a management advisory function.

Assessment activities are accomplished using processes or procedures of a detail needed to accomplish the function based on complexity and importance to safety.

The managers of functions that support the Nuclear Program are responsible for ensuring that self-assessment activities and processes are implemented within their functions on a continuing basis.

17.3.3.2 Self-Assessment

It is the management expectation that individuals and organizations self-assess their end product. Adverse conditions identified during self-assessment activities are reported and resolved in accordance with the corrective action program.

Line Organization

Each individual, work group, and manager should be alert and open for areas that may need improvement.

Members of the line organization are charged with the responsibility to continually evaluate their activities and use each opportunity to achieve higher standards of quality and improved performance.

Planned and periodic self-assessment activities focus on how well the integrated quality assurance program is working and is to identify conditions that hinder the organization from achieving its safety, quality, and performance goals and standards.

Nuclear Services Department

The Nuclear Services Department shall monitor specific functional areas, along with the line organization management, to determine that the desired levels of performance are being achieved. Individuals assigned these duties shall work with each nuclear project to improve implementation of CP&L's Nuclear Programs and processes to support safe and reliable operation.

17.3.3.3 Independent Assessment

The Nuclear Assessment Department (NAD) is responsible for conducting independent assessments of functions and activities affecting the nuclear programs at CP&L.

Organization

Personnel performing independent assessment activities are organizationally independent of the function/area being assessed and generally have no direct responsibilities in the area being assessed. However, on an exception basis, personnel in the NAD may provide assistance to the line organization by participating in ad hoc committees or analyzing specific technical issues, if such assistance is deemed to be in the overall best interest of safety and is approved by NAD management.

Selection of assessment personnel is based on experience and/or training that establishes that their qualifications are commensurate with the complexity or special nature of the area being assessed. The process for qualification of personnel to perform and lead assessments is established in procedures.

Personnel performing assessments shall have access to records, procedures, and personnel to gather data.

Assessment Process/Elements

A primary objective of the NAD is to assess the effectiveness of the line organization's self-assessment processes.

The assessment process includes gathering data, analyzing data, focusing on selected issues and identifying deficiencies to desired performance. The results of assessments are communicated to management in a manner that causes action to correct deficiencies and develop action to prevent recurrence. In addition, this process should evaluate corrective measures adopted to eliminate the deficiencies identified.

Data is gathered using performance based techniques during:

- o Observations of work activities,
- o Interviews,
- o Reviews of documents to gather information (including the use of NRC, INPO, and other agency evaluations),
- o Review of self-assessment data and reports (performance indicators, trend reports, etc.)
- o Nuclear Safety Review activities,
- o Team assessments (functional, site/department, corporate),
- o Analysis of plant data and reports (including adverse condition reports, etc.)

Planning activities identify the organizations to be evaluated, the characteristics to be focused on during the assessment, and the applicable acceptance criteria. Assessment activities are selected with flexibility based on various factors. These factors include but are not limited to: importance to safety and reliability, NAD assessments of site work activities, time since last assessment, plant management perspective, outside agency audits, and problem areas identified from industry and CP&L experience.

Preparation activities may include a review of performance data, relevant documentation, previous assessment data, industry experience, team member experience, and management input. These activities enable the team to focus on significant issues which may impact safety and reliability when analyzing data.

Assessments are scheduled on the basis of the status and safety importance of the activities or processes being performed. The schedule is flexible and dynamic to allow assessment to be changed depending on plant conditions, events, or issues raised by Senior management.

Functions/areas to be assessed include:

- o Plant Operations
- o Maintenance
- o Radiological Controls
- o Chemistry
- o Environmental Monitoring
- o Engineering/Technical Support
- o Fire Protection
- o Security
- o Emergency Preparedness
- o Nuclear Fuel
- o Outage Management
- o Other functions/areas requested by Senior Management

Assessments of these functions/areas may include portions of:

- o Conformance to provisions contained within the Technical Specifications and applicable license conditions
- o Operating experience
- o Procedures
- o Training and qualifications
- o Support activities
- o Corrective actions
- o Other activities deemed necessary to assure adequate performance

Results

Adverse conditions are reported in accordance with the applicable department's corrective action program procedure or by formal correspondence between responsible levels of management.

Independent assessment results are communicated to line management to allow for timely action to address potential problems or recognize strengths and superior performance.

Independent assessment results are documented and reviewed with management personnel responsible for the areas assessed.

Results of assessments, special investigations, and analysis of data will be provided to the Nuclear Assessment Department (NAD) Management for review. A summation of assessment perspective, along with potential issues and recommendations shall be presented to the Executive Vice President - Power Supply and Senior Vice President - Nuclear Generation Group on an approximately bimonthly frequency.

Follow-up is accomplished to assure that corrective action is taken as a result of the assessment and that deficient areas are reassessed, when necessary, to verify implementation of adequate corrective actions.