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ORSER, W.S. Carolina Power & Light Co.  
RECIP. NAME RECIPIENT AFFILIATION  
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SUBJECT: Requests NRC approval of QA program changes in order to  
implement performance-based nuclear assessment program.  
Proposed changes incorporating changes in nuclear assessment  
program & results of discussions w/NRC encl.

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JUL 22 1994

Carolina Power & Light Company  
PO Box 1551  
Raleigh NC 27602

William S. Orser  
Executive Vice President  
Nuclear Generation

SERIAL: NL&RAS-94-058

10 CFR 50.54(a)

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

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23  
REQUEST FOR APPROVAL OF  
QUALITY ASSURANCE PROGRAM CHANGES

- References: 1) Letter dated August 6, 1992, from R. B. Starkey, Jr. (CP&L) to USNRC  
2) Letter dated September 15, 1993, from H. W. Habermeyer, Jr. (CP&L) to USNRC

Gentlemen:

Carolina Power & Light (CP&L) Company requested, by the referenced letters, changes to the Quality Assurance (QA) Program for the H. B. Robinson Steam Electric Plant, Unit No. 2. While the proposed changes involve a reduction of commitments, the revised QA program will continue to meet the requirements of 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." The proposed changes would allow the implementation of a performance based assessment program and the corresponding functional and organizational changes in the Nuclear Assessment Department (NAD). In January 1994, CP&L requested that the NRC suspend their review of these submittals pending further changes of the nuclear assessment function.

This letter provides a revised submittal incorporating the changes in the nuclear assessment function and the results of discussions with the NRC. NUREG-0800, "Standard Review Plan," Section 17.3, was used for information and guidance in the preparation of this submittal.

The major changes from the referenced submittals include: 1) the elimination of the NAD and the realignment of the Nuclear Assessment Section (NAS), reporting to the Vice President - Robinson Nuclear Plant; 2) the addition of a two-year frequency cap on performance based assessments; and 3) the revised Independent Review function and organization. Although there are only a few changes, CP&L withdraws our previous submittals and provides this request for approval in accordance with 10 CFR 50.54(a)(3). This submittal meets the criteria of a Cost Beneficial Licensing Action and represents a savings of approximately \$1 million/year when fully implemented at all of our nuclear plants. Technical Specification amendments are being requested by a separate letter (reference Serial: NL&RAS-94-057).

The following enclosures are included with this letter.

Enclosure 1 - A summary of the proposed performance based assessment program and the corresponding organizational and functional changes.

Enclosure 2 - Proposed changes to the QA Program that require NRC approval per 10 CFR 50.54(a)(3).

Enclosure 3 - Proposed changes to the QA Program that do not require NRC approval per 10 CFR 50.54(a)(3) are provided for information only.

To allow orderly implementation of the proposed changes, CP&L requests the changes be effective no later than 60 days from the date of NRC approval of the proposed changes.

Should you have questions regarding these changes, please contact Mr. Gregg A. Sindors at (919) 546-7318.

Yours very truly,



W. S. Orser

GAS/ebc  
Enclosures

c: Mr. S. D. Ebnetter, Regional Administrator, USNRC, Region II  
Ms. B. L. Mozafari, USNRC Project Manager, HBRSEP  
Mr. W. T. Orders, USNRC Senior Resident Inspector, HBRSEP

## **ENCLOSURE 1**

### **H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 NRC DOCKET NO. 50-261/OPERATING LICENSE NO. DPR-23 QUALITY ASSURANCE PROGRAM PERFORMANCE-BASED NUCLEAR ASSESSMENT PROGRAM**

#### **SUMMARY OF ORGANIZATIONAL AND FUNCTIONAL CHANGES**

Carolina Power and Light Company (CP&L) requests NRC approval of Quality Assurance (QA) program changes in order to implement the performance-based nuclear assessment program. Technical Specification changes are being requested by a separate letter. This enclosure provides an informational summary of the functional and organizational changes. Specific commitments are described in the Technical Specifications and QA Program description and not in this enclosure.

To improve the effectiveness and efficiency of the nuclear assessment (quality assurance/quality control) function, CP&L will make both organizational and functional program changes. Where no reduction in regulatory commitment is involved, CP&L will make the changes as allowed by 10 CFR 50.54(a)(3).

The majority of this submittal is similar to the original Technical Specification/QA program changes first submitted August 1992 and revised September 1993 after dialogue with NRC reviewers. CP&L withdraws the previous submittals. The major changes from the previous submittals include: 1) elimination of the Nuclear Assessment Department (NAD) and realignment of the Nuclear Assessment Section (NAS) reporting to the Site Vice President; 2) the addition of a 2 year frequency cap for performance based assessments; and 3) revised Independent Review (IR) function and organization.

The purpose of the nuclear assessment reorganization is to:

- Improve plant performance through strengthened self-assessment;
- Increase accountability for problem identification and effective corrective action within the plant organization;
- Strengthen the depth and scope of performance-based assessment;
- Improve translation of "lessons learned" throughout the Nuclear Generation Group; and
- Maintain senior management awareness of plant performance issues.

## Performance Evaluation Section

A Performance Evaluation Section (PES), reporting to the Vice President - Nuclear Services Department (NSD), will be established. The PES will provide a cadre of experienced assessment-trained, management-level, personnel to lead assessments and evaluate key areas of the plant and supporting organizations.

The primary functions of the PES are: 1) to independently assess the self-assessment and corrective action process of the line organization and the NAS; 2) to ensure that "lessons learned" are shared among the plants and support organizations; and 3) to facilitate the use of industry peer evaluators to identify industry best practices.

A PES-led self-assessment will be performed in each NRC Systematic Assessment of Licensee Performance (SALP) functional area once per SALP cycle. The PES evaluation teams will include peers from other CP&L plants and from the nuclear utility industry, as appropriate, to lend expertise to the self-assessment.

Self-assessment is a broad term, covering everything from self-checking to formal, documented evaluations of plant performance in a specific area, such as work control management. PES-led self-assessments will be documented evaluations. CP&L's three nuclear plants have adopted self-assessment as a way of doing business. The readiness for plant startup process is a good example of formal self-assessment. CP&L seeks to improve the formal self-assessment process by means of PES-led evaluations. The technical expertise of peer assessors coupled with the assessment skills of the PES assessors is expected to provide solid evaluations. Equally important, the assessment training instilled in the peer evaluators during the course of an assessment and the knowledge gained of plant practices at other CP&L plants by the peers will be most valuable.

The PES will by procedure evaluate the effectiveness of the site's self-assessment program, the site's ability to incorporate lessons learned from within CP&L as well as industry events, and the site's corrective action program. In addition to traditional assessment reports, this program will be facilitated by periodic peer group meetings between the PES Manager and each plant NAS Manager. There will also be periodic conference calls between these individuals during which operational experience and plant issues are discussed.

Written PES evaluations, including the results and recommended corrective actions, will be reported to plant and senior management.

The Vendor and Equipment Quality function and the Quality Check (employee concern) program will be reassigned from the NAD to the NSD, where it will report to the Manager-PES. The realignment of corporate functions and reporting relationships are shown in Attachment 1A.

The benefits from the establishment of the PES include:

- Senior management will be informed of plant performance issues by an organization outside the plant line chain of command.
- An independent check of the NAS performance will be provided.
- Peers from other CP&L plants and from the nuclear utility industry, as appropriate, will be used on evaluation teams.
- The evaluation process will provide an additional means of exchanging operational experience among CP&L plants and other utilities.
- Evaluations will emphasize the key attributes of self-assessment, corrective action, and sharing of operating experience.

#### Nuclear Assessment Section

The proposed reorganization eliminates the NAD and realigns the plant NAS, reporting to the Site Vice President. The assignment of NAS as a direct report provides a valuable resource to the person held fully accountable for plant performance. The NAS will continue to conduct performance-based assessments to meet the 10 CFR 50, Appendix B, regulatory-required audits, and will assess to the Institute for Nuclear Power Operations (INPO) performance standards rather than minimum compliance standards.

The NAS Manager will report to the most senior CP&L manager on site, the Site Vice-President. This will ensure independence from the plant production organization. Other nuclear utilities have developed similar organizational arrangements for their quality assurance organizations.

The NAS has been aligned consistent with the current NRC Systematic Assessment of Licensee Performance (SALP) categories. The NAS organization is provided for your information in Attachment 1B. The responsibilities for the Plant Operations and Plant Support Units are discussed below:

- Plant Operations - responsible for Operations, Maintenance, and Engineering and Technical Support.
- Plant Support - responsible for Environmental and Radiation Control and other support areas such as Emergency Preparedness, Security, Document Control, and Material Control.

This realignment will not diminish the emphasis on engineering and technical support within the section. In evaluating the workload of assessors in conjunction with the reorganization, it was determined that having two Engineering/Technical Support Project Engineers in the Operations Unit, coupled with the other engineering and related science personnel within the NAS was sufficient to meet the needs of the assessment and IR functions.

The NAS has highly qualified, experienced engineers at each plant. Further, these NAS engineering positions are rotational. The engineers and other NAS assessors are expected to rotate back into the line organization in two to five years. Thus, the engineering, operations, and maintenance expertise will stay current.

The NAS assessment process will remain consistent with that presently performed by the plant NAD sections. One benefit of the current process has been the use of peers from other plants during evaluations. As described in the PES peer discussion, the NAS assessment process also facilitates the exchange of information among CP&L plants.

The NAS will use CP&L peer engineering personnel and, if necessary, outside consultants, where a specified expertise is needed to ensure engineering areas are evaluated.

Upon NRC approval, the IR function will be reassigned from the NAD to the plant NAS. IR is currently performed by four engineers. Normally, one of the four engineers is assigned to plant special assessments. Effectively, there is one engineer per site performing IR. The reassignment would put one IR Project Engineer in each NAS, reporting to the Manager - NAS.

Documents requiring IR are currently reviewed by three separate engineers, through a three party review process, designed to ensure review by the appropriate discipline. CP&L is proposing a revision to this process which is consistent with ANSI N18.7, which requires review by the appropriate discipline.

In the event the IR Project Engineer does not have the appropriate discipline background to review a specific document, he will obtain the required discipline expertise from within the NAS, and, if necessary, outside NAS to ensure the proper review is completed.

CP&L is proposing to integrate the IR function with the assessment/audit functions. The NAS has experienced personnel, who have engineering or related science degrees to carry out the IR function.

The benefits of the NAS reorganization include:

- Provides an additional tool to the Site Vice President for assessing and improving plant performance;
- Provides greater plant accountability for improved performance;
- Closely links the nuclear assessment function to plant needs;
- Provides for an independent assessment of plant performance since the NAS is outside the normal plant manager line function chain of command;
- Promotes line self-assessment;
- Uses expertise from other CP&L plants;
- Facilitates plant personnel assignments to other CP&L assessment teams; and
- Enhances personnel development by facilitating and stimulating rotation with the plant organization.



Significant Technical Specification/QA Program  
Functional Changes

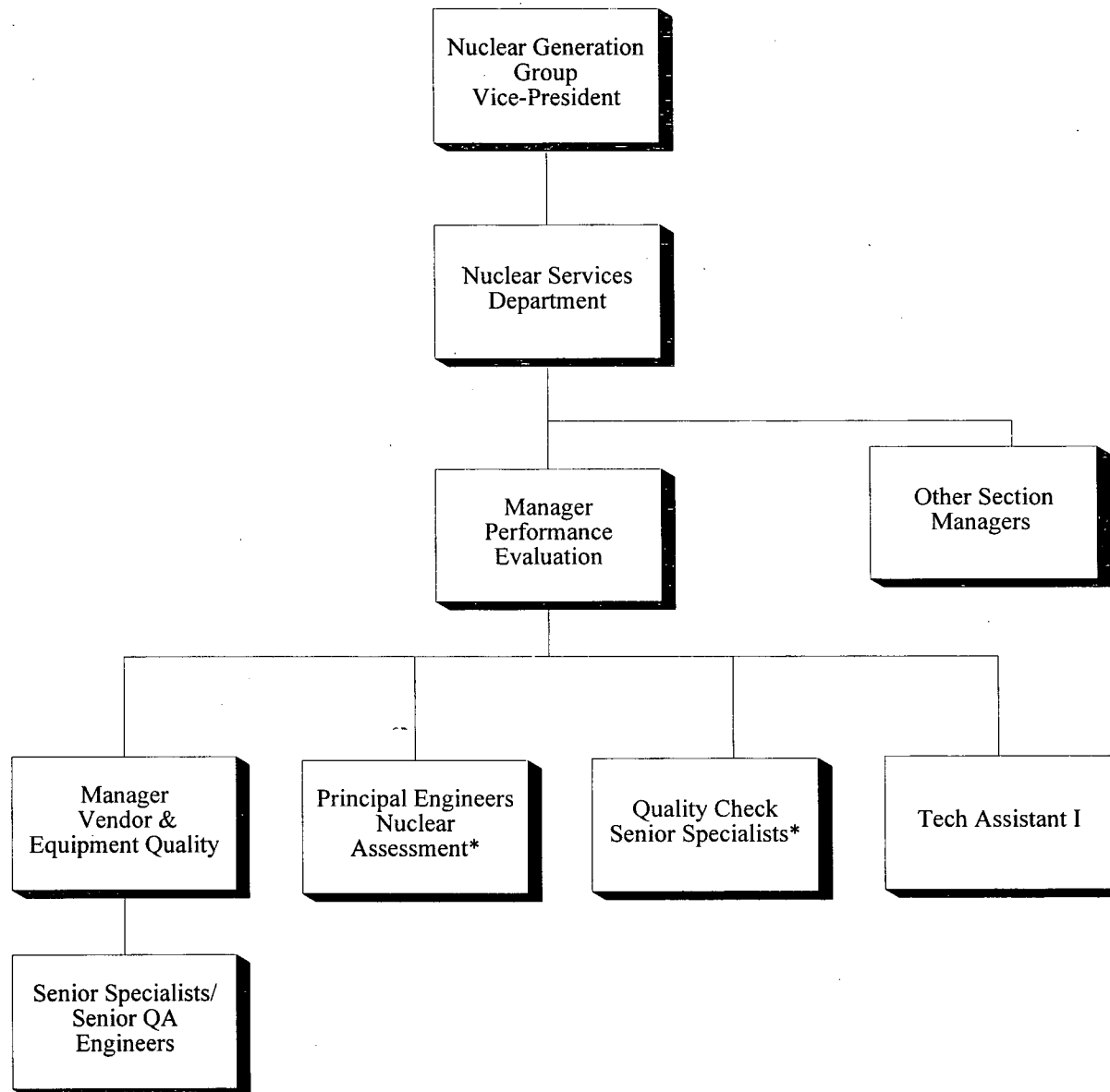
Nuclear Assessment audits will be conducted at a frequency consistent with plant performance. In no case will the assessment (audit) cap of 24 months be exceeded. CP&L will not change its audit frequency limits until the 24 month cap is approved by the NRC in response to this request.

The bimonthly report of NAD issues is proposed to be revised to a periodic briefing of NAS issues to senior management. This will be normally done at the plant management review meeting. Nuclear Assessment issues will be discussed, including a review by the manager responsible for the corrective action.

The technical specification change details the transfer of the IR function from corporate NAD to the plant NAS. The IR function will be integrated into the NAS organization. The makeup of NAS personnel provides a broad experience base and diversity of academic/engineering disciplines for the IR and 10 CFR 50, Appendix B assessment functions.

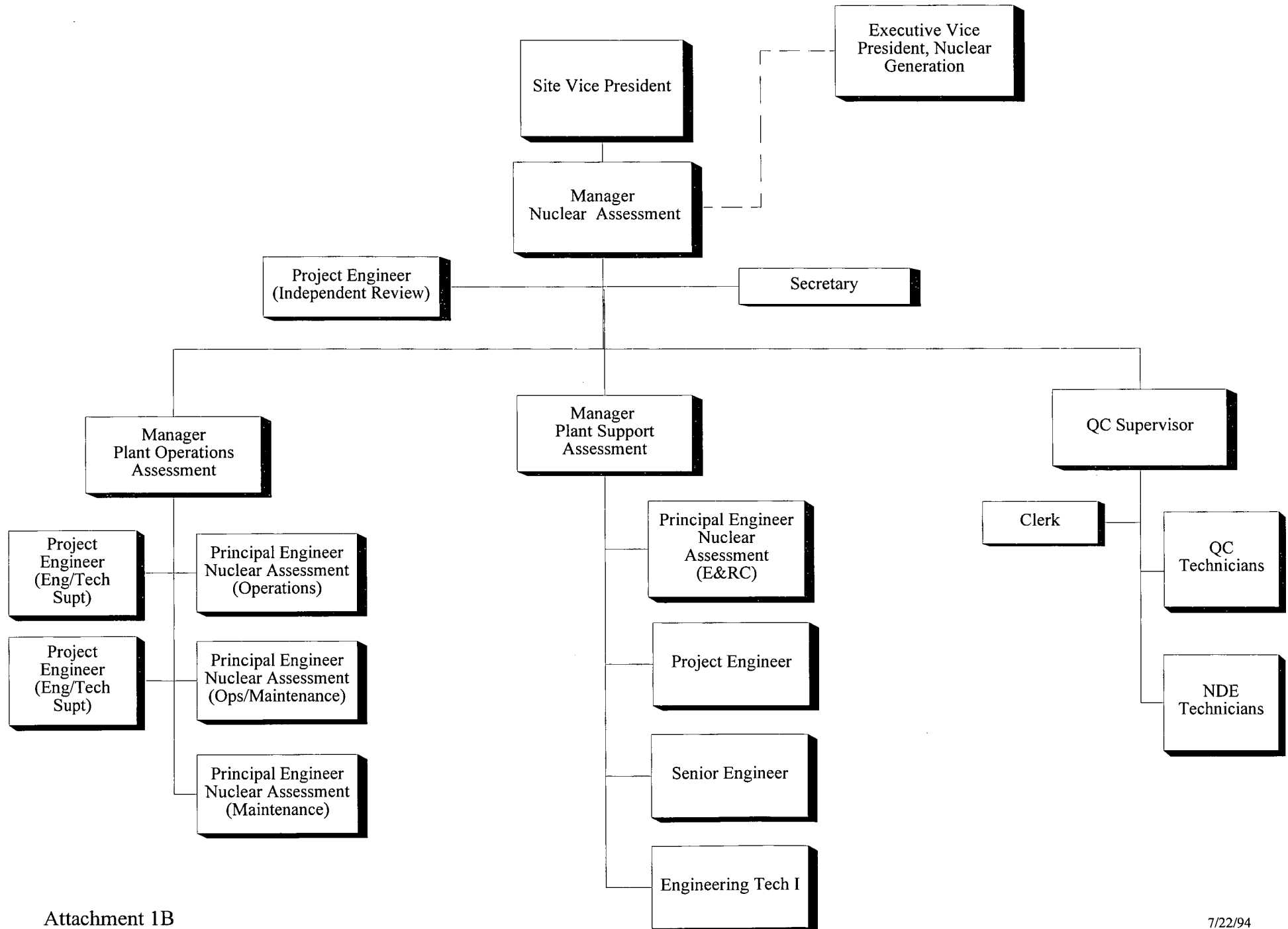
IR will be performed in the applicable discipline(s) by qualified reviewers per applicable ANSI N18.7 requirements instead of the current three party review now performed for each plant. Should the IR Project Engineer not have the required discipline background to review a specific document, he will obtain the required discipline expertise from other qualified NAS reviewers, including going outside NAS, if necessary.

## Proposed Nuclear Services Department Organization



\* Located at plant

# RNP Proposed Nuclear Assessment Section



ENCLOSURE 2

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
NRC DOCKET NO. 50-261/OPERATING LICENSE NO. DPR-23  
QUALITY ASSURANCE PROGRAM

CHANGE DESCRIPTIONS REQUIRING NRC APPROVAL ,  
INCLUDING REASONS/BASIS FOR CHANGE

PROPOSED CHANGE NO. 1 - UFSAR SECTION 1.8, REGULATORY GUIDE 1.33,  
PAGE 1.8.0-5

The proposed change deletes the existing clarification "a" and replaces it with new clarifications "a and b" concerning CP&L's independent review and assessment programs.

Reason for Change

The proposed Nuclear Assessment Section (NAS) is responsible for independent review and assessment functions. By being a part of the same organization, a formal independent review of assessment reports will not be performed by the NAS. Periodic reviews of the assessment program will be changed from once every six months to a frequency not to exceed once every 24 months.

Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10 CFR 50, Appendix B and the UFSAR Quality Program

An independent review of the NAS activities will be performed by the Performance Evaluation Section. In addition, management receives periodic briefings of NAS activities. This meets the 10 CFR 50, Appendix B requirement to have these assessment results reviewed by management. This change from six months to 24 months is consistent with our transition to a performance based assessment program with a 24-month frequency cap. This meets the 10 CFR 50, Appendix B requirement to regularly review the status and adequacy of the QA program.

PROPOSED CHANGE NO.2- UFSAR SECTION 1.8, REGULATORY GUIDE 1.146, PAGE 1.8.0-21

The proposed change adds a new clarification "g" to modify the criteria for qualification of Lead Assessors. Currently, Lead Assessors shall have participated in a minimum of five (5) nuclear industry type evaluations within a period of time not to exceed three (3) years prior to the date of qualification, one assessment of which shall be an assessment within the year prior to qualification. CP&L proposes to revise the requirement to participate in five (5) nuclear industry type evaluations without the three (3) year restriction. They may have previous assessment experience, but not in the last three (3) years due to other management assignments.

Reason for Change

CP&L proposes to rotate experienced personnel from the line organization into the NAS. This change allows the NAS organization to utilize prior experience to qualify individuals as Lead Assessors.

Basis for Concluding that the Revised Program Incorporating the Change Continues to Satisfy 10 CFR 50, Appendix B and the UFSAR 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. Qualified and experienced personnel used to perform assessments will continue to meet the qualification requirements outlined in our commitment to Regulatory Guide 1.146.

PROPOSED CHANGE NO. 3 - UFSAR SECTION 13.1, ORGANIZATIONAL  
STRUCTURE OF APPLICANT

The Nuclear Safety Review Unit (Independent Review function) is being transferred from the Nuclear Assessment Department (NAD) to the Robinson Nuclear Plant. The primary responsibility of the Nuclear Safety Review Unit was to perform the Independent Review function for all of CP&L's nuclear units. The proposed organization transfers this function to the NAS at each plant. Individuals performing the Independent Review will also perform 10 CFR 50, Appendix B assessments. This organizational change will be described in UFSAR Chapter 13 and submitted in accordance with 10 CFR 50.71(e).

Reason for Change

The proposed organization deletes the NAD and realigns this function reporting to the Vice President - Robinson Nuclear Plant. The purpose of combining the independent review function and assessment function is to:

- 1) improve plant performance through strengthened self-assessment.
- 2) increase accountability for problem identification and effective corrective action within the plant organization.
- 3) strengthen the depth and scope of performance based assessment.
- 4) improve translation of "lessons learned" throughout the Nuclear Generation Group.
- 5) maintain senior management awareness of plant performance issues.

Basis for Concluding that the Revised Program Incorporating the Change Continues to Satisfy 10 CFR 50, Appendix B and the UFSAR Quality Program

The proposed organization will allow CP&L to implement a performance based assessment program that meets the requirements of 10 CFR 50, Appendix B. The NAS will be a multi-disciplined, experienced and qualified group of individuals to meet these requirements.

#### PROPOSED CHANGE NO. 4 - UFSAR SECTION 17.2, QA PROGRAM DESCRIPTION

The proposed change deletes Section 17.2 in its entirety and replaces it with Section 17.3 which describes the proposed performance based assessment program. Changes which require NRC approval include: 1) implementation of a performance based assessment program with a 24-month frequency cap; 2) periodic reviews of the plant assessment function will be changed from once every six months to a frequency not to exceed once every 24 months; and 3) the Manager - NAD had access up to and including the Chief Executive Officer. This is being revised to state that the Manager - NAS will have access up to and including the Executive Vice President - Nuclear Generation Group. NUREG-0800, Standard Review Plan, Section 17.3 was used to reformat the existing UFSAR Section 17.2 to the proposed UFSAR Section 17.3. Various editorial and format changes were made to provide consistency among CP&L nuclear plants for the QA Program description.

##### Reason for Change

The proposed Section 17.3 describes the performance-based assessment program.

##### Basis for Concluding That the Revised Program Incorporating the Change Continues to Satisfy 10 CFR 50, Appendix B and the UFSAR Quality Program

The modification of assessment frequencies will allow assessments to be scheduled on the basis of plant performance. The basis for the change in frequency of periodic reviews of the assessment program from once every six months to once per 24 months is described in Proposed Change No. 1.

The Manager - NAS will provide briefings to the Senior Nuclear Operating Officer, the Executive Vice President - Nuclear Generation Group, to ensure that concerns are raised and addressed at the highest level in the Nuclear Generation Group. The Manager - NAS is free at anytime to raise issues to the Executive Vice President - Nuclear Generation Group if he determines that additional emphasis or action is necessary.

Regulatory Guide 1.33

QUALITY ASSURANCE PROGRAM  
REQUIREMENTS (OPERATION) REVISION 2,  
FEBRUARY 1978

ANSI Standard N18.7-1976

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

Comply with the provisions of Regulatory Guide 1.33, Rev. 2 February 1978, and the requirements and recommendations for administrative controls described in ANSI N18.7-1976, except as stated below:

*INSERT NEW Paragraphs*

*Proposed Change 1*

a) ~~Section 4.5 titled Audit Program: The 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 semiannually to assure that audits are being accomplished in accordance with requirements of Technical Specifications and of this Standard." CP&L's QA Auditing 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. CP&L feels that these management reviews stated satisfy the requirements of the above paragraph.~~

C ~~N~~ Section 5.2.1.6 titled Measuring and Test Equipment: See FSAR Section 17.2.12 for clarification.

d ~~N~~ The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February 1978, shall be established, implemented, and maintained as specified in the HBR 2 Technical Specifications.

e ~~N~~ Section 5.2.17 titled Inspections: The 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 ~~N~~ 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.

g ~~N~~ Section 5.2.2 titled Procedure Adherence: Temporary changes to approved procedures shall be approved by persons specified in the HBR 2 Technical Specifications.



Proposed Change 1

Insert for Regulatory Guide 1.33.

a.) Paragraph 4.5

Written assessment reports are not formally reviewed as part of the Independent Review function.

b.) Paragraph 4.5

CP&L will perform periodic reviews of the assessment program at least once every 24 months.

Regulatory Guide 1.146

QUALIFICATION OF QA PROGRAM AUDIT  
PERSONNEL FOR NUCLEAR POWER PLANTS  
(REVISION 0) (AUGUST, 1980)

ANSI Standard N45.2.23-1978

QUALIFICATION OF QUALITY ASSURANCE  
PROGRAM AUDIT PERSONNEL FOR NUCLEAR  
POWER PLANTS

HBR 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 ANSI N45.2.10 will be used; "AUDIT" which is included in ANSI N45.2.10 will be used as clarified in CP&L commitment to Regulatory Guide 1.74. | 3

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: | 3

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

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. | 3

*Proposed Change 4 (see enclosure 3)*  
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. | 3

*Assessment Section Management or the Audit/Assessment Team Leader*  
~~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. | 3

*assessment*  
e) Section 5.3 titled Updating of Lead Auditors' Records: CP&L will substitute the following sentence for this Section: | 3

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

f) Section 5.4 titled Record Retention: CP&L will substitute the following sentence for this Section. | 3

Qualification records shall be retained as required by the CP&L QA Program.

g) Paragraph 2.3.4 "For Assessments" the prospective Lead assessor shall have participated in a minimum of five Nuclear Industry TYPE evaluations (i.e. NRC INSPECTIONS, INPO Assessments, Nuclear Assessment Section Assessments, QA Audits...) one of which shall be within the year prior to his qualification.

*Proposed Change 2*

Proposed Change No. 4

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

### 17.3 RNP 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 - Nuclear Generation Group.

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 - Nuclear Generation Group.

The QA Program is founded on the principle that the line organization has the primary responsibility for quality and safety. Self-assessment practices are used to ensure the desired levels of quality and safety are achieved and maintained. This consists of each individual being involved with plant performance to ensure the plant is operated in a safe, reliable, and efficient manner. The Nuclear Assessment Section (NAS) evaluates 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 the Vice President - Robinson Nuclear Plant 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 UFSAR and in implementing procedures. The term "line organization" used in this program refers to the production organization reporting to the Executive 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 NAS shall independently monitor and assess the Company's nuclear programs on a continuing basis. The NAS performs assessments which incorporate the previous QA audits. These evaluations are performance based with emphasis on quality of the end product.

A periodic briefing of NAS activities, along with any potential issues and recommendations, shall be presented to the Executive Vice President - Nuclear Generation Group. The Manager - NAS shall have access to the corporate management up to and including the Executive Vice President - Nuclear Generation Group to resolve any quality or nuclear safety related concerns if the concerns cannot be resolved satisfactorily at a lower management level.

The Performance Evaluation Section is responsible to ensure that the results and effectiveness of the assessment organization and processes in accomplishing its assigned objectives will be regularly evaluated, but at a frequency not to exceed 24 months.

#### 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 in accordance with plant procedures.

Personnel within the Operating organization performing duties of a licensed operator are indoctrinated, trained, and qualified as required by 10 CFR 55.

#### 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 RNP is committed. The commitment to comply or exceptions for CP&L to follow are presented in Section 1.8 in this UFSAR. The requirements of this section (17.3) may provide additional exceptions to these regulatory guides and codes and standards.

The Nuclear Regulatory Commission shall be notified of changes to the QA Program description in accordance with 10 CFR 50.54(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.

Measures 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 Safety Analysis Report (SAR) commitments have been addressed.
- c) Qualification tests to verify the adequacy of the design are performed using the most adverse specified design conditions.

- 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

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.

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 contract when needed to assure the contractor's or supplier's capability to comply with applicable technical and quality requirements.

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 those 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 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

CP&L 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.

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.

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

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.

Modification, repairs, and replacements are inspected in accordance with the original design and inspection requirements or acceptable alternatives

#### 17.3.2.13 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.

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 distributed to and used by the person performing the activity in accordance with plant procedures.

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 Generation Group. 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 Generation Group 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 Generation Group 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 products. Adverse conditions identified during self-assessment activities are reported and resolved in accordance with the corrective action program.

Self-assessment activities are not necessarily a documented activity and personnel performing self-assessment do not require any special training and/or qualifications beyond that required to hold their present position.

#### Line Organization

Each individual, work group, and manager should be aware of 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.

Self-assessment activities focus on how well the 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 Performance Evaluation Section, in the Nuclear Services Department, shall monitor specific functional areas, along with the line organization management, to determine that desired levels of performance are being achieved. Individuals assigned these duties shall work with each nuclear plant to improve implementation of CP&L's Nuclear Generation Group programs and processes to support safe and reliable operation.

#### 17.3.3.3 Independent Assessment

The NAS 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 NAS 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 NAS 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

The independent assessment process includes gathering data, analyzing data, focusing on selected issues and identifying deficiencies to desired performance. The results of independent 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 (including line organization self-assessment activities,
- o Interviews,
- o Reviews of documents to gather information (including the use of NRC, INPO, and other agency evaluations),
- o Nuclear Safety Review activities,
- o Team independent assessments
- 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 independent assessment, and the applicable acceptance criteria. Independent Assessment activities are selected with flexibility based on various factors. These factors include but are not limited to: importance to safety and reliability, NAS independent 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.

#### NAS Assessment Program

Assessments of facility activities shall be performed by the NAS. Assessments will be performance based and will be scheduled based on plant performance and importance to safety but at a frequency not to exceed 24 months. These assessments shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions.
- b. The performance, training and qualifications of the entire staff.

- c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety.
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10 CFR 50.
- e. Any other area of facility operation considered appropriate by the Vice President - Robinson Nuclear Plant.
- f. The Fire Protection Program and implementing procedures.
- g. The Radiological Environmental Monitoring Program and the results thereof.
- h. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures.
- i. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes.

Assessments of activities prescribed by the Code of Federal Regulations will be performed at the frequencies prescribed by the applicable regulation. These assessments shall encompass:

- a. Emergency Preparedness (per 10 CFR 50.54(t))
- b. Security (per 10 CFR 50.54(p))

#### 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 independent assessments, special investigations, and analysis of data will be provided to the NAS Management for review. A periodic briefing of NAS activities, along with potential issues and recommendations, shall be presented to the Senior Nuclear Operating Officer, the Executive Vice President - Nuclear Generation Group.

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.

### ENCLOSURE 3

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
NRC DOCKET NO. 50-261/OPERATING LICENSE NO. DPR-23  
QUALITY ASSURANCE PROGRAM**

**CHANGE DESCRIPTIONS NOT REQUIRING NRC APPROVAL  
(INFORMATION ONLY), INCLUDING REASONS FOR CHANGES**

**PROPOSED CHANGE NO. 1 - UFSAR SECTION 1.8, REGULATORY GUIDE 1.58,  
PAGES 1.8.0 -10 AND 11**

The proposed change deletes the words "Operating Plant QA" and adds receipt inspection personnel to the list of personnel qualified per this standard as stated in this position. The change also deletes "QA/QC" and replaces it with the words "personnel performing."

**Reason for Change**

This will allow any personnel, in addition to Nuclear Assessment Section (NAS) personnel, to be qualified to perform inspections in accordance with our commitments to Regulatory Guide 1.58. This supports our efforts to have material control personnel, not a part of the NAS, to perform receipt inspections. This is not a reduction in commitment in the QA Program because personnel performing inspections continue to meet the same qualifications.

**PROPOSED CHANGE NO. 2 - UFSAR SECTION 1.8, REGULATORY GUIDE 1.88,  
PAGE 1.8-14**

This proposed change adds a reference to UFSAR Section 17.3.

**Reason for Change**

This is an editorial change and simply references where additional clarifications and controls on QA records are located in the UFSAR. This does not reflect a reduction in commitment.

PROPOSED CHANGE NO. 3 - UFSAR SECTION 1.8, REGULATORY GUIDE 1.144,  
PAGE 1.8-20

The proposed change modifies clarification "a" and adds new clarification "b" to Regulatory Guide 1.144.

Reason for Change

There is no change for external audits. The proposed change reflects the use of the word assessment in place of the word audit for internal evaluations and provides an explanation of the terminology of the assessment organization.

Changing the terminology does not change the way these assessments are performed. This does not reflect a reduction in commitment.

PROPOSED CHANGE NO.4 - UFSAR SECTION 1.8, REGULATORY GUIDE 1.146,  
PAGE 1.8.0 -21

The proposed change modifies the wording for clarification "d" to Regulatory Guide 1.146 to reflect the terminology of the assessment organization and delete titles which no longer exist due to organizational changes.

Reason for Change

There is no change for external audits. The proposed change reflects the terminology of the Nuclear Assessment Section (NAS) organization. Changing terminology and organizational titles to reflect the current organization does not affect the way that this Regulatory Guide will be applied. This does not reflect a reduction in commitment.

PROPOSED CHANGE NOS. 5, 6, 7 & 8 - UFSAR SECTION 9.5, PAGES 9.5.1 - 2, 3, & 4

Proposed Change No. 5

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 duplication and possible conflicts. This does not reflect a reduction in commitment.

#### Proposed Change No. 6

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

#### Reason for Change

This change was created by the NAD reorganization and will allow for receipt inspection to be performed within the Material Control Unit. This will allow any personnel, in addition to NAS personnel, to be qualified to perform inspections in accordance with our commitments to Regulatory Guide 1.58. This supports our efforts to have material control personnel, not a part of the NAS, to perform receipt inspections. This is not a reduction in commitment because personnel performing inspections continue to meet the same qualifications.

#### Proposed Change No. 7

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

The NAS will implement the Independent Assessment Process. This process will ensure an effective means of reviewing and evaluating the CP&L QA Program. This does not reflect a reduction in commitment.

#### Proposed Change No. 8

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

#### Reason for Change

The specific responsibilities are being deleted from this section and included in Section 17.3 to eliminate duplication and possible conflicts. References to the QA organization is deleted based on the creation of NAS. This is an editorial change and does not reflect a reduction in commitments.



PROPOSED CHANGE NO. 9 - UFSAR SECTION 13.1, ORGANIZATIONAL  
STRUCTURE OF APPLICANT

The proposed change identifies the organizational changes created by the re-organization of the NAD and the creation of the Performance Evaluation Section in the Nuclear Services Department. This includes elimination of the NAD and realignment of the NAS reporting to the Vice President - Robinson Nuclear Plant. This does not reflect a reduction in commitment. The changes to UFSAR Chapter 13 will be submitted in accordance with 10 CFR 50.71(e).

Reason for Change

These organizational changes are to improve plant performance through strengthened self-assessment and to increase accountability for effective corrective action within the plant organization.

The proposed organizational structure with the Manager - NAS reporting to the Vice President - Robinson Nuclear Plant continues to provide access to a level of management sufficient to demonstrate independence.

PROPOSED CHANGE NO. 10 - UFSAR SECTION 13.4, Page 13.4.0-1

The proposed change deletes the specific details of the 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 UFSAR. This is an editorial change and does not reflect a reduction in commitment.

Regulatory Guide 1.58

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

ANSI Standard N45.2.6-1978

QUALIFICATION OF INSPECTION,  
EXAMINATION, AND TESTING PERSONNEL  
FOR NUCLEAR POWER PLANTS

HBR 2 shall comply with NRC 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:

Proposed Change 1

1) Nondestructive examination (NDE) personnel,

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

(3) Receipt 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 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,

Proposed Change 1

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

(3) Receipt Inspection Personnel

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

Proposed Change 1

PERSONNEL PERFORMING

3 | e) Section 3 titled Qualifications: Only personnel performing NDE (such as LP, MT, UT, & 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.

3 | f) Section 3.5 titled Education & Experience Recommendations: CP&L will certify individual inspectors through training and experience to requirements appropriate to the specific assignment; however, except for NDE, personnel will not be classified by levels of capability. The training and experience requirements will be directed toward qualifying personnel for specific inspection and testing operations.

Regulatory Guide 1.88(WITHDRAWN)

ANSI Standard N45.2.9-1979

REQUIREMENTS FOR COLLECTION,  
STORAGE, AND MAINTENANCE OF  
QUALITY ASSURANCE RECORDS FOR  
NUCLEAR POWER PLANTS

The requirements for collection, storage, and maintenance of QA records at HBR Unit 2 will be in accordance with ANSI N45.2.9-1979, subject to the following:  
*and UFSAR Section 17.3*

1. Section 1.5 titled Referenced Documents: - CP&L's commitment to other documents referenced in this standard shall be as stated in our commitment to that document.

*Proposed Change 2*

2. Section 5.4 Item 2 "Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers." HBR complies with this requirement except for brief periods when records are in the receipt or microfilming process.

3. Section 5.6 states: "Records shall be stored in facilities constructed and maintained in a manner which minimizes the risk of damage or destruction from the following:

- a. Natural disasters such as winds, floods, or fires.
- b. Environmental conditions such as high and low temperatures and humidity.
- c. Infestation of insects, mold, or rodents."

Records are stored in permanent and temporary facilities as follows:

1) One hour UL-rated fireproof file cabinets are utilized for temporary storage of records. These file cabinets are located at work locations throughout the plant and will contain the records until transmitted to the vault.

2) Permanent storage of QA records will be in the plant vault constructed to meet the requirements of this ANSI standard.

3) Selected records may be stored off-site by a QA Records Storage supplier provided that supplier meets the applicable sections of this ANSI standard.

4. Section 6.2 states: "Storage systems shall provide for retrieval of information in accordance with planned retrieval times based upon the record type."

Retrieval of records at the H.B. Robinson Plant is via a random access computer system using key words and document identification numbers. Or through a manual index for records completed prior to 1982. The manual system is keyed to Plant Systems.

5. Section 7.3.3 states: "Various regulatory agencies have requirements concerning records that are within the scope of this Standard. The most stringent requirements shall be used in determining the retention period."

H. B. Robinson will continue to adhere to the recommendations of Appendix A of ANSI N45.2.9-1974, or with the most stringent requirement with respect to records retention.

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

- a) CP&L will follow the requirements and recommendations of paragraphs C.1, C.2, C.3.a.2, C.3.b, and C.4. Our position on paragraph C.3.a.1 is as follows:

Audits of operational phase activities, as outlined in Section 6, H. B. Robinson Technical Specifications, shall be performed at the frequencies specified in the Technical Specifications.

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- b) CP&L performs both internal and external audits as defined in ANSI N45.2.12. Generally the term "assessments" applies to internal audits of operational phase activities and the term "assessors" applies to individuals who perform assessments of those activities. Implementing procedures provide specific applications of those terms.

Regulatory Guide 1.146

QUALIFICATION OF QA PROGRAM AUDIT  
PERSONNEL FOR NUCLEAR POWER PLANTS  
(REVISION 0) (AUGUST, 1980)

ANSI Standard N45.2.23-1978

QUALIFICATION OF QUALITY ASSURANCE  
PROGRAM AUDIT PERSONNEL FOR NUCLEAR  
POWER PLANTS

HBR 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 ANSI N45.2.10 will be used; "AUDIT" which is included in ANSI N45.2.10 will be used as clarified in CP&L commitment to Regulatory Guide 1.74. | 3

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: | 3

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

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. | 3

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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. | 3

*Assessment Section Management or the Audit/Assessment Team Leader*  
~~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. | 3

*assessment*  
e) Section 5.3 titled Updating of Lead Auditors' Records: CP&L will substitute the following sentence for this Section: | 3

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

f) Section 5.4 titled Record Retention: CP&L will substitute the following sentence for this Section. | 3

Qualification records shall be retained as required by the CP&L QA Program.

g) Paragraph 2.3.4 "For Assessments" the prospective Lead assessor shall have participated in a minimum of five Nuclear Industry Type evaluations (i.e. NRC Inspections, INPO Assessments, Nuclear Assessment Section Assessments, QA Audits...) One of which shall be within the year prior to his qualification.

*Proposed Change 2 (see enclosure 2)*

### 9.5.1.3 Fire Prevention Program

9.5.1.3.1 General. The fire protection program at HBR2 consists of design features, equipment, personnel, and procedures which combine to provide for a multitiered safeguard against a fire which could impact the health and safety of the public.

9.5.1.3.2 Program control. Amendment 142 to H. B. Robinson Operating License DPR-23, Technical Specifications deleted Fire Protection requirements. The program is implemented by administrative procedures FP-012 and FP-013 to control minimum Fire Protection equipment and surveillance testing.

The effective implementation of the HBR2 fire protection program depends to a large degree on the stipulation that activities which significantly impact fire safety will be performed in accordance with established procedural controls. These controls consist of two types--those which control specific work activities (e.g., surveillance test of a diesel fire pump) and those which are administrative or programmatic in nature (e.g., a welding permit system). A discussion of the controls follows:

1. Housekeeping - Proper housekeeping is considered essential to the operation of the Robinson plant since it can directly affect the safety and health of all personnel. From a fire protection standpoint, good housekeeping helps to limit the quantity of combustible material that could be ignited and the consequences of fires that may occur.

2. Combustible Hazards and Ignition Sources - The probability of the occurrence of fires at Robinson is 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 plant areas.

Welding, flame cutting, grinding, and other operations which 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.

Periodic inspections of plant areas are performed and documented by the fire protection group in accordance with established procedures.

3. 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 or by the periodic testing activities. The plant Operating Manual contains procedures which describe the Maintenance

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subunit preventive maintenance program. Surveillance activities performed on fire protection items by Operations is done in accordance with procedures in the plant Operating Manual.

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

4. 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 by the Fire Protection Senior Specialist or his designee.

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 conditions of operation is involved, and/or (3) if special administrative controls are necessary.

5. Fire Protection List - Fire Protection List 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. The Fire Protection List components usually demand special ordering, material handling, installation, and/or testing requirements.

The Fire Protection List outlines boundaries to fire protection systems within which all Fire Protection List components are contained and is maintained as part of the plant Operating Manual.

6. Procurement Activities - The plant Operating Manual contains written instructions concerning the procurement and storage requirements for safety- and nonsafety-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 includes Fire Protection List components.

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. The Fire Protection List items require inspection by Quality Assurance personnel.

~~7. Audits - The plant General Manager is responsible for ensuring the following audits are accomplished:~~

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*Proposed Change 7*



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~~a. An annual independent audit by qualified offsite personnel or an outside firm in accordance with the Technical Specifications, and~~

~~b. A triennial audit by an outside fire consultant in accordance with the Technical Specifications.~~

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

9.5.1.3.3 Quality assurance. The Corporate Quality Assurance Program is described in Section 17.2. ~~3 This quality assurance program is applied to the fire protection program at Robinson as outlined in the Corporate Quality Assurance Manual.~~

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9.5.1.3.4 Fire protection training. Training is an essential ingredient in developing and maintaining an effective fire protection program. The plant General Manager has the overall responsibility for the fire protection training program. The fire protection training program is designed to provide training to plant personnel commensurate with their respective responsibilities. Depending on job responsibilities, the intensity of training may range from a short introduction to fire safety to weeks of extensive training.

9.5.1.3.5 Hartsville fire department support. The Hartsville Fire Department is a supplement to the plant's fire fighting capability. To effectively utilize this support, indoctrination training and fire fighting coordination is conducted for this group.

9.5.1.4 Systems Description.

9.5.1.4.1 General. The fire protection system at Robinson integrates several design features to establish a multitiered defense against fire damage.

Suppression systems comprise the primary tier and are used to extinguish fires. Fire detection systems alert operators to fires and also actuate automatic fixed suppression systems. Fire barriers limit fire spread and protect vital equipment. Emergency lighting enables more efficient response by trained operators and fire brigade members.

9.5.1.4.2 Fire suppression systems.

9.5.1.4.2.1 Systems function. The fire suppression systems deliver extinguishing agents through both manually and automatically actuated devices. System design is based on the degree of hazard present in an area when balanced with other concerns. Such concerns include plant area, ease of manual fire fighting, protection of safety-related equipment, and personnel safety.

13.4

REVIEW AND AUDIT

The description of plans for conducting reviews and <sup>assessments</sup> ~~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).~~ and FSAR Section 17.3.3, respectively

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