

ATTACHMENT

1. The second sentence on page 1.8-1 of the PSAR should be revised to read "This plan will not be affected by the decision to delay inservice operation of the Harris units until 1985, 1988, 1992 and 1994."
2. The fourth sentence on page 1.8-1 of the PSAR should be revised to read "The Quality Assurance Program for the Shearon Harris Nuclear Power Plant, ....."
3. The following should be added to the second paragraph on page 1.8-1a of the PSAR, "Section 1.8 of the FSAR reflects the current regulatory guide commitments."
4. The following should be added to the sixth paragraph on page 1.8-1a of the PSAR, "These implementing QA documents have been superceded as discussed in section 1.8.2."
5. The second half of the contents on page 1.8-1c of the PSAR and the first half of the contents on page 1.8-1c-1 of the PSAR should be replaced by the following:

"The 'Shearon Harris Nuclear Power Plant Quality Assurance Plan' was replaced by the CP&L 'Corporate Quality Assurance Program' on April 1, 1974. Quality Assurance as described under this new program was fully effective on April 1, 1974. Listed below are the Sections of the Program.\*

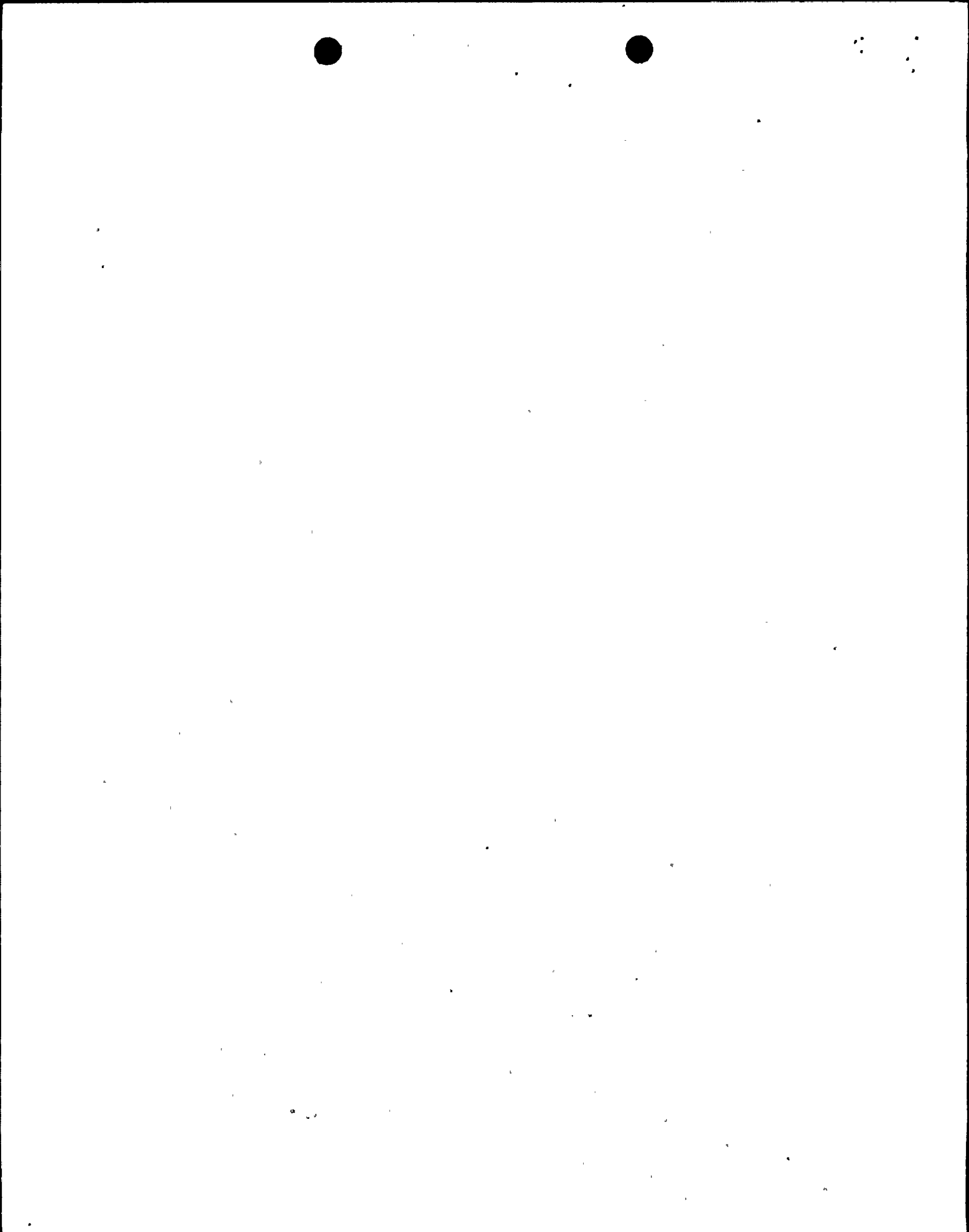
1. Introduction
2. Organization and Responsibilities
3. Design Control - New Plants
4. Procurement Control
5. Material and Equipment Control
6. Instructions, Procedures, Drawings and Document Control
7. Indoctrination and Training
8. Construction Site Work Control
9. Calibration Control
10. Surveillance
11. Final Documentation and Turnover
12. Plant Operations Control
13. Maintenance Control
14. Modification Control
15. Nonconformance Control and Corrective Action
16. Audits
17. Quality Assurance Records
18. Quality Assurance Program for Fire Protection Systems
19. Quality Assurance Program for Radioactive Waste Management Systems
20. Later
21. IF-300, Irradiated Fuel Shipping Cask
22. Radwaste Shipping QA Program

Listed below is a cross reference of the 10CFR50 Appendix B criteria to the Sections of the Program.\*

<u>NRC-QA Criteria</u>	<u>Section of CP&amp;L Corporate QA Program Covering Criteria</u>
Criterion 1	1, 2, 3, 7, 8, 9, 10, 13, 14, 15, 16
Criterion 2	1, 2, 4, 5, 7, 8, 9, 10, 11, 13, 16
Criterion 3	2, 3, 14
Criterion 4	2, 4
Criterion 5	6
Criterion 6	6
Criterion 7	2, 4, 5, 16
Criterion 8	5
Criterion 9	7, 8, 13
Criterion 10	4, 5, 8, 10, 11
Criterion 11	4, 8, 9, 13
Criterion 12	9
Criterion 13	5
Criterion 14	5, 9, 15
Criterion 15	4, 5, 15
Criterion 16	1, 5, 15
Criterion 17	5, 8, 11, 12, 14, 17
Criterion 18	1, 16

\*Section titles and numbers are subject to change and additional sections may be developed as necessary. The above lists are exemplary lists and, as such, will not in the future be updated to reflect these changes as they occur."

6. The following should be added to the third paragraph on page 1.8-ld of the PSAR which references the Ebasco Topical Report, "Subsequent revisions to Ebasco's Topical Report will become effective on the Harris project after NRC acceptance of the revision is obtained."
7. On page 1.8-lh of the PSAR after the first sentence pertaining to the Westinghouse topical report WCAP8370, add the following, "Subsequent revisions to WCAP8370 will become effective on the Harris project after NRC acceptance of the revision is obtained."
8. At the end of Item 1 on page 1.8-li of the PSAR add the following, "This procedure has been replaced by CP&L's Nuclear Plant Engineering Department procedure 3.4 titled 'Review of Design Documents' which became effective on February 27, 1981\*".
9. At the end of Item 2 on page 1.8-lj of the PSAR add the following, "This procedure has been replaced by CP&L's Corporate Quality Assurance Department procedure CQAD-1 titled 'Procedure for Corporate and ASME QA Audits' which became effective on April 2, 1981\*".
10. The contents of page 1.8-lj of the PSAR should be replaced by the following:



"3. Corporate Quality Assurance Department, Engineering & Construction Quality Assurance/Quality Control Section Procedures. Listed below are the subject procedures.

a. Engineering QA and Vendor Surveillance Units Procedures:\*

- AQAS-1 Quality Assurance Document Control
- AQAS-2 Initiation, Revision and Withdrawal of Procedures
- AQAS-3 Contractor and Vendor Evaluations
- AQAS-4 Quality Assurance Records
- AQAS-5 Handling Reportable Items Under 10CFR50.55(e) and 10CFR Part 21
- AQAS-9 Training and Qualification of Engineering & Construction QA/QC Personnel
- EQA-1 Review of Documents for Quality Assurance Requirements
- VQA-2 Vendor Shop Surveillance
- VQA-5 Preparation and Maintenance of Approved Suppliers List

Listed below is a cross reference of the 10CFR50 Appendix B Criteria to the procedures covering the criteria.\*

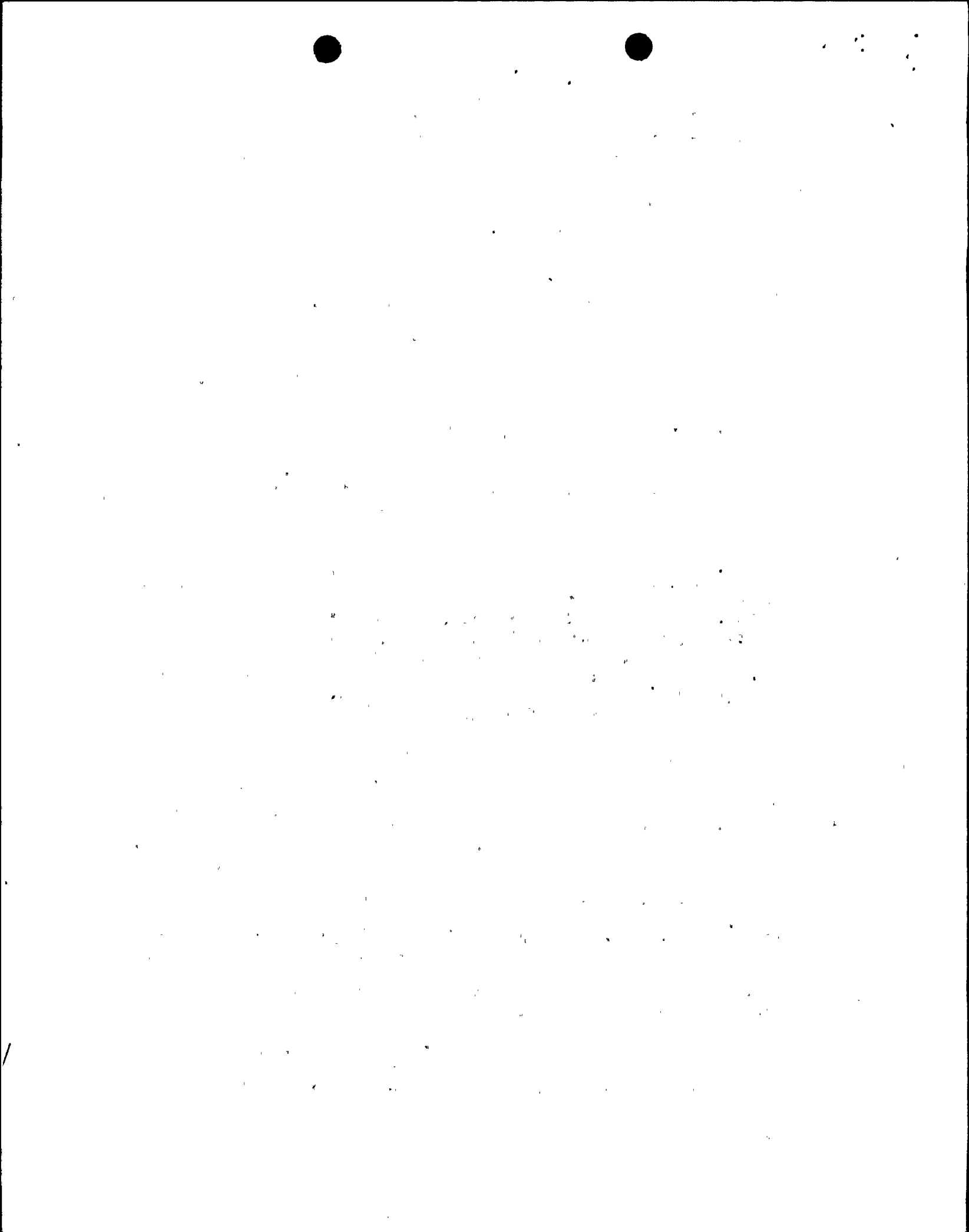
<u>NRC Criteria</u>	<u>QA Section Procedures Covering Quality Assurance Criteria</u>
Criterion II	AQAS-1, AQAS-2, AQAS-4, AQAS-5, AQAS-9 EQA-1, VQA-2
Criterion III	EQA-1
Criterion IV	EQA-1
Criterion VII	AQAS-3, VQA-2, VQA-5
Criterion XVII	AQAS-4."

11. The first sentence on page 1.8-1k of the PSAR should be replaced by the following, "Harris Quality Assurance/Quality Control Unit Procedures.\*"

12. To item 4 on page 1.8-1L of the PSAR, after '10-1 Revision to the Manual of procedures', add the following:

"11-1 Quality Assurance - Nonsafety related items.

12-1 Construction and Quality Assurance site procedure review and approval."



13. At the end of page 1.8-1L of the PSAR, add the following note, "Section titles and numbers are subject to change and additional sections may be developed as necessary. The above list is exemplary and, as such, will not in the future be updated to reflect changes as they occur."
14. Last paragraph, 7th and 8th lines from the bottom of page 1.8-1m of the PSAR should read ". . . the CP&L Manager Engineering, Harris Plant section and the CP&L Manager - Engineering & Construction Quality Assurance/Quality Control Section."
15. First paragraph, 4th, 5th, 6th and 7th lines on page 1.8-1n of the PSAR should read ". . . they are taking to rectify the subject condition. CP&L Section Manager - Engineering, Harris Plant and the Manager - Engineering & Construction Quality Assurance/Quality Control Section . . ."
16. In the second and third paragraphs on page 1.8-1n of the PSAR the title of the CP&L Manager - Engineering & Construction Quality Assurance has been changed to the CP&L Manager - Engineering & Construction Quality Assurance/Quality Control. Also reference to "Power Plant Engineering" in the second paragraph should be changed to "Harris Plant Engineering."
17. Paragraphs a, b and c on page 1.8-2 of the PSAR should be replaced with the following:

"a) Quality Assurance and Inspection

The component manufacturers and/or CP&L, as applicable is responsible for providing appropriate quality control procedures, systems and inspection personnel for assuring and demonstrating that the end product has the specified degree of quality as defined in the appropriate specifications, drawings and/or purchase documents. The actual quality control effort will be executed by the equipment manufacturer. Quality Assurance/Quality Control activities are the responsibility of the CP&L Engineering & Construction Quality Assurance/Quality Control (E&C QA/QC) Section of the Corporate Quality Assurance Department. The inspection of construction activities is shared between Engineering & Construction Quality Assurance/Quality Control Section and the Harris Site Management Section. Carolina Power & Light Company's Corporate Quality Assurance Program reflects this sharing of responsibilities. The Harris project procedures delineate the activities and responsibilities for each section. At the present time, the following summarizes the QC inspection activities performed by the Harris Site Management Section.

- a. Soils - all
- b. Concrete - all, except production testing and repairs
- c. Reinforcing Steel and Embedded Items Installation - all, except cadweld inspection
- d. Structural Steel - all, except welding and NDE



- e. Mechanical Items Installation - all, except welding, NDE, cleanliness inspection and pressure testing
- f. Electrical Items Installation - all
- g. Instrumentation Installation - all
- h. Protective Coatings - all
- i. Lifting Equipment - all, except NDE

All other QC inspections of construction activities are the responsibility of the E&C QA/QC Section.

b) Quality Assurance Surveillance

The CP&L Engineering & Construction Quality Assurance/Quality Control Section and Ebasco Material Engineering and Quality Assurance Department personnel will have surveillance responsibility on the quality control systems, procedures and efforts of component manufacturers and service contractors, in accordance with their respective endeavors. Surveillance of construction contractors will be the responsibility of the CP&L Engineering & Construction Quality Assurance/Quality Control Section.

Two major functions are accomplished by these personnel. The first is during the design phase where the various specifications and procurement documents are reviewed for proper inclusion of applicable code and quality control requirements. The second function occurs during the actual fabrication and construction operations. During this phase the component manufacturer's and construction quality control procedures and programs are reviewed as meeting the requirements of the specification and/or procurement documents, and a physical surveillance action is performed to ensure that the quality requirements are in fact being met.

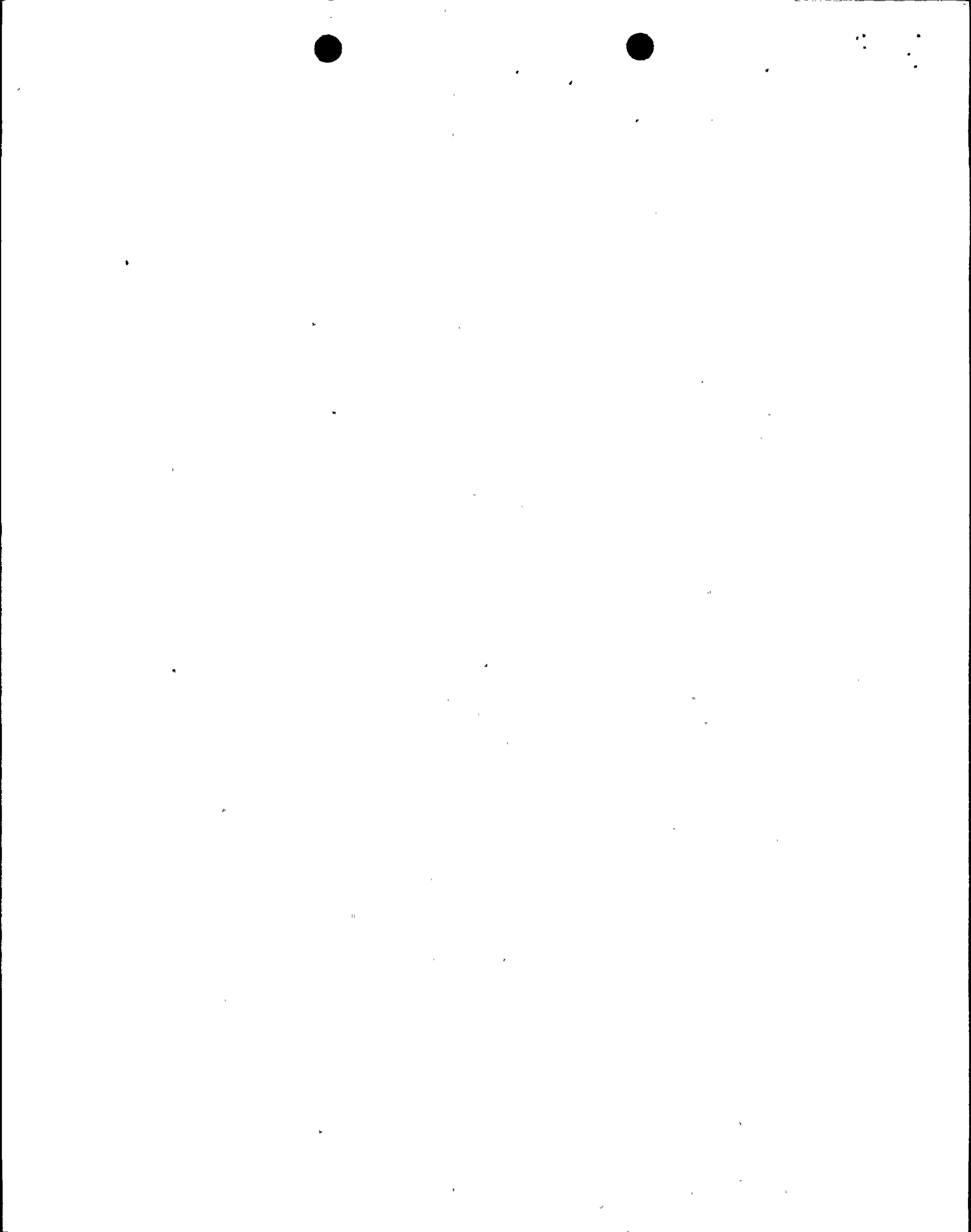
The E&C QA/QC Section is responsible for performing surveillance only in those areas where the section has no responsibility for the QC inspections. The QC inspections performed by the Harris Site Management Section are subject to surveillance by the E&C QA/QC Section. This eliminates the dual QA/QC functions for a given activity being performed by any one QA supervisor.

c) Quality Assurance Audit

To ensure that the CP&L Quality Assurance Program is functioning as planned, periodic audits are performed by the CP&L Corporate Quality Assurance Department, Performance Evaluation Unit and/or its authorized consultants. The quality assurance activities of manufacturers and contractors are audited to ascertain if they are actually functioning as required."

It should be noted that the changes reflected in the above paragraphs a) and b) were previously accepted by the NRC by letter to CP&L dated February 25, 1981.





18. The first paragraph on page 1.8-3 of the PSAR should be revised to read "The CP&L Corporate Quality Assurance Program defines the positions responsible for the QA program. The Manager of the Corporate Quality Assurance Department defines the QA program content and changes thereto. The Executive Vice-President Power Supply and Engineering and Construction is responsible for the final review and approval of the QA program."
19. References on pages 1.8-3 and 1.8-4 of the PSAR to CP&L's Power Plant Engineering, Technical Services and Power Plant Construction Departments should be revised to reflect CP&L's Nuclear Plant Engineering, Corporate Quality Assurance and Nuclear Plant Construction Departments respectively. Also reference to the Engineering & Construction Quality Assurance Section should be changed to read the Engineering & Construction Quality Assurance/Quality Control Section.
20. Item (10) in the first paragraph on page 1.8-4 of the PSAR should be revised as follows: "(10) surveillance of implementation of QA program and procedures by CP&L's Nuclear Power Construction Department and the Constructor."
21. The paragraph just above section 1.8.3.1.4 on page 1.8-4 of the PSAR should be revised as follows:

"The CP&L Site Quality Assurance/Quality Control personnel report directly to the Manager - Engineering & Construction Quality Assurance/Quality Control. The CP&L Manager - Engineering & Construction Quality Assurance/Quality Control Section is responsible for direction of construction Quality Assurance/Quality Control through the CP&L Director Harris QA/QC Unit. The Director Harris QA/QC Unit will work closely with the Ebasco Site Quality Assurance Coordinator regarding Ebasco purchased equipment. The Principal NDE Specialist at the Harris Site is responsible for providing the necessary NDE support and reports directly to the Manager - Engineering & Construction Quality Assurance/Quality Control Section."
22. Reference to the System Planning and Coordination Department at the start of section 1.8.3.1.4 on page 1.8-4 of the PSAR should be deleted and the first four lines at the start of section 1.8.3.1.4 should read as follows: "The Principal QA Specialist of the Performance Evaluation Unit which is part of the Corporate Quality Assurance Department is responsible for conducting quality assurance audits and is responsible for (1) establishing . . ."
23. Reference in the first paragraph of page 1.8-4a of the PSAR to Executive Vice-President and Chief Operating Officer should be changed to read Vice-Chairman. Also the last sentence in this paragraph should be revised to read, "As shown by figure 1.8-1, the performance evaluation unit is independent from the Departments responsible for the engineering and construction of the plant."



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24. The last sentence in the first paragraph on page 1.8-6b of the PSAR should be revised as follows: "Ebasco will also review drawings, specifications and design information received from Westinghouse for interface compatibility and overall project design. CP&L will review selected drawings, specifications and design information received from Westinghouse for interface compatibility and overall project design."
25. The third paragraph on page 1.8-6b of the PSAR should be changed to read, "Specifications and their revisions, once accepted by CP&L, are issued for construction use."
26. Page 1.8-20 of the PSAR should be revised as follows:

"1.8.3.4.1          Engineering & Construction Quality Assurance/Quality Control  
                                Section - Harris Quality Assurance/Quality Control Unit

The Manager - Engineering & Construction Quality Assurance/Quality Control is responsible for:

- 1) Surveillance and direction of construction site QA program
- 2) Surveillance of site construction activities
- 3) Preparation and implementation of Quality Assurance/Quality Control procedures for Site QA/QC
- 4) Assuring all persons concerned that the site QA program is being performed as per the Corporate Quality Assurance Program and Quality Assurance Procedures
- 5) Providing inspectors and quality assurance services required by the site quality assurance program. As discussed in paragraph 1.8.2(a), the Harris Site Management Section is also responsible for providing construction inspection.

The Manager - Engineering & Construction Quality Assurance/Quality Control Section will be responsible for staffing and directing the quality assurance/quality control functions at the site. He will be directly accountable to the CP&L Manager of the Corporate Quality Assurance Department in the implementation of this Quality Assurance Program.

The Harris Quality Assurance/Quality Control unit reports to the Manager - Engineering & Construction Quality Assurance/Quality Control Section. They will work closely with the Ebasco Field Quality Assurance Coordinator regarding Ebasco supplied equipment. The CP&L Director - Harris QA/QC Unit has authority to stop any phase of construction work where he finds quality or procedures are questionable. Deficiencies noted by the site Quality Assurance/Quality Control personnel are reported to the Manager - Engineering & Construction Quality Assurance/Quality Control Section.

1.8.3.4.2 Field

The Harris Quality Assurance/Quality Control Unit is supervised by the Director - Harris QA/QC Unit, who reports directly to the Manager - Engineering & Construction Quality Assurance/Quality Control. Administratively, he will report to the Site Manager Harris Plant Construction at the site for scheduling, coordination and administrative services. CP&L Engineering & Construction Quality Assurance/Quality Control Section is responsible for surveillance of the construction quality assurance program.

Quality Assurance/Quality Control Inspectors shall be assigned to various phases of the project as directed by the Director - Harris QA/QC Unit.

Quality Assurance/Quality Control personnel will be qualified in accordance with the Engineering & Construction Quality Assurance/Quality Control Section procedures requirements.

The Director - Harris QA/QC Unit shall:

a) Work cooperatively with and set up definite lines of communication with the Westinghouse NSSS Site Representative and the Ebasco Quality Compliance Coordinator for routine flow of information and for special problems."

27. Paragraph g) on page 1.8-21 of the PSAR should be revised to read "Any differences of opinion between the Director - Harris QA/QC Unit and the Site Manager Harris Plant Construction shall be referred to the Vice President of Nuclear Plant Construction and the Manager - Engineering & Construction Quality Assurance/Quality Control Section."

28. The first three paragraphs in section 1.8.3.4.3 on page 1,8-21 of the PSAR should be revised as follows:

"The site Quality Assurance/Quality Control group will be responsible for maintaining records pertinent to and necessary for the quality control of materials and workmanship associated with the project. These records will be maintained throughout construction and final testing. Throughout the course of the project, these records will be available for review by CP&L, regulatory agencies and/or their authorized representatives.

The Director - Harris QA/QC Unit will develop a document file and index at the beginning of the project.

The filing system will be maintained in a numerical order in accordance with the document file index. As each total system is completed, records pertinent thereto will be assembled in a "system package" and so maintained."

29. Paragraph 1.8.3.4.4a).4c) on page 1.8-22 of the PSAR should be revised to read, "Review individual welder qualifications for conformance with applicable ASME, AWS or Ebasco/Site specifications."



30. Page 1.8-23 of the PSAR should be revised as follows:

"1.8.3.4.5 Work Stoppage-Unacceptable Items

If a condition arises where it is determined that project work must be stopped in order to preserve the quality of the work, the CP&L Director - Harris QA/QC Unit has the authority to do so by informing responsible construction supervision in accordance with written procedures. The proper course of action shall be established and implemented for resolution. The particular phase of work shall remain stopped until released by the CP&L Director - Harris QA/QC Unit."

31. All reference to CP&L's Manager - Engineering & Construction Quality Assurance on page 1.8-23a of the PSAR should be changed to indicate "CP&L's Manager - Engineering & Construction Quality Assurance/Quality Control." Reference to CP&L's Manager - Project Engineering in the second paragraph should be changed to CP&L's Manager - Engineering, Harris Plant. The first line in the third paragraph on this page should read "The Engineering & Construction Quality Assurance/Quality Control Section and Harris Site Management will be responsible for . . ." The fifth paragraph on this page should read "Ebasco quality assurance representatives spotcheck quality assurance records of selected Westinghouse safety-related supplied components." The first line in the eighth paragraph on this page should read "CP&L also reviews the applicable portion of Ebasco's quality . . ."
32. Reference to CP&L Quality Assurance sections in the last line on page 1.8-23c of the PSAR should be changed to "CP&L's Corporate Quality Assurance Department."
33. First line in the third paragraph on page 1.8-23d of the PSAR should be revised to read "The Engineering & Construction Quality Assurance/Quality Control Section and Harris Site Management will prepare . . ."
34. The second paragraph in section 1.8.5.6 on page 1.8-23d of the PSAR should read, "Conformance with these measures will be under the surveillance of the CP&L Corporate Quality Assurance Department."
35. The last three lines on page 1.8-23f of the PSAR should read ". . . in the field, such as containment pressure and leak tests, will be developed by cognizant personnel. Preoperational and operational test procedures will be developed at an appropriate time. All testing procedures will state the objective of the tests . . ."
36. All references to CP&L's Engineering & Construction Quality Assurance Section on pages 1.8-23h and 1.8-23i of the PSAR should be changed to CP&L's Engineering & Construction Quality Assurance/Quality Control Section.

37. The first line in section 1.8.5.18 on page 1.8-23j of the PSAR should be revised to read "CP&L's Corporate Quality Assurance Department, Performance Evaluation Unit is responsible for the planned . . ." Also the last sentence on this page should be revised as follows, "Internal audits will be conducted by Westinghouse and Ebasco of their Quality Assurance Programs."
38. The last sentence on page 1.8-42 of the PSAR should read, "Also vendor QA programs based on ASME Section VIII or ANSI B31.1 for boiler external piping will be acceptable to comply with ETSB 11-1 QA requirements."
39. The existing Table 1.8-4 in the PSAR should be replaced with the new attached table.
40. The existing figures 1.8-1 and 1.8-2 in the PSAR should be replaced with the new attached figures. Also figure 1.8-4 of the PSAR should be deleted.



TABLE 1.8-4  
 CAROLINA POWER & LIGHT COMPANY  
 QUALITY ASSURANCE/QUALITY CONTROL PERSONNEL

NOTE: All QA personnel are full-time QA personnel; however, the personnel indicated as part-time work on other power plant projects as well as SHNPP.

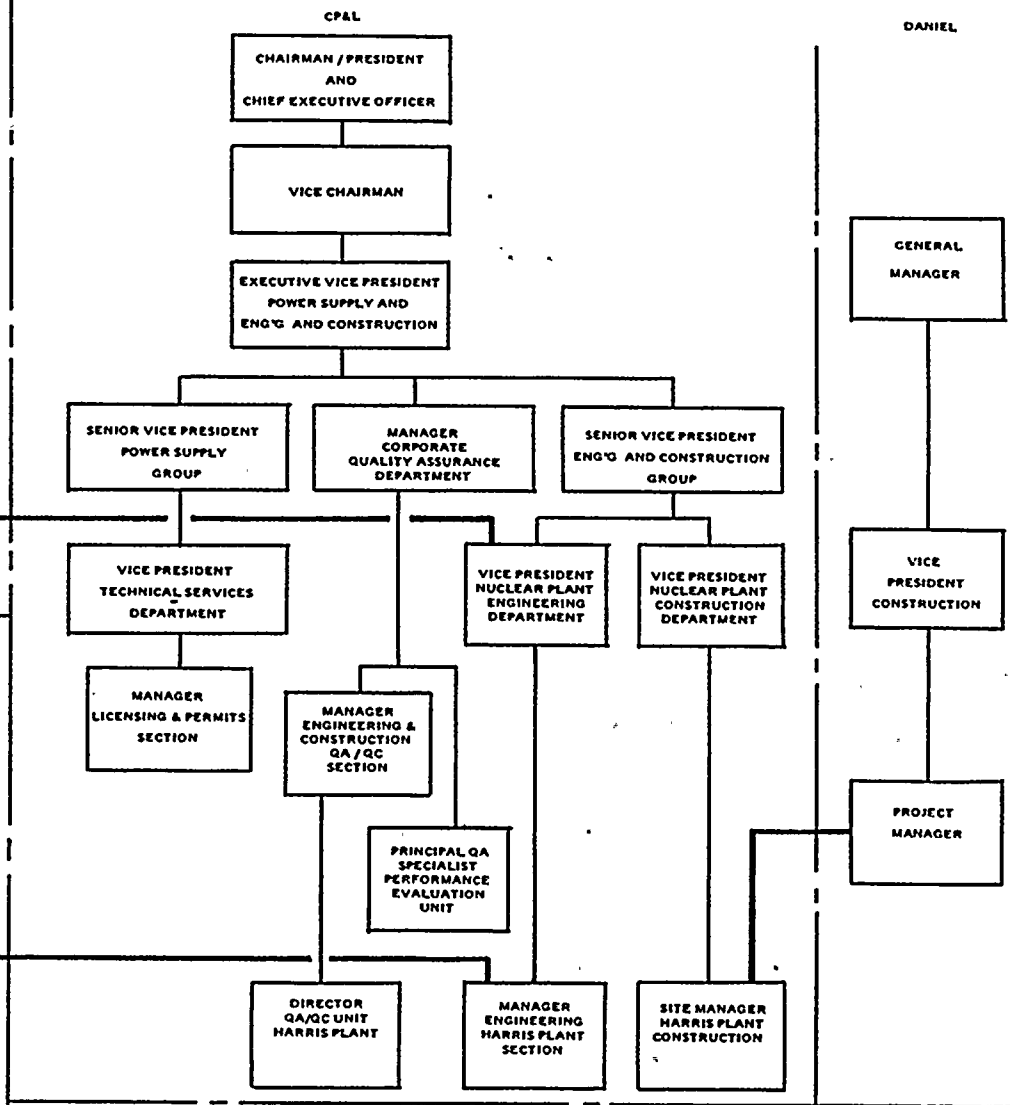
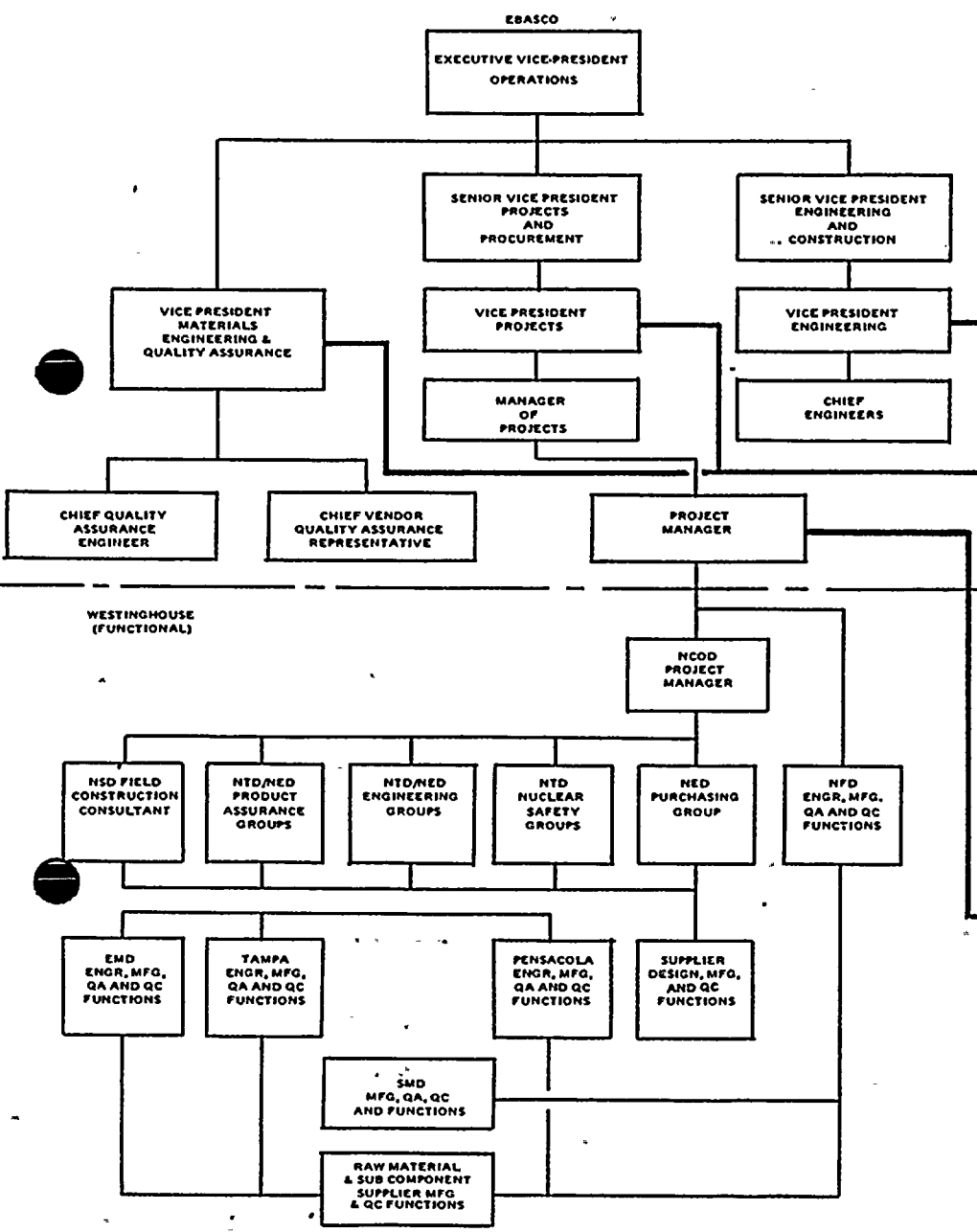
	<u>Personnel</u>	<u>Assigned*</u>	<u>Qualifications</u>	<u>Functions</u>
	<u>Full-time</u>	<u>Part-time</u>		
1. <u>Engineering &amp; Construction QA/QC Section</u>				
a) management		1	Formal education and/or experience	Manages the CP&L engineering and construction quality assurance/quality control program.
b) engineering unit				
1) principal QA engineer		1	Formal education and/or experience	Supervise Engineering QA activities.
2) project QA engineer	1		Formal education and/or experience	Coordinate Project Engineering QA activities.
3) engineers		6	Formal education and/or experience	Perform engineering audits and review specifications for QA requirements.
c) vendor surveillance unit				
1) principal VS specialist		1	Formal education and/or experience	Supervise vendor surveillance activities.
2) project vendor surveillance specialist		1	Formal education and/or experience	Participate in and review vendor surveillance activities.
3) specialists		5	Formal education and/or experience	Participate in and review vendor surveillance activities.
d) Harris QA/QC unit				
1) director - Harris QA/QC	1		Formal education and/or experience	Supervise construction QA/QC activities.
2) specialists	7		Formal education and/or experience	Supervise construction QA/QC inspection activities.



	<u>Personnel</u>	<u>Assigned*</u>	<u>Qualifications</u>	<u>Functions</u>
	<u>Full-time</u>	<u>Part-time</u>		
3) technicians	15		Formal education and/or experience	Perform QA/QC inspections and tests and assist other QA personnel.
4) inspectors	19		Formal education and/or experience	Perform QA/QC inspections and tests and assist other QA personnel.
e) NDE unit				
1) principal QA/QC specialist - NDE		1	Formal education and/or experience	Supervise NDE unit activities.
2) project QA/QC specialist - NDE		1	Formal education and/or experience	Coordinate/supervise NDE support activities for SHNPP and other CP&L facilities.
3) QA/QC specialist - NDE	1		Formal education and/or experience	Supervise NDE technicians performing SHNPP construction site NDE activities.
4) QA/QC technicians - NDE		10	Formal education and/or experience	Perform NDE activities.
2. <u>Corporate Quality Assurance Performance Evaluation Unit</u>				
1) principal QA specialist		1	Formal education and/or experience	Supervise the CP&L Corporate Audit program.
2) project QA specialist		1	Formal education and/or experience	Coordinate audit activities.
3) specialists		4	Formal education and/or experience	Perform audits in accordance with approved procedures.
4) technician		1	Formal education and/or experience	Assists other audit personnel in their activities.

\*Additional personnel will be assigned as needed.

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**LEGEND:**

———— COMPANY ORGANIZATION

———— INTERCOMPANY COMMUNICATION

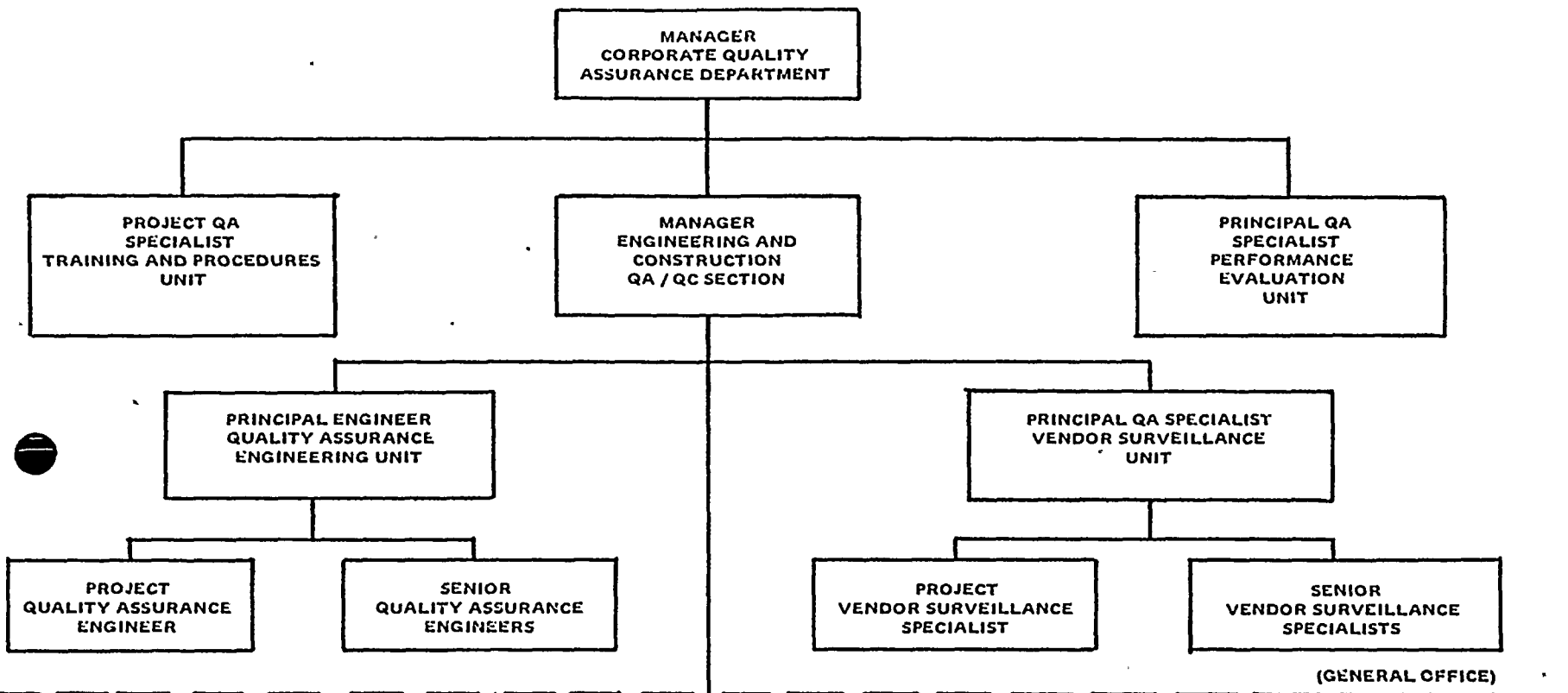
----- INTERCOMPANY BOUNDARIES

NOTE: INFORMAL COMMUNICATION AND COORDINATION CHANNELS ARE NOT SHOWN

**CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR PLANT  
UNITS 1, 2, 3 & 4**

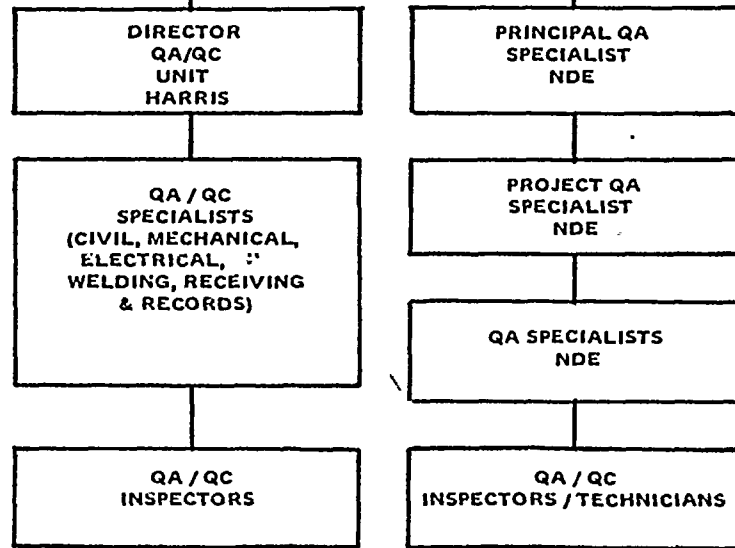
**QUALITY ASSURANCE ORGANIZATION**

1.8-1



(GENERAL OFFICE)

(SITE)



CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR PLANT  
UNITS 1,2,3 & 4

CORPORATE QUALITY ASSURANCE  
DEPARTMENT

1.8-2