



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N.W. SUITE 818
ATLANTA, GEORGIA 30303

OCT 4 1976

Central File
50-261

In Reply Refer To:
IE:II:RCP
50-261/76-9

Carolina Power and Light Company
ATTN: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

Thank you for your letter of September 10, 1976, informing us of steps you have taken to correct the items of noncompliance concerning activities under NRC Operating License No. DPR-23 which were brought to your attention in our letter of August 19, 1976. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Very truly yours,

F. J. Long, Chief
Reactor Operations and Nuclear
Support Branch

September 10, 1976

FILE: NG-3513 (R)

SERIAL: NG-76-1219

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region 2 - Suite 818
230 Peachtree Street, N. W.
Atlanta, Georgia 30303

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION REPORT NO. 50-261/76-9

Dear Mr. Moseley:

We have received and reviewed your report concerning IE Inspection No. 76-9 and find it contains no information of proprietary status to Carolina Power & Light Company. As required, we submit to you the following information regarding the two (2) enforcement items identified by your personnel:

A. Deficiency

Contrary to Technical Specifications 6.12.2.d. the implementing procedures for the respiratory protection program do not adequately define methods for selecting, fitting, and maintaining respiratory protection equipment.

Corrective Action Taken to Correct Deficiency

Necessary changes to Health Physics procedures are being written to adequately define the methods for selecting, fitting, and maintaining respiratory protection equipment. Specifically, the changes address; detailed criterion for selection of respiratory equipment based on air surveys and working conditions, allowance for an individual to select a respirator with a more conservative protective factor than that required, and the deletion of eye glasses with temple bars when wearing full-face respirators. Instructions will also be provided for maintaining respiratory protection equipment.

In addition, air sample results will be recorded on any special radiation work permit in which airborne activity is a factor in the radiological hazards of the job being performed.

September 10, 1976

Corrective Action to Prevent Further Non-Compliance

Actions as delineated above will prevent further non-compliance.

Date When Full Compliance Will Be Achieved

The procedural changes will be completed and implemented on or prior to October 25, 1976.

B. Deficiency

Contrary to Technical Specifications 6.11, the licensee failed to follow approved Health Physics Procedure Number HP-20 resulting in assignment of incorrect transport group classification to six shipments and incorrect records for four shipments during the period of January to May, 1976.

Corrective Action Taken to Correct Deficiency

All personnel involved in the shipment of radioactive materials have been instructed to follow Health Physics Procedure HP-20 and to comply with 10 CFR 71 in the shipment of radioactive materials.

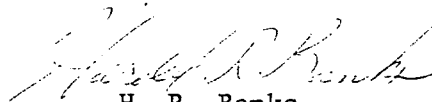
Corrective Action Taken to Prevent Further Non-Compliance

The corrective action identified above will prevent further non-compliance.

Date When Full Compliance Will Be Achieved

Full compliance regarding this item was established 9-1-76.

Very truly yours,



H. R. Banks

Manager

Nuclear Generation

KEB/CSB/bb

cc: Mr. W. G. McDonald
Mr. E. Volgenau



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

AUG 19 1976

In Reply Refer To:
IE:II:RCP
50-261/76-9

Carolina Power and Light Company
ATTN: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Mr. G. L. Troup of this office on July 19-23, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Mr. J. B. McGirt at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

We have examined actions you have taken with regard to previously reported unresolved items. These are identified in Section IV of the summary of the enclosed report.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. These items and references to pertinent requirements are listed in Section I of the summary of the enclosed report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

AUG 19 1976

Carolina Power and Light Company

-2-

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No.
50-261/76-9



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-9

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: July 19-23, 1976

Dates of Previous Inspection: July 6-9 and 12-15, 1976

Inspector-in-Charge: G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials
Safety Branch

Accompanying Inspector: D. M. Collins, Radiation Specialist
Radiation Support Section
Fuel Facility and Material
Safety Branch

Other Accompanying Personnel: None

Principal Inspector: R. C. Parker
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

8-18-76
Date

Reviewed By: R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

8/18/76
Date

SUMMARY OF FINDINGS

I. Enforcement Items

A. Deficiencies

1. Contrary to Technical Specifications 6.12.2.d, the implementing procedures for the respiratory protection program do not adequately define methods for selecting, fitting and maintaining respiratory equipment. (Details I, paragraph 2)
2. Contrary to Technical Specification 6.11, the licensee failed to follow approved health physics procedure number HP-20 resulting in assignment of the incorrect Transport Group classification to six shipments and incorrect records for four shipments during the period of January to May 1976. (Details II, paragraph 7)

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

76-7/1 Health Physics Instrumentation Calibration Records

Procedure changes to revise the calibration records and provide more meaningful calibration results have not been completed. This item remains open.

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

A management interview was held on July 23, 1976, with J. B. McGirt, Plant Manager, and members of the plant staff. Items discussed included the scope of the inspection, new items of noncompliance, and the inspector's observations and comments.

DETAILS I

Prepared by: *G. L. Troup*

G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials Safety Branch

8/12/76
Date

Dates of Inspection: July 19-23, 1976

Reviewed by: *A. F. Gibson*

A. F. Gibson, Chief
Radiation Support Section
Fuel Facility and Materials Safety Branch

8/12/76
Date

1. Individuals Contacted

J. B. McGirt - Plant Manager
D. S. Crocker - Environmental and Radiation Control Supervisor
W. T. Traylor - Administrative Supervisor
R. E. Morgan - Operating Supervisor
M. L. Layton - Scientist
S. Zimmerman - Scientist
D. Gainey, Jr. - RC&T Foreman
J. A. Eaddy - RC&T Foreman
3 RC&T Technicians

2. Respiratory Protection Program Procedures

- a. Technical Specifications Section 6.12.2.d specifies the requirements for the respiratory protection program, including the requirement for written procedures covering various facets of the program. Plant procedures for respiratory protection are contained in the Radiation Control and Protection Manual and radiation protection procedure HP-6, Respirator Protection.
- b. In reviewing the plant procedures against the Technical Specifications the inspector noted that the procedures did not adequately define the methods for implementing program requirements. Examples of this problem included:
- (1) Technical Specifications Section 6.12.2.d.2 requires written procedures to assure proper selection of protective equipment. While plant procedures specify protection factors for respirators and contain instructions for fitting, no criteria are specified for the selection of equipment based on air surveys, work conditions, etc. nor do they contain provisions for workers to select another type of respirator which is more conservative in the protection factor.

- (2) Technical Specifications Section 6.12.2.d.3 requires written procedures to assure adequate fitting of respirators. Plant procedure HP-6 contains instructions for the fitting of respirators and tests prior to entering an airborne radioactivity area. However, procedure HP-6 permits the wearing of eyeglasses with fullface masks and allows the use of tissue paper to pack around the temple bars to improve the fit. Wearing of eyeglasses with the temple bars penetrating the seal area degrades the protective factor assigned to that type of respirator and results in an inadequate fit. Procedure HP-6 allows the wearing of contact lenses with respirators although industrial standards such as ANSI Z88.2, Practices for Respiratory Protection, state that contact lenses shall not be worn with respirators in contaminated atmospheres and WASH-1287 (draft) states that contact lenses shall not be worn with full facepiece respirators.
- (3) Technical Specification Section 6.12.2.d.4 requires written procedures for the maintenance of equipment, including inspection and repair. Plant procedure HP-6 states that respirators shall be inspected and worn parts replaced. No instructions or guidance are provided in the procedure for inspection criteria for replacement or requirements for replacement parts. No instructions are provided for the repair or adjustment of SCBA regulator valves nor are any prohibitions stated for attempting repair of the regulator valves.
- (4) Technical Specifications Section 6.12.2.d.1 requires air sampling and other surveys to identify hazards and evaluate individual exposures. Plant procedure HP-3, Air Activity Surveys, and HP-7, Special Radiation Work Permits, specify requirements for conducting air sampling. However, air sampling results were not recorded on the Radiation Work Permit form. Consequently, the results were not available for use in selection of equipment or for record purposes in assessing the effectiveness of the program. Air sampling results are recorded on survey sheets or in a special survey log but the results are not readily identified as pertaining to a specific work permit.

3. Qualifications of New RC&T Technicians and Foreman

- a. Technical Specifications Section 6.3.1 requires that members of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions. ANSI N18.1,

paragraph 4.5.2 states, in part, "Technicians in responsible positions shall have a minimum of two years' working experience in their speciality." ANSI N18.1, paragraph 4.3.2 states, in part for supervisors not requiring NRC licenses, "At the time . . . of appointment to the active position, a supervisor in this category shall have a high school diploma or equivalent and a minimum of four years of experience in the craft or discipline he supervises."

- b. In the last year four new RC&T technicians have been hired and one technician promoted to RC&T Foreman. The inspector discussed the qualifications and experience of the five individuals with the cognizant supervisor and ascertained that the foreman met the requirements of the Technical Specifications based on his work at the plant for four years and related experience in the U. S. Navy. However, none of the four new technicians had the requisite two years of working experience in their speciality.
- c. A licensee representative discussed the levels and types of work performed by the technicians with the inspector. Within the technician rating there are three levels plus the category of helper. Individuals advance from one category to the next higher category based on education, work experience and job performance. When the technician reaches level I he is considered capable of performing independently as a "lead technician." At this point the technician is considered to be in a "responsible position." Technicians at lower levels or helpers are assigned to work under a lead technician while gaining experience. As such, the new technicians are not considered by the licensee to be required to meet the Technical Specifications requirements. The inspector also discussed this with a licensee management representative who reiterated that the new technicians were working under the direct supervision of other technicians (lead technicians) and were not considered to be in "responsible positions."
- d. After reviewing the grade structure for technicians and having a discussion with the cognizant supervisor regarding work assignments, job performance, and supervision of the new technicians, the inspector advised licensee management that he had no further questions concerning qualifications of the technicians or with the licensee's interpretation of "responsible positions."

4. Approval of Changes to Radiation Protection Procedures

- a. Technical Specifications Section 6.8.2 requires, in part, that "Proposed operating procedures, overall plant operating procedures . . . shall be reviewed by the PNSC and approved by

the Plant Manager." A licensee representative informed the inspector that all procedures contained in the Plant Operations Manual are required to be reviewed by the PNSC and be approved by the Plant Manager. As the radiation protection procedures and chemistry procedures are contained in Volume 8 of the Plant Operations Manual, they are reviewed and approved in accordance with the Technical Specifications.

- b. The inspector reviewed sixteen changes to the procedures and determined that the content of the changes was consistent with the Technical Specifications and the requirements of 10 CFR 20. The inspector also reviewed the Change Request and Authorization Forms and the PNSC meeting minutes and verified that all of the changes had been reviewed and approved as required by the Technical Specifications. The inspector had no further questions on the matter.

5. Exposure of Minors

10 CFR 20.104 establishes limits for the exposure of minors to radiation and to airborne radioactive materials. In response to the inspector's question on how these exposures are controlled, a licensee representative informed the inspector that minors are not allowed to work in the radiation control area and that this is controlled through the issuance of radiation monitoring devices. Visitors to the plant who are minors are also controlled administratively to maintain their exposures within the limits of 10 CFR 20.104. A licensee representative further stated that individuals under 18 years of age cannot be hired to work at the plant as a State of South Carolina law prohibits the employment of a minor in a hazardous work area or around operating machinery. Compliance with the law thus controls exposures of minors by restricting them from the radiation control area. The inspector had no further questions on the matter.

6. Radioactive Sources Inventory and Surveys

- a. In accordance with DPR-23, the licensee is authorized to possess radioactive sources in accordance with 10 CFR Parts 30, 40 and 70. Authorized isotopes, quantities and forms are specified in DPR-23, as amended. The inspector reviewed the licensee's inventory records for licensed quantities of material, sealed sources and liquid sources and verified that the quantities, isotopes and forms were in accordance with the license.
- b. Procedure HP-4 Source Accountability specified that sealed sources shall be inventoried monthly and leak tested every six

months. The inspector reviewed the sealed source log and verified that each source had been inventoried and leak tested at the prescribed interval. The inspector noted that the sources had been leak tested monthly for a period of almost two years but that this practice had stopped in April 1976. A licensee representative informed the inspector that while the procedure required the leak test at six month intervals, the practice had been to test the source monthly during the inventory, and that instructions had been given to the technicians to resume this practice. As the tests were performed within the period specified in the procedure, the inspector had no further questions.

7. Other Areas Inspected

The following areas were reviewed by the inspector. No items of noncompliance were identified.

- a. Records of instrument and equipment calibration, covering portable survey instrument calibration and source checks, air monitor checks, alarm set points and alarm checks were reviewed to verify compliance with plant procedures for those functions. A revision to procedure HP-11 is in process to clarify the calibration records. Unresolved item 76-7/1 remains open until the procedure revision is complete.
- b. Whole body counting was performed on plant personnel in June. Results were received at the plant during the inspection. A licensee representative advised the inspector that an evaluation of the results and assessment of respiratory protection equipment effectiveness would be performed.
- c. Scheduled or routine airborne radioactivity surveys as required by plant procedures, including location, and frequency and evaluation of results were reviewed. When continuous air monitors were not available in an area or were out of service, portable samplers were used. Special air sample results were reviewed for entrance into the containment and in contaminated areas. Stay times were adjusted based on concentration as authorized in 10 CFR 20.103b or respiratory protective equipment was specified with adequate protection factors.

DETAILS II

Prepared by: D. M. Collins
D. M. Collins, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials Branch

8/17/76
Date

Dates of Inspection: July 19-23, 1976

Reviewed by: A. F. Gibson
A. F. Gibson, Chief
Radiation Support Section
Fuel Facility and Materials Branch

8/17/76
Date

1. Individuals Contacted

J. B. McGirt - Plant Manager
D. S. Crocker - Environmental and Radiation Control Supervisor
W. Garrison - QA Supervisor
W. Traylor - Administrative Supervisor
J. Green - Shift Foreman
D. R. Gainey, Jr. - RC&T Foreman
M. L. Layton - Scientist
R. Rease - Senior Reactor Operator
J. Harbing - Auxiliary Operator
M. Boyles - Training Technician
5 RC&T Technicians
2 Contract Cleanup Personnel

2. Licensee Audits

The inspector reviewed records of corporate radiation protection reviews and audits from the period July 1975 to July 1976, Minutes of the Plant Nuclear Safety Committee with respect to radiation protection, and records of the QA surveillance for compliance with radiation protection requirements. The inspector discussed the audit and review program with several licensee representatives. The licensee was required by Technical Specifications to conduct an audit and review program consisting of a Plant Nuclear Safety Committee and an Independent Off-Site Review Program and was committed by a letter to NRC to a weekly QA Surveillance program for nuclear safety items. Within the scope of the review, the audit program appeared to be in compliance with requirements.

3. Training

The inspector reviewed the training files for four recently hired RC&T technicians, two new general employees, and two licensed operators. The inspector viewed the training tape shown new

employees and reviewed the new employee orientation check list with licensee representatives. The inspector reviewed the new employee Radiation Exam, the Radiation Monitor Qualification Examination, the test administered after the radiation protection refresher training, and discussed the training and examinations with licensee representatives. The inspector reviewed selected completed tests administered after the radiation protection refresher training. The inspector discussed the elements contained in and depth of radiation protection training with the shift foreman, a senior reactor operator, 5 RC&T technicians, an auxiliary operator, and two contract cleanup personnel. The licensee was required by technical specifications to provide retraining and replacement training to meet Section 5.5 of ANSI N18.1 - 1971, to provide training in accordance with 10 CFR 19.12, and to provide training to RC&T technicians in accordance with HP-26, "Training." Within the scope of the review, the training program appeared to be in compliance with requirements.

4. External Radiation Exposure and Reports

The inspector reviewed the following records:

- Robinson Plant Employees Dose Summary - 1976
- Robinson Plant Employees - 1976
- Robinson Plant Visitor Dose Report - 1976
- Robinson Non-Plant CP&L - 1976
- Current Occupational Radiation Exposure, H. B. Robinson Personnel

The inspector reviewed four personnel dose files for individuals who had received doses in excess of 20.101(a) limits but within 20.101(b) limits to determine if Form NRC-4's were completed prior to exceeding the 20.101(a) limits. The inspector reviewed personnel dose files for three recently terminated individuals to determine if termination reports were made. The licensee was required by 20.101, 102, 104, .202, .401, .405, .408, and 19.13 to measure, record and report radiation doses. Within the scope of the review, the doses and reports appeared to be in compliance with requirements.

5. Posting, Labeling and Control

- a. The inspector made inspections of the facility, equipment and controls on July 19, accompanied by a licensee scientist and on July 21, accompanied by the RC&T foreman. During the course of these inspections, the inspector observed the RC&T foreman make radiation level measurements and take smears. The results of these surveys were compared to the survey

results reported on the daily health physics reports. The inspector observed the posting and control of access to radiation areas, high radiation areas and contamination areas; observed the posting of and compliance with Radiation Work Permits; observed the posting and labeling of containers of radioactive material; and discussed implementation of control measures with licensee personnel. The licensee was required by 10 CFR 20, Technical Specifications and radiation protection procedures to post, label, lock and control access to areas. Within the scope of the review, the posting, labeling and control appeared to be in compliance with requirements.

- b. The inspector observed that the Form NRC-3 and other notices as required by 10 CFR 19.11 were posted.

6. Radiation Level Surveys

The inspector reviewed the records of radiation level surveys for the months of January and May 1976. The licensee was required by 10 CFR 20.201 and 20.401 and by health physics procedures to make radiation level surveys. Within the scope of the review, the survey program appeared to be in compliance with requirements.

7. Shipping and Receiving

- a. The inspector reviewed the licensee's records for shipping and receiving licensed material for the period January 1976 through June 1976. The licensee was required by 10 CFR 20.205 and by implementing procedure HP-21, "Receipt of Radioactive Materials" to perform surveys of incoming shipments of licensed materials. The licensee was required by 10 CFR 71 and by implementing procedure HP-20, "Shipment of Radioactive Materials" to prepare packages for shipment within the specifications of 10 CFR 71.
- b. Within the scope of the review, the survey of receipts of licensed material appeared to be in compliance with requirements.
- c. A review of records of shipment of licensed materials showed that on six occasions, shipments D-2-76, D-3-76, D-4-76, D-5-76, and D-7-76, the transport group listed on the shipping form was III or IV rather than II as specified in 10 CFR 71 and HP-20 for shipments of mixed fission products. On shipment R-1-76 the transport group listed on the shipping form was IV. The analysis of radioisotopes showed several radioisotopes listed as group III in 10 CFR 71. These shipments contained greater than Type A but less than Type B quantities. On shipments D-2-76, D-3-76 and D-4-76 the shipping form listed "yes" in the blank for specification of DOT label rather than

specifying the label, i.e., yellow II, LSA, etc., as specified in procedure HP-20. The shipping papers for D-7-76 indicated that the drums were shipped in containers labeled with a LSA label. The records indicated that one drum contained a concentration of licensed material in excess of LSA specifications for Transport Group II materials. A licensee representative stated that, although the shipping papers did not reflect it, the 55 gallon drum was placed in a shielded package prior to shipment and that the package probably had the appropriate label. A licensee representative showed the inspector the type of container used with 55 gallon drums. These containers were labeled "Type B" and contained DOT Special Permit Number 6405. The inspector informed licensee representatives that it was his impression that special permits had expired and that packages for Type B materials must now have a Certificate of Compliance from the NRC. The inspector stated that he would check with the Transportation Branch of the NRC and notify the licensee of the status of the package. The licensee was informed that contrary to Technical Specification 6.11, he did not follow procedures for shipment of radioactive material in that shipments of mixed fission products had been classified as transport group III and IV rather than II as specified in procedures. The inspector called a licensee representative on July 30, 1976, to inform him that a review of NRC records showed that the "Type B" container in his possession had not received a Certificate of Compliance and to inform him of steps he should take to obtain such a certificate. The licensee representative stated that no Type B quantity shipments would be made with the packages until appropriate approvals were received.



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NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N.W. SUITE 818
ATLANTA, GEORGIA 30303

Central File
50-261

OCT 1 1976

In Reply Refer To:
IE:II:RCP
50-261/76-8

Carolina Power and Light Company
ATTN: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

Thank you for your letter of September 7, 1976, informing us of steps you have taken to correct the item of noncompliance concerning activities under NRC Operating License No. DPR-23 which was brought to your attention in our letter of August 16, 1976. We will examine your corrective actions and plans during subsequent inspections.

We appreciate your cooperation with us.

Very truly yours,

A handwritten signature in dark ink, appearing to read "F. J. Long", written over a horizontal line.

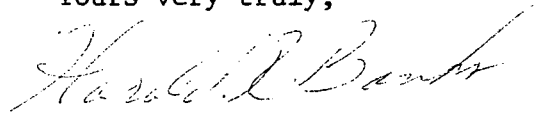
F. J. Long, Chief
Reactor Operations and Nuclear
Support Branch

September 7, 1976

b. Corrective steps to be taken to avoid further noncompliance

The grab sample and composite monthly analysis will continue to be performed as required until the requirements of 4.10.2 of the Technical Specifications are changed or deleted. The corrective action to alleviate the noncompliance was completed during the IE Inspection of July 12-15, 1976.

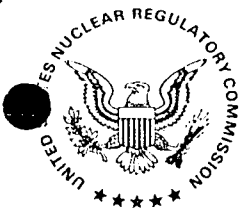
Yours very truly,



H. R. Banks
Manager
Nuclear Generation

KEB/CSB/mls

cc: Mr. W. G. McDonald
Mr. E. Volgenau



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AUG 16 1976

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Carolina Power and Light Company
ATTN: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Messrs. R. C. Parker and W. W. Peery of this office on July 6-9 and July 12-15, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Mr. J. B. McGirt at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

We have also examined actions you have taken with regard to previously identified enforcement matters and unresolved items. The status of these items is identified in Sections II and IV of the summary of the enclosed report.

One new unresolved item resulted from this inspection and is identified in Section III of the summary of the enclosed report. This item will be examined on subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and reference to pertinent requirements is listed in Section I of the summary of the enclosed report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office,

Carolina Power and Light Company -2-

within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

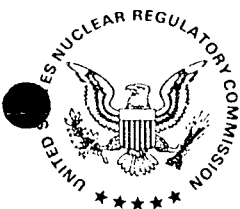
Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No.
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NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-8

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: July 6-9 and July 12-15, 1976

Dates of Previous Inspection: May 25-26, 1976

Principal Inspector: R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

Accompanying Inspectors: B. A. Byrne, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear Support Branch

W. W. Peery, Radiation Specialist
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

Other Accompanying Personnel: R. L. Bangart, Chief
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

Principal Inspector: R. C. Parker
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

8-5-76
Date

Reviewed by:

R C Lewis

R. C. Lewis, Chief

Reactor Projects Section No. 2

Reactor Operations and Nuclear Support Branch

8/12/76

Date

SUMMARY OF FINDINGS

I. Enforcement ItemsDeficiency

Contrary to Technical Specification 4.10.2, grab samples had not been collected twice each week for a composite monthly analysis while the water sampler was out of service during the entire period of 1975 to July 1976. (Details II, paragraph 4)

II. Licensee Action on Previously Identified Enforcement Matters

- A. Enforcement Item 76-4, I.A.1: Procedure Used for Calibration of 4KV Underfrequency Relays Was Not Properly Reviewed and Approved

This item is closed. (Details I, paragraph 2.a)

- B. Enforcement Item 76-4, I.A.2: Maintenance Instruction 11, Procedure 29.3, "Calibration of the Nuclear Instrument System Intermediate Range Was Not Adhered to During Calibration of NI-35"

This item is closed. (Details I, paragraph 2.b)

III. New Unresolved Items

- 76-8/1 Administrative Controls for Reactor Startup and Estimated Critical Position Calculation

Licensee corrective action on nonroutine event report 50-261/76-12, "Reactor Critical With Rods Below Insertion Limits," had not been implemented at the time of the inspection. (Details I, paragraph 5)

IV. Status of Previously Reported Unresolved Items

- 76-2/1 Investigation and Correction of Erratic Westinghouse BFD Relays and IEB 76-5

This item remains open. (Details I, paragraph 4)

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

- A. On July 9, 1976, R. C. Parker held a management interview with J. B. McGirt, Plant Manager, and members of his staff to discuss the inspection findings for the July 6-9, 1976 inspection effort. (Details I)
- B. On July 15, 1976, W. W. Peery held a management interview with J. B. McGirt, Plant Manager, and members of his staff to discuss the inspection findings for the July 12-15, 1976, inspection effort. (Details II)

DETAILS I

Prepared by:

R. C. Parker

R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Aug. 3, 1976
Date

Dates of Inspection: July 6-9, 1976

Reviewed by:

R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

8/12/76
Date

1. Persons Contacted

J. McGirt - Plant Manager
R. Morgan - Operating Supervisor
J. Curley - Nuclear Engineer
W. Crawford - Maintenance Supervisor
R. McGirt - Instrument and Control Foreman
C. Bethea - Shift Foreman

2. Previously Identified Enforcement Matters

- a. Enforcement Item 76-4, I.A.1: Procedure Used for Calibration of 4 KV Underfrequency Relays Was Not Properly Reviewed and Approved

Maintenance Instruction 11, Procedure 35, "4 KV Underfrequency Relay," was reviewed by the inspector to determine if it had been properly reviewed and approved. It was properly approved on May 24, 1976.

This item is closed.

- b. Enforcement Item 76-4, I.A.2: Maintenance Instruction 11, Procedure 29.3, "Calibration of the Nuclear Instrument System Intermediate Range," Was Not Adhered To During Calibration of NI-35

Revised MI-11, Procedure 29.3, dated June 30, 1976, was reviewed by the inspector to determine if provisions for disconnecting and reconnecting detector leads had been incorporated. Additionally, the inspector verified that appropriate plant personnel had been instructed relative to strict adherence to procedures.

This item is closed.

3. Previously Identified Deviations

- a. Deviation 75-10, VI.4: A System for Accumulating, Storing and Filing Plant Operating Records Had Not Been Established (See also IE Inspection Reports 50-261/75-12 and 75-14)

Storage of operating records in the QA vault was reviewed by the inspector and discussed with plant personnel. The inspector was satisfied that appropriate controls had been established for maintaining plant operating records.

This item is closed.

- b. Deviation 75-14, VI: Surveillance Test Procedures Did Not Provide For Recording "As-Found" and "As-Left" Calibration Data

The inspector reviewed the following surveillance test procedures to determine that provisions for recording "as-found" and "as-left" data had been incorporated:

- (1) PT 5.1/2 - "T-Average and Delta-T Protection Channel Testing"
- (2) PT 5.3/1 - "Pressurizer Water Level Protection Channel Test"
- (3) PT 5.7/1 - "Steam Generator Pressure Protection Channel Testing"
- (4) PT 11.1/3 - "Containment Pressure Protection Channel Testing"

No discrepancies were noted. This item is closed.

4. Previously Identified Unresolved Items and IEB 76-5

Unresolved Item 76-2/1: Investigation and Correction of Erratic Westinghouse BFD Relays and IEB 76-5

The inspector reviewed CP&L's response to IEB 76-5, "Relay Failures - Westinghouse BFD Relays," and Plant Modification Package 332 which covers changeout of safety-related BFD relays. In addition the inspector visually inspected the following relay installations: Reactor Protection Train A, Channel I Relays IN39A-X and RCP-1X and Safeguards Train A, Channel I Relay 74X1. The purpose of the review was to determine if commitments made relative to Unresolved Item 76-2/1 and corrective actions specified in CP&L's response to IEB 76-5 had been implemented. No discrepancies were identified. However, eighty-three normally de-energized BFD relays remain to be installed during the November 1976 refueling outage.

Unresolved Item 76-2/1 remains open pending replacement of the normally de-energized BFD relays.

5. Review of Nonroutine Event Reports

Four licensee reportable events were reviewed to ascertain that (1) the events were clearly and promptly reported, (2) the specified corrective action was completed, (3) the event was reviewed and evaluated as required by Technical Specifications, and (4) the facility Technical Specification limits, if exceeded, were identified. Plant personnel were interviewed and facility operating and maintenance records related to the reportable occurrences were reviewed. The four events reviewed were:

- a. 50-261/76-4 - "B" Diesel Did Not Carry Rated Load
- b. 50-261/76-7 - Boric Acid Heat Trace Circuits 22 and 55
- c. 50-261/76-8 - Radial Flux Tilt-Dropped Rod
- d. 50-261/76-12 - Reactor Critical with Rods below Insertion Limits

No discrepancies were identified relative to items a, b and c above.

CP&L's LER 50-261/76-12, dated May 14, 1976, states in part that "... Action to effectively mitigate the recurrence of the event involved a reassessment of the reactor startup procedures including the calculation procedures for the ECP. It was reemphasized to operating personnel, the importance of anticipating criticality during any positive reactivity addition and not relying on the results of ECP's or the indications of 1/M plots.

An effort is in progress to provide better xenon data to the operator for calculation of the ECP. The effort is aimed at removing the power/time dependent errors which were apparent in the calculation associated with this occurrence. Additionally, guidelines for maintaining the 1/M plot during a startup are being reviewed to provide the most effective use of this means of predicting criticality...."

At the time of the inspection no changes had been made to reactor startup, ECP calculation, or 1/M plotting procedures. The inspector emphasized the importance of completing these activities. CP&L stated corrective actions relative to this event would be completed by August 1, 1976.

This is designated Unresolved Item 76-8/1.

6. Review of Annual Report

Plant operating records and plant safety committee meeting minutes relative to three plant forced outages were reviewed by the inspector. The purpose of the review was to determine:

- a. If data contained in the Annual Report is consistent with plant operating records, and
- b. If reports required by Technical Specifications were made.

The records reviewed were related to forced outages occurring on July 11, 1975; September 21, 1975; and October 18, 1975.

Within the areas inspected no discrepancies were identified.

7. Review of Plant Operations

The inspector reviewed plant operating records for the period April 15 to May 5, 1976, and toured the plant observing plant instrumentation and equipment status. These areas were inspected for conformance to Technical Specification requirements and plant administrative procedures.

Within the areas inspected no discrepancies were identified.

DETAILS II

Prepared by: W. W. Peery
W. W. Peery, Radiation Specialist
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

8/12/76
Date

Dates of Inspection: July 12-15, 1976

Reviewed by: R. L. Bangart
R. L. Bangart, Chief
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

8/12/76
Date

1. Individuals Contacted

Robinson 2

J. B. McGirt - Plant Manager
K. Bromenschenkel - Maintenance Supervisor
D. S. Crocker - Environmental and Radiation Control Supervisor
B. W. Garrison - QA Supervisor
J. E. Eaddy - Radiation Control and Test Foreman
Gary Moore - Radiation Control and Test Foreman

CP&L Corporate Offices - Raleigh, N. C.

Dallas Locklear - QA Manager

2. Management Controls

- a. The licensee's Operations Manual and Administrative Instructions assign responsibility and authority for conducting the radiological environmental monitoring program. Administrative Instruction, dated February, 1976, Pages 2-25, 2-26, paragraph 2.1.7 assigns responsibility for conducting the program to the Environmental and Radiation Control Supervisor. Page 2-31, paragraph 2.1.10 assigns responsibility for radiochemistry to the Radiation Control and Test Foreman. Page 2-20, paragraph 2.1.5 assigns responsibility for QA to the QA Supervisor.
- b. Amendment 17 to the Technical Specification 6.5.3.1 requires audits under the cognizance of the Corporate Quality Assurance Audit (CQAA) Section for conformance of facility operation to all provisions in the Technical Specifications and applicable license conditions at least once per year. A licensee representative stated that in 1975 the Corporate Nuclear Safety Committee had responsibility for performing the audits of the

environmental monitoring programs and that Audit 75-2, Pages 22-34, contains the results of the committee audit performed September 9 through October 1, 1975. Audit 75-2 was reviewed and the inspector had no further questions. The licensee representative stated that an audit program for environmental monitoring has been developed by the CQAA since assuming responsibility for these audits; however, an audit of the environmental monitoring program has not been completed for 1976.

3. Quality Control

- a. The analysis of environmental monitoring samples required by the Technical Specifications has been performed by a contractor who has an internal QC program. The contractor has furnished the licensee a written description of the QC program. A licensee representative stated that corresponding samples are taken and analyzed at the plant and used for quality control comparisons. The results of each of the plant sample analyses is reviewed by supervision for comparison with the contractor data. The contractor submits monthly QC reports to the licensee and the plant results are evaluated against the contractor results. The procedures for these evaluations have not been formalized. Licensee representatives stated that administrative and quality control procedures have not been formalized for the analytical measurements of environmental samples at the plant; instead the procedures for analysis of the samples used in plant operations are used for environmental monitoring samples. Licensee personnel collected the samples and sent them to the contractor. In addition to the samples collected and analyzed by the licensee at the plant for QC comparisons, additional samples are collected and analyzed by the plant to supplement the data obtained from the contractor. Licensee management stated that administrative and operating procedures covering the above areas will be formalized to comply with the requirements of the Environmental Technical Specifications (ETS) when the ETS is issued. Licensee management stated that writing of the procedures in a general way will begin in advance of receipt of the new ETS.
- b. A licensee representative stated that the contractor service is being discontinued. As of July, 1976 the environmental monitoring samples are being sent to the licensee's Harris Energy and Environmental Center (HEEC) New Hill, North Carolina. This facility is to be the central location for processing environmental samples from various CP&L nuclear plants. A licensee representative stated that comparative analysis of

selected samples has already begun between Robinson 2 and HEEC.

4. Implementation of the Environmental Monitoring Program

Section 4.10.2 of the Technical Specifications states that if the continuous water sampler is out of service, grab samples will be collected twice each week with a composite of these samples analyzed monthly. A licensee representative stated that the continuous sampler referred to was located at environmental sampling station number 11 at S. C. Highway 1623 bridge over the Black Creek tailrace from Lake Robinson. The licensee representative stated that the continuous sampler was permanently taken out of service some time ago and that only one weekly sample is being collected at the location. The licensee's semi-annual environmental monitoring reports for 1975 show only one weekly sample collected from the location. Licensee management was informed of the failure to meet the twice weekly sampling requirement of Technical Specification 4.10.2. Licensee management stated that the samples will be taken at the specified frequency of twice weekly. Implementation of the remainder of the program satisfied the requirements of Technical Specification Table 4.10-1.

5. Inspection of Monitoring Stations

Inspection was made of several monitoring stations and observation made of actual collection of samples by licensee personnel. Minor problems identified that did not appear to alter the program objective or constitute failure to comply with requirements were discussed with management and assurance received that these matters would receive proper attention.

6. Reports

The licensee's semiannual Environmental Monitoring Report for the second half of 1975 was submitted March 16, 1976 as a supplement to the Routine Operating Report. The licensee stated in a letter dated February 27, 1976, that the Environmental Report would be submitted as a supplement after the March 1, 1976 required date because data had not been received from a contractor. Licensee management stated that now that the environmental samples will be analyzed and data generated within the company, the reports for environmental monitoring should be submitted within the stated time period. The licensee's semi-annual reports for 1975 were reviewed and a few errors identified to licensee representatives. Variations in air sample volumes shown in the reports were also discussed. Licensee representatives indicated that more thorough review will

be made of report data and closer consideration given to resolve the causes of the varying air sample volumes. Management was informed that collectively the weaknesses observed by the inspectors in the environmental monitoring program indicate the need for closer management and supervision of the program and emphasizes the need for completion of detailed procedures. Management stated that efforts will be made to improve the program in these areas.

3031

Central File
50 261

Carolina Power & Light Company

June 26, 1976

FILE: NG-3513 (R)

SERIAL: NG-76-1013

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, NW
Atlanta, Georgia 30303

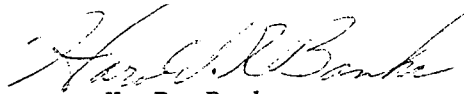
Dear Mr. Moseley:

H. B. ROBINSON UNIT NO. 2
DOCKET 50-261
LICENSE DPR-23
IE INSPECTION REPORT 76-7
RESOLUTION OF PROPRIETARY STATUS

In your letter dated July 6, 1976, you requested that we inform you in writing as to the proprietary or nonproprietary nature of the information contained in your IE Inspection Report No. 76-7.

We have reviewed the report and state that there is no information of a proprietary nature contained therein.

Yours very truly,



H. R. Banks
Manager
Nuclear Generation

CSB:ku

cc: Messrs. W. G. McDonald
E. Volgenau

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

JUL 6 1976

In Reply Refer To;
IE:II:RCP
50-261/76-7

Carolina Power and Light Company
Attn: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Mr. G. L. Troup of this office on May 25-26, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Mr. J. B. McGirt at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have also examined actions you have taken with regard to previously identified enforcement matters and unresolved items. The status of these items is identified in Sections II and IV of the summary of the enclosed report.

One new unresolved item resulted from this inspection and is identified in Section III of the summary of the enclosed report. This item will be examined on subsequent inspections.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to

JUL 6 1976

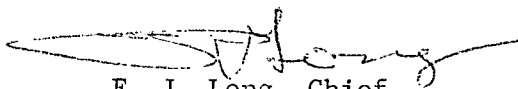
Carolina Power and Light Company

-2-

this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No. 50-261/76-7



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-7

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: May 25-26, 1976

Dates of Previous Inspection: April 26-30, 1976

Inspector-in-Charge: G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials
Safety Branch

Accompanying Personnel: None

Other Accompanying Personnel: None

Principal Inspector: R. C. Parker 7-2-76
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date

Reviewed By: A. K. Henderson for 7/2/76
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date

SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

Evaluation of Respiratory Protection Equipment

Corrective actions stated in CP&L letter dated October 2, 1975 were verified to have been completed. This item is closed.
(Details I, paragraph 2)

Failure to Follow Approved Procedures

Corrective actions stated in CP&L letter dated January 5, 1976 were verified to have been completed. This item is closed.
(Details I, paragraph 3)

Deficiency

Recording of Personnel Exposure Data

Corrective actions stated in CP&L letter dated October 3, 1975 were verified to have been completed. This item is closed.
(Details I, paragraph 4)

III. New Unresolved Item

76-7/1 Health Physics Instrumentation Calibration Records

Calibration records of portable health physics instrumentation are not representative of actual calibration results and do not provide an adequate record of the calibration.
(Details I, paragraph 5)

IV. Status of Previously Reported Unresolved Items

76-4/1 Calibration of Liquid Waste System Flow Integrator

Licensee action on the item is incomplete. This item remains open.

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

At the conclusion of the inspection an interview was held on May 26, 1976, with J. B. McGirt, Plant Manager, and D. S. Crocker, Environmental and Radiation Control Supervisor. Items discussed were the status of previously identified items and the new unresolved item.

DETAILS I

Prepared by

G. L. Troup
G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials
Support Branch

6/10/76
Date

Dates of Inspection: May 25-26, 1976

Reviewed by

A. F. Gibson
A. F. Gibson, Chief
Radiation Support Section
Fuel Facility and Materials
Support Branch

6/10/76
Date

1. Individuals Contacted

J. B. McGirt - Plant Manager
A. C. Tollison - Maintenance Supervisor
D. S. Crocker - Environmental and Radiation Control Supervisor
M. L. Layton - Scientist
J. A. Eaddy - RC&T Foreman
D. Gainey, Jr. - RC&T Foreman

2. Evaluation of Respiratory Protection Equipment

- a. This item was originally discussed in IE Report No. 50-261/75-11, Details III, paragraph 3, and dealt with the failure to perform evaluations of the protection factors of respiratory protection equipment as required by Technical Specifications Section 6.4.2.C.5. Corrective action on this item was described in CP&L letter serial: NG-75-1581 of October 3, 1975. The corrective action outlined included an evaluation during the outage in November 1975 to assess the protection factors based on whole body counts and air concentrations.
- b. The licensee's evaluation of the protection factors is contained in a memorandum to file by the Environmental and Radiation Supervisor dated April 9, 1976. The evaluation was reviewed by the Plant Nuclear Safety Committee (PNSC) on April 16, 1976; PNSC minutes #263 indicate that the findings of the evaluation were concurred in by PNSC. The findings of the evaluation concluded that, based on the data collected during the outage, meaningful numerical values for the protection factors could not be determined due to the low levels of radioactivity, but from a qualitative standpoint, the overall respiratory protection program was determined to be adequate.

- c. The inspector reviewed the evaluation and the raw data used in the evaluation and determined that the evaluation was correct in that meaningful numerical values could not be obtained. Based on this review, the inspector informed licensee management that this item was considered closed.
- d. Subsequent to the identification of this item, the Technical Specifications were revised by Amendment 17 to delete the requirement for evaluation of the protection factors. Additional evaluation by the licensee to obtain more meaningful data is not required.

3. Failure to Follow Approved Procedures

- a. This item was originally discussed in IE Report No. 50-261/75-14, Details III, paragraph 2, and dealt with the failure to follow the requirements of approved radiation control procedures. Corrective action on this item was described in CP&L letter serial: NG-75-2264 of January 5, 1976 and included review of procedures against current plant practices, changes to procedures as appropriate and additional training of technicians.
- b. The original citation identified two cases where the requirements of approved procedures were not being followed. The inspector discussed the corrective actions with the cognizant supervisor and reviewed the change to procedure HP-1 which was made to resolve the problem concerning the types of survey instruments used and reviewed the calibration records for portable radiation survey instruments in accordance with procedure HP-11. Several other instances of failure to follow the requirements of approved procedures were previously reviewed as discussed in IE Report No. 50-261/75-14, Details III.
- c. Based on this review, the inspector advised licensee management that he had no further questions and that this item was considered closed.

4. Recording of Personnel Exposure Date

This item was originally discussed in IE Report No. 50-261/75-11, Details II, paragraph 5, and dealt with the failure to record personnel exposures in accordance with 10CFR 20, paragraph 20.401 (c) and Form NRC-5. Corrective action on this item was described in CP&L letter serial: NG-75-1581 of October 3, 1975. The inspector reviewed fifteen personnel files selected at random and approximately thirty current NRC Form-5's to determine that the required records were present and that the Form-5's were filled out as required.

Two minor problems were identified but were immediately corrected by the cognizant supervisor. The inspector had no further questions and advised licensee management that this item was considered closed.

5. Health Physics Instrumentation Calibration Records

- a. IE Report No. 50-261/75-14, Details III, paragraph 2, discussed noncompliance with approved plant procedures for calibration records of portable radiation survey instruments. Corrective action on this item included the keeping of calibration records in accordance with procedure HP-11. (see paragraph 3 above). However, when the inspector reviewed the procedure and the calibration records, an additional problem was identified in that the calibration records for the instruments are not representative of actual calibration results and do not provide an adequate record of the calibration.
- b. Procedure HP-11, "Survey Instrument Calibration" requires that the actual (e.g. field strength) and indicated response (dose rate) of each instrument be recorded and that the indicated response be within a specified tolerance of the actual response ($\pm 20\%$ for GM meters, $\pm 10\%$ for ion chambers). In reviewing the calibration records, the inspector noted several instances where the instrument was apparently out of tolerance but the calibration was completed and initialed by both the performing technician and the cognizant foreman. For example: Eberline model E-500B, serial 1137 indicated 125 mR/hr in an actual field of 100 mR/hr and indicated 1500 mR/hr in an actual field of 1000 mR/hr; and Eberline model PIC-6A, serial 221 indicated 10 R/hr in an actual field of 1R/hr and indicated 30 R/hr in an actual field of 200 R/hr.
- c. The cognizant foreman advised the inspector that the values recorded indicated the "as received" readings for each instrument. When the readings are found to be out of tolerance, the technician adjusts the instrument circuits until the readings are within tolerance. Once the readings are within tolerance the instrument is source checked, the calibration is completed and the records signed off. If the instrument cannot be brought into tolerance it is sent to the Instrument Shop for repair. It was noted that the log book indicated that the two instruments discussed above were being calibrated following work in the Instrument Shop so the circuits were out of adjustment.
- d. The inspector pointed out to the cognizant supervisor that the calibration records should also include the final, adjusted

readings to document the final calibration. At present, the records apparently indicate that the instruments were released for use in an out-of-tolerance condition. This comment was acknowledged by the supervisor who stated that the procedure would be revised to require recording the instrument readings before and after any adjustments to reflect the "as received" and "as left" readings. Licensee management acknowledged this item and concurred in the action to be taken.

Carolina Power & Light Company

June 14, 1976

FILE: NG-3513 (R)

SERIAL: NG-76-827

Mr. N. C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, N. W.
Atlanta, Georgia 30303

Dear Mr. Moseley:

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION 50-261/76-6

Your May 20, 1976 letter to Carolina Power & Light Company regarding IE Inspection 50-261/76-6 has been reviewed by Carolina Power & Light and does not contain proprietary information. The report identified the following item of noncompliance.

Infraction

Contrary to Technical Specification 6.8, procedures for control of maintenance activities defined in Section 7 of the Continuing Quality Assurance Program, Section 4.2 of the Plant Administrative Procedures and in the Plant Maintenance Instruction 7 were not adhered to for certain maintenance activities performed during the second half of 1975 in that detailed work instructions were not provided, post-maintenance testing requirements and acceptance criteria were not specified; results of various inspections were not recorded, justification and/or authority for deviating from acceptance criteria contained in maintenance procedures was not specified; and QA review of certain maintenance activities appears to be inadequate.

Response

The H. B. Robinson Plant Technical Specifications, Section 6.8 require, in part, that written procedures and administrative policies be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5.1 and 5.3 of ANSI 18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33.

T

June 14, 1976

The administrative requirements and procedures which govern maintenance activities at H. B. Robinson No. 2 were developed using the guidelines of N18.7-1972, and Appendix A of Regulatory Guide 1.33. These requirements are defined in Section 7 of the Continuing Quality Assurance Program (CQAP), Section 4.2 of the Plant Administrative Instructions (AI), and Maintenance Instruction (MI) No. 7. The requirements for preparation of Work Procedures, as delineated in Section 7.2.2.1 of the CQAP require, as stipulated in Section 5.1.6.1 of ANSI 18.7-1972 and Section I of Appendix A of Regulatory Guide 1.33, that the procedures contain, as appropriate, detailed step-by-step repair sequence and post-maintenance testing requirements and acceptance criteria. Using the guidelines of ANSI 18.7 and Regulatory Guide 1.33, the extent of procedural controls required is evaluated on the basis of the significance to safe operation of the plant, the complexity of the repair, and the skill of the maintenance personnel performing the maintenance activities. Therefore, detailed work instructions are not provided for minor repairs such as cleaning switch contacts or replacement of a radiation monitor vacuum pump motor, both of which while being associated with Q-list systems are minor repairs and post-maintenance testing is performed consisting of an operational run test. As can be seen in the guidelines of ANSI 18.7-1972, and Regulatory Guide 1.33, Appendix A, the depth of detail necessary in each trouble and work report is a determination made by the Maintenance Foreman and ultimately the quality assurance personnel for the repairs to be performed under that specific maintenance activity. Thus, Carolina Power & Light Company does not intend to increase the detail of instructions on the type of trouble and work reports identified in your inspection report. However, to mitigate future concerns regarding these maintenance activities, Carolina Power & Light Company has taken or will take the following remedial actions:

Corrective Actions to Prevent Further Noncompliance

1. As indicated in your inspection report, "Operating Work Permits," describing post-maintenance testing requirements, had been instituted at the approximate time the Trouble and Work Reports you identified were written. Since being instituted, this phase of plant activities has been continually expanded and will be expanded further such that testing requirements are clearly defined for all significant safety-related maintenance activities.
2. In an effort to more clearly define the detail necessary on work instructions, the Maintenance Supervisor and the Quality Assurance Supervisor will further instruct their personnel on the requirements and guidelines. In addition, other significant appropriate factors of quality assurance, such as delineation of holdpoints, cleanliness, inspections, identification of specific sections of technical manuals, record keeping requirements, and adherence to procedural requirements will be reiterated at this time.

3. The Maintenance Instruction, MI-10, Procedure No. 6 "Repair Procedure for the Disassembly, Inspection and Reassembly of the Reactor Coolant Pump Seal Assembly" referenced in your report with Trouble and Work Report No. 1249 will be reviewed to determine the adequacy of data recording and will be revised if deemed necessary.
4. Additional emphasis had been placed on Quality Assurance by Carolina Power & Light Company prior to your inspection in accordance with our commitment to operate our nuclear facilities in the safest manner possible for protection of the general population. To this end, two (2) additional quality assurance personnel will be added to the Robinson Plant staff to insure adequate quality assurance emphasis on maintenance as well as all plant safety-related activities. Additionally, four (4) additional quality assurance personnel will be added to the Bulk Power Supply Quality Assurance Group to provide additional QA surveillance of all aspects of plant activities as they relate to nuclear safety.

Date When Compliance Will be Achieved

The corrective action items identified above will be completed in the following manner:

1. This action was instituted in October, 1975 and will continue throughout the life of the plant as is necessary.
2. The review of procedures for preparation of work instructions will be completed by July 31, 1976.
3. The review and any necessary revisions to the Maintenance Instruction, MI-10, Procedure Number 6 will be completed by August 31, 1976.
4. This action was previously initiated and the positions discussed will be occupied as soon as qualified personnel are obtained.

June 14, 1976

The aforementioned actions are part of the effort of Carolina Power & Light Company to continue to operate our nuclear plants in accordance with our license requirements and applicable regulations and to provide a safe, reliable supply of power to the general public.

Yours very truly,



H. R. Banks
Manager
Nuclear Generation

DBW:bb

cc: Mr. W. G. McDonald
Mr. E. Volgenan

bcc: Messrs. P. W. Howe
J. A. Jones
R. E. Jones
W. B. Kincaid
D. Locklear
L. I. Loflin
J. B. McGirt
G. McGovern
D. B. Waters
E. E. Utley



RFB

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N.W. SUITE 818
ATLANTA, GEORGIA 30303

MAY 20 1976

In Reply Refer To:
IE:II:RCP
50-261/76-6

Carolina Power and Light Company
Attn: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen;

This refers to the inspection conducted by Mr. R. C. Parker of this office on April 26-30, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Messrs. L. Loflin and D. Locklear on April 27, 1976, and with Mr. J. McGirt at the conclusion of the inspection.

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

Actions you have taken with regard to previously identified enforcement matters and unresolved items were not inspected.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. This item and references to pertinent requirements are listed in Section I of the summary of the enclosed report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

MAY 20 1976

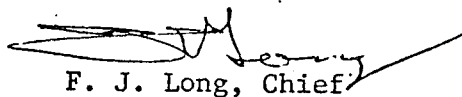
Carolina Power and Light Company

-2-

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No. 50-261/76-6



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-6

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Announced

Dates of Inspection: April 26-30, 1976

Dates of Previous Inspection: April 14-16, 1976

Principal Inspector: R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

Accompanying Inspector: D. J. Burke, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear Support Branch

Other Accompanying Personnel: None

Principal Inspector: R. C. Parker
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

5-17-76
Date

Reviewed by: R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

5/19/76
Date

SUMMARY OF FINDINGS

I. Enforcement ItemInfraction

Contrary to Technical Specification 6.8, procedures for control of maintenance activities defined in Section 7 of the Continuing Quality Assurance Program, Section 4.2 of the Plant Administrative Procedures and in the Plant Maintenance Instruction 7 were not adhered to for certain maintenance activities performed during the second half of 1975: in that detailed work instructions were not provided; post-maintenance testing requirements and acceptance criteria were not specified; results of various inspections were not recorded; justification and/or authority for deviating from acceptance criteria contained in maintenance procedures was not specified; and QA review of certain maintenance activities appears to be inadequate. (Details I, paragraph 5)

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

Not inspected.

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

- A. The inspection findings relative to Review and Audit were discussed with Messrs. L. Loflin and D. Locklear on April 27, 1976. (Details I, paragraph 2)
- B. Other inspection findings were discussed with Mr. J. McGirt, Plant Manager; and other members of the plant staff at a management interview held on April 30, 1976.

- C. Areas inspected with no apparent discrepancies were also identified. (Details I, paragraphs 3, 4 and 5.e, and Details II)

DETAILS I

Prepared by:

R. C. Parker5-17-76

Date

R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support
Branch

Dates of Inspection: April 26-30, 1976

Reviewed by:

R. C. Lewis5/17/76

Date

R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support
Branch

1. Persons Contacted

L. Loflin - Manager, Corporate Nuclear Safety Section
D. Locklear - Manager, Corporate Quality Assurance Audit
J. McGirt - Plant Manager
A. Tollison - Maintenance Supervisor
R. Morgan - Operating Supervisor
J. Curley - Nuclear Engineer
D. Brown - Mechanical Maintenance Foreman
C. Scott - Mechanical Maintenance Foreman
W. Garrison - QA Supervisor
D. Baur - QA Engineer

2. Review and Audita. Audit

The corporate audit activities for the period January 1975 through April 1976 were reviewed by the inspector. Documents reviewed included the following:

- (1) Quality Assurance Audit Procedure No. 1 (QAAP-1) - "Procedure for Quality Assurance Audit as Required by CP&L Corporate QA Program."
- (2) Quality Assurance Audit Instruction No. 1 (QAAI-1) - "Instruction for Preparing, Distributing and Maintaining the QA Audit Documents and the Corporate QA Program."
- (3) Audit Schedule Plan Nos. 74-3 and 3a; 75-1, 2 and 3; and 76-1a.

(4) Quality Assurance Audit Reports

QAA/20-7 for February 5-7, 1975;
QAA/20-8 for June 2-4 and 10-11, 1975;
QAA/20-9 for October 7-9, 1975; and
QAA/20-10 for March 23-26, 1976 and April 6-7, 1976

(5) Training and qualification records for two auditors.

The purpose of the review was to determine if the corporate audit program as implemented conforms to Technical Specification requirements and FSAR commitments.

Within the areas inspected no discrepancies were identified.

b. Review

Review activities of the Corporate Nuclear Safety Section (CNS) and the now defunct Company Nuclear Safety Committee (CNSC) were reviewed by the inspector.

Records of CNS and CNSC activities were reviewed to determine that the following activities had been reviewed as required by Technical Specifications:

- (1) Proposed Technical Specification change related to "Hydraulic Snubbers," dated January 28, 1976.
- (2) License Amendment No. 12 including Technical Specification Change No. 37.
- (3) License Amendment No. 15 including Technical Specification Change No. 40.
- (4) Enforcement Item I.A.3, identified in IE Inspection Report No. 50-261/75-11: "Contrary to 10 CFR 20.101(b), an employee received a whole body dose which exceeded 3 rem in a quarter."
- (5) Enforcement Item I.A.1, identified in IE Inspection Report 50-261/75-10: "Contrary to Section 6.4.1.e of the Technical Specifications, systems and components involving nuclear safety were operated, in conjunction with maintenance activities, without detailed written procedures."
- (6) Investigation activities related to: "Reduced Flow on "C" RTD Bypass Line."

In addition, the administrative procedures of the CNS were reviewed to determine if they were consistent with Technical Specification requirements.

Within the areas inspected no discrepancies were identified.

3. IE Bulletins 76-02 and 76-03

Actions taken by CP&L to determine that GE type HFA, HGA, HKA, HMA and STD relays are not installed at HBR-2 were reviewed by the inspector. The inspector was satisfied that CP&L's review was adequate.

4. Loop "C" RTD Bypass Line Lo-Flow

Actions taken by CP&L to resolve problems related to the reduced flow in the "C" RTD bypass line were reviewed by the inspector. The following documents were reviewed by the inspector:

- a. Plant Nuclear Safety Committee Meeting Minutes: No. 200 dated June 13, 1975; No. 201 dated June 19, 1975; No. 202 dated June 19, 1975; and No. 234 dated November 30, 1975.
- b. Westinghouse letters to CP&L, Subject: RTD Bypass Loop Flows, dated June 13, 1975, June 20, 1975, and July 15, 1975.
- c. Special Test Procedure to Determine RTD Loop Transit Time dated June 27, 1975.
- d. Setpoint Revision No. 316, "C" Loop RTD Bypass Lo Flow Alarm Setpoint.
- e. Trouble and Work Request No. 2785, "Replacement of Valves 554C, 555C and 556C."

The inspector was satisfied that CP&L's actions relative to this problem were adequate.

5. Maintenance

- a. The inspector reviewed plant maintenance activities to determine the following:
 - (1) Technical Specification Limiting Conditions for operations were not violated during the conduct of maintenance.

- (2) Appropriate administrative approvals were obtained prior to initiation of maintenance.
 - (3) Appropriate work instructions and procedures were used in the performance of maintenance.
 - (4) Maintenance activities were inspected as appropriate.
 - (5) Post-maintenance functional testing was performed as required.
 - (6) Appropriate QA records of maintenance activities are being maintained.
 - (7) Personnel performing maintenance meet minimum qualification and training requirements.
- b. Specifically, maintenance activities associated with the following Trouble and Work Reports (TWR) were reviewed by the inspector:
- (1) TWR-1630, Loop 3 Spray Line Temperature Indication (TI-452), dated July 30, 1975.
 - (2) TWR-1249, No. 2 Seal Failure on "C" Reactor Coolant Pump, dated June 2, 1975.
 - (3) TWR-1478, Shutdown Rod L-5 Coil Stack Failure, dated July 11, 1975.
 - (4) TWR-2605, Loss of Detector Voltage, N-44, dated July 14, 1975.
 - (5) TWR-1846, Spent Fuel Pit 125 Ton Crane Trolley Brakes, dated August 25, 1975.
 - (6) TWR-2506, "A" Auxiliary Feedwater Pump, dated November 1, 1975.
 - (7) TWR-2823, Containment Door Seal Leakage, dated December 3, 1975.
 - (8) TWR-2502, R-11 and 12 Vacuum Pump Motor, dated November 1, 1975.
 - (9) TWR-2829, "C" Safety Injection Accumulator Safety Valve, dated December 4, 1975.

- (10) TWR-2922, "C" Charging Pump Seals Leaking, dated December 9, 1975.
 - (11) TWR-2540, "B" RHR Suction Line Support Lugs, dated November 7, 1975.
 - (12) TWR-3029, Overpower ΔT Summator, dated December 16, 1975.
 - (13) TWR-1759, Pressurizer Backup Heaters Breaker, dated August 18, 1975.
 - (14) TWR-2776, Instrument Power N-36.
- c. Administrative requirements and procedures governing maintenance at HBR-2 are primarily defined in Section 7 of the Continuing Quality Assurance Program (CQAP), Section 4.2 of the Plant Administrative Instructions (AI), and Maintenance Instruction (MI) No. 7. These procedures require in part that:
- (1) Detailed work procedures shall be prepared for maintenance on Q-list plant items and included with the trouble ticket or approved procedures referenced. Work procedures are required to include:
 - (a) The step-by-step sequence for performing the work.
 - (b) Hold points for inspections and tests including instructions for data collection and reporting as appropriate.
 - (c) Step-by-step sequence and acceptance criteria for post-maintenance acceptance testing and checkout.
 - (2) Prior to performing maintenance required by a TWR the following are required:
 - (a) Work instructions listed on the TWR shall be reviewed by the responsible maintenance foreman for technical adequacy.
 - (b) Work instructions listed on the TWR shall be reviewed by QA to verify adequacy and availability of work instructions.
 - (3) After the work is completed, results of any inspections or witnessing performed will be reviewed for adequacy and all documentation associated with the job will be reviewed for completeness by the QA Supervisor.

- (4) The QA Supervisor's duties include reviewing work in progress to insure that appropriate methods are being conscientiously applied. Additionally, he is to insure that proper documentation is being maintained on Q-list repair work.

d. The following discrepancies were identified in the implementation of administrative requirements and procedures governing maintenance:

- (1) TWR Nos. 1630, 2605, 2506, 2502 and 2776 did not include a step-by-step sequence or acceptance criteria for performing post-maintenance testing.

On certain TWR's it was noted that subsequent to the maintenance the equipment was "operationally tested." The nature of the operational test or criteria used for acceptance was not specified.

Additionally, it was noted that during October 1975, the plant instituted a system of "Operations Work Procedures" which prescribes post-maintenance test requirements for "major" maintenance. This system should resolve discrepancies noted related to post-maintenance testing for "major" maintenance. Designation of post-maintenance requirements for maintenance not designated as major requires additional attention.

- (2) The results of various inspections were not recorded and/or the TWR did not provide for recording the results of various inspections. Examples include:

- (a) TWR-1249 - QAP-2 cleanliness inspections: Step 8.5, pages 2-9 and 2-10; step 15-3, pages 3-19 and 3-20; step G, page 3-23; step H, page 3-23; post-maintenance testing, pages 3-28 and 2-15.

Subsequent to completion of TWR-1249; MI-10, Procedure 6, "Repair Procedure for the Disassembly, Inspection and Reassembly of the Reactor Coolant Pump Seal Assembly" was revised. This revision adds spaces for signing of each step but does not add space for recording various alignment data, measurements and the results of QAP-2 cleanliness inspections.

- (b) TWR-2829 - Set lift pressure and blowdown pressure.

- (c) TWR-2922 - QAP-2 cleanliness inspections.
- (3) Detailed work instructions were not provided for the following:
 - (a) TWR-2605 - Replacing a nuclear instrument detector.
 - (b) TWR-2829 - Adjusting the setpoint on "C" SI Accumulator safety valve.

The technical manual was referenced but the applicable sections were not identified.

- (c) TWR-2922 - Repair of "C" charging pump.

Applicable sections of MI-10, procedure 15, and Union Pump Company Technical Manual were not specified.

- (4) Data recorded in TWR-1249, "C" Reactor Coolant Pump Seal Replacement, does not conform to work instruction specifications or acceptance criteria. Authority and/or justification for these deviations were not specified:
 - (a) Step G, page 3-11 - A 0.150 inch shim was installed instead of a 0.375 inch shim.
 - (b) Step H, page 3-12 - Shaft alignment data does not conform to tolerance specified in Step 1.B, page 3-1. (Alignment was to within 0.025 inches as opposed to 0.001 inches specified)
 - (c) Steps A and C, pages 3-20 and 3-21 - Angular misalignment data not recorded to nearest 0.0005 inches. Data was recorded to nearest 0.001 inches.
 - (d) Step B, page 3-21 - The basis for the Westinghouse tech representative's decision to relax angular alignment criteria to 0.002 inches instead of 0.001 inches as required by procedure was not specified. If the alignment criteria had not been relaxed additional adjustment of shims would have been required.
- (5) QA does not appear to be reviewing selected maintenance in progress to insure that appropriate methods are being applied and that proper documentation is being maintained. Additionally, preliminary and final review of

TWR packages by QA appears to be ineffective in that the discrepancies identified in paragraphs (1) through (4) were not previously identified.

Failure to adequately implement and comply with administrative controls for maintenance and related activities is contrary to the requirements of Section 6.8 of the Technical Specifications.

- e. The inspector did not identify any instances where Technical Specification Limiting Conditions for Operations were violated. Additionally, personnel performing the maintenance activities reviewed appeared to meet minimum qualification and training requirements.

DETAILS II

Prepared by: H. C. Dance

D. J. Burke, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

5/19/76
Date

Dates of Inspection: April 27-30, 1976

Reviewed by: H. C. Dance

H. C. Dance, Section Chief
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

5/19/76
Date

1. Personnel Contacted

R. Morgan - Operations Supervisor
J. Curley - Nuclear Engineer
A. Johnson - Scientist III
W. Blaisdell - Control Operator (RO)
H. Smith - Training Coordinator
M. Boyle - Engineering Technician

2. Proceduresa. Changes

The inspector examined temporary and permanent changes made to approved plant procedures to verify that these changes were made in accordance with the Technical Specifications (TS), Section 6.8. The Administrative Instructions for procedure changes were also reviewed and appear to be in conformance with ANSI N18.7-1972 and the TS. Plant procedures selected for review were in the Operating Manual and included procedures from each of the following categories:

Administrative Instructions
Operating Procedures
Annunciator Alarm Procedures (Vol. 16)
Emergency and Abnormal Procedures
Maintenance Procedures

Within the areas inspected, no discrepancies were identified; changes to procedures were processed, reviewed, and approved as required. The inspector stated that a few of the temporary changes to certain procedures (e.g. Startup Sequence) appeared to change the original intent of the procedure; however,

the changes were subsequently reviewed by the PNSC and approved by the Plant Manager. The inspector had no further questions at this time.

Procedure changes are being implemented to reflect revisions to the Technical Specifications. According to AI 5.6.2, special procedure reviews are being conducted by the responsible supervisors when TS changes are issued. The inspector also verified that changes made to the plant procedures during the past year were in conformance with 10 CFR 50.59 requirements; the changes did not involve a change in the TS or an unreviewed safety question. Records of changes, including licensee review, were available.

b. Procedure Content

The inspector examined certain plant alarm, emergency, operating and maintenance procedures to verify that their overall content conformed with TS requirements and that they are adequate to control safety-related operations within the applicable Regulatory requirements. No items of noncompliance were identified. The licensee stated that he will review his alarm and emergency procedures and insert TS references where applicable. The 35 page EI-1, Incident Involving RCS Depressurization, will also be reviewed for indexing or condensing.

The licensee has maintenance instructions for detailed work on safety-related equipment, and is in the process of generating maintenance procedures (OWP's) as they are required for working on safety-related equipment. Consequently, equipment which has been trouble free, such as the RHR pumps, have no maintenance procedures for equipment isolation, alignment, or testing. If maintenance is required, the licensee is prepared to generate the appropriate OWP. The inspector had no further questions.

3. Training

The inspector examined the licensee's formal training program and verified that it covered the following areas:

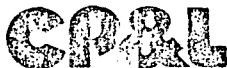
- Administrative Instructions
- Radiological Health and Safety
- Industrial Safety
- Emergency Plan
- Security
- Quality Assurance (QA)

Each new employee receives this formal training and an annual re-training program exists for normal employees. The program included the following plant personnel:

- New employees
- Nonlicensed/licensed personnel
- Technicians and craft personnel
- Supervisory and training personnel
- Temporary employees (as required)

In addition, many employees received on-the-job training, formal technical training, and fire-fighting training.

The inspector verified that responsibilities had been assigned to personnel to assure that the training program requirements had been met. Periodic evaluations of the program were documented. The inspector also reviewed the training records of several employees and verified that the training discussed above had been provided and documented. The licensee stated that their female employees will be provided with prenatal radiation exposure instructions as described in Regulatory Guide 8.13. The inspector had no further questions.



Carolina Power & Light Company

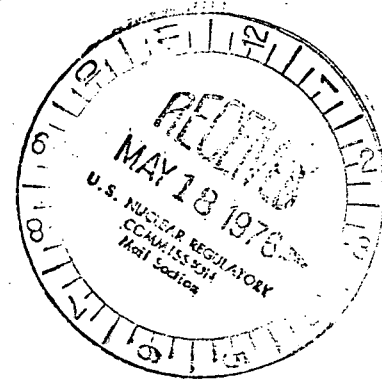
May 14, 1976

*Reactor Facility
for*

File: NG-3513 (R)

Serial: NG-76-703

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303



Dear Mr. Moseley:

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION REPORT NO. 50-261/76-4

Your letter of April 22, 1976, concerning the subject IE Inspection identified two items of noncompliance and one deviation from a commitment. We have reviewed the subject report and find that it does not contain any information of a proprietary nature. Carolina Power & Light Company's response to the identified infractions and deviation is as follows:

Infraction I.A.1

Contrary to Technical Specifications 6.5.1.7(a) and 6.8.2 the procedure used for the calibration of the 4KV underfrequency relays used on November 12, 1975, was not reviewed by the Plant Nuclear Safety Committee (PNSC) or approved by the Plant Manager prior to implementation.

CP&L Response

The 4KV relays, calibrated by the CP&L relay department, were calibrated using a procedure; however, the procedure was inadvertently not reviewed and approved as required by Technical Specifications. A calibration procedure is presently being developed at the plant which will have the proper review and approval. This procedure will become a part of the Plant Operating Manual and all future calibrations of the relays will be performed in accordance with the procedure. The procedure will be completed, reviewed, and approved by June 30, 1976.

5049

May 14, 1976

Infraction I.A.2

Contrary to Technical Specification 6.8, Maintenance Instruction No. 11 (MI-11), Procedure No. 29-3, was not strictly adhered to during calibration of Nuclear Instrument Channel N-35 in conjunction with Trouble and Work Report No. 137. The detector cable was disconnected although this was not covered by the procedure.

CP&L Response

A change to Maintenance Instruction, MI-11, Procedure No. 29-3, will be made to provide for detector cable removal and replacement. The procedure change will account for the detector cable and will be utilized during future calibrations. Additionally, all personnel involved have been cautioned regarding strict adherence to procedure. The procedure change will be completed by June 30, 1976.

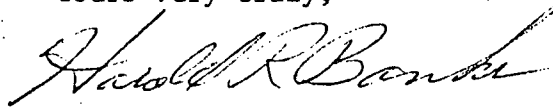
Deviation from a Commitment

Contrary to commitments contained in the CP&L letter to the NRC dated September 5, 1975, requirements for controlling material accountability for work in critical clean areas have not been delineated as specified in ANSI N45.2.3 - 1973.

CP&L Response

A review of ANSI N45.2.3 - 1973 and our commitment will be undertaken and necessary procedural changes will be made. The corrective action taken will provide for the compliance with ANSI-N45.2.3 1973 as stipulated in our commitment of September 5, 1975. The necessary procedure change(s) will be completed by July 30, 1976.

Yours very truly,



H. R. Banks
Manager
Nuclear Generation

KEB:CSB:jwk

cc: Messrs. W. G. McDonald
E. Volgenan ✓



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

APR 22 1976

In Reply Refer To:
IE:II:RCP
50-261/76-4

Carolina Power and Light Company
Attn: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Mr. R. C. Parker of this office on March 30 - April 2, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Messrs. B. J. Furr and J. B. McGirt at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

We have also examined actions you have taken with regard to previously identified enforcement matters and unresolved items. The status of these items is identified in Sections II and IV of the summary of the enclosed report.

Two new unresolved items resulted from this inspection and are identified in Section III of the summary of the enclosed report. These items will be examined during subsequent inspections.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. These items and references to pertinent requirements are listed in Section I of the summary of the enclosed report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office,

*Reactor Facilities
Br.*

Y

APR 22 1978

Carolina Power and Light Company

-2-

within 20 days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

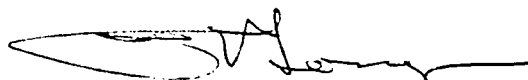
During this inspection it was also found that one of your activities appeared to deviate from one of your commitments contained in a letter to Licensing dated September 9, 1975. This item and reference to the specific commitment are listed in Section VI of the summary of the enclosed report. In your reply please include your comments concerning this item, a description of any steps that have been or will be taken to prevent recurrence, and the date all corrective actions or preventative measures were or will be completed.

In addition, we understand that CP&L has established completion dates of August 1, and December 31, 1976, for updating the plant safety related drawings and the Q-List, respectively.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No.

50-261/76-4



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-4

Licensee: Carolina Power and Light Co.
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: March 30 to April 2, 1976

Dates of Previous Inspection: February 23-25, 1976

Principal Inspector: R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Accompanying Inspector: M. V. Sinkule, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Other Accompanying Personnel: None

Principal Inspector: R. C. Parker
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4-15-76
Date

Reviewed by: R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4/21/76
Date

SUMMARY OF FINDINGS

I. Enforcement ItemsA. Infractions

1. Contrary to Technical Specifications 6.5.1.7(a) and 6.8.2 the procedure used for the calibration of the 4KV under-frequency relays on November 12, 1975, was not reviewed by the Plant Nuclear Safety Committee (PNSC) or approved by the Plant Manager prior to implementation. (Details II, paragraph 2.a)
2. Contrary to Technical Specification 6.8 Maintenance Instruction No. 11 (MI-11), Procedure No. 29-3, was not strictly adhered to during calibration of nuclear instrument channel N-35 in conjunction with Trouble and Work Report No. 137. The detector cable was disconnected although this was not covered by the procedure. (Details I, paragraph 4)

II. Licensee Action on Previously Identified Enforcement MattersA. Enforcement Item 75-16, I: Procedures Were Not Used for Filling and Draining SI Accumulators

Licensee action on this item was inadequate. This item remains open. (Details I, paragraph 2.a)

B. Enforcement Item 75-17, I: Failure to Adequately Implement the Operator Requalification Program

This item is closed. (Details I, paragraph 2.b)

III. New Unresolved Items76-4/1 Calibration of Liquid Waste System Flow Integrator

Calibrations or accuracy checks are not being performed on the liquid waste system flow integrator. (Details II, paragraph 2.b)

76-4/2 Updating of Plant Q-List

The plant Q-List is being updated as safety related drawings are corrected and reissued. (Details I, paragraph 9)

IV. Status of Previously Reported Unresolved Items

73-4/9 Containment Liner Deformity

This item is closed. (Details I, paragraph 3.a)

74-8/2 Facility Drawings Not Up-to-Date

This item remains open. (Details I, paragraph 3.b)

V. Unusual Occurrences

None

VI. Other Significant Findings

Deviation

Contrary to commitments contained in CP&L letter to the NRC dated September 9, 1975, requirements for controlling material accountability for work in critical clean areas have not been delineated as specified in ANSI N45.2.3-1973. (Details II, paragraph 3)

VII. Management Interview

The inspection findings were discussed with B. Furr, Manager Nuclear Generation Services; J. McGirt, Plant Manager; and other members of the plant staff at a management interview held on April 2, 1976.

In addition to areas inspected which are identified in the Summary, areas inspected with no apparent discrepancies were identified. (Details I, paragraphs 5, 6, 7 and 8, and Details II, paragraphs 2.c, 2.d, 4 and 5)

DETAILS I

Prepared by:

R. C. Parker

R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4-16-76
Date

Dates of Inspection: March 30 to April 2, 1976

Reviewed by:

R. C. Lewis

R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4/21/76
Date

1. Persons ContactedCarolina Power and Light Company (CP&L)

J. McGirt - Plant Manager
K. Bromenschenkel - Engineering Supervisor
A. Tollison - Maintenance Supervisor
R. Morgan - Operating Supervisor
J. Collins - Training Supervisor
D. Snipes - Shift Foreman
F. Lowrey - Control Operator
W. Crawford - Administrative Supervisor
K. Dripps - Engineering Aide
D. Nelson - Senior Control Operator
E. Lee - Control Operator
S. Eldridge - Control Operator
R. Chambers - Nuclear Engineer
W. Garrison - QA Supervisor
D. Baur - QA Engineer
J. Curley - Nuclear Engineer
S. Crocker - Environmental and Radiation Control Supervisor
L. Sansbury - I and C Technician

2. Previously Identified Enforcement Mattersa. Enforcement Item 75-16, I: Procedures Were Not Used For Filling and Draining SI Accumulators

Revisions 5 and 6.1 to Operating Procedure No. CPL-OP-42, "Safety Injection and Containment Spray" were reviewed by the inspector to determine that an appropriate procedure

for filling and draining the SI accumulators had been issued. The procedure defines necessary pump and valve operations; however, provisions for sampling boron concentration in the SI accumulators subsequent to filling or draining have not been established. This item remains open.

b. Enforcement Item 75-17, I: Failure to Adequately Implement the Operator Requalification Program

The inspector reviewed the 1976 Retraining Schedule. Retraining for licensed shift personnel is scheduled to consist of six, one week training sessions as follows:

- (1) Reactor Theory
- (2) Instrumentation and Control
- (3) Plant Procedures
- (4) Technical Specifications
- (5) Radiation Protection
- (6) Retraining Review

Weeks (1) thru (5) are to be attended by persons making less than 80 percent on the annual exam. Each weekly session is scheduled for 40 hours, including approximately a 6 hour exam. Week (6) is to be attended by all licensed shift personnel. It consists of approximately 6 hours training on each of the topics identified for weeks (1) thru (5).

Plant Staff Training (i.e. licensed supervisors) is handled separate from the shift personnel. Staff training is scheduled for one three hour training session per week. The same topics scheduled for shift personnel are to be covered.

Based on the inspector's review it appears that the projected operator requalification for 1976 conforms to CP&L's approved requalification program. Implementation of this program will be reviewed during a subsequent inspection. This item is closed.

3. Previously Identified Unresolved Items

a. Unresolved Item 73-4/9: Containment Liner Deformity

CP&L has evaluated the bulged containment liner sections and submitted a report to NRC dated January 14, 1976. Additionally,

supplemental information was submitted to NRR by letter dated March 25, 1976. IE:II has no further questions and this item is closed. RL informed Region II via telecon that they are evaluating the report, including the supplemental information.

b. Unresolved Item 74-8/2: Facility Drawings Not Up-to-Date

The following items were reviewed by the inspector to determine if plant drawings have been updated to reflect plant modifications:

- (1) Master Drawing Index
- (2) Drawing Modification Status Record Book
- (3) Selected Drawing Modification Status Sheets
- (4) Drawings related to the following specific plant modifications:
 - No. 293, Radiation Monitoring System
 - No. 231, Polar Crane Control Circuit
 - No. 318, Rev. 2, Boric Acid Transfer Pump "A" Change from GE-20K to GVH-10K Chem Pump
 - No. 323, Revs. 1, 2 and 4, RCP Seal Bypass

Within the areas inspected it was determined that drawing status appeared to be established. For example, if a drawing had not been revised to reflect a plant modification the drawing control forms reflected this status. Review of the Drawing Modification Status Record Book revealed that several drawing modification requests were open.

Per telephone conversation with J. McGirt on April 12, 1976, CP&L has established a target date of August 1, 1976, for having all safety related plant drawings issued. This item remains open pending issuance of these drawings.

4. Plant Operation

The inspector reviewed plant operating records, observed portions of a reactor trip recovery, and toured the plant observing plant instrumentation and equipment status. These areas were inspected for conformance to Technical Specification requirements and plant administrative procedures.

One item of apparent noncompliance was identified. During calibration of intermediate range nuclear instrument channel N-35 the technician deviated from Maintenance Instruction No. 11 (MI-11), Procedure No. 29-3, without proper authorization. Specifically, calibration of N-35 was being performed in conjunction with Trouble and Work Report No. 137. During the calibration process the detector was disconnected to preclude distortion of a test current. When the calibration was completed the technician inadvertently failed to reconnect the detector lead thus rendering N-35 inoperable. The error was discovered during a subsequent reactor startup when the instrument failed to respond to the increased neutron level. MI-11, Procedure No. 29-3, does not cover disconnecting and reconnecting of the detector lead.

Failure to adhere to procedures or to obtain proper authorization for changing a procedure is contrary to Section 6.8 of the Technical Specifications.

This occurrence was reviewed by the Plant Nuclear Safety Committee on January 19, 1976, and documented in the meeting minutes. The PNSC determined that Technical Specification LCO's for Nuclear Instrumentation were not violated during the discussed reactor startup. However, the PNSC apparently did not consider corrective actions necessary to preclude reoccurrence of this event in that a procedure change to MI-11, Procedure 29-3, was not initiated.

No other discrepancies were identified in the review of plant operations.

5. Nonroutine Event Review

Administrative Instructions and Standing Orders related to licensee nonroutine event review were reviewed by the inspector. The review was to determine whether responsibilities had been assigned for identification, review and followup of off-normal operating events and planned and unplanned maintenance activities.

Within the areas inspected no discrepancies were identified.

6. Review of Nonroutine Event Reports

Four licensee reportable events were reviewed to ascertain that (1) the events were clearly and promptly reported, (2) the specified corrective action was completed, (3) the event was reviewed and evaluated as required by Technical Specifications, and (4) the

facility Technical Specification Limits, if exceeded, were identified. Plant personnel were interviewed and facility operating and maintenance records related to the reportable occurrences were reviewed. The four events reviewed were:

- (a) Report 50-261/75-20 - Containment Pressure Protection Channel Inoperable
- (b) Report 50-261/76-1 - Failure of "B" Boric Acid Transfer Pump
- (c) Report 50-261/76-2 - Failure of One and Delayed Operation of Two Reactor Trip Relays
- (d) Report 50-261/76-3 - Boron Concentration Below Limits in "B" Safety Injection Accumulator

Within the areas inspected no discrepancies were identified.

7. Plant Procedures

The inspector verified that the plant had abnormal procedures for (1) Loss of Shutdown Cooling and (2) Malfunction of Pressure Control System. Procedures covering these plant conditions were issued in July 1975.

8. Breaker Coordination

In CP&L's letter of response to IE Inspection Report No. 50-261/75-1 of March 18, 1975, there are commitments to make plant modifications related to breaker trip setpoints during the November 1975 refueling outage. Specifically, a modification to the MCC-10 feeder breaker and setpoint changes to Westinghouse (types KA and FA) breakers on MCC's 5, 6, 9 and 10 are discussed.

Plant Modification Nos. 302, Rev. 0 and 1; 303, Rev. 0 and 1, and; 309, Rev. 0 and 1 were reviewed by the inspector. Data contained in the modification packages confirms that CP&L evaluated breaker coordination on safety related buses E-1, E-2 and MCC-5, 6, 9 and 10. Modifications and setpoint changes were made to resolve the identified safety related breaker coordination problems. However, CP&L stated that a total plant breaker coordination study to include non-safety related breakers has been initiated.

9. Q-List

CP&L is in the process of updating the plant Q-List. At the present time the Q-List is not complete. The Q-List is defined by

a detailed listing of Q-List items in conjunction with marked drawings that depict the physical boundaries of Q-List components. Due to the unavailability of certain safety related drawings (see Unresolved Item 74-8) work to update the Q-List had essentially stopped.

Per telephone conversation with J. McGirt on April 12, 1976, CP&L has established a target date of December 31, 1976, to have the Q-List updated. This item is designated an unresolved item pending completion of this work.

DETAILS II

Prepared by:

M. V. Sinkule
M. V. Sinkule, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4/19/76
Date

Dates of Inspection: March 30 - April 2, 1976

Reviewed by:

R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

4/21/76
Date

1. Personnel ContactedPlant Personnel

J. B. McGirt - Plant Manager
J. M. Curley - Engineer
A. C. Tollison - Maintenance Supervisor
R. S. McGirt - Instrument and Control Foreman
L. P. Sansbury - Instrument and Control Technician
R. H. Chambers - Engineer
D. S. Crocker - Environmental and Radiation Control Supervisor
D. Nelson - Senior Reactor Operator
W. Garrison - QA Supervisor

Corporate Personnel

B. J. Furr - Manager of Nuclear Generation Services

2. Calibration of Equipmenta. Calibrations required by Technical Specifications

Reviewed one calibration from each of seven systems to determine that: (1) calibrations were being performed at the prescribed frequency required by the Technical Specifications Table 4.1-1; (2) calibrations were performed by use of a technically

correct procedure: (3) procedure was approved as required by the Technical Specifications; and (4) procedures contained acceptance values for trip settings and detailed stepwise instructions. The inspector also verified that the trip points were as prescribed in the Technical Specifications and that limiting conditions for operation specified in Section 3.5 of the Technical Specifications were met during the performance of the calibrations. Specifically, the calibrations of the following instrumentation systems were reviewed:

- (1) Pressurizer Water Level
- (2) Nuclear Power Range
- (3) Steam Generator Level
- (4) Containment Pressure
- (5) Residual Heat Removal System Flow
- (6) Boron Injection Tank Level
- (7) 4 KV Frequency

Technical Specification 6.8.1 requires that each of the above described instrument systems be calibrated by use of an approved procedure. Technical Specification 6.5.1.7(a) requires that the Plant Nuclear Safety Committee (PNSC) review these procedures and Technical Specification 6.8.2 requires that the Plant manager approves the procedure. Contrary to these requirements the procedure used for calibration of the 4 KV underfrequency relays on November 12, 1975, was not reviewed by the PNSC or approved by the Plant Manager. (Infraction).

b. Calibrations not Required by the Technical Specifications

The inspector reviewed various calibrations performed on safety related instrumentation which are not specified in the Technical Specifications. The inspector verified that a schedule for calibration of these instrument systems has been established and that the calibrations were performed by use of procedures as required by the Technical Specifications. In addition, work packages were reviewed to verify that acceptance criteria and detailed instructions were in conformance with Technical Specification requirements. Specifically, the following instrumentation systems were reviewed:

- (1) Boron Injection Tank Temperature
- (2) Condensate Storage Tank Level
- (3) Diesel Oil Tank Level
- (4) Primary Water Storage Tank Level
- (5) Boric Acid Tank Temperature

- (6) Steam Line Pressure
- (7) Steam Line Flow
- (8) Liquid Waste Flow
- (9) Containment Activity Monitors
- (10) Quadrant Power Tilt Monitors.

The inspector examined the procedures for calibration of steam line pressure, steam line flow and condensate storage tank level for technical accuracy. The calibration results of tests performed during the refueling outage in November 1975, were also reviewed. The calibration of the liquid waste flow transmitter, boron injection tank temperature controller, boric acid tank temperature controller and the diesel oil storage tank level instrumentation were calibrated during the refueling shutdown by use of a CP&L trouble ticket, Maintenance Instruction No. 7, "Instructions for Control of Mechanical and Electrical Maintenance Work," and applicable vendor instructions. Setpoint data for alarms was contained on the calibration result sheets. No noncompliance items were identified.

During review of the calibration results of Flow Transmitter 1064A, it was determined that the calibration or periodic check of the flow integrator used for calculation of total curie release from the liquid waste system to unrestricted areas was not being documented. During the exit interview the plant manager stated that this item would be reviewed.
(Unresolved Item)

c. Calibration of Test Equipment

Reviewed the documentation associated with three test instruments used as tertiary standards for calibration of plant instrumentation. Specifically, the inspector verified that calibration frequency has been established; the accuracy is traceable to the Bureau of Standards and the storage and control is as prescribed in the CP&L Quality Assurance Manual, Section 6 for the following instruments:

- (1) Digital Voltmeter, Model 251A, Serial No. 9482/9853.
- (2) Pneumatic Tester, Model FA-235, Serial No. PR 11779
- (3) Multi-Ammeter, Model 3439A, Serial No. 950-03237.

No noncompliance items were identified.

d. Personnel Qualifications

The inspector confirmed that qualifications of two individuals

who perform instrument calibrations at the plant, are as specified by Technical Specifications. This was confirmed by discussions with the I and C Supervisor, Plant Manager, and by a review of the personnel files. No noncompliance items were identified.

3. Cleanliness

Reviewed the plant administrative instructions, the maintenance instruction for repairing the charging pump, and quality assurance Procedure No. 2 to determine whether controls have been established for cleanliness of the reactor facilities as specified in ANSI N45.2.3-1973. In addition, a plant tour was conducted to verify that established controls are effective.

A review of the plant administrative instructions indicate that controls have not been delineated for requirements limiting the time that material and equipment may be in temporary storage; that excess material be returned to the storage area; and prompt removal of combustible material and debris. Discussions with plant management and personnel and a tour of the plant indicate that established practice in these areas is effectively being implemented.

CP&L responded to questions from the Nuclear Regulatory Commission in a letter dated September 9, 1975. In this response the licensee committed to providing procedures or instructions for housekeeping which include the applicable requirements outlined in Section 2.1 of ANSI 45.2.3. The letter states that requirements will be established for each job on a case by case basis. A review of maintenance procedures for repair of charging pump C which was in progress during the inspection, administrative procedures, and quality assurance procedures indicate that requirements have not been delineated for material or foreign material accountability in critical clean areas. (Deviation)

4. Organization and Administration

Reviewed the licensee's administrative instructions, personnel resumes and folders, shift roster, minutes of PNSC meetings, and conducted interviews with plant manager and several key supervisors to verify that:

- a. The on-site organizational structure is as required by Technical Specification Table 6.2-2.
- b. Personnel qualifications of key supervisory personnel are as specified in Technical Specification 6.3.1.

- c. Responsibilities of key personnel have been delineated as specified in Section 5.1.1 in ANSI N18.7.
- d. Shift crew composition is as required by Technical Specification 6.2.2.
- e. The composition of the on-site review committee (PNSC) is as required by Technical Specification 6.5.1.2 and qualifications of members were as required by Technical Specification 6.3.1.
- f. The composition of the off-site review group and qualification of reviewers as required by Technical Specification 6.5.2.3(b) and (c).

No noncompliance items were identified.

5. Miscellaneous Items

a. Operating Notes

Reviewed Operating Notes No. 1 through No. 96, dated January 25, 1973, and applicable changes to verify conformance with the Technical Specifications. No noncompliance items were identified.

b. Repair of C Charging Pump

Charging pump No. C was being repaired during the inspection. The inspector reviewed the Trouble Ticket, Equipment out of Service Record, Operations Work Permit dated January 12, 1976, MI-10 (maintenance instruction for repair of charging pump), and toured the job location to verify compliance with the Technical Specifications. No noncompliance items were identified.

c. Repair of HVH-2 Fan Cooler

The repair of the fan cooler on HVH-2 was in progress during the inspection. Reviewed the associated Trouble Ticket, Equipment out of service record, and the Operations Work Permit, dated March 31, 1976, to verify conformance with the Technical Specifications. No noncompliance items were identified.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

MAR 17 1976

*Reactor Facilities
Branch*

In Reply Refer To:
IE:II:RCP
50-261/76-3

Carolina Power and Light Company
Attn: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Mr. W. L. Britz of this office on February 23-25, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson 2 facility, and to the discussion of our findings held with Mr. J. B. McGirt at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

Your actions taken with regard to previously identified enforcement matters and unresolved items were not examined during this inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed

Carolina Power and Light Co.

-2-

in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No.
50-261/76-3



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-3

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson No. 2
Docket No.: 50-261
License No.: DPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 700 Mwe, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: February 23-25, 1976

Dates of Previous Inspections: January 27-28, 1976

Inspector-in-Charge: W. L. Britz, Radiation Specialist
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

Accompanying Inspector: None

Other Accompanying Personnel: None

Principal Inspector:

R. C. Parker
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support
Branch

3-8-76
Date

Reviewed by:

R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

3/11/76
Date

SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

Not inspected.

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

A management interview was held on February 25, 1976, with J. B. McGirt, Plant Manager, and his staff. Items covered by the inspection were discussed.

DETAILS I

Prepared by:

W. L. Britz3/12/76

Date

W. L. Britz, Radiation Specialist
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

Dates of Inspection: February 23-25, 1976

Reviewed by:

R. L. Bangart3/12/76

Date

R. L. Bangart, Chief
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

1. Individuals Contacted

J. B. McGirt - Plant Manager
D. S. Crocker - Environmental and Radiation Control Supervisor
B. W. Garrison - Quality Assurance Supervisor
J. E. Eaddy - RC&T Foreman

2. Quality Control of Analytical Measurementsa. Plant Quality Assurance Program

The quality assurance and control of analytical measurements was inspected. Volume 11, Continuing Quality Assurance Program, of the Plant Operating Manual (POM), does not include Volume 8, Radiation Control and Protection Manual, in the scope of its plant operational control section for quality assurance. The Site Surveillance Procedure, QAP-3, of Volume 11, provides for a random audit of Radiation Control and Protection procedures on a quarterly schedule. These audits were reviewed. The random selection has not yet included the analytical measurements type procedures. The merits of having the radiation counting room equipment and procedures included as a regular audit in the plant quality assurance program were discussed.

b. Radiation Control and Protection Manual Quality Control Program

The laboratory quality control of analytical measurements was inspected. The quality control procedures for the counting room instruments contained in Appendix II to the Radiation Control and Protection Manual and the instrument records for the periodic checks specified in the procedures were reviewed. As stated in part a., this manual is not part of the plant

quality assurance program, but is administered by the Radiation Control and Test group. Recommendations were made for improving the record forms and for a management review of the completed forms.

c. Corporate Quality Control Audit

Audit reports of October 30 and 31, 1975, made by representatives of the Company Nuclear Safety Committee were reviewed. These audits covered the counting room instruments, calibrations, records and personnel qualifications. The comments indicated the findings were acceptable.

The inspector had no further questions.

3. Confirmatory Measurements

a. Scope

The licensee is required to measure the quantities and concentrations of radioactive material in effluents from his facility to assure that they are within the limits specified in his license and the NRC Regulations. This inspection consisted of testing the licensee's measurements of radioactivity in prepared test standards by comparing his measurements with those of the NRC's reference laboratory. The results of previous split samples and test standards were discussed.

b. Comparison of Analytical Results

(1) Particulate Filter and Charcoal Adsorber Test Standard, February 1975

A particulate filter and charcoal adsorber test standard was analyzed by the licensee. Six measurements were compared on the samples. All were in agreement.

(2) Liquid and Gas Radwaste Split Samples, February, 1975

Sixteen measurements were compared on the samples. Eight were in agreement, five in possible agreement, and three in disagreement. The disagreements were on gamma isotopic comparisons in the liquid sample. It is suspected there are problems getting good split samples due to the chemical and physical nature of the various nuclides. It was decided to evaluate this sample with results of the next split sample.

(3) Liquid Radwaste Split Sample, May, 1975

Fifteen measurements were compared on the samples. Nine were in agreement, four in possible agreement, and two in disagreement. The disagreements were on tritium and strontium-90. It was determined that there had been a bad power supply on the tritium analyzer, and that there had been contamination carryover of cobalt-58 in the strontium sample analysis due to crud in the sample.

(4) Liquid and Gas Radwaste Split Samples, September, 1975

Liquid and gas samples were taken two weeks before the test standards in (5) were analyzed. Twelve measurements were compared. Three were in agreement, three were in possible agreement, and six in disagreement. The disagreements were on the liquid gamma isotopic analysis. This appears to be the same type problem encountered in previous split radwaste samples. These disagreements were resolved by the following test standard results of October, 1975.

(5) Liquid and Particulate Filter Test Standard, October, 1975

As a result of the disagreements on the February and May split samples, test standards were sent to the licensee for analysis. There were ten measurement comparisons on tritium, strontium, gross beta, and gamma isotopic. Nine comparisons were in agreement and one in possible agreement. These results are acceptable.

(6) Particulate Filter and Charcoal Adsorber Test Standard, February, 1976

Two particulate filters and one charcoal adsorber test standard were analyzed during this inspection. Ten measurements were compared on the samples. Six were in agreement and four in possible agreement. The isotopes in possible agreement appear to be biased by energy level. The licensee will check the calibration and the inspector will evaluate on the next radwaste split sample comparisons. The results are acceptable.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

*Reactor Facilities
Branch*

~~100-43-476~~

In Reply Refer To:
IE:II:JEO
50-261/76-2

Carolina Power and Light Company
ATTN: Mr. J. A. Jones
Executive Vice President
Engineering, Construction
and Operation
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

This refers to the inspection conducted by Messrs. J. E. Ouzts and C. E. Alderson of this office on January 27-28, 1976, of activities authorized by NRC Operating License No. DPR-23 for the H. B. Robinson Unit 2 facility, and to the discussion of our findings held with Mr. J. B. McGirt at the conclusion of this inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of discussions and interviews with members of Mr. McGirt's staff relating to the problem of a delay in dropout time of certain reactor protection circuitry relays during the performance of periodic testing of the reactor protection logic.

Within the scope of this inspection, no items of noncompliance were disclosed.

One new unresolved item resulted from this inspection and is identified in Section III of the Summary of the enclosed report. This item will be examined on a subsequent inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information

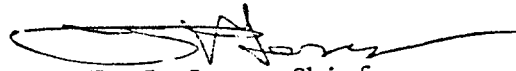


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is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement should be submitted to us within 20 days. If we are not contacted as specified, the enclosed report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



F. J. Long, Chief
Reactor Operations and Nuclear
Support Branch

Enclosure:

IE Inspection Report No.

50-261/76-2

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-261/76-2

Licensee: Carolina Power and Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Facility Name: H. B. Robinson Steam Electric Plant 2
Docket No: 50-261
License No.: DPR-23
Category: C

Location: Darlington County, South Carolina

Type of Inspection: Special, Announced

Dates of Inspection: January 27-28, 1976

Dates of Previous Inspection: January 21-23, 1976

Inspector-in-Charge: J. E. Ouzts, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

Accompanying Inspector: C. E. Alderson, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

Principal Inspector: R. C. Parker 2-17-76
R. C. Parker, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date

Reviewed By: R. C. Parker 2-17-76
for R. C. Lewis, Section Leader RCL
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date



SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

76-2/1 Program of investigation and correction of erratic operation of RPS relays is continuing. (Details, paragraph 3)

IV. Status of Previously Reported Unresolved Items

Not inspected.

V. Unusual Occurrences

Erratic operation of reactor trip relays RT-3 and RT-8 during performance of periodic test PT-19A/B, "Reactor Trip Logic," that resulted in a long delay in the relay contacts opening.

VI. Other Significant Events

None

VII. Management Interview

On January 28, 1976, J. E. Ouzts and C. E. Alderson held an interview with J. B. McGirt, Plant manager, and members of his staff to discuss findings resulting from investigations relating to the erratic operation of BFD-31 relays in the reactor trip circuitry.

DETAILS

Prepared by:

J. E. Ouzts
J. E. Ouzts, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

2/17/76
Date

C. E. Alderson
C. E. Alderson, Reactor Inspector
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

2/13/76
Date

Dates of Inspection: January 27-28, 1976

Reviewed by:

H. C. Dance
H. C. Dance, Section Leader
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

2/17/76
Date1. Persons Contacted

J. B. McGirt - Plant Manager
G. Bell - Instrumentation and Control Foreman
K. E. Bromenschenkel - Maintenance Supervisor
J. Curley - Engineer
J. Hammond - Engineering Supervisor
M. Goodson - Instrumentation and Control Technician
L. Sandsbury - Instrumentation and Control Technician
F. Tollison - Operations Supervisor

2. Problem With Dropout Time of Reactor Protection System Relays
(Westinghouse Model BFD-31)

This inspection was conducted to followup on the relay problem reported by Carolina Power and Light Company by telephone to Region II on January 22, 1976.

- a. Information received prior to inspectors' arrival: During the performance of Periodic Test PT-19A/B "Reactor Trip Logic" on January 21-22, 1976, reactor trip (RT) relays RT-3, RT-4 and RT-8 were found to be defective. Two of these relays RT-3 and RT-8 exhibited an abnormal (approximately 10 sec.) delay in dropout following deenergization. These defective relays were replaced and the respective logic trains placed back in service. Bench tests were conducted on a defective relay to determine if a change in the operating time of the relay would occur

with repeated operations. In general, it was found that the operating time decreased with operation. It was also found that the relay operating time improved when the relay was orientated with the plunger vertical. Normally the RT relays of this type are mounted in the horizontal position, with the plunger moving in the horizontal plane. The contact and plunger assembly was removed from the mounting base and coil for each of the three defective relays in an effort to determine the cause of the increased operating time. By disassembling the relay, the inside of the coil could be inspected. The inside of the coil contained what appeared to be a nylon guide sleeve in which the plunger operated. This nylon sleeve showed apparent overheating as evidenced by discoloration and embrittlement. The licensee reported that he believed the apparent overheating was due to an increase in voltage during equalizing charges on the battery that supplies power to these relays. This equalizing charge is normally performed once per month; but as a result of low voltages on several cells, the battery was being given an equalizing charge about twice this often. This charge is normally conducted at approximately 140 volts, and is considered to be within acceptable voltage tolerance by the coil manufacturer.

b. Information obtained during and following onsite inspection:

- (1) The inspectors arrived onsite at about 10 a.m. on January 27 and immediately began discussions with Mr. McGirt and members of his staff. Mr. McGirt reported the plant to be currently operating at about 100 percent power and then reviewed what had been given to NRC via the Licensee Event Report dated January 22, 1976, by telephone and outlined the effort underway to identify where Westinghouse BFD relays were used in the reactor protection and safeguards circuits. He also reported that Westinghouse had been contacted and that they were furnishing the licensee with replacement relays with a higher voltage rating. The inspectors emphasized NRC's concerns regarding the increase in relay dropout time noting that the times observed for the defective relays exceeded the overall trip times used in the safety analysis.
- (2) Interviews were conducted with members of the Instrumentation and Control Section to obtain information on how the testing was performed that revealed these defective relays. The location of these relays in the protection circuits were reviewed to determine the worst delay time if two or three relays delayed in opening for the same

tripping parameter. Since one relay operates in series with two other relays in parallel, the trip time for the parameter would be increased by the sum of the increase in dropout times of the single relay plus the slowest of the two relays in parallel. The licensee was urged by the inspectors to consider some type of immediate relay response time testing, that would provide assurance that the Westinghouse BFD relays would perform their required functions.

- (3) The three disassembled BFD relays that were faulty were examined by the inspectors to try and determine the cause of the trip delay for the two relays that delayed in dropping out. Since these relays had been disassembled and the nylon guide sleeve removed previously, the mechanism that caused the plunger to stick and the relay to delay in dropping out could not be positively determined. One possible cause was that the nylon bushing overheated and deformed to cause the binding. Another was that the embrittled nylon bushing had broken up, and parts of it had wedged between the plunger and the part of the bushing remaining intact or the inside surface of the coil spool. An inspection of a plunger surface did show evidence of rubbing, indicating that this condition could have taken place. The licensee agreed that if additional relays are replaced he would carefully disassemble one that exhibited a high drop out time. This would be done without disturbing the nylon bushing in an attempt to more positively determine the cause of the binding.
- (4) On January 28 the licensee tested the trip response time of all twenty RT relays. These relays were tested by measuring the time from deenergization of the relay coil until the contacts opened. A Brush, Model 260 recorder was used to make this measurement. The inspectors witnessed the testing of several of these relays. Following completion of this initial testing, the licensee reported by telephone that the measured response time of one RT relay was greater than the manufacturer's specification of 26 milliseconds and the relay had been replaced. The licensee also reported that sixteen additional relays had been randomly selected, eight in train "A" and eight in train "B" of the reactor protection system, and their response time measured. The licensee reported the longest time measured for these relays was 16.1 milliseconds.

- (5) On February 2, the licensee reported by telephone that Westinghouse had shipped twenty of the replacement relays on January 30. The licensee has been promised 100 of these relays by February 9. The licensee will begin replacement of the Model BFD relays on a priority basis as soon as the first shipment arrives.

3. Remaining Outstanding Items

As a result of this investigation into the erratic operation of the Westinghouse Model BFD-31 relays, the licensee has committed to:

- a. Complete an investigation to determine the extent of use of Westinghouse BFD relays in the protection and safeguards circuits. The results of this investigation will be reported to NRC by February 5, 1976.
- b. The replacement of the Westinghouse Model BFD relays with a relay of a new coil design will begin immediately following receipt of the first shipment of 20 relays, shipped from Westinghouse on January 30. The shipment of additional relays will follow, with a total of 100 committed for delivery by February 9, 1976. The licensee will report the progress of relay replacement to NRC and will provide NRC with design specifications for the replacement relay as soon as available.
- c. Limit the battery equalizing charge to once per month as required by the periodic test unless additional charging is required to prevent battery voltage from dropping below Technical Specification limits. If the battery is charged more frequently than once per month, response time testing will be performed on a sampling of the Model BFD relays remaining installed. This sampling shall represent the same percentage of installed relays as the sample taken for the initial testing on January 28-29. This testing is to determine if the added equalizing charge has adversely affected the relay response time. The licensee will report the results of any testing of this type to NRC.
- d. If, in the future, any BFD relay shows a significant increase in dropout time, perform an inspection of the removed relay. Disassemble the defective relay by carefully removing the contact and plunger assembly from the coil and mounting assembly and performing an inspection in an effort to determine the mechanism causing the delay in dropout. The results of any such investigation shall be reported to NRC.

The above outstanding items will be carried as Unresolved Item 75-2/1.