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

JAN 3 1 1977

Central File
50-261

In Reply Refer To:
IE:II:RCP
50-261/76-14

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 January 17, 1977, 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 December 27, 1976. However, your response did not present any additional information that changes our original finding that an item of noncompliance existed as stated. 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

CP&L
Carolina Power & Light Company

January 17, 1977

FILE: NG-3513(R) SERIAL: NG-77-053

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

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION REPORT NO. 50-261/76-14

Dear Mr. Moseley:

We have received and reviewed your IE Inspection Report No. 50-261/76-14 and find it contains no information of a propriety nature to Carolina Power and Light Company. The report identified one enforcement item to which we hereby respond:

Enforcement Item

Deficiency

Contrary to the requirements of 10CFR20.401 (b), the licensee has not maintained records of surveys conducted to verify that waste material was not radioactive prior to its disposal by incineration. Disposal of radioactive material by incineration is prohibited by 10CFR20.305.

Response

10CFR20.305 states no licensee shall dispose of licensed material by incineration except as approved by the Commission. To comply with this requirement, plant personnel performed surveys as required by 10CFR20.201 (b) and verified that the activity level of the charcoal absorber material was below the minimum allowed limit. While the survey document could not be located for the inspector, documentation in the form of the Health Physics Foreman's log entry which stated the charcoal was cleared for disposal was shown to the inspector. This documentation, we feel, for this case is adequate to show compliance to the requirements and therefore should not be identified as a deficiency since the Health Physics Foreman would not have made this entry without a survey sheet giving him survey results.

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Carolina Power and Light Company will, however, to preclude any further conflicts of this nature, not dispose by incineration any waste material as indicated by 10CFR20.305. This action will correct the above identified deficiency, prevent further noncompliance and will take effect immediately.

Sincerely yours,

Harold R Banks

H. R. Banks
Manager
Nuclear Generation

WH:dmc

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

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

DEC 27 1976

In Reply Refer To:
IE:II:RCP
50-261/76-14

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 November 30 to December 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 Mr. R. E. Morgan 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.

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.

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.
50-261/76-14

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

IE Inspection Report No. 50-261/76-14

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.: DPPR-23
Category: C

Location: Hartsville, South Carolina

Type of License: W PWR, 2200 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: November 30 to December 2, 1976

Dates of Previous Inspection: November 15-19, 1976

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

Accompanying Inspector: None

Other Accompanying Personnel: None

Principal Inspector: MSkidd for 12-23-76
R. C. Parker, Reactor Inspector Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

Reviewed by: MSkidd for 12-23-76
R. C. Lewis, Chief Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

SUMMARY OF FINDINGS

I. Enforcement Items

Deficiency

Contrary to the requirements of 10 CFR 20.401(b), the licensee has not maintained records of surveys conducted to verify that waste material was not radioactive prior to its disposal by incineration. Disposal of radioactive material by incineration is prohibited by 10 CFR 20.305. (Details I, paragraph 2)

II. Licensee Action on Previously Identified Enforcement Matters

Deficiencies

1. Respiratory Protection Program Procedure

The corrective actions outlined in the licensee's letter of September 10, 1976, were reviewed and verified to have been implemented. This item is closed. (Details I, paragraph 3)

2. Procedures for the Shipment of Radioactive Materials

The corrective actions outlined in the licensee's letter of September 10, 1976, and supplemental action taken by the plant staff were reviewed and verified to have been implemented. This item is closed. (Details I, paragraph 4)

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

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

The liquid waste accountability procedure has been revised to include a comparison of the flow integrator readings with the tank volume records and establishes action levels to initiate corrective actions based on the comparison. This provides a method of testing the flow integrator for accuracy. This item is closed. (Details I, paragraph 5)

76-7/1 Health Physics Instrumentation Calibration Records

The instrument calibration procedure has been revised to include all pertinent data concerning the instrument calibration, required repairs, and periods out of service. This item is closed. (Details I, paragraph 6)

76-11/1 Survey Records for Waste Material

The licensee has not located the survey records for the disposal of waste materials. This item is closed as an unresolved item and elevated to an item of noncompliance. (Details I, paragraph 2)

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

At the conclusion of the inspection, a management interview was held on December 2, 1976, with R. E. Morgan, Operating Supervisor, and D. S. Crocker, Environmental and Radiation Control Supervisor. Items discussed included the scope of the inspection, status of previously identified items of noncompliance and unresolved items, and the inspector's observations and comments.

DETAILS I

Prepared by: A F Gibson 12/17/76
for G. L. Troup, Radiation Specialist Date
Radiation Support Section
Fuel Facility and Materials
Safety Branch

Dates of Inspection: November 30 - December 2, 1976

Reviewed by: A F Gibson 12/17/76
A. F. Gibson, Chief Date
Radiation Support Section
Fuel Facility and Materials
Safety Branch

1. Individuals Contacted

R. E. Morgan - Operating Supervisor
D. S. Crocker - Environmental and Radiation Control Supervisor
C. W. Crawford - Maintenance Supervisor
W. T. Traylor - Administrative Supervisor
H. Smith - Training Coordinator
D. Gainey, Jr. - R. C & T Foreman
M. L. Layton - Scientist
J. Sawyer - Engineering Technician
J. Petitgout - Senoir Nuclear Generating Specialist
5 RC & T Technicians

2. Surveys Records for Waste Material

a. This item was originally discussed in IE Report No. 50-261/76-11, Details I, paragraph 2 as an unresolved item and dealt with maintenance of the records of surveys for potentially radioactive material which was released as nonradioactive material and disposed of by incineration. The material in question was the charcoal adsorber material from the containment purge system.

b. At the time that this item was opened, licensee representatives informed the inspector that the adsorber material had been analyzed and been found to have less than the detectable level of radioactivity but the licensee was unable to locate the records of the surveys. During this inspection a licensee

representative informed the inspector that they were unable to locate the survey records although the Health Physics Foreman's log contained any entry stating that the charcoal had been cleared. Thus, no survey records were available to establish that the charcoal had been cleared.

c. 10 CFR 20.305 states that no licensee shall dispose of licensed material by incineration except as approved by the Commission. 10 CFR 20.201.(b) states, in part, "Each licensee shall make . . . such surveys as maybe necessary for him to comply with the regulations in this part." 10 CFR 20.401(b) states, in part, "Each licensee shall maintain records . . . showing the results of surveys required by 20.201(b) . . . "As this material was disposed of by incineration, the licensee must verify compliance with 10 CFR 20.305 by conducting surveys in accordance with 10 CFR 20.201(b) to verify that licensed material was not incinerated, and maintain records of the survey in accordance with 10 CFR 20.401(b). As the license could not locate the records of the survey, he is in non-compliance with 10 CFR 20.401(b) for the maintenance of records. License management was advised that this was closed as an unresolved item and elevated to a deficiency.

3. Respiratory Protection Program Procedures

a. This item was originally discussed in IE Report No. 50-261/76-9, Details I, paragraph 2 and dealt with deficiencies in the respiratory protection procedures which resulted in the program not meeting the requirements of Technical Specifications Section 6.12.2.d. The licensee's response in letter serial: NG-76-1219 of September 10, 1976 stated that the Health Physics procedures were being revised to adequately define the methods for selecting, fitting and maintaining respiratory protection equipment, and that air sample results would be recorded on any special radiation work permit in which airborne activity is a factor in the radiological hazards of the job being performed.

b. The inspector reviewed the revision to plant procedure HP-6, Respirator Protection, which incorporates these changes. This revision included more detailed criteria for the selection of respirators, prohibition of wearing eyeglasses or contact lenses with certain types of respirators, more detailed instructions on the inspection and maintenance of respirators, and a prohibition in repairing regulator valves except by qualified personnel. The inspector reviewed these changes and determined that they meet the requirements of Technical Specifications Section 6.12.2.d.

c. Plant procedures HP-3, Air Activity Surveys, and HP-7, Special Radiation Work Permits, specify requirements for conducting air sampling and the recording of the results on work permits. The inspector reviewed approximately forty work permits initiated during the current outage and verified that air sample results were recorded. In those cases where the results were not recorded the inspector discussed the work with the cognizant foreman to determine if airborne activity would have been a factor in assessing the radiological hazard of the job. In several instances, no air sample results were recorded but respiratory protection was specified; the foreman explained that routing samples had shown no air activity hazards but respirators were specified as a precaution based on contamination surveys in the area. The inspector had no further questions.

d. The inspector informed licensee management that, based on the review of the procedure change and work permits, he had no further questions and that this item was considered closed.

4. Procedures for the Shipment of Radioactive Materials

a. This item was originally discussed in IE Report No. 50-261/76-9, Details II, paragraph 7 and dealt with failure to adhere to the requirements of approved procedures for the shipment of radioactive materials, resulting in materials being improperly classified for shipping. The licensee's response in letter serial: NG-76-1219 of September 10, 1976 stated that all personnel involved in the shipment of radioactive materials have been instructed to follow the approved procedure and to comply with 10 CFR 71.

b. The inspector reviewed the radioactive material shipment log for shipments of solid waste and spent resins made since September 1976 for proper transport group, labeling and shipping and verified that they had been performed in accordance with plant procedures and 10 CFR 71. The inspector discussed with the cognizant supervisor the instructions which had been provided to plant personnel. The supervisor informed the inspector that in addition to all personnel involved in the shipment of radioactive materials being instructed to comply with plant procedures, a three-hour training course was conducted on the shipping regulations and a comprehensive written examination was administered at the conclusion of the training. The inspector reviewed a copy of the test and had no further questions.

c. Based on his review of the shipping records and supplemental training provided to personnel, the inspector informed licensee management that this item was closed.

5. Calibration of Liquid Waste System Flow Integration (76-4/1)

a. This item was originally discussed in IE Report No. 50-261/76-4, Details II, paragraph 2.b and dealt with the need to perform calibrations or accuracy checks on the liquid waste system flow integrator. The flow integrator is used in conjunction with the tank level indicator to determine the amount of liquid waste discharged from the plant.

b. The inspector reviewed revision 2.3 to plant procedure HP-14, Liquid Release Accountability, which incorporates provisions for comparing the volume of waste discharged using the flow integrator and the tank level change and establishes criteria for initiating corrective actions based on trends in the difference between the readings of the two instruments. The inspector discussed this procedure with the cognizant supervisor and reviewed the records of the volume comparison. Based on this review, the inspector informed licensee management that he had no further questions and that this item was closed.

6. Health Physics Instrumentation Calibration Records (76-7/1)

a. This item was originally discussed in IE Report No. 50-261/76-7, Details I, paragraph 5 and dealt with incomplete information being recorded in the calibration records of health physics instrumentation. The most significant information which was not being recorded was the final calibration data for instruments which were originally out of tolerance or which had been worked on for maintenance.

b. The licensee issued a revision to plant procedure HP-11, Survey Instrument Calibration, to clarify the requirements for calibration and to provide a more complete record of calibration and maintenance. In addition, a new instruction, HPI-1, Calibration of Radiation Survey and Personel Monitoring Instruments, has been issued for use by RC&T technicians, which provides detailed instructions for the calibration of the instruments. The cognizant supervisor informed the inspector that the procedures were now in use.

c. The inspector reviewed the revision of HP-11 and the new instruction HPI-1, and had no further questions. The inspector informed licensee management that this item was closed.

7. Radiological Controls for Temporary Personnel

a. During the refueling outage, temporary personnel from several organizations were on site performing refueling and/or maintenance work. The inspector selected five temporary workers using the security records for temporary badges. The inspector then conducted the inspection of the various facets of radiological controls using these five individuals.

b. The following areas were inspected for compliance with the NRC reguulations and plant requirements:

(1) training - a review of training records indicated that all five had satisfactorily completed the introductory courses for radiation safety and security to permit unescorted access to the plant.

(2) radiation exposure history - a review of the exposure files revealed that four of the five individuals had current NRC Form 4's completed and on file. The fifth individual had a letter on file stating his current exposure for the calendar quarter and the allowable exposure as authorized by his employer.

(3) authorized radiation exposure - in the exposure files for four individuals with current NRC Form 4's on file were authorization forms for the individual to receive an exposure up to 3,000 mrem for the quarter. Each form was signed by the individual acknowledging that he understood that he was not required to receive exposures greater than 1,250 mrem, and each form was approved by the plant manager.

(4) dosimetry records - a review of the security log indicated that a thermoluminescent dosimeter (TLD) had been issued to each individual; a review of the dosimeter log indicated that two of the individuals had entered the containment building and had been issued direct reading dosimeters. The inspector compared the exposures recorded on the containment access slips with the exposures recorded in the dosimeter log and noted that they agreed. Exposures of the individuals were less than the authorized limits and NRC limits.

c. Only one of the five individuals received an exposure greater than 10 mrem. The inspector reviewed the job on which he worked, including the radiation work permit (which describes the requirements for the job) and radiation surveys of the work site. The inspector also discussed the job with the technician who provided radiological control coverage, including radiation levels and surveys, establishment of stay time and stay time control, and other radiological factors of the job. As the radiation work permit specified that respiratory protection be worn, the inspector reviewed the respirator log and verified that the individual had been satisfactorily tested and fitted for wearing a respirator. Controls appeared to be consistent with plant procedures as well as good practice.

d. After reviewing the various plant records and discussions with cognizant personnel, the inspector had no questions concerning the establishment of radiological controls for temporary personnel.

8. Waste Discharges

a. Observation of Liquid Waste Discharge

On December 1, 1976 the inspector observed a liquid waste discharge in progress and verfied that the discharge was being made in accordance with approved procedures. The inspector observed that the auxiliary operator had an approved discharge permit, was conducting the discharge in accordance with the written procedure, including signing-off valve line-ups, that the discharge was from the approved tank and that the discharge was being performed at the approved flow rate. On December 2, 1976 the inspector reviewed the discharge permit and verified that the permit had been completed after the discharge. The inspector had no further questions.

b. Effluent Monitor Setpoints

Plant Standing Order No. 4, Radiation Monitor Setpoints, establishes the alarm set points for normal conditions and during releases for various effluent monitors. The order also explains the bases for the settings and establishes the mechanism for raising the setpoints during releases and resetting the alarm following a release. The inspector reviewed 15 sets of monitor setpoint change sheets (each set comprised one sheet to raise the setpoint for a relaease and one sheet to reset the point following the release.) initiated in June - July 1976 and verified that the setpoints were changed in accordance with the order to the required setting and then reset. The inspector had no further questions.

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MAR 2 3 1977

Central File
50-261

In Reply Refer To:
IE:II:RCP
50-261/76-13

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 letters of January 17, 1977, and February 15, 1977, 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 December 21, 1976.

Based on the additional information provided by you in the Southwest Research Institute Letter dated December 13, 1976, pertaining to certification of a Level II NDE Inspector who performed steam generator eddy current testing, we have no futher questions. Therefore, we agree with you that an item of noncompliance did not exist.

With regard to the other two items of noncompliance identified in our letter we will examine your corrective actions and plans during subsequent inspections. We will be particularly interested in your program for performing timely followup on deficiencies identified by both the on-site and off-site QA groups.

We appreciate your cooperation with us.

Very truly yours,

Norman C. Moseley
Director

CP&L

Carolina Power & Light Company

February 15, 1977

File: NG-3513 (R)

Serial: NG-77-149

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. 50-261/76-13

Dear Mr. Moseley:

After discussion with your Messrs. Lewis and Parker, we are hereby submitting for your review our revised response to enforcement item I. C. concerning QA/QC surveillance activities which was identified in the subject report.

Enforcement Item

Infraction

Contrary to Criterion XVI of Appendix B to 10CFR50, measures for prompt follow-up on deficiencies identified by the plant QA group had not been implemented as required by Paragraph XVI.3 of Section 1.10 of the FSAR, in that certain deficiencies identified during the November, 1976 refueling outage were not promptly corrected. Additionally, several QA surveillance reports had remained open from four to thirteen months without being closed out.

Correction Action

Carolina Power & Light Company agrees that QA surveillance reports should be promptly corrected and has, as of this date, closed out seven (7) of the thirteen (13) identified outstanding reports. The remaining six (6) reports will be corrected as soon as possible and will be closed out within ninety days.

The Site Surveillances Procedure has been revised and requires that when the QA/QC Surveillance Journal is used during shift QA activities, it will be reviewed daily by the QA Supervisor (or alternate) and periodically by the Plant Manager.

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Corrective Action to Prevent Further Noncompliance

The remaining six (6) surveillance reports will be corrected as soon as possible and will be closed out within ninety days. To assure timely actions are taken on surveillance reports, their status, which is maintained to the QA Supervisor, will be more closely scrutinized by the Plant Manager.

To preclude delayed remedial action on QA identified deficiencies, the QA/QC Surveillance Journal, when used, will be reviewed daily by the QA Supervisor (or alternate) and periodically by the Plant Manager.

Administrative controls will be tightened to prevent recurrence of noncompliance in this area. At a Plant Supervisors' meeting, the Plant Manager reiterated to all concerned the importance of QA/QC and the necessity of timely follow-up of the above items as well as all current and future identified deficiencies. In addition, the QA Supervisor has been instructed to notify the Plant Manager, when necessary, to assure timely follow-up and closeout of these items is accomplished.

Date When Full Compliance Will Be Achieved

The remaining outstanding surveillance reports will be closed out within ninety days.

Yours very truly,

H. R. Banks
Manager
Nuclear Generation

JMJ/WH/pap

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

Carolina Power & Light Company

January 17, 1977

FILE: NG-3513 (R) SERIAL: NG-77-052

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

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION REPORT NO. 50-261/76-13

Dear Mr. Moseley:

We have received and reviewed the subject report and find it contains no information of a proprietary nature to Carolina Power & Light Company. The report identified three (3) enforcement items to which we hereby are responding.

I. Enforcement Item

A. Infraction

Contrary to Criterion IX of Appendix B to 10CFR50, a Level II NDE Inspector that performed steam generator eddy current testing during the November, 1976, refueling outage was not properly qualified to the requirements of SNT-TC-1A, in that he did not have the necessary experience as a Level I NDE Inspector to be certified for Level II.

Corrective Action

Carolina Power & Light Company has further evaluated the circumstances of the identified infraction and has determined that the inspector did meet SNT-TC-1A (1975) training and experience level to allow direct certification as a Level II NDE Inspector. This determination was made by reviewing the individual's training and work experience records which are on file with the inspecting firm.

Corrective Action to Prevent Further Noncompliance

As indicated above, Carolina Power & Light believes that no infraction existed but has retained, on site, documentation providing details of the inspector's training and work experience.

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Date When Full Compliance Will Be Achieved

Carolina Power & Light Company believes we are presently in full compliance.

B. Infraction

Contrary to Technical Specification 6.8.1 Plant Administrative Procedure 11.8 for control of cutting, welding and hot work permits was not adhered to when a gas torch was used for heating a MSIV valve body on November 17, 1976.

Corrective Action

This item was identified by NRC inspectors while observing MSIV valve repair work and was immediately corrected at that time such that the proper permit was obtained and utilized.

Corrective Action to Prevent Further Noncompliance

This item was corrected immediately; but to mitigate additional violations of this procedure, all personnel were cautioned to ensure that all cutting, welding, and hot work be done in full accordance with the Plant Administrative Instructions. This item was also added to the QA/QC Surveillance Requirements for future inspections.

Date Full Compliance Will Be Achieved

The Plant Administrative Instruction regarding cutting, welding, and hot work permits is presently being adhered to, and we are in full compliance with the instructions.

C. Infraction

Contrary to Criterion XVI of Appendix B to 10CFR50, measures for prompt followup on deficiencies identified by the plant QA group had not been implemented as required by paragraph XVI.3 of Section 1.10 of the FSAR, in that certain deficiencies identified during the November, 1976, refueling outage were not promptly corrected. Additionally, several QA surveillance reports had remained open from four to thirteen months without being closed out.

Corrective Action

Carolina Power & Light Company has evaluated the above identified infraction and does not agree that the item should be

listed as such in that none of the deficiencies referenced in your report are significant conditions adverse to quality as defined by Section 5.C of QAP-3. These deficiencies pertain to necessary procedure changes, material controls, and QC training changes which, if not done immediately, would not affect plant safety. However, Carolina Power & Light Company recognizes the necessity of correcting even these minor deficiencies; and, therefore, plant personnel have as of this date closed out seven (7) of the thirteen (13) identified outstanding surveillance reports and are working to complete the remainder as soon as practicable.

While the deficiencies noted in the subject report concerning the refueling did, according to the Plant QA/QC Surveillance Journal take 24-36 hours to be corrected, it should be noted that these entries do not directly infer that it took the identified time to correct these deficiencies. This is due to the fact that the deficiencies may have been corrected shortly after being identified but not reinspected again until the individual who identified the item was back on site. Additionally, had the shift QA personnel identified the deficiencies which were logged as being significant conditions adverse to quality, they could and would have stopped the work in progress to correct the situation. This, in the judgment of QA personnel, was not the case; and, therefore, we feel should not be listed as part of an infraction.

Corrective Action to Prevent Further Noncompliance

The remaining six (6) surveillance reports will be corrected as soon as possible and will be closed out within 90 days. In addition, at a plant supervisors' meeting, the Plant Manager reiterated to all concerned the importance of QA/QC and the necessity of timely followup of the above item as well as all current and future identified deficiencies.

Date Full Compliance Will Be Achieved

The remaining outstanding surveillance reports will be closed out within 90 Days.

WH:ms

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

Yours very truly,

Harold R Banks

H. R. Banks
Manager
Nuclear Generation

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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DEC 21 1976

In Reply Refer To:
IE:II:RCP
50-261/76-13

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 November 15-19, 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 a previously identified deviation and an unresolved item. The status of these items is identified in Sections IV and VI 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, 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,

for Norman C. Moseley

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

Enclosure:
IE Inspection Report No.
50-261/76-13

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

IE Inspection Report No. 50-261/76-13

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: November 15-19, 1976

Dates of Previous Inspection: September 20-24, 1976

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

Accompanying Inspectors: H. A. Wilber, Reactor Inspector
Reactor Projects Section No. 1
Reactor Operations and Nuclear
Support Branch

S. D. Ebneter, Reactor Inspector
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

Other Accompanying Personnel: None

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

Reviewed by: R. C. Lewis 12/15/76

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

Date

SUMMARY OF FINDINGS

I. Enforcement Items

Infractions

A. Contrary to Criterion IX of Appendix B to 10 CFR 50, a Level II NDE inspector that performed steam generator eddy current testing during the November 1976 refueling outage was not properly qualified to the requirements of SNT-TC-1A, in that he did not have the necessary experience as a Level I NDE inspector to be certified for Level II. (Details III, paragraph 6)

B. Contrary to Technical Specification 6.8.1, plant Administrative Procedure 11.8 for control of cutting, welding, and hot work permits was not adhered to when a gas torch was used for heating the MSIV valve body on November 17, 1976. (Details I, paragraph 10.b)

C. Contrary to Criterion XVI of Appendix B to 10 CFR 50 measures for prompt followup on deficiencies identified by the plant QA group had not been implemented as required by paragraph XVI.3 of Section 1.10 of the FSAR, in that certain deficiencies identified during the November 1976 refueling outage were not promptly corrected. Additionally, several QA surveillance reports had remained open from four to thirteen months without being closed out. (Details I, paragraph 10.c)

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

76-13/1 Documentation of QA/QC Surveillance

Documentation of QA/QC surveillance does not appear to be adequate to facilitate management assessment of the plant QA program effectiveness. (Details I, paragraph 10.d)

76-13/2 Cleaning of Fluid Systems and Components

Plant procedures for control of cleaning fluid systems and components had not been developed. (Details I, paragraph 11)

IV. Status of Previously Reported Unresolved Items

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

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

V. Unusual Occurrences

None

VI. Other Significant Findings

Deviation 76-4: Requirements for Control of Work in Critical Areas Not Consistent with ANSI N45.2.3-1973

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

VII. Management Interview

A management interview was held on November 19, 1976, with Mr. J. McGirt, Plant Manager, and members of his staff to discuss the inspection findings.

In addition to areas discussed which are included in the report Summary above, the inspection results of the below listed items in which no discrepancies were identified, were also discussed:

A. Surveillance/Periodic Testing (Details I, paragraph 7)

B. Records Control and Storage (Details I, paragraph 8)

C. Procurement (Details I, paragraph 9)

D. Maintenance During Refueling (Details II, paragraph 2)

E. Refueling Procedures (Details II, paragraph 3)

F. Refueling Operations (Details II, paragraph 4)

G. New Fuel Inspection Records (Details II, paragraph 5)

H. Procedures for Startup Following Refueling (Details II, paragraph 6)

I. Inservice Inspection Program, Procedures and Records (Details III)

DETAILS I

Prepared by: R. C. Parker 12-14-76
R. C. Parker, Reactor Inspector Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Dates of Inspection: November 15-19, 1976

Reviewed by: E. C. Lewis 12/15/76
R. C. Lewis, Chief Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

1. Persons Contacted

J. McGirt - Plant Manager
R. Morgan - Operating Supervisor
J. Curley - Nuclear Engineer
K. Bromenschenkel - Engineering Supervisor
K. Dripps - Engineering Aide
D. Baur - QA Specialist
W. Garrison - QA Supervisor
C. Wright - Engineering Technician
S. Crocker - Environmental and Radiation Control Supervisor
W. Crawford - Maintenance Supervisor

2. Previously Identified Deviation

Deviation 76-4: Requirements for Control of Work in Critical Clean Areas Not Consistent With ANSI N45.2.3 - 1973

CP&L's letter of response to this deviation, dated May 14, 1976, was reviewed by the inspector to verify that proposed corrective measures are consistent with previous commitments made to the NRC. Quality Assurance Procedure (QAP)-2, "General Cleaning and Flushing Requirements," Rev. 1, dated September 28, 1976, was reviewed by the inspector and discussed with plant personnel. The purpose of the review and discussions was to verify that cleanliness controls had been established consistent with guidance contained in ANSI N45.2.3 - 1973. Within the areas inspected no discrepancies were identified. This item is closed.

3. Previously Identified Unresolved Item

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

The inspector verified that updated reproducible drawings were available for certain randomly selected systems. Drawings reviewed included the following:

a. Chemical and Volume Control System:
- CP - 200 - 5379 - 684, Revision 6
- CP - 200 - 5379 - 685, Revision 9
- CP - 200 - 5379 - 686, Revision 8

b. Residual Heat Removal System:
- CP - 200 - 5379 - 1484, Revision 5

c. Safety Injection System:
- CP - 200 - 5379 - 1082, Revision 8

d. Post Accident Hydrogen Purge System:
- G 109 - 268 Revision 2

e. Diesel Generator Air System:
- CP - 200 - 5379 - 1167 Revision 0

Control Room copies of the above drawings were verified to be up-to-date. Within the areas inspected no discrepancies were identified. This item is closed.

4. IE Circular 76-02: Relay Failures - Westinghouse BF(ac) and BFD(dc) Relays

The inspector reviewed CP&L's response to Circular 76-02 dated October 20, 1976, and discussed it with plant personnel. Specifically the inspector reviewed CP&L's program for the following:

a. Assuring that normally energized relays in safety-related systems are in fact operable and that the relay contacts are in the energized position.

b. Assuring that normally de-energized relays in safety-related systems operate properly when energized and that the relay contacts are in energized position.

The inspector was satisfied that CP&L had adequately reviewed and implemented their program for verifying proper operation of Westinghouse BF(ac) and BFD(dc) relays.

5. Containment Spray Chemical Addition Tank NaOH

The inspector reviewed controls related to NaOH concentration in the containment spray chemical addition tank to evaluate the potential for precipitation of NaOH. Technical Specifications establish a minimum NaOH concentration of 30% weight solution. Neither Technical Specifications or other plant instructions had established an upper limit on NaOH concentration. A review of plant chemistry records revealed that NaOH concentration for 1976 had varied between 36.4% and 42% weight solution. The containment spray chemical addition tank is located in the reactor auxiliary building which is a heated building: temperature would not be expected to be lower than 60°F. Under the above conditions precipitation of NaOH would not be expected to occur.

CP&L stated that the concentration of NaOH would be administratively controlled between 30% and 53% weight solution. Tank temperature will be monitored for the remainder of the winter to verify that tank temperature does not drop to 60°F. Under these conditions NaOH precipitation should not occur.

7. Surveillance/Periodic Testing

The inspector reviewed the plant's Periodic Test Program to determine whether the surveillance of components or equipment associated with safety-related systems or components is being conducted as required by Technical Specifications. Procedures used for the conduct of periodic testing were reviewed for technical content and approval. Specific Technical Specification surveillance requirements, related plant Periodic Test Procedures and completed test data reviewed by the inspector were as follows:

a. TS 4.1.3 (Table 4.1-3, item 9) and TS 3.1.5: PT 8.0, Reactor Coolant System Leakage Evaluation: Test results for September 10-25, 1976.

b. TS 4.9: Cycle-4, Critical Boron Concentration Graph (Design vs Measured)

c. TS 4.1.1 (Table 4.1-1, item 25): PT 5.6, Turbine First Stage Protection Channel Testing: Test results for June through September 1976.

d. TS 4.4.2.a, b and c: PT 2.6, Isolation Valve Seal Water Test, and PT 16.2, Containment Sensitivity Leakrate Test: Test results for November 1975 and December 1975 respectively.

e. TS 4.5.2.3 and 4.5.2.4: PT 3.3, Containment Vessel Spray Motor Operated Valves, and PT 2.2, Safety Injection System Component Test: Test results for June through September 1976.

f. TS 4.4.3.a, b, c and f: PT 14.0, Residual Heat Removal System Leak Test: Test results for November 1976.

g. TS 4.6.1.1: PT 23.1, Emergency Diesels: Test Results for August and September 1976.

Within the areas inspected no discrepancies were identified.

8. Records Control and Storage

The licensee's program for control, storage, retention and retrieval of records was reviewed for conformance to Section 6.10 of the Technical Specifications. The inspector identified various records that the licensee is required to maintain; then, verified that the records were in-fact being maintained. Records selected by the inspector were also reviewed to determine that they were properly prepared, reviewed and approved as appropriate. The following records were reviewed by the inspector:

a. Records of procedure changes made during 1976 to Operating Procedure GP-1, "Overall Plant Operating Procedure,": Revisions 18.25 through 18.43.

b. Nuclear Instrument Delta Flux Strip Charts NR-41, 42, 43 and 44 for August 9, 1976, and the Target Flux Difference records effective on that date. The records were evaluated for conformance to Technical Specification 3.10.2.6.

c. Periodic test records for Turbine Steam Stop, Control, Reheat Stop and Interceptor Valves Closure Tests for June through September 1976 (PT 15.2). Test results were evaluated for conformance to Technical Specifications 4.1.3 (Table 4.1-3, item 12).

d. 1976 Maintenance Records for Containment HVH Units 1-4.

e. 1976 Maintenance Records for CVCS Charging Pumps.

f. Periodic test records for the five year functional testing of containment spray nozzles: Periodic Test 3.0 dated November 1975. Test results were evaluated for conformance to Technical Specifications 4.5.1.4.

g. Boric acid heat trace strip chart for recorder No. 3 dated September 25, 1976. Data was reviewed for conformance to TS 3.2.2.

h. The following drawings were reviewed to verify that they had been updated or were being updated to reflect changes made in plant modifications 321, 305 and 305, Revision 1:

(1) CP-320-5379-3528
(2) G 190199
(3) G 190227
(4) G 190228
(5) G 190225

The inspector also reviewed CP&L records and plans for reporting special tests and experiments conducted under 10 CFR 50.59. CP&L stated the special test and experiments would be reported in their annual operating report.

Within the areas inspected no discrepancies were identified.

9. Procurement

The inspector reviewed procurement documents, material certifications, receipt inspection records and vendor qualifications for selected safety-related components and parts. Segregation of nonconforming materials was also reviewed. These activities were reviewed for conformance to Section 1.10, paragraphs IV and VII of the FSAR. Documentation and records relative to the following were reviewed:

a. Purchase Order (PO) 621287, dated 10-28-75, Item No. 19: Impeller 8" #C-39373 for GE-20K Pump: Vendor-Crane Co.

b. PO 605561, dated 12-16-76: Valve body from 2" 2X420 SS Valve: Vendor-Grinnell.

c. PO 634909, dated 6-8-76, Item No. 1: No. 016-06-016 Primary Manway Gasket: Vendor-Carolina Gasket and Rubber.

d. PO 527707, dated 8-9-75, Items 71, 73 and 74: Cage No. 131430 for 4" Tave 455° A and B: Vendor-Copes Vulcan.

e. PO 639158, dated 8-20-76, Item 2: No. 1152HP5A92PB Pressure Transmitter, S/N 62256: Vendor-Rosemont, Inc.

f. PO 627663, dated 4-5-76, Item 1: No. 6050D16G02 Lift Regulator Printed Circuit Card for Westinghouse Full Length Control Rod System: Vendor-Westinghouse.

Within the areas inspected no discrepancies were identified.

10. Plant QA/QC Surveillance

The inspector reviewed the surveillance activities of the plant QA staff which were in process or planned for the refueling outage. The purpose of the review was to verify that the provisions of Quality Assurance Procedure, QAP-3, "Site Surveillance Procedure," and the related commitments contained in Section 1.10 of the FSAR had been implemented.

a. Site QA/QC surveillance activities during the refueling outage were being documented on a shift-by-shift basis in a journal. The inspector reviewed the journal to determine the scope of surveillance activities and the nature of surveillance findings. Journal entries covering the time frame from October 30 through November 17, 1976, were reviewed. Surveillance had been performed on maintenance, modification and refueling activities; adherence to various types of plant procedures; cleanliness controls; foreign material controls on open systems; and PT nondestructive testing. The scope of QC surveillance appeared to be appropriate for the ongoing plant activities.

b. PT inspection being performed by CP&L QC personnel on the MSIV'S was observed by the inspector. A gas torch was being used to heat the valve body to the necessary temperature for PT inspection. A Hot Work Permit had not been issued for this work as required by Section 11.8 of the plant Administrative Instructions nor had the normal provisions of a Hot Work Permit been implemented in that a portable fire extinguisher had not been made readily available at the work site. This is contrary to the require-

ments of Section 6.8.1 of the Technical Specification which requires that written procedures be established and implemented for safety-related activities as described in Appendix "A" to Regulatory Guide 1.33. Section I, paragraph 5, of Appendix "A" to Regulatory Guide 1.33 requires, in part, that "... General procedures for the control of maintenance... shall be prepared... and these procedures should include the... method for obtaining permission and clearance from operations personnel to work..."

c. In review of the QA/QC surveillance journal the inspector noted the following:

(1) It took from 11-3-76 (0730-1600 shift) until 11-5-76 (2330-0800 shift) to get entries up-to-date in the control room and containment building copies of the refueling manual.

(2) It took from 11-4-76 (2330-0800 shift) until 11-5-76 (2330-0800 shift) to get open flanges on the "B" and "C" reactor coolant pumps covered.

In addition to the QA/QC journal the inspector reviewed a memo from the QA Supervisor to the Plant Manager, dated 9-1-76, titled: "QA Surveillance Program Status." This memo report is required by QAP-3. It was noted that thirteen surveillance reports remained open (ie., previously identified deviations had not been formally closed out). Some of these had been open for approximately one year.

These documents indicate that measures for prompt followup and closeout of deficiencies identified by the plant QA group are not effective. This is contrary to: Section 1.10, paragraph XVI.3 of the FSAR which states that, "Measures shall be established to followup on corrective actions to assure proper implementation and close out the corrective action documentation," and Criterion XVI of Appendix B to 10 CFR 50 which states in part "... Measures shall be established to assure that conditions adverse to quality... are promptly identified and corrected..."

d. The inspector questioned members of the plant staff relative to formal documentation of QA/QC surveillance activities and findings. CP&L stated that formal surveillance reports are only written to document that minimum surveillance requirements specified in Section 8 of QAP-3 are documented. Other

QA/QC surveillance activities are not documented in a surveillance report unless significant conditions adverse to quality are identified. Significant conditions adverse to quality are those conditions which could result in injury to personnel, including the public, or damage to plant equipment if they are not promptly corrected or stopped, as defined in Section 5.c of QAP-3. Deficiencies which are identified by QA which are not significant, as defined above, are resolved informally with the responsible supervisor.

Unless the plant QA surveillance activities including activities monitored, discrepancies identified and corrective actions taken are more formally documented; it was not clear how the adequacy or effectiveness of the QA surveillance program could be adequately evaluated by management. This item is designated an unresolved item pending further review.

11. Cleaning of Fluid Systems and Associated Components

In reviewing plant procedures for cleanliness control the inspector noted that cleaning methods and precautions including authorized solvents were not addressed. Guidance on cleaning methods is contained in ANSI N45.2.1-1973. This is designated an unresolved item.

DETAILS II Prepared by: Howard A. Wilber 11/30/76
H. A. Wilber, Reactor Inspector Date
Reactor Projects Section No. 1
Reactor Operations and Nuclear
Support Branch

Dates of Inspection: November 15-19, 1976

Reviewed by: H C Dance 11/30/76
H. C. Dance, Chief Date
Reactor Projects Section No. 1
Reactor Operations and Nuclear
Support Branch

1. Individuals Contacted

Carolina Power and Light Company (CP&L)

J. McGirt - Plant Manager
K. Bromenschenkel - Engineering Supervisor
R. Morgan - Operations Supervisor
W. Garrison - QA Supervisor
J. Curley - Test Engineer
T. Davis - Project Engineer
J. Cooper - Engineering Technician
J. Millen - Engineering Technician
C. Wright - Engineering Technician
D. Baur - QA Specialist
M. Allen - Co-op Student
C. Bethea - Shift Foreman
B. Snipes - Shift Foreman
D. Snipes - Shift Foreman
W. Blaisdell - Control Operator
S. Eldridge - Control Operator
R. DeShazo - Auxiliary Operator
E. Eldridge - Auxiliary Operator

2. Maintenance During Refueling

The inspector verified that approved procedures were available for three programs performed by maintenance personnel:

1. Steam Generator Sludge Cleaning

2. Pressurizer Safety Valve Setting

3. Modification to the MSIV's (Main Steam Isolation Valve)

These procedures contained provisions for QA review, post-maintenance testing, restoration of systems to normal and removal of interlock defeats and bypasses.

The inspector observed the tagging protection required for the MSIV modification and verified that the tags were applied as required by Clearance No. 760. The inspector also observed the work activities of one of the mechanics and one of the QA Specialists at the job site. The inspector reviewed personnel records and qualifications to verify that the mechanic met the requirements of ANSI 18.1 - 1971 paragraph 4.5.3 and the QA Specialist met the Level II requirements for liquid penetrant examination in SNT-TC-1A.

The inspector had no questions in the areas observed nor the documents reviewed.

3. Refueling Procedures

The inspector reviewed approved procedures for fuel transfers between the Spent Fuel Pool and the Reactor cavity and for spent fuel inspection to verify that such procedures were available and in conformance with the requirements of ANSI 18.7 - 1972 Section 5.3.4.5. The procedures reviewed were:

FT-1 "Refueling Organization"

FT-3 "Fuel Assembly and Core Component Movement Prerequisites and Periodic Checkoff"

FT-5 "Unpacking and Handling of New Fuel Assemblies and Shipping Containers"

FT-9.11 "Core Mapping Following Fuel Loading"

FT-10 "Refueling Outage Operations and Activities"

FT-11 "Fuel Assembly Remote Inspection"

FT-12 "Binocular Visual Examination of Fuel Assemblies"

The inspector identified an inconsistency in the inspection requirements defined in FT-10 and FT-12. The licensee revised FT-12 to define the scope of the binocular inspection of spent fuel assemblies. This revision was made, reviewed and approved before the inspector left the site.

The inspector had no further questions on the content of the procedures.

4. Refueling Operations

The inspector reviewed plant logs and records to verify that the surveillance testing required to comply with Technical Specification 3.8 had been performed. The inspector verified that the performance of the operational tests and interlock tests were documented in FT-10 data sheets. The inspector observed the handling operations in three locations:

a. The control room

b. The operating deck

c. The spent fuel pool area

Neutron count rates were monitored with an audible counter in locations a. and b. and the source range monitors were under continuous observation during fuel insertion into the core. Communications were maintained among the three locations. Data sheets were maintained at all three locations. Status boards for the reactor were maintained in locations a. and b. and status boards for the spent fuel pool were maintained in locations a. and c.

The inspector verified that the personnel performing the operations met the staffing requirements of Technical Specification 6.2.2.

All activities and records observed were in conformance to the requirements of the Technical Specifications and the fuel handling procedures.

5. New Fuel Inspection Records

The inspector reviewed the fuel inspection records of the 52 new fuel assemblies required for the cycle 5 loading to verify that all exceptions had been resolved and that all fuel inspectors were qualified in conformance to QAP 3A "Indoctrination, Training and Certification of Surveillance and Inspection Personnel." Within the areas inspected, no discrepancies were identified.

6. Procedures to Restart Unit

The inspector reviewed "Overall Plant Operating Procedure" (GP-1) to verify that directions existed to return systems to an operable condition prior to startup as required in "Administrative Control for Nuclear Power Plants" (ANSI 18.7 - 1972 Section 5.3.4.1).

Check off sheet GP-1A defines the status of systems required to heat the plant up to the hot shutdown condition. GP-1A requires individual sign-offs when a system has been verified to be in the required status and, also, requires signature approval by the Shift Foreman.

The inspector verified that the following systems were included in the check off sheet:

a. Primary Coolant - GP-1A-4.1.17

b. Nuclear Instrumentation - GP-1A-4.1.16

c. Auxiliary Feedwater System - GP-1A-4.1.13

d. Rod Control and Position Indication - GP-1A-4.1.18

e. Safety Injection System - GP-1A-4.1.31

The inspector identified no discrepancies in the areas inspected.

DETAILS III Prepared by: S. D. Ebneter 12/13/76
Date

S. D. Ebneter, Reactor Inspector
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

Dates of Inspection: November 16-19, 1976

Reviewed by: A R Herdt 12/14/76
Date

A. R. Herdt, Chief
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

1. Persons Contacted

a. Carolina Power and Light Company (CP&L)

J. McGirt - Plant Manager
J. Millen - Plant Engineer
C. Osman - Quality Assurance Engineer
L. McKenzie - Quality Assurance Engineer

b. Contractor Organizations

Westinghouse Electric Corporation (W)

H. H. Elsner - Senior Engineer
R. B. Weber - ISI Team Leader

2. Scope

This inspection was primarily concerned with audits of inservice inspection activities to determine degree of compliance with regulatory requirements and licensee commitments. It consisted of program and procedure review, observations of nondestructive examinations, and audits of records relative to Class 1 systems/components of the reactor coolant boundary.

3. Inservice Inspection Program

The H. B. Robinson 2 plant is committed to the ASME B&PV Code Section XI, January 1970 issue, where practical, as defined in Section 4.4 of the FSAR and further amplified by Section 4.2 of the Technical Specifications.

Table 4.2-1 of the Technical Specifications contains a detailed listing of examinations which includes primary pump flywheel examinations. The primary ISI effort was planned and documented by W for CP&L in accordance with code requirements. The steam generator tube testing plan was developed by Southwest Research Institute (SwRI) and conformed with the requirements of RG 1.83 Revision 1. The licensee had reviewed the ISI plan and approved the planned examinations, schedule and procedures.

The inspector reviewed the plan and compared the examination categories and proposed methods of examination with the ASME Codes Tables IS-261 and IS-251 on an item by item basis. For example, Item 2.1 of IS-261 specifies that longitudinal and circumferential welds of the pressurizer shall be visually and volumetrically examined and Table IS-251 Category B specifies that examinations during each interval shall cover at least 10 percent of the length of each longitudinal weld and 5 percent of the length of each circumferential weld. Item 2.1 of the ISI plan specifies that five circumferential welds shall be examined for 1-1/2 inches (each weld) visually and ultrasonically and that each of four longitudinal welds shall be examined visually and ultrasonically for a distance of 3 inches. Sketch CPL-114 depicts the pressurizer welds and planned inspection areas. Weld Number 1 is a longitudinal weld extending between elevations 284'0" and 276' 2.50" for a weld length of 98.5 inches. Over the 10 year inspection interval, 10 percent, or approximately 10 inches of the weld shall be examined to meet code requirements. The plan indicates that this will be accomplished over the interval even though more or less than the planned examination may be accomplished during any one outage.

4. Inservice Inspection Procedures

The W ISI plan contained the nondestructive examination procedures necessary to conduct those examinations specified in the plan and other procedures applicable to the conduct of the examinations such as data recording.

The SwRI plan contained procedure SwRI-NDT-500-3 which complied with the requirements of RG 1.83. The following procedures were examined:

Procedure Number	Procedure Title
ISI-5	Manual Ultrasonic Examination of Circumferential and Longitudinal Butt Welds

ISI-8	Visual Examination Procedure
ISI-41	Manual Ultrasonic Testing of Reactor Coolant Pump Fly Wheels
ISI-11	Liquid Penetrant Examination Procedure
NSD-ISI-10	Preservice and Inservice Examination - Manual Ultrasonic Equipment Qualification
OPS-NSD-101	Preservice and Inservice Inspection Documentation
ISI-88	Remote Visual Examination of Reactor Vessel Internals
SwRI NDT-500-3	Mechanized Eddy Current Examination of Steam Generator Tubing

Procedures examined appeared to be consistent with code and regulatory requirements and had been approved by Level III examiners and the licensee.

5. Observation of Work

The nondestructive examinations were being performed by Conam, Inc. personnel under the guidance of W Level II and Level III examiners. The opportunity to witness examinations was limited by the lack of completion of pre-examination activities such as insulation removal.

The inspector witnessed ultrasonic and visual examination of the reactor coolant pump B flywheel designated as Item 7.1 in the plan. Level II personnel performed the ultrasonic examination in accordance with procedure ISI-41 which was developed by W to conform with Safety Guide 14. Visual inspection was performed per procedure ISI-8. The equipment utilized was calibrated and certifications for the equipment and transducers were available. Couplant materials were certified to contain less than one percent halogens and sulfur. Personnel certifications were available which contained data on eye examinations, recertification and other SNT-TC-1A requirements. The data for the examination was recorded per procedure OPS-NSD-101.

Penetrant examinations of several welds in the loop B 2-inch drain line were observed. Welds 8, 9, 10 and 11 identified on isometric 2-RC-39 were examined per procedure ISI-11 by Level II examiners utilizing penetrant 5C057, developer 4L107 and cleaner 5B021. The inspector verified that the installed piping and welds were as shown on 2-RC-39. All of the materials had been certified by the manufacturers as meeting code requirements for halogen and sulfur content. Temperature of the ambient environment was being

continuously monitored by a thermometer and was approximately 65°F which falls within the normal code specified range. Conam, Inc. certifications of the Level II examiners met SNT-TC-1A guidelines with regard to training, experience, eye examinations and recertifications. Licensee personnel observed the examinations and documented the results on a QA Surveillance Report. Three linear indications were observed on the face of weld 11 which were noted on the examination data sheet and transmitted to the licensee for disposition.

6. Record Review

Steam generator tubes in steam generators A and C had been examined by eddy current technicians in accordance with SwRI procedure NDT-500-3. This procedure was developed to be in conformance with RG 1.83 Revision 1. Data sheets and calibration records were reviewed and cross checked. Equipment calibration data was available and certifications including chemical and physical test results were documented for the calibration standard. Review of the data indicated that seven tubes had indications exceeding the plugging limit in steam generator A and none in generator C. This was confirmed in subsequent discussions with the licensee and it was stated that these tubes would be plugged during the outage. An audit of personnel certifications related to those examiners whose names appeared on data and calibration sheets revealed that an examiner had been certified as a Level II examiner without benefit of minimum experience levels required by SNT-TC-1A.

Paragraph 3.2.1.3 of the SwRI plan states that in reference to eddy current examiners, each examiner is trained and qualified in accordance with SwRI Nuclear QA Program Manual and SNT-TC-1A. Further, procedure SwRI NDT-500-3, paragraph 2 states that RG 1.83 Revision 1 and SNT-TC-1A form a part of procedure 500-3. Eddy current examiner requirements are specified in paragraph 6.2.1 of SNT-TC-1A 1975 which references Table 6.2.1.A. This table specifies that for a person with a background of that of the individual under consideration, eight hours of training and nine months of work experience at a Level I are required as a minimum to qualify for certification as a Level II.

Page N-10 of the SwRI plan is a reproduction of Certificate of Personnel Qualification, Eddy Current Testing - Level II SNT-TC-1A 1975 for the individual in question. Section 1 of the certificate specifies that the individual was certified as a Level I examiner on September 9, 1976. Section 3 of the certificate states

that the date of certification as a Level II was October 14, 1976. This obviously does not meet the nine month experience criterion. The licensee discussed this with SwRI by telephone. The basis of certification was stated as being the fact that the individual was a graduate of a two year vocational technical school. This does not conform to SNT-TC-1A (1975) and, moreover, the 1968 Edition of SNT-TC-1A Supplement E, paragraph E2.4 specifies 6 months experience as a certified Level I as a prerequisite for upgrading to a Level II.

This, therefore, is an apparent noncompliance with Criterion IX of 10 CFR 50 Appendix B which states in part that nondestructive testing shall be accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria and other special requirements. This is identified as noncompliance 76-13-A1(II) and is in the infraction category.

The inspector audited records of Conam, Inc and W pertaining to personnel certifications, equipment calibration, calibration blocks, material certifications and calibration and examination data. Ultrasonic examination and calibration data for welds 11, 12, 13, 14, 15, 16 and 17 in the loop B 3-inch charging line was examined and cross checked against dates, material certifications, and personnel certifications.

Within the areas examined, no other enforcement items were noted.

7. Independent Inspection

An examination of certain areas of the reactor internals was scheduled as Item 1.15 of the ISI plan. These examinations were conducted per procedure ISI-88 with supplemental information and included remote visual examination of the following:

(a) upper core plate alignment pins

(b) head and vessel alignment pins

(c) upper core plate guide keys

(d) flange to core barrel weld

(e) core barrel midplane weld

The examinations were conducted by an underwater television camera with display on a local TV monitor. The examinations were recorded on video tape to provide a permanent record and additional evaluation. The TV monitor provided real time display for examination to determine physical damage, corrosion, erosion, evidence of misalignment, weld degradation and flow/vibration induced defects. These examinations were conducted by Level II examiners. An audit of applicable records did not reveal any areas of concern.

Within the areas examined, no enforcement items were noted.

Central File
50-261

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

JAN 21 1977

In Reply Refer To:
IE:II:RCP
50-261/76-12

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 letters of November 17 and December 17, 1976, and January 12, 1977, 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 October 26, 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

Carolina Power & Light Company

November 17, 1976

File: NG-3513 (R) Serial: NG-76-1487

Mr. N. C. Moseley
U. S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region II - Suite 818
230 Peachtree Street
Atlanta, Georgia 30303

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE INSPECTION REPORT 50-261/76-12

Dear Mr. Moseley:

We have received and reviewed your IE Inspection Report 50-261/76-12 and find it contains no information of a proprietary nature to Carolina Power & Light Company. Your report identified one item which appears to be in noncompliance with NRC requirements which Carolina Power & Light Company hereby responds to:

I. Enforcement Item

Deficiency

Contrary to Criteria IV and VII of Appendix B to 10 CFR 50 and to guidance contained in Sections 5 and 8 of ANSI N45.2 - 1971 and Appendix II to the Plant QA Manual, certain purchased safety-related parts such as the auxiliary feedwater system valve operators and main steam valve springs were not procured, receipt inspected, or stored as safety-related equipment.

Response

Corrective Action Taken To Correct Deficiency

The specific items referred to in your report concern procurement and storage of certain spare parts for equipment which were not previously identified as Q-List system components. Carolina Power & Light Company had previously identified the need to update and expand the scope of the Robinson Plant Q-List and subsequently began upgrading the Q-List. When the parts identified in your report were purchased, the Q-List was not being expanded and consequently were procured in accordance with the Plant QA Manual requirements existing at that time. Since that time, a study of Q-List criteria was begun and several expansions of this list have already been made.

Corrective Action To Prevent Further Noncompliance

The upgrading and expansion of the Q-List will continue until all systems have been analyzed.

Date When Full Compliance Will Be Met

At the present time procurement of Q-List spare parts is in full compliance with Volume 11 of the Plant Operating Manual. Upgrading of the Q-List had previously been scheduled for completion by December 31, 1976. However, this date cannot be met because much greater effort has been required than originally expected. We are currently evaluating the schedule and will provide a new completion date as soon as it can be determined.

It should be noted that while the parts procured were not identified as Q-List parts, they were procured from the original vendor and met the original equipment specifications.

Yours very truly,

Harold R Banks

H. R. Banks
Manager
Nuclear Generation

KEB/CSB/bb

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

December 17, 1976

FILE: NG-3513(R) SERIAL: NG-76-1607

Mr. Norman C. Moseley
U. S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region II - Suite 818
Atlanta, Georgia 30303

H. B. ROBINSON UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
IE INSPECTION REPORT 50-261/76-12
REQUEST FOR SUPPLEMENTAL INFORMATION

Dear Mr. Moseley:

As requested, we are hereby providing you with supplementary information regarding our response to the subject report which identified the following enforcement items.

1. Enforcement Item

Deficiency

Contrary to Criteria IV and VII of Appendix B to 10 CFR 50 and to guidance contained in Sections 5 and 8 of ANSI N45.2 - 1971 and Appendix II to the Plant QA Manual, certain purchased safety-related parts such as the auxiliary feedwater system valve operators and main steam safety valve springs were not procured, receipt inspected, or stored as safety-related equipment.

Response

Corrective Action Taken to Correct Deficiency

The items specifically identified in your report were purchased without requiring certification documents; however, these parts were obtained from the original equipment vendor as spare or replacement parts which met the same quality requirements for the original equipment. The parts were also receipt inspected and the results documented as is the case with all incoming material irrespective of whether it is Q-List or not. This inspection was and will continue to be done in the future in accordance with Maintenance Instruction MI-8, Receiving and Storing Certified Parts. Following receipt inspection, these items were stored, without Accept

tags in the storeroom with general spare parts. While these parts did not have Accept tags on them, they were identified with a standard parts identification tag which provided traceability back to the purchase order.

Corrective Action to Prevent Further Noncompliance

As previously reported to you, Carolina Power and Light Company is presently in the process of expanding the Q-List. The upgrading of the Q-List will be completed by August 1, 1977. As new systems or portions of systems are added to the Q-List, the Quality Assurance requirements of the QA Manual will be applied to those so designated components.

With regard to storeroom facilities, Carolina Power and Light Company has engaged the services of an outside consulting firm which has evaluated our complete storeroom methodology, records and facilities. We will receive their detailed recommendations in January, 1977, at which time we will evaluate data and implement necessary changes. As part of this project, we will expand the Q-List storage facilities to encompass the components added to the Q-List. The projected completion date for this project is October 31, 1977. Until such time that all necessary parts are added and stored as Q-List items, we will ensure that spare parts presently in stock used for maintenance of the expanded Q-List components are direct replacement spare parts obtained from the original equipment supplier, or if a spare part is supplied by another vendor, we shall evaluate use of the part in accordance with the QA Manual, Volume II of the Plant Operating Manual. Future procurement and control of spare parts for expanded Q-List components will be in accordance with existing QA procedures. These controls will be implemented immediately to ensure the quality of the safety-related systems.

Date When Full Compliance Will Be Met

As stated above, implementation of more definitive controls of safety-related spare parts will begin immediately and be expanded until all requirements are implemented. The completion of the Q-List upgrading and the Q-List storage facilities change date is August 1, 1977 and October 31, 1977, respectively.

While your inspection report identified our failure to implement proper procurement and storage controls, Carolina Power and Light Company had previously identified this area as lacking full compliance with regulations and had begun to take remedial actions to correct this. This is in keeping with our operating commitments to meet or exceed all regulations as specified for our nuclear power plants.

Yours very truly,

H. R. Banks
Manager
Nuclear Generation

CSB:jfc

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

January 12, 1977

File: NG-3513 (R) Serial: NG-77-028

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
IE INSPECTION REPORT NO. 50-261/76-12

Dear Mr. Moseley:

As requested by your staff, we are hereby submitting additional information concerning action we are taking to correct an enforcement item identified by you in the subject report. The additional information pertains specifically to the manner by which we will control maintenance activities and spare parts control for safety-related components which presently are not on the Q-List but will be upon completion of the Q-List expansion. The details are as follows:

The Shift Foreman will, upon receipt of a trouble ticket, continue to determine if the component to be repaired is a Q-List item and mark the ticket accordingly. If the component is non Q-list, the Shift Foreman will determine if it is safety related. If so, he will mark the trouble ticket non Q-List but will also write "Safety Related" on the ticket to identify the significance of this item. All trouble tickets, Q-List and non Q-List, will then be reviewed by QA personnel to ascertain if the correct quality requirements are identified. If the trouble ticket if identified as "Safety Related" non Q-List, work instructions will be prepared and reviewed in a manner similar to Q-List maintenance.

Control of spare parts will be accomplished in a manner to ensure that the quality of the component is not degraded. The maintenance personnel will inform storeroom personnel when spare parts being withdrawn from stock are for use on safety related, non Q-List components. The storeroom personnel will determine if the spare part to be used was procured from the original equipment vendor. If so, he will sign a form, which will be attached to the trouble ticket, indicating the part was procured as a direct replacement spare part. If the part was obtained from another vendor, engineering or QA personnel will

ascertain if the quality of the part is equal to or better than the original part. This review will be documented on the form to be attached to the trouble ticket. These trouble tickets will be reviewed by QA personnel upon completion of the repair work and then be filed in the plant QA files.

Requisitions of spare parts have been, in the past and will continue to be, reviewed by QA personnel for quality requirements. The QA personnel review all requisitions for items on Robinson Unit No. 2 as is required by plant procedures which ensures that items which are safety related are purchased with proper quality requirements. Non Q-List safety-related items have been identified to all personnel involved in procurement to ensure spare parts are ordered properly.

The steps delineated above have already been taken at the plant to ensure the maintenance of system quality. Carolina Power & Light Company will continue to work toward completion of the corective actions stipulated in previous correspondence regarding the subject report. We will continue to strive to maintain or improve the level of quality in all systems at the Robinson Plant to ensure safe, reliable plant operations.

We trust the above information adequately defines the steps we have taken to correct the identified deficiency.

Yours very truly,

H. R. Banks
Manager
Nuclear Generation

KEB:CSB:mvp

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

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

OCT 26 1976

Central File
50-261

In Reply Refer To;
IE:II:RCP
50-261/76-12

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 September 20-24, 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. 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 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.

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.
50-261/76-12

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

IE Inspection Report No. 50-261/76-12

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: September 20-24, 1976

Dates of Previous Inspection: August 30-September 2, 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: G. L. Constable, Reactor Inspection
Programs Specialist
Light Water Reactor Programs Branch
Inspection and Enforcement, Headquarters

Principal Inspector: R. C. Parker 10-21-76

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

Reviewed by: _____ 10/22/76
R. C. Lewis, Chief Date
For Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

SUMMARY OF FINDINGS

I. Enforcement Item

Deficiency

Contrary to Criteria IV and VII of Appendix B to 10 CFR 50 and to guidance contained in Sections 5 and 8 of ANSI N45.2 - 1971, and Appendix II to the Plant QA Manual, certain purchased safety-related parts such as the auxiliary feedwater system valve operators and main steam relief valve springs were not procured, receipt inspected or stored as safety-related equipment. (Details II, paragraph 2.b)

II. Licensee Action On Previously Identified Enforcement Matters

Enforcement Item 76-6, I: Procedure Not Adhered to for Control of Maintenance Activities

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

III. New Unresolved Items

76-12/1 Pressurizer Power Operated Relief Valve (PORV) Preventive Maintenance (PM)

Periodic inspection of PORV diaphragms is not required by the plant PM program as recommended by the vendor's manual. (Details I, paragraph 6.b)

IV. Status of Previously Reported Unresolved Items

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

This item remains open pending availability of reproducible copies of updated plant drawings. (Details I, paragraph 3.a)

76-8/1 Administrative Controls for Reactor Startup, 1/M Plotting and ECP Calculation

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

V. Unusual Occurrences

None

VI. Other Significant Findings

Time after shutdown Xenon curves have been found to be inaccurate. (Details I, paragraph 7)

VII. Management Interview

A management interview was held on September 24, 1976, with Mr. J. McGirt, Plant Manager, and members of his staff to discuss the inspection findings.

In addition to areas inspected which are discussed in the report Summary above, the following areas were inspected with no apparent discrepancies being identified:

a. Compliance with Technical Specification safety limits, limiting safety system settings and limiting conditions for operations. (Details I, Paragraph 4)

b. Plant operations (Details II, paragraph 4)

c. Plant modifications and design changes (Details II, paragraph 3)

d. Non-routine event reporting (Details I, paragraph 5)

e. QA program changes (Details II, paragraph 2.a)

DETAILS I

Prepared by: R. C. Parker 10-21-76
R. C. Parker, Reactor Inspector Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Dates of Inspection: September 20-24, 1976

Reviewed by: 10/22/76
for R. C. Lewis, Chief Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

1. Persons Contacted

J. McGirt - Plant Manager
R. Morgan - Operating Supervisor
J. Curley - Nuclear Engineer
K. Bromenschenkel - Maintenance Supervisor
S. Zimmerman - Scientist
K. Dripps - Engineering Aide
D. Baur - QA Specialist
G. Bell - QA Specialist
S. Eldridge - Control Operator
B. Parin - Auxiliary Operator
W. Gainey - Shift Foreman
E. Brooks - Senior Control Operator
K. Lancaster - Control Operator
L. Veeder - Control Operator

2. Previously Identified Enforcement Matters

Enforcement Item 76-6, I: Procedure Not Adhered to For Control of Maintenance Activities

CP&L's letter of response to this item of noncompliance dated June 14, 1976, was reviewed by the inspector to verify that corrective measures stated therein are in conformance with Regulatory requirements. Implementation of corrective measures was verified as follows:

a. Activities related to Trouble and Work Report No. 1475, dated 6/9/76, for repair of HVH-4 motor cooler was reviewed by the inspector. Appropriate pre and post maintenance tests, work instructions, and system alignments were specified in Operating Work Procedure (OWP) HVH-4, "Repair of HVH-4 Fan/Motor/Dampers."

b. Activities related to Trouble and Work Report No. 1874, dated 7/30/76, for repair of "A" charging pump were reviewed by the inspector. Appropriate pre and post maintenance tests, work instructions, special tool certification, cleanliness inspections and system alignments were specified in OWP CVC-1, "Repair of Charging Pump and/or Motor."

c. The general scope and content of the plant's file of OWP's were reviewed. Significant progress had been made in the development of a comprehensive system of procedures for controlling maintenance activities.

d. Revision 1.9 to Maintenance Instruction, MI-10, Procedure No. 6, "Repair Procedure for the Disassembly, Inspection and Reassembly of the Reactor Coolant Pump Seal Assembly" dated August 31, 1976, was reviewed to verify that adequate provisions for data recording had been provided.

e. One additional QA Specialist has been added to the plant QA staff and CP&L is seeking two additional QC technicians. With those additions to the site QA staff, it appears that increased emphasis is being placed on maintenance controls.

Within the areas inspected, a discrepancy was identified that involved periodic test data sheets for pre and post maintenance testing activities not being retained as test records. CP&L stated that in the future these records would be maintained. This item is closed.

3. Previously Identified Unresolved Items

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

The inspector reviewed the status of plant drawings to determine if safety-related flow diagrams had been field checked; whether drawings had been updated to reflect plant modifications; and whether up-to-date drawings were available for plant use. Specifically the inspector:

(1) Verified that review and approval routing sheets for all plant modifications had been signed off indicating that affected drawings had been updated.

(2) Checked the following modification packages and drawings to verify that they had in fact been updated:

(a) Modification No. 24 - "Rod Position Indication," Dwg. No. 5379-4760

(b) Modification No. 52 - "A and B Diesel Generator Trip Bypass Keylock Switch," Dwg. No. 5379-1153

(c) Modification No. 122 - "Containment Hydrogen Venting and Containment Pressure Relief Systems," Dwg. No. G-190268

(d) Modification No. 233, Revision 1 - "Steam Generator Blowdown System Flow," Dwg. No. G-190268

(e) Modification No. 298, Revision 2 - "Service Water Booster Pump Pressure Interlock Bypass on Safety Injection," Dwg. No. B-190628, Sheets 845 and 846.

(f) Modification No. 321 - "Addition of Reactor Coolant System Wide Range Pressure Recorder on the RTGB," Dwg. No. 5375 -3528

(3) Reviewed the listing of safety-related flow diagrams that had been field checked. Working copies of the following field checked drawings were checked:

(a) Chemical and Volume Control System, Dwg. No. CP-200-5379-686, Sheet 2

(b) Safety Injection System, Dwg. No. CP-200-5379-1082, Sheet 1

(c) Component Cooling Water System, Dwg. No. CP-200-5379-376

Based on the above reviews it appears that the plant has updated its master file of drawings. Several of these drawings must be redrawn before they will be reproducible; consequently, completely updated drawing are not yet readily available in the control room or shops. CP&L stated that up-to-date drawings should be available for distribution in the plant by November 15, 1976. This item remains open pending completion of this work.

b. Unresolved Item 76-8/1: Administrative Controls for Reactor Startup, 1/M Plotting and ECP Calculation

The inspector reviewed the following documents to verify that procedures had been established to provide more accurate Xenon

data to the operator for calculation of ECP's; that guidelines and requirements for maintaining 1/M plots had been established; and that administrative controls for reactor startup had been adequately defined:

(1) Revisions made to Operating Procedure, GP-1, "Overall Plant Operating Procedure," related to administrative controls for reactor startup, 1/M plotting and ECP calculations.

(2) Fuel Follow Procedure No. 6, "Determination of Power Dependent Xenon Conditions," dated July 30, 1976.

Based on the above reviews it appears that the licensee had adequately strengthened administrative controls and procedures for reactor startup. This item is closed.

4. Safety Limits, Limiting Safety System Settings and Limiting Conditions for Operations

The inspector reviewed selected plant operations and the status of certain safety-related equipment to determine that plant operations were in conformance to Technical Specification requirements. The following aspects of plant operations were reviewed:

a. Reactor Coolant System cooldown rate on January 14, 1976. The record copy of Operating Procedure GP-1D, Check-Off Sheet, "Plant Cooldown from Hot Shutdown to Cold Shutdown," dated January 14, 1976, was reviewed. The cooldown rate was within limits established by Technical Specification 3.1.2.1.b.

b. Power Distribution Limits including peaking factor, $F_Q(Z)$; enthalpy rise hot channel factor, $F^N_\Delta H$; and reference equilibrium indicated axial flux difference. Computer summaries for core flux maps taken during July, August and September and the September reference axial flux difference were reviewed by the inspector to verify conformance to Technical Specifications 3.10.2.1 and 3.10.2.4.

c. The inspector inspected the twelve main steam safety valves to verify that they were operable (not gagged or otherwise rendered inoperable), as required by Technical Specification 3.4.1.(a)

d. The reactor containment internal pressure was verified to be between 2 psi pressure and 1 psi vacuum as required by Technical Specification 3.6.2.

e. Plant instrumentation, operating records and equipment status were reviewed by the inspector to verify that the following Technical Specification requirements related to the Safety Injection and Residual Heat Removal Systems were being adhered to:

(1) 3.3.1.1.a - Refueling Water Tank contents: gallons and boron concentration.

(2) 3.3.1.1.b - Boron Injection Tank contents: gallons, boron concentration, temperature and operable heat tracing.

(3) 3.3.1.1.c - Safety Injection Accumulators volume, pressure and boron concentration.

(4) 3.3.1.1.d - Safety Injection Pumps operability tests as documented in Control Operator Log for September 14, 1976.

(5) 3.3.1.1.e - Residual Heat Removal Pumps operability tests as documented in Control Operator Log for September 14, 1976.

(6) 3.3.1.1.h - Power removed from specified motor operated valves with the valves in the specified positions. Valve and breaker positions were verified.

(7) 3.3.1.1.i - Air supply to air operated valves 605 and 758 shut off with valves in closed position. Valves were verified based on General Operating Procedure Checkoff Sheet CPL-GP-1A dated January 18, 1976. (Last plant heatup)

f. The contents of the containment spray additive tank were verified to be greater than 2505 gallons with a NaOH concentration greater than 30 percent as required by Technical Specification 3.3.2.1.a.

g. The valve lineup for the containment spray eductors were verified to be correct for automatic addition of NaOH to containment spray as required by Technical Specification 3.3.2.1.e.

h. The fuel supply for the emergency diesels was verified to be adequate and protective trips for the diesels were verified to be bypassed as required by Technical Specification 3.7.1.d.

Within the areas inspected no discrepancies were identified.

5. Review of Nonroutine Event Reports

a. Three 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 and reported. Each of the reportable events were discussed with plant personnel. The three events reviewed and related plant records that were reviewed are as follows:

(1) 50-261/76-13, "B" Station Battery Inoperable With the Reactor Critical

(a) PNSC Meeting Minutes No. 280 dated July 10, 1976.

(b) Shift Foreman's Log for July 10, 1976.

(c) Memorandum: Plant Manager to Plant Personnel, dated July 20, 1976, which addressed corrective action relative to this event.

(2) 50-261/76-15 - Auxiliary Feedwater Pump Discharge Valve V2-16A Failure:

(a) PNSC Meeting Minutes No. 287 dated August 18, 1976

(b) Plant Modification Package No. 350

(3) 50-261/76-16 - Operating In A Degraded Mode Permitted by Technical Specifications - Cumulative Time Outside the Constant Axial Offset Target Band

(a) PNSC Meeting Minutes No. 286 dated August 11, 1976

(b) Shift Foreman's Log for August 7-8, 1976

Within the areas inspected no discrepancies were identified.

6. IE Bulletin Followup

a. 76-07 - Crane Hoist Control - Circuit Modifications

The inspector reviewed the licensee's response to this IEB dated August 17, 1976, and discussed crane control circuitry with plant personnel. H. B. Robinson 2 does not have crane hoist control circuitry of the type discussed in the Bulletin.

b. 76-06 - Diaphragm Failures in Air Operated Auxiliary Actuators For Safety/Relief Valves

The inspector reviewed the licensee's response to this IEB dated August 2, 1976; plant maintenance Instruction No. 10, Procedure No. 1, "Repair Procedure for Quick Change Trim Air Operated Control Valves" and discussed the IEB response with plant personnel. CP&L had not decided what action would be taken relative to inspection of power operated relief valve (PORV) diaphrams. The vendor's manual for PORV's of the type installed on the pressurizer recommends a yearly inspection of diaphrams. This is designated an unresolved item.

7. Time After Shutdown Xenon Curve

It has been determined that time after shutdown xenon curves in use at H. B. Robinson 2, under estimate the worth of peak xenon present in the core after shutdown by as much as 800 pcm. The significance of the errors in the xenon curves is being evaluated by Exxon Nuclear and NRR.

DETAILS II Prepared by: H C Dance / D. J. Burke, Reactor Inspector 10/26/76 Date
Nuclear Support Section
Reactor Operations and
Nuclear Support Branch

Dates of Inspection: September 20-24, 1976

Reviewed by: H C Dance H. C. Dance, Acting Chief 10/26/76 Date
Nuclear Support Section
Reactor Operations and
Nuclear Support Branch

1. CP&L Personnel Contacted

J. McGirt - Plant Manager
R. Morgan - Operating Supervisor
W. Garrison - QA Supervisor
G. Bell - QA Specialist
D. Bauer - QA Specialist
S. Zimmerman - Scientist
R. Howell - "A" Storekeeper
B. Snipes - Shift Foreman
S. Eldridge - Senior Control Operator
Several Senior and Control Operators

2. Quality Assurance (QA) Program Changes

a. General Comments

The inspector reviewed changes to the licensee's QA program which were made over the past year. Although the program changes appeared to be in conformance with the FSAR and Appendix B to 10 CFR 50, one item of noncompliance concerning program implementation was identified with regard to the procurement, receipt, storage and handling of certain safety-related equipment. (See paragraph 2.b.) The program and implementation of recent plant modifications was also inspected. (See paragraph 3) The licensee is in the process of microfilming his files, and is currently revising his procedures for record control.

b. Procurement and Control of Safety-Related Parts

The inspector reviewed changes in the licensee's administrative controls for procurement, receipt, storage and handling of safety-related equipment. The changes appeared to meet the

requirements of Section 1 of the FSAR, Appendix B to 10 CFR 50, ANSI N45.2 - 1971, and ANSI N45.2.2 - 1972. The review included the following items:

Robinson QA Manual (Vol. 11 of the Plant Operating Manual), Sections 4 and 5

MI No. 8, Receiving and Storing Certified Parts (R3)

Implementation of the program, however, did not appear to meet the above requirements. Contrary to criteria IV and VII of Appendix B to 10 CFR 50, Sections 4 and 8 of ANSI N45.2 - 1971, and Appendix II to Volume 11 of the POM, certain purchased, safety-related parts were not properly procured or controlled. For example, the Limitorque valve operators for the motor-driven auxiliary feedwater pump discharge valves (V2-16A, B, and C) to the steam generators, and the Crosby main steam relief valve (SVI-3, 4) springs were not identified as Q-list items and consequently were purchased without requiring source evaluation, were received without documenting the receipt inspection results, were not identified by attaching acceptance tags on the parts, and were subsequently not stored or handled as certified, safety-related equipment. This item of noncompliance is a deficiency. According to Appendix II to the QA Manual, which provides the general criteria for determining which plant items are Q-list items, the above valve parts are considered to be safety-related since their functions include cooling the core and containing radioactivity after a tube leak or rupture; however, the auxiliary feedwater system (FWS) and the main steam system are not part of the Q-list, so the licensee does not establish measures to assure that adequate quality and control of these parts is accomplished. This is contrary to criterion IV and VII of Appendix B to 10 CFR 50. The inspector stated that it is the licensee's responsibility to assure that safety-related parts are properly procured and controlled; if the Q-list in Appendix II is obsolete, then it must be revised. The licensee stated that the Q-list is currently under revision and should be complete by December 31, 1976 (See Unresolved Item 76-4/2). The RPS nuclear detectors were recently added to the Q-list. The auxiliary FWS valve operators discussed above were ordered in early 1975 and delivered in April of 1976. The licensee stated that all safety-related parts which are now ordered and delivered will be appropriately procured and controlled.

The inspector also commented on the following conditions in the procurement, receipt, storage, and handling of purchased materials; no items of noncompliance were identified:

1) The licensee has no hold or nonconforming material areas designated to store or segregate nonconforming items; purchased items are either accepted or placed on the Material Awaiting Certification shelves.

2) Several Q-list items (e.g. Crosby valve nozzles, RHR sump pump shafts, instrument manifold valves, etc.) have been stored on the Material Awaiting Certification shelves for over a year; these items are neither acceptable nor nonconforming items.

3) Safety-related parts are segregated from non-safety-related items by outlining the storage shelves with masking tape, by utilizing the aisle between the shelf rows, or by separating warehouse floor space with a thin strand of rope. The stores personnel appeared to be qualified and familiar with all storage areas.

4) The lack of storage space has led to overflowing shelves, to stacking seismic restraints and control rod drive parts on top of crates of nuclear detectors marked "Fragile," and apparently, to equipment damage; the limit switches on one Limitorque valve operator which appeared to have been impacted by material stacked nearby, were broken off and found on the floor. The Limitorque operator was not properly tagged or identified, but was traced by the manufacturer's serial number and determined to be non-safety related.

5) Several items in the old storehouse or warehouse had no tags or identification; the items, such as turbine control valve stems, were subsequently determined to be non-safety-related. The defective BFD 66 and 84 relays which had been removed from the RPS were not identified as hold or nonconforming items, however, they were stored outside of the roped-off safety-related parts storage area. Material must be tagged "Acceptable" before being used or installed in a Q-listed system.

The licensee stated that he would review these areas and provide followup action as necessary; a study is currently underway to evaluate the entire spare parts receipt, storage and handling program and facilities at H. B. Robinson.

3. Plant Modifications (PM)

The inspector reviewed several plant modifications or design changes to verify that the PM's were made in accordance with 10 CFR 50.59, Section 6 of the Technical Specifications, Section 4 of ANSI N45.2-1971, and in accordance with Section 3 of the QA Program (Vol. 11 of POM). Within the areas inspected, no discrepancies were identified. The following PM's were reviewed:

PM-298, Service Water Booster Pump Pressure Interlock Bypass on SI Signal
PM-307, Install Fixed Incore Rhodium Detectors
PM-317, APDMS Alarm Modification
PM-320, Replace Post Accident Hydrogen Venting Flow Components
PM-322, Install Larger Filter Capacitors in the Rod Control Power Cabinets
PM-324, Delta Flux Monitoring Alarm Installation
PM-326, Westinghouse Steam Generator Modification (Secondary side)

The inspector verified that the PM's were reviewed and approved as per the TS, that post-modification acceptance tests were required or performed, and that procedures were changed and drawings revised as required. Acceptance tests are still in progress for some of the PM's (e.g. PM-307, detector response tests will continue for some time). The inspector had no further questions.

4. Review of Plant Operations

a. Records Review

The records of facility operations were inspected to determine whether routine operations are being conducted in conformance with the requirements established in the Technical Specifications (TS), 10 CFR, and the Administrative Instructions. TS 6.8.1 and 6.10 require that records of facility operations, maintenance activities, and abnormal conditions be maintained and that written procedures be established to accomplish this goal. The licensee's Administrative Instructions provide the detailed guidance on how these requirements are to be met. The specific Administrative Instructions that relate to the areas covered are referenced below.

The following records were reviewed for the time periods indicated. Selected items were compared with actual conditions by observation, discussions with operators and by cross checking with other records.

Shift Foreman's Log	8/1/76 to 8/20/76	AI 4.11
Control Operators's Log	8/1/76 to 8/20/76	AI 4.11
Auxiliary Patrol Log (Inside and Outside)	8/1/76 to 8/20/76	AI 4.1.5
Reactor Trip Log	8/1/76 to 8/20/76	AI 4.1.12
Trouble Tickets	7/1/76 to 9/22/76	AI 4.2
Equipment Out of Service Forms	7/1/76 to 9/22/76	AI 4.5/509
Minimum Equipment List	7/1/76 to 9/22/76	AI 4.5/509
Standing Orders	7/1/76 to 9/22/76	AI 4.5
Operaing Notes	7/1/76 to 9/22/76	AI 4.5
Jumper Log	7/2/76 to 9/22/76	AI 11.11

It appeared that these records were being maintained as required by the Administrative Instructions. In addition, the content of the records appeared to reflect the ongoing operation and no items of safety significance were found. A minor discrepancy was discovered in that the auxiliary operators logs were not consistently initialed by the shift forman; however, the licensee stated that the logs were being reviewed as required. The inspector had no further questions at this time.

b. Plant Tour

The inspector conducted a tour of accessible areas which included areas inside containment, the auxiliary building, and the reactor control room. The reactor was operating at full power. No items of noncompliance were identified. The following observations were made:

1. Monitoring instrumentation for plant parameters such as nuclear instrumentation, rod insertion limits, accumulator levels and temperatures, RCS flow, etc. were recording as required by the applicable TS.

2. Radiation controls were properly established.

3. Plant housekeeping conditions were in order, a few areas inside containment had cotton gloves or rags lying on the floor which could be an ignition source or, during an accident, could be swept onto the recirculation sump screens on the containment floor. The recirculation sump screens were inspected and found clean and free of debris. The licensee took immediate action to remove the gloves and rags in the work areas noted above; the inspector had no further questions.

4. No fluid leaks or unusual piping vibrations were observed.

5. Only a few small hydraulic snubbers are accessible during normal operation, and those inspected had no leaks or observable problems. One mechanical restraint inside containment appeared to be loose. The licensee took immediate action to secure and tighten the restraint.

6. Several valves and equipment start switch positions were inspected and all were found properly positioned.

The inspector also verified that the control room was properly manned and observed, and had no further questions.

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

OCT 6 1976

In Reply Refer To:
IE:II:RCP
50-261/76-11

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 August 30 to September 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 Mr. J. B. McGrit 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 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.

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 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.
50-261/76-11

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

IE Inspection Report No. 50-261/76-11

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: August 30 - September 2, 1976

Dates of Previous Inspection: August 11-13, 1976

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

Accompanying Inspector: None

Other Accompanying Personnel: None

Principal Inspector: R C Parker 10-4-76
R. C. Parker, Reactor Inspector Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

Reviewed by: R. C Lewis 10/4/76
R. C. Lewis, Chief Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

Not inspected.

III. New Unresolved Items

76-11/1 Survey Records for Waste Material

Survey records for material removed from the containment purge system and disposed of as nonradioactive waste were not available to show that the material had been properly and adequately surveyed. (Details I, paragraph 2)

IV. Status of Previously Reported Unresolved Items

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

This item is currently being reviewed and a calibration or test program developed. Procedures had not been prepared for the calibration of the flow integrator. This item remains open. (Details I, paragraph 3)

76-7/1 Health Physics Instrumentation Calibration Records

The revision to the instrument calibration procedure is in progress but had not been issued. This item remains open. (Details I, paragraph 3)

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

On September 2, 1976, at the conclusion of the inspection, a management interview was held with J. B. McGirt, Plant Manager, and members of the plant staff. Items discussed included the scope of the inspection, new unresolved item, and the inspector's observations and comments.

DETAILS I

Prepared by: _____ 10/4/76
G. L. Troup, Radiation Specialist Date
Radiation Support Section
Fuel Facility and Materials
Safety Branch

Dates of Inspection: August 30 - September 2, 1976

Reviewed by: _____ 10/4/76
A. F. Gibson, Chief Date
Radiation Support Section
Fuel Facility and Materials
Safety Branch

1. Individuals Contacted

J. B. McGirt - Plant Manager
D. S. Crocker - Environmental and Radiation Control Supervisor
R. E. Morgan - Operating Supervisor
B. W. Garrison - Quality Assurance Supervisor
M. L. Layton - Scientist
H. S. Zimmerman - Scientist
R. H. Chambers - Nuclear Engineer
J. A. Eaddy - RC & T Foreman
G. B. Moore - RC & T Foreman
4 RC&T Technicians

2. Survey Records for Waste Material

a. During testing of charcoal adsorbers in the containment purge system in October 1975, the removal efficiency was less than 99% as specified in Technical Specifications Section 3.8.2.a. The adsorber material was removed and replaced. The old adsorber material was disposed of as non-radioactive material.

b. As the containment purge system handles air containing radioactive material, the charcoal adsorber was potentially contaminated due to the air passing through it. In order to be disposed of as non-radioactive material, the charcoal must have been analyzed for contamination prior to disposal.

c. During discussions on this matter, three licensee representatives told the inspector that the charcoal had been analyzed and been found to be less than the detection level. However, during the inspection, licensee representatives were unable to locate the records of the survey which showed the charcoal to

be uncontaminated. A licensee representative stated that a search would be made for the records; licensee management concurred. The inspector stated that this would be considered as an unresolved item at this time.

3. Status of Previously Identified Unresolved Items

a. Calibration of Liquid Waste System Flow Integration (76-4/1)

This item was originally discussed in IE Report No. 50-261/76-4, Details II, paragraph 2 and dealt with the lack of calibration or accuracy checks on the liquid waste system flow integrator. A licensee representative informed the inspector that this item was being worked on but that the requisite periodic test procedure had not been developed. The licensee representative stated until the flow integrator could be checked for accuracy the discharge records were being based on tank level changes. The inspector informed licensee management that this item remains open.

b. Health Physics Instrumentation Calibration Records (76-7/1)

This item was originally discussed in IE Report No. 50-261/76-1, Details I, paragraph 5 and dealt the need to revise instrument calibration records to reflect the status of instruments and provide a more meaningful history of the calibration. A licensee representative informed the inspector that the revision to the calibration procedure had been completed and was being routed in the review and approval cycle. The inspector informed licensee management that this item remains open pending approval and implementation of the procedure change.

4. Radioactive Effluent Releases

a. Limits for the quantities and release rates of radioactive effluents are contained in Technical Specifications Section 3.9.1 and 3.9.2 for liquid and gaseous release, respectively. The limits for quantities and release rates are specified on an annual average basis. The inspector reviewed the Effluent and Waste Disposal Sections of Semi-Annual Operating Reports No. 10 and 11 for calendar year 1975 and verified by calculation that the licensee complied with the Technical Specifications limits on concentration and quantities of materials release. The inspector also reviewed fifty liquid waste discharge permits and thirty gaseous waste discharge permits and verified compliance with the Technical Specifications requirements for maximum discharge concentration, sampling and analysis prior

to release, dilution flow and continuous monitoring during discharge. The releases appeared to be in accordance with the requirements, and the inspector had no further questions.

b. The inspector reviewed the Procedure Change Request sheets for the changes made in 1976 to procedure HP-14, Liquid Release Accountability, and HP-15, Gaseous Effluent Accountability, and verfied that the changes were approved in accordance with the licensee's procedures. The inspector also reviewed the changes and verified that they were in compliance with the Technical Specifications and 10 CFR 20. The inspector had no further questions.

5. Records and Reports

a. Requirements for reporting of radioactive effluents were formerly contained in Technical Specifications Section 6.6.1f. The inspector reviewed Semi-Annual Operating Report No. 10 and 11 covering calendar year 1975 and determined that the required reports had been submitted with the required data.

b. The inspector also reviewed the chemistry data of Report No. 11 and noted several minor errors in the report. A licensee representative acknowledged these errors and stated that the chemistry data would be reviewed and corrected data submitted.

6. Effluent Control Instrumentation

a. Technical Specifications Table 4.1-1 lists the requirements for test and calibration of the radiation monitoring system, which includes the process (effluent) monitors and the area radiation monitors. Tests are required to be performed monthly and calibrations are performed each refueling. Tests are performed in accordance with Periodic Test (PT) 12.2 and 12.3 while the calibration is performed in accordance with PT 29.0.

b. The inspector reviewed the process monitor test results of PT 12.2 and 12.3 for October and November 1975 and March and July 1976, and determined that the tests had been performed as required; the test method conformed to the definition of a channel functional test in Section 1.6.2 of the Technical Specifications, and that the results had been reviewed and approved. Tests were performed on a bi-weekly frequency vice the required monthly frequency.

c. The inspector reviewed the calibration results of PT 29.0 for November 1975 refueling outage and the recalibration of channel

RMS-18 in March 1976 following replacement of the detector. The inspector noted that PT 29.0 does not comply with the definition of channel calibration in Section 1.6.3 of the Technical Specifications in that PT 29.0 does not include the channel functional test or alarm and trip tests. A licensee representative stated that as these tests are performed by PT 12.2 and 12.3, the calibration of the monitors consists of the performance of PT 12.2, 12.3 and 29.0. The inspector reviewed the records for these PT's in November 1975 and noted that they were performed at the same approximate time (November 27-29) and would constitute an acceptable calibration.

d. The inspector pointed out that if three separate PT's are used, there should be some method of cross-referencing them or compiling all of the results in one procedure to provide a complete calibration package. Licensee management asknowledged this comment and stated that it would be considered prior to the next calibration.

7. Testing of Air-Cleaning Systems

a. Technical Specifications Sections 3.8.2 and 4.12.2 specify the requirements for the periodic testing of Spent Fuel Building ventilation and containment purge filter systems, including the associated charcoal adsorbers. Testing is required to be performed once per operating cycle prior to each refueling or after every 720 hours of operation during fuel handling operations. The last testing of these systems was performed in October 1975 prior to the refueling outage.

b. Testing of the filters and adsorbers, verification of the air distribution, verification of flowrate and determination of differential pressure across filters and adsorbers was performed by a contractor. The inspector reviewed plant records and ascertained that the contractor's procedure had been reviewed by the Plant Safety Committee and approved by the Plant Manager, and that the test results had been approved by the Plant Manager. The inspector also reviewed the procedure against the requirements of ANSI N510-1975, "Testing of Nuclear Air-Cleaning Systems", and determined that the procedure was consistent with the ANSI standard.

c. The inspector reviewed the test results against the requirements of Technical Specifications Sections 3.8.2 and 4.12.2 for filter and adsorber efficiency, air flow distribution, flow rate and differential, and found that the test results met all requirements. The inspector also reviewed the test results

for the control room and RHR compartments ventilation and found that they met the requirements of Technical Specifications Table 4.1-3.

d. During the testing of the charcoal adsorbers, the removal efficiency of the containment purge adsorbers was less than the 99% specification of Technical Specifications Section 3.8.2.a. The adsorber material was removed and new adsorber material; subsequent test results showed a removal efficiency of 99%. The basis for Technical Specifications Section 4.12 states, in part, "If test results are unacceptable, all adsorbent in the system shall be replaced with an adsorbent qualified according to Table 1 of Regulatory Guide 1.52." The inspector reviewed the documentation for the new adsorbent material and noted that a certificate had been received from the supplier certifying conformance with the purchase order requirements (Regulatory Guide 1.52, Table 1) and the laboratory test results for radioiodine removal efficiency were received. In response to a question by the inspector, a licensee representative stated that the supplier's certificate and the laboratory results constituted adequate documentation. However, the licensee representative advised the inspector that the supplier had been contacted and would provide copies of the other test data to show conformance with Regulatory Guide 1.52. The licensee representative stated that future purchase orders would require all test documentation rather than a certificate of conformance. The inspector had no further questions.

8. Reactor Coolant Water Quality and Plant Chemistry

a. Technical Specifications Sections 3.1.4 and 3.1.6 specify the limits for maximum reactor coolant activity and maximum oxygen and chloride concentration, respectively. Sampling frequencies for these parameters are specified in Technical Specifications Table 4.1-2. The inspector reviewed the daily chemistry reports for the months of September, 1975 and April and July, 1976, and verified that the required analyses were performed within the required time frame and that the results were within the Technical Specification limits.

b. The inspector also reviewed the daily chemistry reports for the three months for the chemistry tests specified in Technical Specifications Table 4.1-2 (such as secondary coolant iodine-131 and spray additive tank NaOH concentration) and verified that the required analyses were performed within the required time frame and that the results were within the applicable Technical Specifications limits. The inspector had no further questions on this matter.

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

Central File
50-261

DEC 7 1976

In Reply Refer To:
IE:II:MVA
50-261/76-10

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 13, 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 27, 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

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

AUG 27 1976

In Reply Refer To:
IE:II:MVA
50-261/76-10

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. M. V. Annast of this office on August 11-13, 1976, of the facility physical protection program authorized under NRC License No. DPR-23. This refers also to the discussions held with Mr. J. B. McGirt and others at the conclusion of the inspection.

The area examined during this inspection was your program for providing protection against industrial sabotage under the applicable provisions of Title 10, Code of Federal Regulations, Part 73, "Physical Protection of Plants and Materials." Within this area, the inspection consisted of selective examinations of procedures and representative records, interviews with facility personnel, and observations by the inspector.

During the inspection, it was found that certain activities under your license appear to be in noncompliance with NRC requirements. The 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. It should be noted that the enclosed report is exempt from disclosure in accordance with 10 CFR 2.790; therefore your response including exempt information should be incorporated in a separate paper and referenced in your reply.

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.
50-261/76-10