CP&L
Carolina Power & Light Company

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P. O. Box 101, New Hill, NC 27562

January 23, 1985

Mr. James P. O'Reilly
United States Nuclear Regulatory Commission
Region II
101 Marietta Street, Northwest (Suite 2900)
Atlanta, GA 30323

NRC-316

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986 - 900,000 KW - UNIT 1
MAIN REACTOR TRIP BREAKERS,
SHOP ORDER 386, ITEM 130

Dear Mr. O'Reilly:

Attached is our fourth interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on April 27, 1983. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by April 1, 1985.

Thank you for your consideration in this matter.

Yours very truly,

R. M. Parsons
Project General Manager
Completion Assurance
Shearon Harris Nuclear Power Plant

RMP/sae

Attachment

cc: Messrs. G. Maxwell/R. Prevatte (NRC-SHNPP)
Mr. R. C. DeYoung (NRC)

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CAROLINA POWER & LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FOURTH INTERIM REPORT

MAIN REACTOR TRIP BREAKERS
ITEM 130

JANUARY 23, 1985

REPORTABLE UNDER 10CFR50.55(e) AND 10CFR 21

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SUBJECT: SHNPP Unit 1 Main Reactor Trip Breakers, Westinghouse Model DS-416 purchased under NSSS contract with Westinghouse NY-435002, Shop Order 386.

ITEM: Misoperation of the undervoltage attachments.

SUPPLIED BY: Westinghouse Electric Corporation Switchgear Division

NATURE OF DEFICIENCY: A design discrepancy exists concerning a retaining ring on the undervoltage attachment pivot shafts. Specifically, a design change increased the width of a retaining ring, while the groove in which the retaining ring seats was not changed. This allows improper seating of the retaining ring. The result is that the retaining ring may detach itself from the pivot shaft with the potential for misoperation of the undervoltage attachment.

DATE PROBLEM OCCURRED: On April 12, 1983, Westinghouse informed CP&L (CQL-7343) of a potential problem concerning minimum gap clearances on the same item. On April 21, 1983, Westinghouse informed CP&L (CQL-7360) of a potential problem concerning a retaining ring design discrepancy on the undervoltage attachment.

DATE PROBLEM REPORTED: On April 18, 1983, CP&L (Mr. N. J. Chiangi) notified the NRC (Mr. C. Hehl) that this item was potentially reportable per 10CFR50.55(e) and 10CFR, Part 21.

On April 27, 1983, CP&L (Mr. N. J. Chiangi) notified the NRC (Mr. A. Hardin) that this item was reportable per 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF PROBLEM: This deficiency involves two Unit 1 reactor trip breakers and two Unit 1 reactor trip bypass breakers.

SAFETY IMPLICATIONS: The potential for misoperation of the undervoltage attachment could create a condition wherein the reactor trip breakers might not open on automatic demand from the reactor protection system. This could prevent a safe shutdown of the reactor unless prompt operator action is taken to "manually" trip the reactor.

REASON DEFICIENCY IS REPORTABLE: This item is reportable because the deficiency reported may affect the ability of safety-related equipment to perform its intended function.

CORRECTIVE ACTION: Westinghouse has provided replacement undervoltage attachments which includes a replacement pivot shaft with wider grooves to accommodate the new retaining ring. Work packages have been prepared for the change out of the undervoltage trip assemblies and work is in progress. The change out necessitates determination/retermination of vendor cables and splices. Since vendor cable splices are unique to approved design specifications, an alternate method is being proposed to the Harris Plant Engineering Section for approval.

PREVENTIVE ACTION:

1. Westinghouse has revised manufacturing drawings and quality control procedures to assure that critical design dimensions are maintained during manufacture.

2. To prevent trip breaker failure as a result of any undervoltage attachment malfunction, CP&L is reviewing industry information as a precursor to initiating a design change for the automatic dual trip operation by activating both the undervoltage attachment and the shunt coil attachment on receipt of an automatic undervoltage signal from the reactor protection system.

FINAL REPORT: The final report is now pending engineering approval concerning the vendor cable splices, receipt of documentation not received with replacement assemblies and work completion and verification. It is currently projected that the final report will be issued by April 1, 1985.