



Carolina Power & Light Company

84 MAR 2

AID-00

P. O. Box 101, New Hill, N. C. 27562  
March 29, 1984

Mr. James P. O'Reilly  
United States Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Northwest (Suite 2900)  
Atlanta, Georgia 30303

NRC-199

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986 - 900,000 KW - UNIT 1  
**WELDING DEFICIENCIES ON CLASS 1E 6.9KV CIRCUIT  
BREAKERS - ITEM 117**

Dear Mr. O'Reilly:

Attached is the final report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on March 11, 1983. With this report, Carolina Power & Light considers this matter closed.

If you have any questions regarding this matter, please do not hesitate to contact me.

Yours very truly,

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

RMP/sh

Attachment

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

8404050131 840329  
PDR ADOCK 05000400  
S PDR

OFFICIAL COPY

1627

1/1

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

WELDING ON 6.9kV SWITCHGEAR BREAKERS  
ITEM 117

March 22, 1984

REPORTABLE UNDER 10CFR50.55(e) AND 10CFR21

SAFETY  
IMPLICATION:

Seismic qualification of the Class 1E switchgear assembly is required to assure that safety-related loads are capable of being powered during a seismic event.

REASONS  
DEFICIENCY IS  
REPORTABLE:

Failure of the supplier's QA Program to control the welding on the switchgear breakers has resulted in breakers being shipped to the site which did not adequately reflect the same structural construction as that of the piece of equipment which has been seismically tested and whose test report has been accepted. Failure of the breakers to be seismically constructed could result in the loss of power supply to safety-related loads during a seismic event as a result of failure of the breaker.

CORRECTIVE  
ACTION:

1. Inspection of structural construction has been added to the VQA inspection check sheet for seismically-designed AC and DC distribution equipment yet to be shipped. Any equipment on site will be inspected by Site QA by sampling on each Purchase Order. In order to preclude a similar situation, suppliers of seismically-designed AC and DC distribution equipment have been requested to provide a written response describing the provisions in their quality assurance program, which would assure that the drawings and/or procedures used for manufacturing/fabrication of the equipment will reflect the actual structural and operational characteristics of the equipment being seismically qualified.
2. All Class 1E breakers at the site have been returned to the vendor. The vendor will fabricate new breakers to meet the following weld criteria:
  - a. All welds on the braces meet the acceptance criteria of Siemens-Allis.
  - b. Quantity of weld on connected pieces is at least the amount on the test unit.

FINAL REPORT:

The corrective action as detailed in Item 2 has been accomplished as verified in our site QA Unit's inspection of welding for the new breakers during key stages in the fabrication of these breakers.

Since no welding deficiencies were found, this item can be closed. This will be the final report issued for NRC Item 117.

SUBJECT:

Shearon Harris Nuclear Power Plant/Unit No. 1  
10CFR50.55(e) and 10CFR, Part 21 Reportable Deficiency.  
Welding for 6.9kV Class 1E switchgear breakers purchased  
under Purchase Orders NY-435112 and NY-435113 from  
Siemens-Allis, Inc.

ITEM:

Welding in Class 1E 6.9kV switchgear breakers.

SUPPLIED BY:

Siemens-Allis, Inc., Sanford, North Carolina.

NATURE OF  
DEFICIENCY:

During 1980, the Switchgear Division of Siemens-Allis, Inc., Sanford, North Carolina, shipped 6.9kV switchgear breakers to the CP&L site on Purchase Orders NY-435112 and NY-435113. Welding in the breakers was not inspected by Ebasco's Vendor Quality Assurance representative prior to shipment, as the check plan did not include mechanical inspection requirements.

On January 10, 1983, Siemens-Allis furnished shop drawings so that an inspection of the welding could be performed. The inspection revealed that the weld lengths and sizing were not in conformance with the vendor shop drawings. It was also noted that the quality of the welding was poor.

Although the switchgear breakers on site and those seismically tested exhibit similar welding deficiencies, they were not similar enough to conclude that the equipment on site adequately reflected the same structural construction of the equipment seismically tested.

DATE PROBLEM  
OCCURRED:

Refer to section above.

DATE PROBLEM  
REPORTED:

February 11, 1983 - CP&L (N. J. Chiangi) notified the NRC (Ms. L. Watson) that this item was potentially reportable under 10CFR50.55(e) and 10CFR, Part 21.

On March 11, 1983, CP&L (N. J. Chiangi) notified the NRC (Mr. C. Hehl) that this item was reportable under 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF  
PROBLEM:

The deficiency involves the twenty-five Unit 1 Class 1E 6.9kV switchgear breakers.