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Carolina Power & Light Company

USNRC REGION II
ATLANTA, GEORGIA

April 30, 1982

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FILE: SH N-2/18
ITEM 76

CQAD 82-764

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

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400
WELDING OF 6.9KV CLASS IE SWITCHGEAR
AND SEISMICALLY DESIGNED 6.9KV
NONCLASS IE SWITCHGEAR FOR UNIT NO. 1

Dear Mr. O'Reilly:

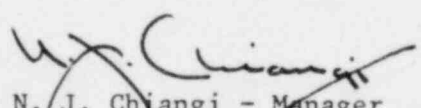
Attached is an interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on March 31, 1982. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by July 30, 1982.

Thank you for your consideration in this matter.

NJC/gea (206)
Attachment

Yours very truly,

cc: Mr. G. Maxwell W/A
Mr. V. Stello (2) W/A


N. J. Chiang - Manager
Engineering & Construction
Quality Assurance/Quality Control

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CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

Unit No. 1

Interim Report

April 29, 1982

Reportable under 10CFR50.55(e)
Reportable under 10CFR21

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 and seismically-
designed 6.9kV Nonclass 1E switchgear purchased under Purchase
Orders NY-435112 and NY-435113 from Siemens-Allis, Inc.

ITEM: Welding in Class 1E 6.9kV switchgear and seismically-designed
6.9kV Nonclass 1E switchgear

SUPPLIED BY: Siemens-Allis, Inc., West Allis, Wisconsin

NATURE OF
DEFICIENCY:

In December 1980, the Switchgear Division of Siemens-Allis, Inc. (West Allis, Wisconsin), shipped 6.9kV switchgear to the CP&L site on Purchase Orders NY-435112, Class 1E Switchgear, and NY-435113, Nonclass 1E Seismically-Designed Switchgear. Welding in the switchgear 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 28, 1982, and February 1, 1982, a Siemens-Allis representative was brought on site with the vendor shop drawings so that an inspection of the welding could be performed. The inspection revealed that the weld lengths and spacing were not in conformance with the vendor shop drawings. It was also noted that the quality of the welding was poor.

Subsequent inspection of the test prototype, which was seismically tested, revealed similar discrepancies to the vendor drawings.

Comparison of the quality of welds and Siemens-Allis' internal acceptance criteria indicated that approximately 40% of the welds did not meet the criteria.

Although the switchgear on site and that 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:

March 31, 1982 - CP&L (N. J. Chiangi) notified the NRC (C. W. Berger and C. Julian) that this item was reportable under 10CFR50.55(e) and 10CFR Part 21.

SCOPE OF

PROBLEM:

The deficiency involves the two Unit 1 Class 1E 6.9kV switchgear buses (26 cubicles) and five Unit 1 Nonclass 1E seismically-designed 6.9kV switchgear buses (43 cubicles).

SAFETY

IMPLICATIONS:

Seismic qualification of the Class 1E switchgear is required to assure that safety-related loads are capable of being powered during a seismic event. As the seismically-designed Nonclass 1E switchgear is located in the same room as Class 1E equipment, qualification is required to assure that no switchgear component will become loose and possibly damage safety-related components during a seismic event.

REASONS

DEFICIENCY

IS

REPORTABLE:

Failure of the supplier's QA program to control the welding on the switchgear has resulted in switchgear being shipped to the site which did not adequately reflect the same structural construction as that of the piece of equipment which had been seismically tested and whose test report had been accepted. Failure of the switchgear 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 switchgear.

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. 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.