



Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562  
June 3, 1983

NRC-85

Mr. James P. O'Reilly  
United States Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Northwest (Suite 3100)  
Atlanta, Georgia 30303

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986-90 - 900,000 KW - UNITS 1 & 2  
DEFECTIVE WELDS ON 480V SWITCHGEAR,  
PURCHASE ORDER NY-435171, ITEM 104

Dear Mr. O'Reilly:

Attached is our second interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) on March 4, 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 January 13, 1984.

Thank you for your consideration in this matter.

Yours very truly,

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

RMP/sh

Attachment

cc: Mr. G. Maxwell (NRC-SHNPP)  
Mr. R. Prevatte (NRC-SHNPP)  
Mr. V. Stello (NRC)

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ATLANTA, GEORGIA  
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CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

INTERIM REPORT

REPORTABLE ITEM - SHNPP  
WELDING ON 480V SWITCHGEAR  
PURCHASE ORDER NY-435171  
ITEM 104

JUNE 3, 1983

REPORTABLE UNDER 10CFR50.55(e)

SUBJECT: Shearon Harris Nuclear Power Plant Unit 1. 10CFR50.55(e) reportable deficiency: Welding for 480V Class 1E switchgear and seismically-designed 480V Nonclass 1E switchgear supplied under Purchase Order NY-435171 from Brown-Boveri Electric Co.

ITEM: Welding in the transformer sections of the seismically-designed Nonclass 1E switchgear and the Class 1E switchgear.

SUPPLIED BY: Brown-Boveri Electric Company, Chalfont, PA.

NATURE OF DEFICIENCY: From April 1982 through July 1982, Brown-Boveri Electric Company shipped 480V switchgear to the Shearon Harris site on Purchase Order NY-435171. At CP&L's request, representatives from Brown-Boveri came to the site in late September 1982 with structural shop drawings so that CP&L QA would have a basis for a visual inspection of welds.

The inspection revealed welding deficiencies (one or more of the following deficiencies: undersized welds, undercut, incomplete fusion, overlap and craters) in the air terminal chambers, transformers, and a current limiting reactor. Analysis of the welds by Brown-Boveri Engineering determined the welding deficiencies in the air terminal chambers and the current limiting reactor were not serious in nature and that the structural integrity of the equipment would not be affected.

The welding deficiencies in the transformer have not been completely addressed by Brown-Boveri.

DATE PROBLEM OCCURRED: Refer to section above.

DATE PROBLEM REPORTED: March 4, 1983, CP&L (N. J. Chiangi) notified the NRC (C. Hehl) that this item was reportable under 10CFR50.55(e).

SCOPE OF PROBLEM: The deficiencies involve four Unit 1 Class 1E 480V switchgear transformers and two Nonclass 1E seismically-designed 480V switchgear transformers.

SAFETY IMPLICATION: Seismic qualification of the Class 1E switchgear is required so that power to safety-related loads is maintained during a seismic event. Due to the proximity of Nonclass 1E switchgear to Class 1E equipment, seismic qualification (design) of the Nonclass 1E switchgear is required in order to assure that no switchgear component will dislodge and possibly damage safety-related components during a seismic event.

REASON  
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 deviated from the supplier's own welding inspection criteria and structural drawings upon which the switchgear qualification is based.

CORRECTIVE  
ACTION:

Brown-Boveri has repaired major defective welds. Minor defects are to be modeled in the upcoming seismic test. This test was originally scheduled for completion by May 1983. However, Brown-Boveri projects the seismic test completion and test report submittal to be October 1983, at which time CP&L and Ebasco must review the qualification report.

FINAL REPORT: A final report will be submitted by January 13, 1984.