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Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
January 11, 1984

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

NRC-166

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

Dear Mr. O'Reilly:

Attached is our third 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 July 31, 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: 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

THIRD INTERIM REPORT

REPORTABLE ITEM - SHNPP
WELDING ON 480V SWITCHGEAR
PURCHASE ORDER NY-435171
ITEM 104
DDR-1066

JANUARY 13, 1984

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. Any corrective action will be determined after review of the seismic test reports. This testing was scheduled for completion by October 1983, but has been delayed due to Ebasco's concerns over the manner in which the equipment is to be tested.

FINAL REPORT:

Based on discussions with Ebasco, in order to allow enough time for completion of testing, receiving and review of the test results, we currently project the submittal date for a final report to be July 31, 1984.