

# CP&L

Carolina Power & Light Company

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P. O. Box 101, New Hill, NC 27562  
February 12, 1985

50-400

Dr. J. Nelson Grace  
United States Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Northwest (Suite 2900)  
Atlanta, Georgia 30323

NRC-323

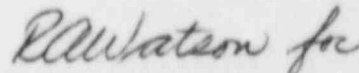
CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986 - 900,000 KW - UNIT 1  
IN-CORE FLUX MAPPING SYSTEM -  
SYSTEM INTERACTIONS, ITEM 179

Dear Dr. Grace:

Attached is an interim report on the subject item which was deemed reportable per the provisions of 10CFR 50.55(e) and 10CFR, Part 21 on January 16, 1985. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by December 31, 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

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

INTERIM REPORT

IN-CORE FLUX MAPPING SYSTEM -  
SYSTEM INTERACTIONS

ITEM 179

FEBRUARY 8, 1985

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

SUBJECT: Shearon Harris Nuclear Power Plant Unit No. 1  
10CFR50.55(e) and 10CFR, Part 21 reportable  
deficiency in the interaction scenario postulating  
portions of the nonsafety flux mapping system falling  
on the in-core instrumentation tubing/seal table  
during a seismic event.

ITEM: Seismic interaction scenario of the In-Core Flux  
Mapping System.

SUPPLIED BY: Westinghouse, Nuclear Energy Systems, Pittsburgh,  
Pennsylvania

NATURE OF  
DEFICIENCY: An interaction scenario which postulates portions of  
the SHNPP flux mapping system, which is a nonnuclear  
safety system, falling on the in-core instrumentation  
tubing/seal table during a seismic event damaging the  
in-core instrumentation tubing/seal table and causing  
a small break LOCA. This potential interaction is  
possible because the SHNPP flux mapping system is  
installed directly above the in-core instrumentation  
tubing/seal table.

DATE PROBLEM  
OCCURRED: During preparation of the installation procedure for  
the in-core flux mapping system, the question was  
raised as to if this system should be supported per  
Regulatory Guide 1.29. Inquiry was transmitted to  
Westinghouse on May 14, 1984 to have them determine  
the validity of the concern. Westinghouse responded  
on May 30, 1984 by confirming that a potential  
interaction does exist.

DATE PROBLEM  
REPORTED: June 22, 1984, CP&L (N. J. Chiangi) notified the NRC  
(Mr. D. Verrelli) that this item was potentially  
reportable under 10CFR50.55(e) and 10CFR, Part 21.

January 16, 1985, CP&L (F. E. Strehle) notified the  
NRC (Mr. A. Hardin) that this item was reportable  
under 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF  
PROBLEM: The deficiency involves the SHNPP in-core flux  
mapping and instrumentation tubing/seal table  
systems.

SAFETY

IMPLICATION: Small break LOCA after a seismic event would degrade the ability of the plant to be safely shut down.

REASON

DEFICIENCY

IS REPORTABLE: This item is reportable because it could impede the safe shutdown of the plant.

CORRECTIVE

ACTION:

Perform a structural integrity analysis for the portion of the in-core flux mapping system that is located above in-core instrumentation tubing/seal table and make the structural modifications required to preclude the potential interaction.

FINAL

REPORT:

The design for seismically attaching the moveable portion of the in-core flux mapping system has not been completed. The final report is expected to be issued by December 31, 1985, after the modifications have been implemented.