

CP&L

Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
October 8, 1982

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

NRC-12

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1985-89 - 900,000 KW - UNITS 1 & 2
SOLID STATE PROTECTION SYSTEM
PURCHASE ORDER NY-435002, ITEM 100

Dear Mr. O'Reilly:

Attached is an interim report on the subject which was deemed potentially reportable per the provision of 10CFR50.55(e) and 10CFR, Part 21, on September 9, 1982. Since that time the deficiency has been evaluated and determined to be reportable. CP&L is pursuing this matter and it is currently projected that corrective action and submission of the final report will be accomplished by March 5, 1983.

Thank you for your consideration in this matter.

Yours very truly,



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

RMP/bs

Attachment

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

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CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1
SOLID STATE PROTECTION SYSTEM

Interim Report
October 4, 1982

Reportable Under 10CFR50.55(e)
Reportable Under 10CFR, Part 21

SUBJECT: Shearon Harris Nuclear Power Plant, Unit 1
10CFR50.55(e) and 10CFR Part 21, reportable deficiency
design in the Solid State Protection System (SSPS)
purchased under Purchase Order NY-435002, Westinghouse
Shop Order 300

ITEM: On-line test circuit for the SSPS

SUPPLIED BY: Westinghouse Electric Corp., Pittsburgh, Pennsylvania

NATURE OF
DEFICIENCY:

The subject Unit 1 equipment has been received at the Shearon Harris plant. Basic equipment design is not unique to the Harris Plant.

During a review of the schematic diagram of the SSPS, Westinghouse engineers discovered that an undetectable failure could occur in the on-line test circuits.

This consists of a normally closed contact(s) in a safeguards circuit(s) that is purposely opened during the test.

Reclosure of the contacts when testing is complete cannot be verified with present design.

DATE PROBLEM
OCCURRED:

Problem was verified by Westinghouse on August 3, 1982.

DATE PROBLEM
REPORTED:

September 9, 1982 - CP&L (N. J. Chiang) notified the NRC Region II (A. Hardin) that this item was potentially reportable under 10CFR50.55(e) and 10CFR21.

SCOPE OF
PROBLEM:

The SSPS is redundant, Trains A and B. Either train will actuate the safeguards system.

Each train has sixteen (16) of the subject contacts. Failure of one (1) or more contacts to reclose in Train A would block operation of a part of the safeguards system if the like contact in Train B also failed to reclose. A total of thirty-two (32) contacts must be verified.

SAFETY
IMPLICATION:

As stated in "Scope of Problem", failure of a single contact in Train A and Train B, which perform the same safeguards function, would make this safeguards function inoperable. Additional like failures would render further safeguards functions inoperable.

REASON
DEFICIENCY IS
REPORTABLE:

The safeguards system could be rendered inoperable.

CORRECTIVE
ACTION:

Westinghouse is continuing to review its design prior to change recommendations.

For this interim period, Westinghouse has revised test procedures for operating plants to verify contact reclosure.

Since Harris Plant is still in the construction stage, CP&L will take corrective action as mutually decided and agreed upon by Westinghouse and CP&L.

FINAL REPORT:

A final report will be issued when the Westinghouse study has been completed and satisfactory corrective action has been taken.

The projected final report date is March 5, 1983.