

Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562 June 1, 1983

Mr. James P. O'Reilly United States Nuclear Regulatory Commission Region II 101 Marietta Street, Northwest (Suite 3106) Atlanta, Georgia 30303

CAROLINA POWER & LIGHT COMPANY SHEARON HARRIS NUCLEAR POWER PLANT 1986-90 - 900,000 KW - UNITS 1 & 2 PROTECTION SYSTEM FOLLOWING A SECONDARY HIGH ENERGY LINE RUPTURE (STEAM GENERATOR REFERENCE LEG HEATUP) - ITEM 41

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 July 7, 1980. 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 31, 1984.

Thank you for your consideration in this matter.

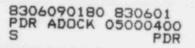
Yours very truly,

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

RMP/dh

Attachment

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



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CAROLINA POWER & LIGHT COMFANY SHEARON HARRIS NUCLEAR POWER PLANT

UNITS 1 AND 2

INTERIM REPORT #3

POTENTIAL SIGNIFICANT FAILURE OF THE REACTOR PROTECTION SYSTEM FOLLOWING A SECONDARY HIGH ENERGY LINE RUPTURE (STEAM GENERATOR REFERENCE LEG HEATUP) ITEM 41

JUNE 1, 1983

REPORTABLE UNDER 10CFR50.55(e)

SUBJECT:

10CFR50.55(e) Reportable Item Shearon Harris Nuclear Power Plant Potential Significant Failure of the Reactor Protection System Following a Secondary High Energy Line Break (S/G Reference Leg Heatup)

ITEMS:

Steam Generator Level Measurement for SHNPP Units 1 and 2

Westinghouse Water Reactor Division

SUPPLIED BY:

NATURE OF DEFICIENCY:

Westinghouse notified the NRC under 10CFR21 in June 1979 of a potentially significant failure of the reactor protection system following a secondary high energy line break. Such *p* break within containment could result in the hercup of the steam generator level measurement reference leg. A heatup of the reference leg would result in severe density changes which would give erroneous indication of steam generator wate level.

DATE PROBLEM WAS CONFIRMED TO EXIST:

Westinghouse Letter CQL-5801 dated March 20, 1980, received Narch 28, 1980.

PROBLEM REPORTED:

N. J. Chiangi notified the NRC (Mr. J. Bryant) that this item was reportable under 10CFR50.55(e) on July 7, 1980.

CP&L letter dated July 8, 1980 - N. J. Chiangi to J. P. O'Reilly transmitting an interim report.

CP&L letter dated December 23, 1981 - N. J. Chiangi to J. P. O'Reilly transmitting a second interim report.

SCOPE OF PROBLEM:

Units 1 and 2 Steam Generators (three per unit).

SAFETY IMPLICATIONS:

An erroneous indication of the steam generator water level could result in delayed signals to the reactor protection system.

REASON PROBLEM IS REPORTABLE:

Delayed reactor protection signals could lead to a degraded safety condition.

CORRECTIVE ACTION:

Westinghouse has now adopted insulation of the steam generator reference leg as a permanent solution to the heatup concern. Since containment piping insulation is not yet scheduled, corrective action will be achieved by implementing design changes to incorporate insulation of the steam generator reference legs.

FINAL REPORT:

A final report will not be available until the corrective action has been completed, which is expected to be March 31, 1984 for Unit 1.