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Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562  
March 30, 1984

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

NRC-201

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986 - 900,000 KW - UNIT 1  
**PACIFIC SCIENTIFIC SNUBBERS**  
**MODELS PSA-1 AND PSA-3, ITEM 152**

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) and 10CFR, Part 21, on November 8, 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 September 30, 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

SECOND INTERIM REPORT

PACIFIC SCIENTIFIC SNUBBERS  
MODELS PSA-1 AND PSA-3  
ITEM 152

MARCH 29, 1984

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

SUBJECT: Shearon Harris Nuclear Power Plant/Unit No. 1,  
10CFR50.55(e) and 10CFR, Part 21, Capstan spring tang  
failure for mechanical shock arrestors.

ITEM: Capstan spring component in mechanical shock arrestors.

SUPPLIED BY: Pacific Scientific Company, Anaheim, California.

NATURE OF  
DEFICIENCY: In September, 1983, Pacific Scientific Company, Anaheim,  
California advised Southwest Fabrication and Welding,  
Houston, Texas, purchaser for CP&L, of failure of four  
(4) PSA-1 - 1801102-05 shock arrestors. Failure occurred  
during testing of Pacific Scientific Company's arrestors  
at Union Electric Callaway Staton by Daniel International  
personnel. The failed arrestors were returned to Pacific  
Scientific Company where additional testing was performed  
on the failed components by "Mettek", Santa Ana,  
California. Results of the test have been issued in  
Mettek Report No. PSC130911 dated September 14, 1983.

DATE PROBLEM  
OCCURRED: Purchaser notified by letter September 21, 1983. CP&L  
was notified by Southwest Fabrication and Welding by  
letter dated October 5, 1983.

DATE PROBLEM  
REPORTED: November 8, 1983 - CP&L (K. V. Hate') notified the NRC  
(A. Hardin) that this item was reportable under  
10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF  
PROBLEM: The deficiency involves (102) Unit 1, Type PSA-1  
mechanical shock arrestors.

SAFETY  
IMPLICATIONS: The mechanical shock arrestors are required to ensure  
that pipe movement, acceleration and displacement are  
controlled within the design limits during a seismic  
event.

REASONS  
DEFICIENCY  
IS REPORTABLE: Failure of the capstan spring tang would result in  
failure of the shock arrestor to function properly during  
a seismic event. This would result in the potential loss  
of operation of seismically designed piping during a  
sesismic event.

Action is being effected by Pacific Scientific Company with the spring manufacturer.

CORRECTIVE

ACTION:

Mechanical shock arrestors identified by Pacific Scientific Company as being part of the identical lot and in critical systems of failed items will be returned to the vendor for capstan spring inspection and replacement as required.

Preventive measures and additional corrective action must be obtained from Pacific Scientific after consulting the spring manufacturer.

Presently CP&L is waiting on the vendor, Southwest Fabricating, to reply on a contractual matter concerning payment for the capstan spring inspection and replacement. Also, an engineering evaluation is being made for another possible solution; CP&L is considering sending Pacific Scientific only those snubbers which will be in critical systems. This idea is based on a service report from Pacific Scientific which states that only 15% of the 2,000 possibly defective snubbers tested thus far have failed. Pacific Scientific's reference point for these tests is based on 533 full load cycles (approximately equal to two (2) earthquakes over a forty-year period). Therefore, CP&L is considering sending only those snubbers back which are in critical systems.

FINAL REPORT:

A final report will be issued once the corrective action described above is completed. It is projected that the submittal date will be September 30, 1984.