CP&L
Carolina Power & Light Company
P. O. Box 101, New Hill, N. C. 27562

April 10, 1985

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

NRC-348

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986 - 900,000 KW - UNIT 1
DEFECTIVE GOVERNOR DRIVE COUPLING
PURCHASE ORDER NY-435079, ITEM 101

Dear Dr. Grace:

Attached is our seventh interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on September 9, 1982. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by June 12, 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

Attachment

cc: Messrs. G. Maxwell/R. Prevatte (NRC-SHNPP)
Mr. R. C. DeYoung (NRC)

Official Copy

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XEX-rt9/1-055

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

SEVENTH INTERIM REPORT

April 9, 1985

DEFECTIVE GOVERNOR DRIVE COUPLING

ITEM 101
(DDR-1056)

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

SUBJECT: Shearon Harris Nuclear Power Plant - Unit No. 1 10CFR50.55(e) and 10CFR21 Reportable Deficiency. Defective governor drive coupling installed in the emergency diesel engine-generator sets under Purchase Order NY-435079 from Transamerica DeLaval, Inc.

ITEM: Isoprene governor drive coupling located in the engine's gear case. Part No. AK-007-000

SUPPLIED BY: Transamerica DeLaval, Inc., Oakland, California. The governor drive coupling is manufactured by Koppers Co., Inc.

NATURE OF DEFICIENCY: Transamerica DeLaval, Inc. shipped two diesel engines to the Shearon Harris site on Purchase Order NY-435079 in May and June, 1981.

In June, 1982, Transamerica DeLaval notified CP&L that the engines contain an isoprene governor drive coupling and there is a potential problem since the material, isoprene, is designed for atmospheric use and it is not suitable for use in the high temperature, oil atmosphere encountered in the engine's gear case.

DATE PROBLEM OCCURRED: Refer to section above.

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

SCOPE OF PROBLEM: The problem involves the two diesel engines shipped on Purchase Order NY-435079. These engines had isoprene governor drive couplings installed.

SAFETY IMPLICATION: The diesel-generator sets supply power to the ESF buses in case of a loss of both normal on-site and off-site power sources. In the high temperature, oil atmosphere encountered in the engine's gear case, the rubber deteriorates rapidly and ultimately fails. While the coupling is "fail safe" and will mechanically lock up when the element fails, sufficient frequency instability could be induced that would result in the engine's tripping off line, thereby affecting engine availability.

REASON DEFICIENCY IS REPORTABLE: If left uncorrected, failure of the governor drive coupling could result in the loss of the emergency on-site AC power supply.

CORRECTIVE ACTION:

The defective coupling drive elements in 1A-SA and 1B-SB engine governors have now been replaced with new elements. However, all actions required to complete the rework of the couplings has not yet been completed. Additional parts were required and have been received on site but have not been receipt inspected and released for installation.

FINAL REPORT:

A final report will be issued once the rework on the couplings has been completed. It is currently projected that the submittal date will be June 12,1985.