

CP&L

Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
December 14, 1983

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

NRC-158

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-90 - 900,000 KW - UNITS 1 & 2
DEFECTIVE VALVE SPRINGS ON DIESEL ENGINES,
PURCHASE ORDER NY-435079, ITEM 61

Dear Mr. O'Reilly:

Attached is our fifth interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on August 28, 1981. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by April 2, 1984.

Thank you for your consideration in this matter.

Yours very truly,



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

RMP/bk

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

FIFTH INTERIM REPORT

DECEMBER 14, 1983

DEFECTIVE VALVE SPRINGS ON DIESEL GENERATOR ENGINES

ITEM NO. 61
(DDR 656)

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

SUBJECT: Shearon Harris Nuclear Power Plant, Unit No. 1
10CFR50.55(e) and 10CFR21, reportable deficiency. Valve
springs for emergency diesel-engine generator units
purchased from Transamerica DeLaval, Inc. under Purchase
Order NY-435079.

ITEM: Intake and exhaust valve springs installed in engine
cylinder head assemblies. Total of 128 springs in two
diesel engines.

SUPPLIED BY: Transamerica DeLaval, Inc., Oakland, California. Springs
manufactured by Melrose Spring and Tool Works, Oakland,
California, as subvender to Transamerica DeLaval.

NATURE OF
DEFICIENCY Transamerica DeLaval, Inc., shipped two diesel engines to
the CP&L site on Purchase Order Ny-435079 in May and
June, 1981.

In August 1981, Transamerica DeLaval advised CP&L that
the engines may contain valve springs which were not
shot-peened properly. The shot-peening is necessary to
relieve external stresses incurred in cold working the
spring wire. The lack of shot-peening could lead to
fatigue failure, which then would affect engine
availability.

Telephone conversations with Transamerica DeLaval and a
visual inspection confirmed that the defective valve
springs had been installed in the two engines shipped to
the Shearon Harris plant site.

DATE PROBLEM
OCCURRED: Refer to section above.

DATE PROBLEM
REPORTED: August 28, 1981 - CP&L (L. E. Jones) notified the NRC
Region II (R. Butcher) that this item was reportable
under 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF
PROBLEM: The deficiency involves the two diesel engines shipped on
Purchase Order NY-435079. These engines have defective
valve springs installed.

SAFETY
IMPLICATION:

The diesel-engine generator units supply power to the ESF buses in case of a loss of both the normal on-site and off-site power sources.

The improper shot-peening of the valve spring could lead to failure of the spring. If the valve spring fails, engine availability could be affected.

REASON DEFICIENCY
IS REPORTED:

If left uncorrected, failure of the valve spring could result in loss of the emergency on-site AC power supply.

CORRECTIVE
ACTION:

The diesel engine is in the final stages of installation. The Diesel Generator Building is required to be sealed and cleaned before the engine can be opened for removal and replacement of the valve springs. Once the building and engine installation are complete, the valve springs will be changed out.

Transamerica DeLaval has removed all defective springs from stock and has taken extra receiving inspection measures to assure this problem does not reoccur.

FINAL REPORT:

It is estimated that the installation of the equipment will be completed April 2, 1984. A final report will be issued at that time.