



Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
October 29, 1982

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

NRC-19

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1985-89 - 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 third 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. As stated in the attached report, it is currently projected that corrective action and submission of the final report will be submitted by July 15, 1983.

Yours very truly,

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

RMP/sh

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

INTERIM REPORT
October 27, 1982

Reportable Under 10CFR50.55(e)
Reportable Under 10CFR21

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

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 subvendor 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 sets supply power to the ESF buses in case of a loss of both the normal on-site and offsite power sources.

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

REASON

DEFICIENCY IS

REPORTABLE:

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

CORRECTIVE

ACTION:

The diesel engines have been placed on "hold" at the Shearon Harris site. The valve springs will be replaced when the engines are installed on their foundations. Valve spring changeout requires the ability to bar the engine over, which cannot be accomplished until the engine is sitting on its foundation with the flywheel installed. The engines are currently in storage and are expected to be set on their foundations in November, 1982.

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:

Due to delays, a final report cannot be issued at this time because the engines have not yet been installed on their foundations as was previously expected.

A final report will be issued once the corrective action described above has been completed. It is currently projected that the submittal date will be July 15, 1983.