



Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
May 26, 1983

83 JUN 1 P11:00
USNRC REGION 1
ATLANTA, GEORGIA

NRC-77

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

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-90 - 900,000 KW - UNITS 1 & 2
DEFICIENCIES IN BOLTED STRUCTURAL CONNECTIONS, ITEM 112

Dear Mr. O'Reilly:

Attached is an interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) on April 26, 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 January 20, 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: Mr. G. Maxwell (NRC-SHNPP)
Mr. R. Prevatte (NRC-SHNPP)
Mr. V. Stello (NRC)

OFFICIAL COPY

1027/11

8306070366 830526
PDR ADOCK 05000400
S PDR

CAROLINA POWER & LIGHT COMPANY
SHEAFER HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

INTERIM REPORT

DEFICIENCIES IN BOLTED STRUCTURAL CONNECTIONS
ITEM 112

MAY 25, 1983

REPORTABLE UNDER 10CFR50.55(e)

SUBJECT: Shearon Harris Nuclear Power Plant/Unit No. 1
10CFR50.55(e), reportable deficiency. Deficiencies
in Bolted Structural Steel Connections.

ITEM: Bolted structural steel connections in the Unit No. 1
Turbine Building, with flame cut bolt holes and under-
sized bolts.

SUPPLIED BY: Not a supplier-related deficiency. All structural
connections were field assembled.

NATURE OF
DEFICIENCY: The Turbine Building is seismically designed per
Regulatory Guide 1.29. These flame cut bolt holes
were oversized, irregular in shape and exceeded minimum
edge distances. The bolts in some of these holes were
smaller in diameter than specified. The connections
were previously inspected and accepted.

DATE PROBLEM
OCCURRED: December 13, 1982.

DATE PROBLEM
REPORTED: On December 29, 1982, Mr. N. J. Chiangi notified the
NRC (Mr. A. Hardin) that this item was potentially reportable.
On April 26, 1983, Mr. Chiangi notified Mr. Hardin the
item was reportable per the provisions of 10CFR50.55(e).

SCOPE OF PROBLEM: A reinspection of the Turbine Building, including all
those connections where there exists a probability bolt
holes would have been burned (e.g., to ease fit-up),
or where, per engineering evaluation, they would be safety
significant, has been completed. Approximately 878
connections were reinspected, with a total of 25 connec-
tions with burned holes and 1 with undersized bolts.

SAFETY IMPLICATION: The reduced edge distance caused by the oversized hole
could result in a shear failure on the clip or plate.
The undersized bolt would have a smaller allowable load,
thus contributing less to the clamping force between the
mating surfaces than that for which it was designed.

Either of these conditions could reduce the allowable
load of the connection below the actual load imposed,
resulting in a failure of the connection.

REASON DEFICIENCY
IS REPORTABLE:

Reportable due to the extensive evaluation and/or rework required.

CORRECTIVE ACTION:

Inspection and craft personnel have received additional training in inspection and erection of structural steel, both in formal classes and on-the-job training. Permanent Waivers (PW's) have been written, requiring engineering evaluation, for the deficient connection. Each connection will be accepted "as-is" if not significantly deficient, or repaired to make it acceptable, based on the engineering evaluation.

FINAL REPORT:

A final report will be issued when the evaluation and rework are complete. We now expect to issue a final report by January 20, 1984.