



Carolina Power & Light Company

P. O. Box 101, New Hill, NC 27562
July 31, 1984

Mr. James P. O'Reilly
United States Nuclear Regulatory Commission
Region II
101 Marietta Street, Northwest (Suite 2900)
Atlanta, GA 30323

NRC-251

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986 - 900,000 KW - UNIT 1
REACTOR VESSEL SUPPORT ANCHOR BOLT NUTS
ITEM 165

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) on March 12, 1984. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by October 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/jam

Attachment

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

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CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

SECOND INTERIM REPORT

REACTOR VESSEL SUPPORT ANCHOR BOLT NUTS
ITEM 165

JULY 31, 1984

REPORTABLE UNDER 10CFR50.55(e)

SUBJECT: Shearon Harris Nuclear Power Plant/Unit No. 1,
10CFR50.55(e) reportable deficiency. Anchor bolt
nuts not properly secured on vertical and horizontal
reactor vessel support assemblies.

ITEM: Two vertical support anchor bolt nuts are loose and
one nut is missing. Also, there are no washer
material requirements given on design prints.
Several anchor bolt nuts on the horizontal supports
are not in full contact with the support structure,
due in part to a lack of thread on the bolt as well
as to the angle at which the bolt projects through
the assembly. Some bolts have washers, which are not
required, and none have the half jam nut, which is
required.

SUPPLIED BY: Not a supplier-related deficiency.

NATURE OF
DEFICIENCY: Both the vertical and horizontal supports were
designed as Seismic Class I assemblies. The process
control for complete installation and inspection of
the reactor vessel supports was incomplete.
Procedures WP-119, Reactor Vessel Setting, and TP-28,
Inspection of Equipment for Setting and Grouting,
inadvertently failed to address post-grouting
activities (e.g., final bolting and bolting
inspection). On the lateral supports, jam nuts were
not installed. Some of the anchor bolts do not have
sufficient threads to allow the nuts to come into
full contact with the supports. Washers were
installed on some of the bolts but not on others, and
the bolts in some cases vary from being perpendicular
to the round surface of the supports, preventing full
tightening of the bolts without the use of washers,
which were not specified. On the vertical supports,
one nut was found missing and the material for the
washers was not specified on a design document.

DATE PROBLEM
OCCURRED: March and April, 1980.

DATE PROBLEM
REPORTED: On March 12, 1984, CP&L (Mr. K. V. Hate') notified
the NRC (Mr. A. Hardin) that this item was reportable
per the provisions of 10CFR50.55(e).

SCOPE OF
PROBLEM:

The hardware deficiencies are limited to the reactor vessel supports. The program deficiency potentially affects all equipment on site installed prior to September 23, 1980.

SAFETY
IMPLICATION:

The seismic strength of the supports is decreased by the missing and loose nuts and the improper bolt to support contact.

REASON
DEFICIENCY IS
REPORTABLE:

The supports are for a Safety Class I component.

CORRECTIVE
ACTION:

Procedure TP-28, Revision 3, which incorporated the inspection for tightness of connections and fastenings, was issued September 23, 1980. The installations and inspections of equipment after that date are considered adequate to ensure quality. The installations and inspections of the nuclear safety-related and seismically-supported equipment installed prior to that date have subsequently been reviewed for similar problems, and no deficiencies other than those reported for the reactor vessel were found.

Major NSSS equipment installation is primarily in accordance with procedures specifically written for those items. The procedures for installing the reactor vessel, the steam generators, the reactor coolant pumps, and the pressurizer have been reviewed and revised as necessary. The procedures, supplemented by the requirements of Procedure TP-28 and WP-105, Installation and Inspection of Equipment, are considered adequate; therefore, installation and inspection activities are proceeding.

An Exhibit 12 to Procedure WP-105 was prepared as a process control measure for the accomplishment of the necessary installation and inspection activities required to correct the reactor vessel support deficiencies. The required installation and inspection activities for the vertical supports has been completed. The correction of the lateral support deficiencies will be completed following the installation and inspection of beveled washers designed to provide full contact between the anchor bolt nuts and the lateral supports. The beveled washers will eliminate the problem caused by the

unthreaded portions of the anchor bolts extending through the supports, and will permit tightening of the anchor bolt nuts in accordance with Field Change Request AS-4691. The beveled washers are presently being machined in accordance with Field Change Request AS-5281.

FINAL REPORT: A final report will be issued following completion of the corrective actions stated above. The revised projected issuance date for a final report on this item is October 2, 1984.