



Carolina Power & Light Company

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P. O. Box 101, New Hill, NC 27562
October 2, 1984

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

NRC-278

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 third 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 November 15, 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

THIRD INTERIM REPORT

REACTOR VESSEL SUPPORT ANCHOR BOLT NUTS
ITEM 165

OCTOBER 2, 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 lateral reactor vessel support assemblies.

ITEM: Unit No. 1, Reactor Vessel Support Assemblies.

SUPPLIED BY: Not a supplier-related deficiency.

NATURE OF DEFICIENCY: Both the vertical and lateral 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 support anchor bolts, one nut was found missing, two nuts were found loose, 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.

As previously reported, the required installation and inspection activities to correct the vertical supports have been completed. The activities and inspections required to correct the reactor vessel lateral supports have now been completed also. The correction of the lateral supports required the installation and inspection of beveled washers designed to provide full contact between the anchor bolt nuts and the lateral supports on several of the anchor bolts. The beveled washers were installed in accordance with Field Change Request AS-5281. The nuts were tightened in accordance with Field Change Request AS-4691.

FINAL REPORT: CP&L is currently in the process of verifying and documenting the corrective actions taken. It is projected that the final report will be issued by November 15, 1984.