



Carolina Power & Light Company

14 NOV 20 8 1: 44
P. O. Box 101, New Hill, NC 27562 : 44
November 14, 1984

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

NRC-287

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 final report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) on March 12, 1984. With this report, Carolina Power & Light Company considers this matter closed.

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

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

RMP/rst

Attachment

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

8412030247 841114
PDR ADOCK 05000400
S PDR

OFFICIAL COPY

JE 27

rt/9/1

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

REACTOR VESSEL SUPPORT ANCHOR BOLT NUTS
ITEM 165

NOVEMBER 9, 1984

REPORTABLE UNDER 10CFR 50.55(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 did 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 varied 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 were limited to the reactor vessel supports. The program deficiency potentially affected all equipment on site installed prior to September 23, 1980.

SAFETY IMPLICATION: The seismic strength of the supports were 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. A comprehensive effort was made to identify the installations and inspections of the nuclear safety-related and seismically-supported equipment installed prior to September 23, 1980. The items identified have subsequently been reviewed for similar problems, and no deficiencies other

CORRECTIVE
ACTION (CONT'D):

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 a precaution against future disturbances after inspection, the site QA Surveillance group has scheduled two(2) surveillances during 1985 to evaluate the adequacy of the corrective action.

The installation and inspection activities required to correct the deficiencies noted on the vertical supports and lateral supports have now been accomplished in accordance with the appropriate design documents.