



Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
March 29, 1983

USNRC REGION 3
ATLANTA, GEORGIA
83 APR 1 AIO: 41

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

NRC-49

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-90 - 900,000 KW - UNITS 1 & 2
THREADED STUDS WITH INSUFFICIENT THREADED ENGAGEMENT
INTO EMBEDDED STRIP PLATES, ITEM 63

Dear Mr. O'Reilly:

Attached is the final 10CFR50.55(e) report on the subject deficiency which describes the problem and the corrective action taken to accomplish resolution. With this report, Carolina Power and Light Company considers this matter closed.

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

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)

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNITS NO. 1 AND 2

FINAL REPORT
March 29, 1983
ITEM 63

THREADED STUDS WITH INSUFFICIENT THREADED
ENGAGEMENT INTO EMBEDDED STRIP PLATES

Reportable Under 10CFR50.55(e)

SUBJECT: Shearon Harris Nuclear Power Plant/Units No. 1 and 2 10CFR50.55(e), reportable deficiency. Thread engagement of threaded studs into embedded strip plates.

ITEM: Improperly installed threaded studs on embedded strip plates. These tapped strip plates and threaded studs have been used in many cases in lieu of strip plates with welded-on Nelson headed studs.

SUPPLIED BY: Not a supplier-related deficiency. The studs and strip plates were assembled in the field.

NATURE OF DEFICIENCY: The deficiency involves Seismic Category I embedded strip plates with screwed-in studs that have insufficient thread engagement. These screwed-in studs are used in lieu of welded-on Nelson headed studs. The deficient plates/studs were found after concrete placements and acceptance of the placements.

DATE PROBLEM WAS CONFIRMED TO EXIST: October 13, 1981

DATE PROBLEM REPORTED: October 13, 1981, Mr. N. J. Chiangi notified the NRC, Region II (Mr. R. Butcher), that the item was potentially reportable. November 10, 1981, Mr. N. J. Chiangi notified the NRC, Region II (Mr. R. Butcher), that this item was reportable per the provision of 10CFR50.55(e).

SCOPE OF PROBLEM: Approximately 1300 of the strip plates to be used with screwed-in studs have been ordered. To date, all inspection has been completed in the containment, fuel handling, reactor auxiliary, reactor auxiliary-common, diesel generator, diesel fuel oil storage tank, tank 1 and 2 buildings, intake and screening structures. A large number of plates that have threaded studs with improper thread engagement have been found. Also, hangers have been found welded to plates that have threaded studs with improper thread engagement.

SAFETY IMPLICATION: Pipe, cable tray, and HVAC hangers, as well as other miscellaneous items, attach to these plates. Plates with studs not having proper thread engagement will possibly be overstressed in normal operation or during a seismic event.

REASON DEFICIENCY IS REPORTABLE: Reportable due to the magnitude of the problem plus the extensive evaluation and/or rework required.

CORRECTIVE ACTION:

Appropriate site work procedures have been revised requiring notification of site engineering personnel prior to attaching any item to an embedded plate with screwed-in studs. In addition, all plates having insufficient thread engagement have been marked with stickers* identifying them. Plates having attachments have been identified and all have been evaluated by the engineer using test data provided to them on shear resistance. All eight plates previously identified as requiring corrective action have been reworked or accepted "as is" by a permanent waiver (PW). To control attachments to these plates once the plant becomes operational, operations personnel have agreed to implement inspection of the plates in their procedures prior to making any attachments.

*Note on sticker reads:

CAUTION

Anchor studs for this plate have reduced thread engagement. Evaluate plate load limits prior to making any attachments.