CP&L

Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562
September 1, 1983

50-400
50-401

Mr. James P. O'Reilly
United States Nuclear Regulatory Commission
Region II
101 Marietta Street, Northwest (Suite 2900)
Atlanta, Georgia 30303

NRC-114

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-90 - 900,000 KW - UNITS 1 & 2
BORIC ACID TRANSFER PUMPS, WESTINGHOUSE SHOP ORDER 205, ITEM 113

Dear Mr. O'Reilly:

Attached is the final report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on May 16, 1983. 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.

Yours very truly,

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

RMP/sh

Attachment

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

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CAROLINA POWER AND LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT

UNITS 1 AND 2

FINAL REPORT

BORIC ACID TRANSFER PUMPS
WESTINGHOUSE SHOP ORDER 205

ITEM 113

AUGUST 29, 1983

REPORTABLE UNDER 10CFR50.55(e)
REPORTABLE UNDER 10CFR21

SUBJECT: SHNPP Units 1 and 2 Boric Acid Transfer Pumps purchased under NSSS contract with Westinghouse, NY-435002, Shop Order 205.

ITEM: Unidentified bolting material and undersize welds on the support plates.

SUPPLIED BY: Crane Company, Chempump Division, Warrington, Pennsylvania.

NATURE OF DEFICIENCY: (i) The suppliers' seismic shock analysis report assumed SAE Grade 5 bolting (minimum) to be used on the pump support structure. However, this could not be confirmed, since no certificate of compliance was available at that time nor was identification available on the bolt head. At the time of procurement, bolt head identification was not required.

(ii) The suppliers' seismic shock analysis report assumed a nugget size of 0.190" (minimum) on the gusset stiffener spot welds. On other similar chempumps, the weld nugget size (0.150") was less than that assumed in the report. While these particular spot weld nugget sizes have not actually been inspected, (destructive test required), the same potential deficiency exists as the other chempumps since the weld was completed using a spot weld machine.

DATE PROBLEM OCCURRED: Upon completion of inspection ((i) above), the deficiencies were noted on Deficiency and Disposition Report DDR-1248, dated December 29, 1982.

DATE PROBLEM REPORTED: January 13, 1983, CP&L (Mr. N. J. Chiangi) notified the NRC (Mr. A. Hardin) that this item was potentially reportable under 10CFR50.55(e) and 10CFR21.

February 8, 1983, CP&L (Mr. R. M. Parsons) submitted interim notification (NRC-42) to the NRC (Mr. James P. O'Reilly, Region II) on this item.

May 16, 1983, CP&L (Mr. N. J. Chiangi) notified the NRC (Mr. A. Hardin) that this item was reportable under 10CFR50.55(e) and 10CFR21.

June 14, 1983, CP&L (Mr. R. M. Parsons) submitted an interim report (NRC-86) to the NRC (Mr. James P. O. Reilly, Region II) on this item.

SCOPE OF PROBLEM: The deficiencies involve two Unit 1 and two Unit 2 Boric Acid Transfer Pumps.

SAFETY IMPLICATIONS: The Boric Acid Transfer Pumps are safety Class 3 and designated as "active" pumps. That is, these pumps are required to operate for safe shutdown purposes. Since the pump support structure (bolting and spotwelds) contain deficiencies, there is no assurance that the pumps structural supports will remain in sound condition during a seismic event, and could therefore make the pumps inactive.

REASONS DEFICIENCIES REPORTABLE: This item was reportable due to lack of specific information from Westinghouse in determining the effects of the deficiencies. The deficiencies described may affect the ability of safety related equipment to perform their intended function and thus mitigate the consequences of an accident.

CORRECTIVE ACTION: (i) The pump support structure bolting has been replaced by bolting that is identifiable and meets or exceeds Grade 5 minimum strength requirements, to ensure that seismic design criteria are met.

(ii) The gusset stiffener spot welds have been supplemented by fillet welds along each leg, to ensure that seismic design criteria are met.

The above corrective action was completed on August 31, 1983.

bcc: Mr. H. R. Banks
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