

USNRC REGION II
ATLANTA, GEORGIA

CP&L

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Carolina Power & Light Company

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

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

NRC-95

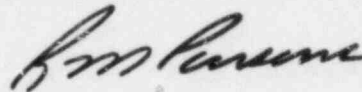
CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-90 - 900,000 KW - UNITS 1 & 2
SHOP WELDING DEFICIENCIES IN SEISMIC I PIPE HANGERS SUPPLIED
BY BERGEN-PATERSON, ITEM 95
UNDERSIZE SKEWED TEE FILLET WELDS ON SEISMIC I PIPE HANGERS,
ITEM 72

Dear Mr. O'Reilly:

Attached is an interim report on the subject items which were deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on August 13, 1982 (Item 95) and November 5, 1982 (Item 72). Carolina Power and Light Company is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by October 3, 1983.

Thank you for your consideration in this matter.

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. V. Stello (NRC)

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CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NOS. 1 AND 2

INTERIM REPORT

SHOP WELDING DEFICIENCIES IN SEISMIC I PIPE HANGERS
SUPPLIED BY BERGEN-PATERSON
ITEM 95

and

UNDERSIZE SKEWED TEE FILLET WELDS ON
SEISMIC I PIPE HANGERS
ITEM 72

JULY 1, 1983

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

SUBJECT: Deficient shop welds on pipe hangers previously accepted by Bergen-Paterson (B-P) and Ebasco Welding Inspectors.

ITEM: Seismic Pipe Hangers

SUPPLIED BY: Bergen-Paterson Pipe Support Corporation, Laconia, New Hampshire

NATURE OF DEFICIENCY:

1. Poor workmanship
2. Missing and undersized welds
3. Cosmetic weld defects
4. Undersized skewed tee welds
5. Deficient welds accepted by B-P inspectors and Ebasco Vendor Quality Assurance (VQA) inspectors.

DATE PROBLEM OCCURRED: Prior to October 1, 1982

DATE PROBLEM REPORTED: On August 13, 1982 CP&L (Mr. N. J. Chiangi) notified the NRC (Mr. A. Hardin) that this item (Item 95) was reportable under 10CFR50.55(e) and 10CFR, Part 21. In our November 5, 1982 letter, CP&L (Mr. R. M. Parsons) notified the NRC (Mr. J. P. O'Reilly) that this item (Item 72) was reportable under 10CFR50.55(e) and 10CFR, Part 21.

SCOPE OF PROBLEM: Seismic Category I pipe hangers which were inspected at the source of fabrication prior to October 1, 1982.

SAFETY IMPLICATIONS: Deficient welds could cause a safety-related pipe hanger to fail under seismic conditions. As a result, if not corrected, could adversely affect the safe operation of this facility.

REASON THE DEFICIENCY IS REPORTABLE: The conditions reported in Item 95 and Item 72 represent breakdowns in B-P and Ebasco QA programs which allowed supports to be shipped with welds which were not in accordance with design criteria. This mandated that the incident be identified as reportable under 10CFR50.55(e) and 10CFR, Part 21.

CORRECTIVE ACTION:

1. Hangers with shop weld deficiencies were identified during the following processes:
 - A. Receipt Inspection.
 - B. Inspection in the warehouse prior to hanger issuance to the field.
 - C. Inspection in the field of installed hangers which had not been previously inspected by CP&L for shop weld deficiencies (does not include those hangers that were in Reinspection - See D)
 - D. Reinspection of pipe hangers that were installed or partially installed and inspected prior to June 26, 1982. The June 26, 1982 date was selected because the QC weld inspection program for installed hangers was expanded to include shop welds. The reinspection included measurement of skewed-tee fillet welds for undersize (refer to Item 72). Those 349 hangers previously reinspected as part of the corrective action to NRC Report 50-400/82-03 were not included in this reinspection. Inaccessible welds were encountered during the reinspection. These are under evaluation by Engineering.
2. 695 hangers with defective shop welds were identified by processes A, B & C (see above) and some were not reworked at the time of reinspection. The rework will be performed during the normal erection sequence.
3. 3,458 hangers were reinspected (i.e. Process D). Some hangers were not reworked at the time of reinspection due to the hangers being on engineering hold for various reasons, including redesign, re-analysis, pending later drawing revision, voided drawing, etc. These hangers will be reworked when the engineering holds are released.
4. Instruction measures have been established to control pipe hangers which have not been installed but were received prior to October 1, 1982. We have taken the option to inspect shop welds prior to issue from the warehouse or to inspect shop welds at the same time field welds are inspected. Defective welds will be identified on DDR's for control and evaluation.

PREVENTIVE MEASURES TAKEN
TO AVOID FURTHER NONCOMPLIANCE:

1. Field Change Request (FCR) H-979 was developed and issued to provide weld inspection acceptance criteria for both field and shop welds based on the AWS D1.1 code and B-P design criteria.
2. Ebasco VQA began performing in-process inspections and 100% inspection of hanger welds on October 1, 1982. This is to be performed throughout the remainder of the B-P purchase order.
3. Ebasco VQA management regularly visits the B-P Laconia facility to confer with the Ebasco VQA representative and to witness the VQA inspector's activities.
4. B-P welders and inspectors and Ebasco VQA inspectors have received additional training in weld acceptance criteria.
5. 100% shop weld inspection is presently being performed on site for hangers received from B-P to ensure this problem does not reoccur.

FINAL REPORT:

The above corrective action and preventive measures are considered adequate to close this item. However, to ensure all hangers installed prior to the start of the reinspection (Process D) were identified, the pipe hanger work package transmittals are being checked against the hanger reinspection log to ensure all appropriate hangers were considered for reinspection. The accept/reject status of hangers in the reinspection log is being double checked.

Finally, to ensure that no hangers subject to the reinspection were overlooked, measures will be established to ensure a further check is done when the hanger work packages are reviewed during subsequent installation and inspection phases. Any hanger inadvertently missed during the initial reinspection effort will be reinspected and appropriately dispositioned.

A final report will be issued once the measures described above have been completed. It is currently projected that the submittal date will be October 3, 1983.