



Carolina Power & Light Company

P.O. Box 101, New Hill, N. C. 27562
November 30, 1984

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

NRC-292

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-900,000 KW - UNIT 1
**SEISMIC PIPE HANGERS PREVIOUSLY ACCEPTED BY
QC WELDING INSPECTOR - ITEM 96
UNDERSIZE SKEWED TEE FILLET WELDS ON
SEISMIC I PIPE HANGERS - ITEM 72**

Dear Mr. O'Reilly:

Attached is our final report on the subject items which were deemed reportable per the provisions of 10CFR50.55(e), on August 13, 1982 (Item 96) and November 5, 1982 (Item 72). 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
Completion Assurance
Shearon Harris Nuclear Power Plant

RMP/dd

Attachment

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

8412130593 841130
PDR ADOCK 05000400
S PDR

OFFICIAL COPY

11-27-11

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

PIPE HANGERS PREVIOUSLY ACCEPTED BY
QC WELDING INSPECTORS
ITEM 96

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

NOVEMBER 30, 1984

REPORTABLE UNDER 10CFR50.55(e)

SUBJECT: Deficient field welds on pipe hangers previously accepted by QC welding inspectors.

ITEMS: Seismic Pipe Hangers

SUPPLIED BY: N/A - Hangers furnished by Bergen-Paterson, but problem deals with field welds.

NATURE OF DEFICIENCY:

1. Missing and undersized welds
2. Cosmetic weld defects
3. Inaccurate and incomplete QC documentation
4. QC inspections performed by personnel whose work was suspect
5. Undersized skewed-tee field welds

DATE PROBLEM OCCURRED: Prior to July 29, 1982

DATE PROBLEM REPORTED: August 13, 1982 - CP&L (N. J. Chiang) notified the NRC (A. Hardin) that this item (Item 96) was reportable under the provisions of 10CFR 50.55(e). In our November 5, 1982 letter, CP&L (R. M. Parsons) notified the NRC (J. P. O'Reilly) that this item (Item 72) was reportable under 10CFR 50.55(e).

SCOPE OF PROBLEM: Approximately 3800 Seismic Category I pipe hangers that were installed or partly installed and inspected prior to June 26, 1982 were identified and reinspected. This includes the hangers which were previously reinspected as part of the corrective action to NRC Report 50-400/82-03.

The June 26, 1982 date was selected because the QC weld inspection program was expanded to include shop welds on installed hangers (refer to Item 95). Inspector training was conducted prior to June 26, 1982 to ensure satisfactory inspector performance.

The hangers which had been installed and inspected prior to June 26, 1982 and which were removed, voided, or declassified to nonseismic by a subsequent drawing revision were not reinspected.

SAFETY IMPLICATION: Deficient welds could cause a safety-related pipe hanger to fail under seismic conditions. As a result, if not corrected, they could adversely affect the safe operation of this facility. However, no hangers evaluated to date with the above type deficiencies have been found to adversely affect the safe operation of this facility.

REASON THE DEFICIENCY IS REPORTABLE: The conditions reported in Item 96 and Item 72 were identified as reportable under 10CFR 50.55(e) due to the extensive evaluation required and the breakdown in the QA program.

CORRECTIVE ACTION:

Approximately 1400 hangers were identified with deficient field welds as a result of the reinspection effort. Deficiencies were resolved as follows:

Welds were cut out.

Design drawing revisions were issued as a result of Engineering evaluation.

Welds were reworked and upgraded to meet the site weld acceptance criteria.

To ensure that hangers requiring reinspection were not overlooked, Quality Control Instructions (QCI's) require that during the final review process the SWDR's in the hanger work package will be checked to ensure that inspections performed prior to June 26, 1982 have been subsequently reinspected and accepted.

**PREVENTIVE MEASURES
TAKEN TO AVOID
FURTHER NON
COMPLIANCE:**

1. A pipe hanger inspection documentation instruction, QCI 18.2 (formerly 19.3) was developed and issued.
2. Additional training classes were held with required attendance for both craft and QC weld inspection personnel involved in pipe hanger inspection. Training classes covered items such as measurement of skewed-tee welds, visual acceptance criteria, proper documentation, applicable work procedures, etc.
3. New QC weld inspector candidates are interviewed by the QA/QC Specialist in addition to passing a written examination to ensure they are aware of project requirements pertinent to their assignments.
4. Each inspector's documentation of weld inspections is reviewed after the final inspection to ensure completeness and correctness.
5. Supervisory audits are routinely performed in accordance with Quality Assurance Instruction (QAI) 1.3 on each QC inspector's field work to ensure his satisfactory performance and to ensure that the work complies with the design documents.
6. A system was developed to aid in the resolution of technical inquiries that inspector supervision is unable to resolve. Technical inquiries are stated on a Request for Information (RFI) form and forwarded to the QA engineering unit which was established on site to provide engineering support for inspection activities.

PREVENTIVE MEASURES
TAKEN TO AVOID
FURTHER NONCOMPLIANCE (cont'd):

7. Site weld acceptance criteria were developed and issued to provide weld inspection acceptance criteria for both field and shop welds based on AWS D1.1 code and Bergen-Paterson design criteria. Procedure NDEP-605 was issued to address the specific conditions governing pipe hanger weld inspections. (Welds are inspected to CAR 2165-A-003, formerly FCR-H-979)

FINAL REPORT:

The corrective actions stated above have now been completed.