

593

December 11, 1984
DOCKETED
USNRC

'84 DEC 12 P5:37

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
SECRETARY & STAFF
BRANCH

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
CAROLINA POWER AND LIGHT COMPANY)
and NORTH CAROLINA EASTERN)
MUNICIPAL POWER AGENCY)
)
(Shearon Harris Nuclear Power)
Plant)

Docket No. 50-400 OL

APPLICANTS' MOTION TO RECEIVE
ADDITIONAL EVIDENCE (Eddleman Contention 41)

Applicants hereby move the Atomic Safety and Licensing Board to issue an order which identifies and receives into evidence as Applicants' Exhibits 27 and 28, 1/ the attached two final reports, submitted to the NRC Staff pursuant to 10 C.F.R. § 50.55(e), relating to the 1982 pipe hanger reinspection program. These documents, which were not in existence at the time the hearing on Eddleman 41 concluded, are final versions of the interim reports which are already in the record as Eddleman exhibits. Consequently, as explained more fully below, the final

1/ The record presently contains two documents identified and admitted as Applicants' Exhibit 25. In Proposed Transcript Corrections, to be filed shortly, Applicants will request that the second Exhibit 25 be renumbered as Exhibit 26.

8412140095 841211
PDR ADOCK 05000400
PDR
G

DS03

reports essentially do not expand the record, but provide a more complete record.

As the Board is aware, the discovery of pipe hanger welding deficiencies in 1982 and the subsequent reinspection program and corrective actions undertaken by Applicants was one of the subjects of Applicants' direct testimony in response to Eddleman Contention 41. See Applicants' Testimony of James F. Nevill, Alexander G. Fuller, David R. Timberlake and Kumar V. Hate in Response to Eddleman Contention 41 (Pipe Hanger Welding), ff. Tr. 6663, at 17-20. As discussed in more detail below, several interim reports on these issues were also admitted as Eddleman exhibits during the hearing on Contention 41. See, generally, Eddleman Exs. 22, 41, 46 and 47.

Proposed Applicants' Exhibit 27 includes a cover letter (NRC-291) dated November 30, 1984 from Mr. Parsons to Mr. O'Reilly (NRC-Region II) and a final report of the same date entitled, "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." The first document in Eddleman Ex. 22, CP&L letter No. CQAD 82-519 dated March 24, 1982, is simply a notification to the NRC of a delay in completing Applicants' evaluation of whether Item 72 (undersized skewed tee fillet welds) is reportable under 10 C.F.R. § 50.55(e).^{2/} Eddleman Exhibits 46 and 47 are

^{2/} The testimony adduced during cross-examination on this exhibit included a description of the problem involved with

(Continued next page)

the second and third interim § 50.55(e) reports on Items 95 and 72.^{3/}

A review of proposed Applicants' Ex. 27 against Eddleman Ex. 47 clearly shows that the Final Report merely reflects the fact that all corrective and preventive measures have now been completed (i.e., as Mr. Fuller testified, there are no longer any Seismic I pipe hangers on engineering hold). Thus, there are no substantive changes regarding either the scope of the problems encountered or the actions taken in response which would require Mr. Eddleman to conduct cross-examination on proposed Applicants' Ex. 27. Applicants, however, believe that it would be helpful if the record correctly reflected the current status of these items previously reported under 10 C.F.R. § 50.55(e), and therefore move the Board to admit proposed Exhibit 27.

Proposed Applicants' Exhibit 28 also includes a cover letter (NRC-292) and Final Report dated November 30, 1984,

(Continued)

the measurement of skewed tee fillet welds and a description of the process for determining whether an item is reportable under 10 C.F.R. § 50.55(e). Tr. 6930-33, 6935-38 (Hate, Nevill, Fuller).

^{3/} There was only limited cross-examination on these exhibits. See Tr. 7001-02 (Fuller on Ex. 46: merely updates first interim report, could report change in status of corrective actions), 6999-7001 (Fuller on Ex. 47: corrective action of reworking welds would require fixing whatever weld acceptance criteria were not met; no longer any hangers on engineering hold).

entitled "Pipe Hangers Previously Accepted by QC Welding Inspectors, Item 96" and "Undersized Skewed Tee Fillet Welds on Seismic I Pipe Hangers, Item 72."^{4/} Previous reports in the record on Items 96 and 72 are the second document in Eddleman Ex. 22 (CP&L letter CQAD 82-1560 dated September 13, 1982, Interim Report on Item 96) -- on which there was absolutely no cross-examination -- and Eddleman Ex. 41 (CP&L letter NRC-127 dated October 3, 1983 with attached Interim Report No. 2 on Items 96 and 72), on which there was, again, only limited cross-examination. See Tr. 6967-70 (Fuller: basis for reportability; confirmation that procedure QCI-19.3 was issued as part of corrective action).

As with the previous proposed exhibit, Applicants' Ex. 28 does not set forth any new substantive information which would warrant additional cross-examination; admission of Applicants' Ex. 28 would, however, provide the present status on these issues.

^{4/} While both proposed exhibits deal with undersized skewed tee fillet welds, Applicants' Ex. 27 is concerned with shop welding deficiencies whereas Applicants' Ex. 28 is concerned with field welding deficiencies.

For all the foregoing reasons, Applicants request that the Board grant the instant motion and admit proposed Applicants' Exhibits 27 and 28 as evidence of record.

Respectfully submitted,

Thomas A. Baxter

Thomas A. Baxter, P.C.
SHAW, PITTMAN, POTTS & TROWBRIDGE
1800 M Street, N.W.
Washington, D.C. 20036
(202) 822-1090

Richard E. Jones
Samantha F. Flynn
CAROLINA POWER & LIGHT COMPANY
P.O. Box 1551
Raleigh, N.C. 27562
(919) 836-7707

Counsel for Applicants

Dated: December 11, 1984

APPLICANTS' EXHIBIT 27

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-291

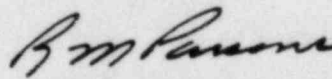
CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986 - 900,000 KW - UNIT 1
**SHOP WELDING DEFICIENCIES IN SEISMIC I PIPE HANGERS
SUPPLIED BY BERGEN-PATERSON, ITEM 95
UNDERSIZE SKEWED TEE FILLET WELDS ON SEISMIC I
PIPE HANGERS, ITEM 72**

Dear Mr. O'Reilly:

Attached is our final 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). 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
Completion Assurance
Shearon Harris Nuclear Power Plant

RMP/dd

Attachment

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

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

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

NOVEMBER 30, 1984

REPORTABLE UNDER 10 CFR 50.55(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. Missing and undersized welds
2. Cosmetic weld defects
3. Undersized skewed tee welds
4. 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, 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 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 incident was identified as reportable under 10CFR50.55(e) and 10CFR, part 21, due to the extensive evaluation required and the breakdown in the QA programs.

CORRECTIVE ACTION:

- I. 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. 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. The hangers which had been installed and inspected prior to June 26, 1982 and which were removed, voided, or declassified to non-seismic by a subsequent drawing revision were not reinspected.
2. Approximately 500 hangers with defective shop welds were identified by processes A and B (see above).

Approximately 1900 hangers were reinspected by Processes C and D. Approximately 40% were identified with shop weld deficiencies.

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.

3. Those hangers remaining in the warehouse are controlled as follows:

Hangers requisitioned for field installation are inspected for compliance to the site weld acceptance criteria. Weld acceptance and deficiencies are documented on a Seismic Weld Data Report (SWDR), deficiencies reworked or repaired, and final weld acceptance documented on the SWDR.

TAKEN TO BE 128
NONCOMPLIANCE:

1. Site weld acceptance criteria were 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. (Welds are inspected to CAR-2165-A-003, formerly FCR-H-979).
2. Ebasco VQA began performing in-process inspections and 100% inspection of hanger welds on October 1, 1982. This was performed throughout the remainder of the B-P purchase order.
3. Ebasco VQA management regularly visited the B-P Laconia facility to confer with the Ebasco VQA representative and witness the VQA inspector's activities.
4. B-P welders and Ebasco VQA inspectors have received additional training in weld acceptance criteria.
5. 100% shop weld inspections will continue until the remaining shop welds are inspected by our quality control organization.

FINAL REPORT:

The corrective actions stated above have now been completed or implemented.

APPLICANTS' EXHIBIT 28

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

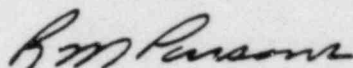
CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
1986-900,000 KW - UNIT 1
**SEISMIC PIPE HANGERS PREVIOUSLY ACCEPTED BY
QC WELDING INSPECTOR - ITEM 96
UNDERSIZE SKEWED TEE FILLET WELDS ON
SEISMIC I PIPE HANGERS - ITEM 72**

Dear Mr. O'Reilly:

Attached is our final report on the subject items which were deemed reportable per the provisions of 10CFR 50.55(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)

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 10CFR 50.55(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. Chiangi) notified the NRC (A. Hardin) that this item (Item 96) was reportable under the provisions of 10CFR50.55(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 10CFR50.55(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 10CFR50.55(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.

December 11, 1984

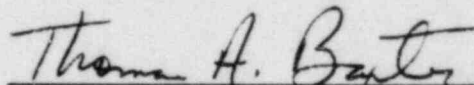
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
CAROLINA POWER AND LIGHT COMPANY)
and NORTH CAROLINA EASTERN) Docket No. 50-400 OL
MUNICIPAL POWER AGENCY)
)
(Shearon Harris Nuclear Power)
Plant))

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Motion to Receive Additional Evidence (Eddleman Contention 41)" were served this 11th day of December, 1984, by deposit in the U.S. mail, first class, postage prepaid, upon the parties listed on the attached Service List.



Thomas A. Baxter

Date: December 11, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
CAROLINA POWER & LIGHT COMPANY) Docket Nos. 50-400 OL
and NORTH CAROLINA EASTERN) 50-401 OL
MUNICIPAL POWER AGENCY)
)
(Shearon Harris Nuclear Power)
Plant, Units 1 and 2))

SERVICE LIST

James L. Kelley, Esquire
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

John D. Runkle, Esquire
Conservation Council of
North Carolina
307 Granville Road
Chapel Hill, North Carolina 27514

Mr. Glenn O. Bright
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

M. Travis Payne, Esquire
Edelstein and Payne
P.O. Box 12607
Raleigh, North Carolina 27605

Dr. James H. Carpenter
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Richard D. Wilson
729 Hunter Street
Apex, North Carolina 27502

Charles A. Barth, Esquire
Janice E. Moore, Esquire
Office of Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Wells Eddleman
718-A Iredell Street
Durham, North Carolina 27705

Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Richard E. Jones, Esquire
Vice President and Senior Counsel
Carolina Power & Light Company
P.O. Box 1551
Raleigh, North Carolina 27602

Mr. Daniel F. Read, President
CHANGE
P.O. Box 2151
Raleigh, North Carolina 27602

Dr. Linda W. Little
Governor's Waste Management Board
513 Albemarle Building
325 North Salisbury Street
Raleigh, North Carolina 27611

Bradley W. Jones, Esquire
U.S. Nuclear Regulatory Commission
Region II
101 Marrietta Street
Atlanta, Georgia 30303

Steven F. Crockett, Esquire
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Robert P. Gruber
Executive Director
Public Staff - NCUC
P.O. Box 991
Raleigh, North Carolina 27602

Administrative Judge Harry Foreman
Box 395 Mayo
University of Minnesota
Minneapolis, Minnesota 55455

Ace-Federal Reporters, Inc. (3)
444 North Capitol Street
Washington, D.C. 20001