

USNRC REGION II  
ATLANTA, GEORGIA

CP&L

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ATLANTA, GEORGIA

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Carolina Power & Light Company

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

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

NRC-104


CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986-90 - 900,000 KW - UNITS 1 & 2  
BASE METAL DEFECT IN A SPOOL PIECE SUPPLIED BY SOUTHWEST  
FABRICATING AND WELDING COMPANY, PURCHASE ORDER NY-435035,  
ITEM 115

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 February 15, 1983. 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: Messrs. G. Maxwell/R. Prevatte (NRC-SHNPP)  
Mr. R. C. DeYoung (NRC)

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CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

BASE METAL DEFECT IN A SPOOL PIECE  
SUPPLIED BY SOUTHWEST FABRICATING & WELDING COMPANY

ITEM NO. 115

JULY 25, 1983

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

SUBJECT: Shearon Harris Nuclear Power Plant/Unit No. 1 10CFR50.55(e) and 10CFR21, reportable deficiency in base metal defect, minimum wall thickness violation purchased under Purchase Order NY-435035.

ITEM: Deficiency and Disposition Report "DDR No. 1272". Spool Piece No. 1-CX-65-4 was found to have base metal defects. Area has been buffed to remove defect causing minimum wall violation.

SUPPLIED BY: Southwest Fabricating & Welding Company, Houston Texas.

NATURE OF DEFICIENCY: Pipe was found to violate minimum wall thickness per ASME code requirements and site welding procedures.

DATE PROBLEM OCCURRED: Refer to above section.

DATE PROBLEM REPORTED: On January 26, 1983, N. J. Chiangi notified the NRC (A. Hardin) that this item was potentially reportable under 10CFR50.55(e) and 10CFR21.

On February 15, 1983, N. J. Chiangi notified the NRC (D. Verelli) that this item was reportable under 10CFR50.55(e) and 10CFR21.

On February 26, 1983, an interim report was filed with the NRC.

On April 29, 1983, the second interim report was filed with the NRC to allow time for construction to complete work.

SCOPE OF PROBLEM: The deficiency involves the safety-related chilled water piping.

SAFETY IMPLICATION: Loss of safety-related chilled water could potentially jeopardize the environmental qualification operating temperature of certain safety components and the environment envelop of the Main Control Room.

REASON  
DEFICIENCY

IS REPORTABLE: Failure of the piping could result in reduction of cooling to Safety Train B air handling units. There are no means of automatic isolation in the vicinity of the deficiency; therefore, all "B" train is sacrificed. A break would result in the loss of all Safety Train B air handling units. Incorporating additional single failure criterion - worst case is loss of Safety Train "A" chilled water. With loss of all safety-related chilled water, the environmental qualification of essential components could potentially be jeopardized due to exceeding qualified operating temperature.

CORRECTIVE  
ACTION:

The vendor, Southwest Fabricating & Welding, has been notified of this condition via telephone and directed to take corrective action and advise in writing. Corrective action has been taken and has been confirmed by letter.

Further investigation has proven that CP&L Construction will effectively replace the fitting on site and close out corrective action. Work is being documented by Pipe Spool Modification PSM-1-CX-65-4.

CP&L has removed this spool from the site and corrective action is complete.

PREVENTATIVE  
MEASURES:

The vendor, Southwest Fabricating & Welding, has been directed to show preventative measures and advise in writing, which they have confirmed by letters.

Southwest Fabricating & Welding has indicated by letter dated April 14, 1983 that diligent efforts to perform visual inspections as required by ASME III, Class 3 has been implemented. Further, their inspectors have been cautioned to continue their efforts to detect surface flaws in materials. All information available concerning this spool piece has been discussed with the inspectors.

It has been noted by Southwest Fabricating that the circumstances surrounding this piece are unique. They indicate that this is the first complaint of this nature ever to be reported. Southwest Fabricating has supplied in excess of 46,000 nuclear items without such an occurrence.

FINAL REPORT: See corrective action and preventative measures sections above.

CP&L has issued Pipe Spool Modification PSM-1-CX-65-4 to replace the spool piece. The spool piece has been scrapped per QA/QC standards and documented on PSM-1-CX-65-4.

Southwest Fabricating has directed inspectors to continue their efforts to visually inspect according to ASME III, Class 3, 1971 edition. Also, all information concerning this matter has been discussed with Southwest's inspectors.