

**CP&L**

USNRC REGION II  
ATLANTA, GEORGIA

Carolina Power & Light Company

83 JUN 27 P1:11

P. O. Box 101, New Hill, N. C. 27562  
June 22, 1983

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

NRC-90

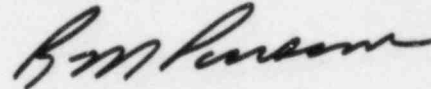
CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986-90 - 900,000 KW - UNITS 1 & 2  
SAFETY INJECTION VALVES FOUND TO HAVE SA-105  
MATERIAL IN LIEU OF SA-182, F-316, ITEM 133

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 24, 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: Mr. G. Maxwell (NRC-SHNPP)  
Mr. R. Prevatte (NRC-SHNPP)  
Mr. V. Stello (NRC)

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CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT NO. 1

FINAL REPORT

SAFETY INJECTION VALVES

ITEM NO. 133

JUNE 23, 1983

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

SUBJECT: Shearon Harris Nuclear Power Plant Unit No. 1  
10CFR50.55(e) and 10CFR Part 21, reportable material  
deficiency in twelve (12) safety injection valves  
purchased under Item 3A of Purchase Order NY-435056,  
Supplement 15.

ITEM: Deficiency and Disposition Report 1503. Twelve - 2"  
socket weld globe valves Tag Nos. 2SI-V429SA-1 through  
2SI-V440SA-1 were found to be made of carbon steel  
SA-105 material in lieu of intended stainless steel,  
SA-182, F-316 material.

SUPPLIED BY: Yarway Corporation, Blue Bell, Pennsylvania 19422

NATURE OF DEFICIENCY: In May 1983, the Quality Assurance Department, Shearon Harris Nuclear Power Plant, reported a material deficiency in twelve - 2" globe safety injection valves. These valves were listed correctly in Purchase Order Supplement #15 dated March 20, 1981, to be constructed of stainless steel material Type 316SS and entered into the contract as Item 3A.

The vendor, Yarway Corporation, by an order processing error, added these valves into a carbon steel valve drawing (Yarway Drawing 103271-09, Revision D) and failed to have it reviewed by Ebasco (Architect/Engineer) and then proceeded to fabricate them as carbon steel valves.

Ebasco's (Architect/Engineer) review of the subsequent Revision E of the above drawing did not reveal the error of inclusion of the subject valves in the wrong drawing.

A Vendor Quality Assurance (VQA) representative inspected and released these valves on August 4, 1982, using Revision D of the drawing. Thus, the valves were made of wrong material - carbon steel instead of stainless steel - and were shipped to the Shearon Harris site.

DATE PROBLEM OCCURRED: Please refer to the above section.

DATE PROBLEM REPORTED: On May 24, 1983, Mr. N. J. Chiangi notified the NRC (Mr. C. Hehl) that the May 17, 1983, potentially reportable item concerning twelve Unit 1 safety injection valves material deficiency had been evaluated and found to be reportable per the provisions of 10CFR50.55(e) and 10CFR Part 21.

SCOPE OF  
PROBLEM:

The deficiency involves the potential loss of most of the safety injection train.

SAFETY  
IMPLICATION:

Since carbon steel is not an acceptable material in borated water systems, these valves may be assumed to be lost by corrosion. Then upon initiation of a safety injection signal (SIS), concentrated borated water either from the Boron Injection Tank (BIT) or the Refueling Water Storage Tank (RWST) will not be available for safety injection; thus, the ability to bring the reactor to a safe shutdown would be impaired.

REASON  
DEFICIENCY  
IS REPORTABLE:

Failure of these twelve valves jeopardizes the safe shutdown of the reactor under accident conditions.

CORRECTIVE  
ACTION:

These valves have been reordered and shall be made of the correct material. The twelve incorrect shipped valves (carbon steel) will be retagged and kept as spares for future use in appropriate systems.

PREVENTATIVE  
MEASURE:

Ebasco has made extensive review of Yarway and the other twenty valve contracts in all details. No cases similar to the above and DDR-1563 were found. Minor clerical mistakes are being corrected. A complete review of the Vendor Quality Assurance (VQA) activities on the Yarway contract was made. No other similar cases of material releases against drawings not reviewed by Ebasco were found. The responsible VQA representative's work in other contracts was reviewed and did not reveal any errors. Other VQA representatives' work was reviewed on a sample basis and no concerns were identified. The above indicates that the release of the subject valves was an isolated case.

The vendor, Yarway Corporation, has confirmed that all responsible personnel have been notified of this error to ensure it is not repeated.

FINAL REPORT:

CP&L considers this item to be closed.