

**CP&L**

84 JUN 5 12:22 Carolina Power & Light Company

P. O. Box 101, New Hill, N. C. 27562  
May 31, 1984

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

NRC-223

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
1986 - 900,000 KW - UNIT 1  
**G. H. BETTIS OPERATORS ON RUSKIN-SUPPLIED  
HVAC DAMPERS, ITEM 157**

Dear Mr. O'Reilly:

Attached is an interim report on the subject item which was deemed reportable per the provisions of 10CFR50.55(e) and 10CFR, Part 21, on May 22, 1984. CP&L is pursuing this matter, and it is currently projected that corrective action and submission of the final report will be accomplished by December 31, 1984.

Thank you for your consideration in this matter.

Yours very truly,

*R. M. Parsons*

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 1

INTERIM REPORT

G. H. BETTIS OPERATORS ON  
RUSKIN-SUPPLIED HVAC DAMPERS

NCR-83-103  
NCR-84-333

ITEM 157

MAY 25, 1984

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

SUBJECT:

Shearon Harris Nuclear Power Plant Unit 1  
G. H. Bettis operators, Purchase Order NY-435205 on  
Ruskin-supplied HVAC dampers

ITEM:

The following damper tag numbers are affected by this  
condition:

AR-D3-1	CB-D2SB-1
AV-D15SA-1	AV-D78SA-1
FL-D35SA-1-4	AV-D79SB-1
FL-D36SB-1-4	FL-D9SB-1-4
FL-D37SA-1-4	FL-D11SA-1-4
FL-D38SB-1-4	FL-D12SB-1-4
AV-D82SA-1	FL-D21SA-1-4
AV-D83SB-1	FL-D22SB-1-4
AV-D86SA-1	FL-D5SB-1-4
AV-D87SB-1	FL-D8SA-1-4
AR-D4-1	FL-D4SA-1-4
AV-D9SA-1	

SUPPLIED BY:

Ruskin Manufacturing Company

NATURE OF  
DEFICIENCY:

The following condition was discovered as a result of  
some Bettis operators failing a vendor in-house opera-  
tional test: According to Bettis, some of the internal  
seals (made of ethylene propylene) in the operators  
become swollen, apparently due to absorption of the  
internal lubricant (Mobil Grease 28). This swelling  
increases friction within the operator. This increased  
friction may result in increased operator actuation time  
beyond that required for design conditions.

DATE PROBLEM  
WAS CONFIRMED  
TO EXIST:

Based on a copy of a telex from Ruskin to Ebasco dated  
December 2, 1983 (received approximately December 5,  
1983), which indicated a 10CFR21 reportable condition  
concerning Bettis actuators, the condition was determined  
to be potentially reportable on December 20, 1983. Also,  
site-generated NCR-83-103 on December 28, 1983 and  
NCR-84-333 on February 10, 1984 were issued.

DATE PROBLEM  
REPORTED:

Mr. K. V. Hate' notified the NRC (Mr. A. Hardin) on  
December 21, 1983 of a potentially reportable item per  
10CFR21 and 10CFR50.55(e). G. H. Bettis reported the  
problem to the NRC on November 13, 1983.

On January 18, 1984, CP&L informed the NRC by Letter NPC-169 that we would require until February 20, 1984 to determine the reportability of this item.

On February 17, 1984, CP&L informed the NRC by Letter NRC-182 that we would require until March 23, 1984 to determine reportability.

On March 23, 1984, CP&L informed the NRC by Letter NRC-198 that we would require until May 23, 1984 to determine reportability.

On May 22, 1984, CP&L (Mr. K. V. Hate') notified the NRC (Mr. D. Myers) that the December 21, 1983 potentially reportable item had been evaluated and found to be reportable per 10CFR21 and 10CFR50.55(e).

SCOPE OF  
PROBLEM:

The following safety-related HVAC systems/areas are affected:

- A. RAB Electrical Penetration Area
- B. RAB RHR Heat Exchanger Area
- C. RAB Mechanical Penetration Area
- D. RAB H&V Penetration Area
- E. RAB Charging Pump Area
- F. RAB Valve Gallery
- G. RAB Pipe Tunnels and Charging Pump Areas Exh. System
- H. FHB Normal Exhaust System
- I. FHB Normal Supply System
- J. FHB Loading Area

SAFETY  
IMPLICATION:

Should the dampers fail to operate within the required actuation time, areas may not properly isolate and airborne contaminants may not be controlled as intended.

REASON  
DEFICIENCY  
IS REPORTABLE:

Should the dampers fail to operate within the design time limit during anticipated accident conditions, the radiological releases may exceed the 10CFR100 guidelines.

CORRECTIVE  
ACTION:

Replace lubricant and seals in affected G. H. Bettis actuators on Ruskin dampers supplied to SHNPP. G. H. Bettis is making available repair kits that contain the recommended lubricant, Molykote 44, and replacement seals.

PREVENTIVE  
MEASURES:

Future orders for nuclear-qualified actuators should be furnished with Molykote 44 lubricant and EP seals.

FINAL REPORT:

Ruskin Manufacturing Company has placed an order for repair kits to replace seals and lubricants for all affected dampers. Repairs will be made as kits are received with completion by December 31, 1984. At that time, a final report will be issued.