

LICENSEE EVENT REPORT (LER)

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------|--|----------------|---------------------|-----------------|------------------|-----------------|-----------|----------------|---|---|-------------------------------|------------------|--|-----|------|---|---|---|---|---|---|---|
| FACILITY NAME (1) H. B. Robinson SEG Plant, Unit No. 2 | | | | | | | | | | DOCKET NUMBER (2) 0 5 0 0 0 2 6 1 1 | | | | PAGE (3) 1 OF 02 | | | | | | | | | |
| TITLE (4) Steam Generator Snubbers | | | | | | | | | | | | | | | | | | | | | | | |
| EVENT DATE (5) | | | LER NUMBER (6) | | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | | | | | | | | | | | | | |
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAMES | | | | DOCKET NUMBER(S) | | | | | | | | | | |
| 0 | 5 | 2 | 1 | 8 | 4 | 8 | 4 | 0 | 0 | 3 | 0 | 0 | 6 | 2 | 1 | 8 | 4 | 0 | 5 | 0 | 0 | 0 | 0 |
| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | | | | | | | | | | | | | | | | | | | |
| POWER LEVEL (10) | | 20.402(b) | | | | 20.405(e) | | | | 90.73(a)(2)(iv) | | | | 73.71(b) | | | | | | | | | |
| N/A | | 20.405(a)(1)(i) | | | | 90.38(a)(1) | | | | 90.73(a)(2)(v) | | | | 73.71(e) | | | | | | | | | |
| | | 20.405(a)(1)(ii) | | | | 90.38(a)(2) | | | | X 90.73(a)(2)(vi) | | | | OTHER (Specify in Abstract below and in Text, NRC Form 366A) | | | | | | | | | |
| | | 20.405(a)(1)(iii) | | | | 90.73(a)(2)(i) | | | | 90.73(a)(2)(vii)(A) | | | | | | | | | | | | | |
| | | 20.405(a)(1)(iv) | | | | 90.73(a)(2)(ii) | | | | 90.73(a)(2)(vii)(B) | | | | | | | | | | | | | |
| | | 20.405(a)(1)(v) | | | | 90.73(a)(2)(iii) | | | | 90.73(a)(2)(x) | | | | | | | | | | | | | |
| LICENSEE CONTACT FOR THIS LER (12) | | | | | | | | | | | | | | | | | | | | | | | |
| NAME Carson L. Wright | | | | | | | | | | TELEPHONE NUMBER AREA CODE 81013 31813 -14151214 | | | | | | | | | | | | | |
| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | | | | | | | | | | | | | |
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | | | | | | | | | | | | | |
| B | A/B | -SIN/B | * | Y | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| SUPPLEMENTAL REPORT EXPECTED (14) | | | | | | | | | | | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR | | | | | | | |
| YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | | | | | | | NO | | 0 | 9 | 3 | 0 | 8 | 4 | | | | |
| ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16) | | | | | | | | | | | | | | | | | | | | | | | |

The twelve steam generator snubbers were sent off-site for functional testing. Two snubbers were low on fluid. A rear monoball bearing failed at less than design load. It was learned that the bearing had been derated after manufacturing to less than the snubber's design load. The snubber manufacturer has submitted a 10CFR21 report on the bearing failure.

* Baxter Fluid Power (Anker-Holth)

8406280365 840621
PDR ADOCK 05000261
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) | | |
|----------------------------------|-------------------|----------------|-------------------|-----------------|----------|----|----|
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| H. B. Robinson SEG Plant, Unit 2 | 05000261 | 84 | 003 | 01 | 02 | OF | 02 |

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The twelve Anker-Holth snubbers (Model #21.12620.008 500 KIP Load Rating) were sent off-site for functional testing and refurbishment. This was the first time since commercial operation that the entire snubber assemblies were functionally tested. Previous inspection/testing which occurred at refueling intervals involved visual inspections for piston settings, reservoir level, seal leakage, and general external condition. The control valve block for the 'A' steam generator snubber bank was tested satisfactorily in 1982 due to a 1981 change to Technical Specifications which required the valve testing.

While in the test stand under conditions simulating expected loading conditions, the following anomalies were observed:

1. Two snubbers, 2011 and 2014, did not lockup because they were low on fluid.
2. The rear monoball bearing failed while snubber 2011 was under a load of 412,000 pounds force, and the monoball hole was subsequently deformed. The design load for these snubbers is 470,000 pounds force.
3. Snubber 2008 did not meet the lockup velocity requirement of 1 to 10 inches per hour. The tension and compression lockup velocities were 5.75 inches per minute and 4.7 inches per minute, respectively. Snubber 2008 did not meet the bleed rate requirement of 3 to 6 inches per hour. The tension and compression bleed rates were 0.25 inches per minute at 200,000 pounds force.

Actions In Progress

1. The cause of the low fluid levels in snubbers 2011 and 2014 is being investigated.
2. The snubber manufacturer, Baxter Fluid Power (Anker-Holth) has submitted a 10CFR21 report on the failure of the rear monoball bearing on snubber 2011. Subsequent to manufacturing, the bearing rating had been revised downward to less than the snubber design load. The consequences of the snubbers possibly failing at less than design load is being investigated.
3. The requirements for lockup velocities and bleed rates are being investigated to determine if these may be too restrictive based on present industry standards.

Prior to declaring these steam generator snubbers operable, the snubbers' valve blocks, tubing, and reservoirs will be filled with fluid, and the snubbers will be functionally tested to verify proper operation and structural integrity.



Carolina Power & Light Company

H. B. ROBINSON STEAM ELECTRIC PLANT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

JUN 21 1984

Robinson File No: 13510C

Serial: RSEP/84-429

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 84-003

Dear Sir:

In accordance with 10CFR50.73, Licensee Event Report, the enclosed Licensee Event Report is submitted. This report fulfills the requirements for a written report within thirty (30) days of a reportable event and is in accordance with the format set forth in NUREG-1022, September, 1983.

Very truly yours,

R. E. Morgan
General Manager
H. B. Robinson SEG Plant

CLW/pam

Enclosure

cc: J. P. O'Reilly
S. P. Weise
INPO

IE22
11