

LICENSEE EVENT REPORT (LER)

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| FACILITY NAME (1) Robinson Nuclear Project Department, Unit No. 2 | DOCKET NUMBER (2) 0 5 0 0 0 2 6 1 1 OF 0 2 | PAGE (3) 1 OF 0 2 |
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TITLE (4)
Reactor Trip Due to High Level in "A" Steam Generator

| EVENT DATE (5) | | | LER NUMBER (6) | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAMES | | DOCKET NUMBER(S) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 1 | 0 9 | 8 5 | 8 5 | 0 0 | 5 0 | 0 3 | 0 1 | 8 5 | | | 0 5 0 0 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>OPERATING MODE (9)</td> <td colspan="11">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 0 1 4</td> <td><input type="checkbox"/> 20.402(b)</td> <td><input type="checkbox"/> 20.406(c)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(iv)</td> <td><input type="checkbox"/> 73.71(b)</td> </tr> <tr> <td><input type="checkbox"/> 20.406(a)(1)(i)</td> <td><input type="checkbox"/> 50.38(e)(1)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)</td> <td><input type="checkbox"/> 73.71(c)</td> </tr> <tr> <td><input type="checkbox"/> 20.406(a)(1)(ii)</td> <td><input type="checkbox"/> 50.38(e)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> <td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 356A)</td> </tr> <tr> <td><input type="checkbox"/> 20.406(a)(1)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.406(a)(1)(iv)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.406(a)(1)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ix)</td> <td></td> </tr> </table> | | | | | | | | | | | | 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) 0 1 4 | <input type="checkbox"/> 20.402(b) | <input type="checkbox"/> 20.406(c) | <input checked="" type="checkbox"/> 50.73(a)(2)(iv) | <input type="checkbox"/> 73.71(b) | <input type="checkbox"/> 20.406(a)(1)(i) | <input type="checkbox"/> 50.38(e)(1) | <input type="checkbox"/> 50.73(a)(2)(v) | <input type="checkbox"/> 73.71(c) | <input type="checkbox"/> 20.406(a)(1)(ii) | <input type="checkbox"/> 50.38(e)(2) | <input type="checkbox"/> 50.73(a)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 356A) | <input type="checkbox"/> 20.406(a)(1)(iii) | <input type="checkbox"/> 50.73(a)(2)(i) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) | <input type="checkbox"/> 20.406(a)(1)(iv) | <input type="checkbox"/> 50.73(a)(2)(ii) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) | <input type="checkbox"/> 20.406(a)(1)(v) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(ix) | |
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LICENSEE CONTACT FOR THIS LER (12)

| | |
|--------------------------|--|
| NAME Carson L. Wright | TELEPHONE NUMBER AREA CODE: 8 0 3 3 8 3 - 4 5 2 4 |
|--------------------------|--|

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFAC TURER | REPORTABLE TO NPROS | CAUSE | SYSTEM | COMPONENT | MANUFAC TURER | REPORTABLE TO NPROS |
|-------|--------|-----------|---------------|---------------------|-------|--------|-----------|---------------|---------------------|
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SUPPLEMENTAL REPORT EXPECTED (14)

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| <input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO | EXPECTED SUBMISSION DATE (15) MONTH: DAY: YEAR: |
|--|--|

ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (16)

Abstract

On January 9, 1985, the reactor was critical, and the turbine was on line for the first time following an 11 1/2 month outage and increasing load. At 0402 hours, a reactor trip occurred at 14% power due to a turbine trip from a high level in "A" steam generator. It appears that erratic operation of "A" steam generator level control circuitry at low power levels caused "A" feedwater regulating valve to open further than desired. This caused "A" steam generator level to exceed the high level setpoint which tripped the turbine and thus the reactor.

On February 10, 1985, the unit was returned on line. During the return to power, observation of the feedwater flow revealed acceptable functioning of the feedwater regulating valve. The exercising of "A" steam generator feedwater regulating valve apparently "worked in" the controls such that the previous erratic control did not recur.

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PDR ADOCK 05000261
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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| FACILITY NAME (1) Robinson Nuclear Project Dept., Unit 2 | DOCKET NUMBER (2) 0 5 0 0 0 2 6 1 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR 8 5 | SEQUENTIAL NUMBER — 0 0 5 | REVISION NUMBER — 0 0 | 0 2 | OF 0 2 |

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

Text

On January 9, 1985, the turbine was being loaded following the Steam Generator Replacement Outage. At 0402 hours, a reactor trip occurred at 14% power due to a turbine trip from a high level in "A" steam generator. The high level signal also trips the feed pumps. The reactor trips if the turbine trips above 10% power.

During the previous Plant startups in early January, the three steam generators experienced level control problems. The erratic operation of "A" steam generator level control circuitry caused "A" feedwater regulating valve to open further than desired. This overfeeding of "A" steam generator gave a high level in the steam generator which tripped the turbine and thus the reactor. The level control systems were inspected mechanically and electronically for potential problems. Maintenance corrected the problems in the level controllers for "B" and "C" steam generators. A failed capacitor contributed to electronic circuit noise in "B" level controller. Debris in the instrument air side caused increased response time in "C" valve controller. Investigation of the "A" steam generator level control circuitry, manual and automatic, did not reveal any failures or abnormal signal conditions.

The root cause of the level trip on "A" steam generator is attributed to probable sticking of the manual controller in conjunction with the new higher flow trim installed during the Steam Generator Replacement Outage and the duration of that outage. The operators had no previous operating experience with this trim and may have overcompensated when the controller did not respond as expected.

During the investigation of the problems with the feedwater regulating valves, considerable exercising of the circuit components and the "A" steam generator feedwater regulating valve occurred. This exercising appears to have "worked in" "A" loop, and it was stable when the Plant was placed in operation on February 10, 1985. "B" loop was also stable. "C" loop was less stable than previous operation but acceptable for the operator to control feedflow. All three valves were stable in the automatic mode.

The three feedwater control valves were closely observed and were determined to be sufficiently stable in their manual mode to allow normal transition from zero power to automatic on-line operation without inducing a trip from feedwater oscillations. No further action is planned.

CP&L

Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

MAR 01 1985

Robinson File No: 13510C

Serial: RNP/85-382

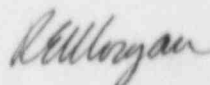
United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

ROBINSON NUCLEAR PROJECT DEPARTMENT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 85-005 Rev. 1

Dear Sir:

In accordance with 10CFR50.73, Licensee Event Report System, the enclosed supplemental Licensee Event Report is submitted. The original report dated February 8, 1985, described a reactor trip on January 9, 1985. The cause of the trip was high level in "A" steam generator. This revision contains a complete description of the event in addition to current corrective actions and should replace all existing copies of the original report. (The supplemental information has been barred for your convenience.)

Very truly yours,



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

CLW/tk:C-5

Enclosure

cc: INPO
H. E. P. Krug
J. N. Grace

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