

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Brunswick Steam Electric Plant Unit 1DOCKET NUMBER (2)
0 5 0 0 0 3 2 5 1 OF 0 2

TITLE (4) Automatic Isolations of the Units 1 and 2 Common Control Building Heat Ventilating Air Conditioning System

| 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 | 9 | 1 | 8 | 8 | 5 | 8 | 5 | 0 | 5 | 0 | 0 | 3 | 2 | 5 | | |
| | | | | | | | | | Brunswick Unit 2 | 0 | 5 | 0 | 0 | 3 | 2 | 4 |
| | | | | | | | | | | 0 | 5 | 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) | | | | | | | | | |
|--------------------|-------|--|--|------------------|---|----------------------|--|--|--|--|--|
| 5 | | 20.402(b) | | 20.405(a) | X | 50.73(a)(2)(iv) | | 73.71(b) | | | |
| POWER LEVEL (10) | 0 0 0 | 20.405(a)(1)(i) | | 50.38(a)(1) | | 50.73(a)(2)(v) | | 73.71(a) | | | |
| | | 20.405(a)(1)(ii) | | 50.38(a)(2) | | 50.73(a)(2)(vii) | | OTHER (Specify in Abstract below and in Text, NRC Form 366A) | | | |
| | | 20.405(a)(1)(iii) | | 50.73(a)(2)(i) | | 50.73(a)(2)(viii)(A) | | | | | |
| | | 20.405(a)(1)(iv) | | 50.73(a)(2)(ii) | | 50.73(a)(2)(viii)(B) | | | | | |
| | | 20.405(a)(1)(v) | | 50.73(a)(2)(iii) | | 50.73(a)(2)(ix) | | | | | |

LICENSEE CONTACT FOR THIS LER (12)
NAME
M. J. Pastva, Jr., Regulatory TechnicianTELEPHONE NUMBER
AREA CODE
9 1 1 9 4 5 7 - 2 3 1 5

| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | | | | | | | | | |
|--|--------|-----------|--------------|--------------------|-------|--------|-----------|--------------|--------------------|----|--|--|--|--|--|--|--|--|--|
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs | | | | | | | | | | |
| X | B | H | I | D | E | I | T | W | 0 2 5 | No | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR |
|---|------|-------------------------------|--|-------|-----|------|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | | |

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

From 9/18/85 through 10/3/85, six automatic isolations of the Units 1 and 2 common Control Building Heating, Ventilating, and Air Conditioning (CB HVAC) System occurred due to spurious system air intake chlorine alarms. Following each event, an inspection of the associated plant area showed actual chlorine alarm conditions did not exist and the CB HVAC System was returned to service. Unit 1 was in a refueling/maintenance outage while Unit 2 was at power during the first three events and in cold shutdown during the fourth, fifth, and sixth events.

Appropriate investigations were conducted following each event to determine operability of the Chlorine Detection System detectors. Corrective actions concerning these events are reflected in Table 1.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

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|--|--|----------------|-------------------|-----------------|----------|----|-----|
| FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1 | DOCKET NUMBER (2) 0 5 0 0 0 3 2 5 8 5 — | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | 0 5 0 | — | 0 0 | 0 2 | OF | 0 2 |

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

On September 18, 1985, at 1720; September 21, 1985, at 2330; September 25, 1985, at 1145; September 29, 1985, at 2050 and 2216; and October 3, 1985, at 2130; automatic isolations of the Units 1 and 2 common Control Building Heating, Ventilating, and Air Conditioning (CB HVAC) System occurred, due to spurious system air intake high chlorine alarms. In each case, an inspection of the associated plant area showed actual chlorine alarm conditions did not exist. Unit 1 was in a refueling/maintenance outage while Unit 2 was at power during the first three events and in cold shutdown during the fourth, fifth, and sixth events.

Investigations of the problems affecting the Chlorine Detection System detectors were appropriately conducted within the time frames of the incurred isolations. Required adjustments and/or replacements of affected components were also performed to allow return of the detection system to service (see Table 1).

Design problems affecting the CB HVAC System and the chlorine detectors were previously addressed in LER 1-84-033. Planned corrective actions include measures to stabilize detector electrolyte drip rate, decreasing detector sensitivity within design constraints, and addition of an algicide to combat the algae growth in the detector drip tubes. As a result of prior similar events involving the isolation instrumentation to the CB HVAC System, additional plant surveillance requirements were imposed to better ensure operability of the chlorine detectors and the CB HVAC until implementation of the planned corrective actions.

Table 1

| <u>Date/Time of Event</u> | <u>Corrective Actions Taken</u> |
|---------------------------|--|
| 9/18/85 at 1720 | Electrolyte drip rates of Chlorine Detection System (CDS) detectors visually verified within specifications and CB HVAC System returned to service. |
| 9/21/85 at 2330 | Functional test of chlorine detectors, Periodic Test (PT)-46.3P, satisfactorily completed and CB HVAC System returned to service. |
| 9/25/85 at 1145 | CDS detector electrolyte drip rates adjusted, PT-46.3P satisfactorily completed, and CB HVAC System returned to service. |
| 9/29/85 at 2050 | Work Request & Authorization written to investigate problem and CB HVAC System returned to service. |
| 9/29/85 at 2216 | Reset chlorine alarm and CB HVAC System returned to service. Detector electrode, Wallace & Tiernan Part No. U22814, of CDS detector 2X-AT-2977 replaced due to film buildup attributed to service age. |
| 10/03/85 at 2130 | CDS alarm reset and CB HVAC System returned to service. |



Carolina Power & Light Company

Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429

October 18, 1985

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SERIAL: BSEP/85-1807

NRC Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-85-050

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

C. R. Dietz, General Manager
Brunswick Steam Electric Plant

MJP/rla

Enclosure

cc: Dr. J. N. Grace

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