

CP&L

Carolina Power & Light Company

Brunswick Nuclear Project
P. O. Box 10429
Southport, N.C. 28461-0429

FEB 5 1992

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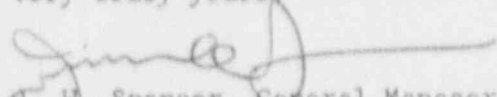
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DRP-71
LICENSEE EVENT REPORT 1-92-001

Gentlemen:

In accordance with Title 10 of 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 submitted in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,


J. W. Spencer, General Manager
Brunswick Nuclear Project

RK/

Enclosure

cc: Mr. S. D. Ebnetter
Mr. N. B. Le
BSEP NRC Resident Office

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Brunswick Steam Electric Plant Unit 1**

DOCKET NUMBER (2)
05000325

PAGE (3)
1

TITLE (4) **INADEQUATELY TESTING SEALED SOURCES RESULTS IN TECHNICAL SPECIFICATION VIOLATION**

| EVENT DATE (5) | | | LER NUMBER (6) | | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | |
|----------------|-----|------|----------------|----------|----------|-------|-----------------|------|---------------|-------------------------------|-------------------------|
| MONTH | DAY | YEAR | YEAR | SEQ. NO. | REV. NO. | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER | |
| 01 | 07 | 92 | 92 | - | 001 | - | 0 | 02 | 05 | 92 | BSEP Unit 2 05000324 |

| OPERATING MODE (9) | POWER LEVEL (10) | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11) | | | |
|--------------------|------------------|---|-------------------------------------|--------------------------|--------------------------|
| | | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| 1 | 100 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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LICENSEE CONTACT FOR THIS LER (12)

NAME **Rhonda S. Knight, Regulatory Compliance Specialist**

TELEPHONE NUMBER
(919) 457-2174

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRPDS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRPDS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

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

CP&L's Shearon Harris Nuclear Power Plant (SHNPP) issued LER 1-91-020 which identified deficiencies in a radiation surveillance test which is used to leak test sealed sources to satisfy a technical specification requirement. This process includes smearing these sources and analyzing the smears with an instrument capable of detecting 0.005 microcuries of contamination per test sample. During a routine review of a completed test, an Environmental & Radiation Control (E&RC) person noted a deficiency in the equipment/procedure used to detect the low energy emissions produced by Nickel-63 (Ni-63) and Iron-55 (Fe-55) isotopes.

Brunswick E&RC personnel reviewed this LER. Upon further investigation, Brunswick E&RC personnel determined that their site procedure contained the same deficiency as did SHNPP's and that the same reportability requirements applied to an Fe-55 source. (Brunswick was not affected by Ni-63). The Brunswick facility had been utilizing a Tennelec gas flow proportional counter to perform an analysis on smears of an Fe-55 source being used inside an alloy analyzer. A smear of the Fe-55 source was obtained and sent to the HE&EC for analysis. The test was satisfactory and the source was determined not to be leaking.

The cause of this event is failure to recognize a deficiency in the method used to analyze smears of sources containing Fe-55. Immediate corrective actions included tagging the alloy analyzer out of service. The source was smeared and the smear was sent to the HE&EC for analysis. Results of this analysis verified that the source was not leaking. The appropriate procedure will be revised to add a list of isotopes to be analyzed and their energy emission levels and to verify that the equipment used for the analysis has adequate detection capabilities. The smears of the Fe-55 source will continue being sent to HE&EC for analysis. The safety significance of this event was minimal in that the source was contained inside the alloy analyzer in which it is being used.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | | | | |
|--|-------------------|----------------|------------|------------|----------|
| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) |
| Brunswick Steam Electric Plant Unit 1 | 05000325 | YEAR | SEQ NO. | REV NO. | 2 |
| | | 92 | 001 | 0 | |

TEXT (If more space is required, use additional NRC Form 365A's) (17)

INITIAL CONDITIONS

Unit 1 was at 100% power. Unit 2 was in the process of starting up after a refueling outage.

EVENT NARRATIVE

CP&L's Shearon Harris Nuclear Power Plant (SHNPP) issued LER 1-91-020 which identified deficiencies in a radiation surveillance test which is used to leak test sealed sources to satisfy a technical specification requirement. This process includes smearing these sources and analyzing the smears with an instrument capable of detecting 0.005 microcuries of contamination per test sample. During a routine review of a completed test, an Environmental & Radiation Control (E&RC) person noted a deficiency in the equipment/procedure used to detect the low energy emissions produced by Nickel-63 (Ni-63) and Iron-55 (Fe-55) isotopes. Specifically, the gas flow proportional counter being utilized to conduct the test did not have sufficient sensitivity to detect the low energy emissions produced by Ni-63 and Fe-55. It was determined that this was reportable per 10 CFR 50.73(a)(2)(i)(B) as a technical specification violation. Smears of the sealed sources were taken and sent to the Harris Energy and Environmental Center (HE&EC) for analysis. The HE&EC utilizes a liquid scintillation counter which has the required sensitivity to perform the test.

On January 5, 1992, Brunswick E&RC personnel reviewed the SHNPP LER. Upon further investigation, Brunswick E&RC personnel determined that their site procedure contained the same deficiency as did SHNPP's and that the same reportability requirements applied to an Fe-55 source. (Brunswick was not affected by Ni-63). The Brunswick facility had been utilizing a Tennelec gas flow proportional counter to perform an analysis on smears of an Fe-55 source being used in an alloy analyzer. A smear of the Fe-55 source was obtained and sent to the HE&EC for analysis. The test was satisfactory and the source was determined not to be leaking.

CAUSE OF EVENT

The cause of this event is failure to recognize a deficiency in the method used to analyze smears of sources containing Fe-55.

CORRECTIVE ACTIONS

Immediate corrective actions included tagging the alloy analyzer out of service.

The source was smeared and the smear was sent to the HE&EC for analysis. Results of this analysis verified that the source was not leaking. Smears of this source will continue to be sent to HE&EC for analysis.

The appropriate procedure will be revised to add a list of isotopes to be analyzed and their energy emission levels and to verify that the equipment used for the analysis has adequate detection capabilities.

SAFETY ASSESSMENT

The safety significance of this event was minimal in that the source was contained inside the alloy analyzer in which it is being used.

PREVIOUS SIMILAR EVENTS

No previous similar events were noted at Brunswick.