



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

March 23, 2000

Carolina Power and Light Company  
ATTN: Mr. J. S. Keenan  
Vice President  
Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461

SUBJECT: NRC EXAMINATION REPORT NOS. 50-325/2000-301 AND 50-324/2000-301

Dear Mr. Keenan:

On February 4, 14 - 18, 22 - 23, 2000, the NRC administered examinations to employees of your facility who had applied for licenses to operate the Brunswick Nuclear Plant (BNP). At the conclusion of the examination, the examiners discussed the examination questions and preliminary findings with those members of your staff identified in the enclosed report.

The Simulation Facility Report is included in this report as Enclosure 2. A copy of the written examination question and answer keys, as noted in Enclosure 3, was provided to the members of your training staff at the conclusion of the examination.

All seven Senior Reactor Operator (SRO) and six Reactor Operator (RO) applicants who received written examinations and operating tests passed the examination, representing a 100 percent pass rate. Several applicants were identified as having some performance deficiencies during the conduct of the Job Performance Measures (JPMs). The individual examination reports should be reviewed to determine if adjustments to the training program, as well as individual remediation, are necessary.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact me at (404) 562-4638.

Sincerely,

*/RA/*

George T. Hopper, Acting Chief  
Operator Licensing and  
Human Performance Branch  
Division of Reactor Safety

Docket Nos. 50-325, 50-324  
License Nos. DPR-71, DPR-62  
Enclosures: (See page 2)

- Enclosures:
1. Report Details
  2. Simulation Facility Report
  3. Written Examinations and Answer Key  
(Document Control Desk Only)

cc w/encls:

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COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-325, 50-324  
License Nos.: DPR-71, DPR-62

Report No.: 50-325/2000-301, 50-324/2000-301

Licensee: Carolina Power & Light

Facility: Brunswick 1 and 2

Location: Southport, NC

Dates: February 4, February 14 - 18, and February 22 - 23, 2000

Examiners: Ronald F. Aiello, Senior Operations Engineer (Chief)  
Edwin Lea , Operations Engineer  
Bobby L. Holbrook, Senior Project Engineer  
Larry S. Mellen, Senior Operations Engineer

Approved by: George T. Hopper, Acting Chief  
Operator Licensing and Human Performance Branch  
Division of Reactor Safety

## EXECUTIVE SUMMARY

### Brunswick Nuclear Plant Units 1 and 2 NRC Examination Report No. 50-325/2000-301 and 50-324/2000-301

During the period of February 14 - 18, and February 22 - 23, 2000, NRC examiners conducted an announced operator licensing initial examination in accordance with the guidance of Examination Standards, (ES) NUREG-1021, Revision 8. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

Six Senior Reactor Operator (SRO) and seven Reactor Operator (RO) applicants received written examinations and operating tests. One other SRO applicant received only an operating examination. This operator was exempted by NRC because he previously held an SRO license at the BNP. The written examinations were administered by the licensee on February 4, 2000. The operating tests were administered by the NRC the weeks of February 14 and 22, 2000.

#### Operations

- All 13 of the applicants passed the examination. The licensee identified eight questions where the applicants exhibited knowledge deficiencies (Section O5.1).
- Deficiencies on the operating test were noted (Section O5.1).

## Report Details

### Summary of Plant Status

During the period of the examinations both units remained at 100 percent power.

### I. Operations

#### **O5 Operator Training and Qualifications**

##### **O5.1 Initial Licensing Examinations**

###### **a. Scope**

NRC examiners conducted regular, announced operator licensing initial examinations during the periods of February 14 - 18, and February 22 - 23, 2000. NRC examiners administered examinations developed by the NRC in accordance with the guidelines of the Examination Standards (ES), NUREG-1021, Revision 8. Three Senior Reactor Operator (SRO) instant, three SRO upgrade and six Reactor Operator (RO) applicants received written examinations and operating tests. One additional SRO upgrade applicant was granted an exemption by the NRC from taking the written examination since he previously held an SRO license at the BNP. Subsequently, he only received an SRO upgrade operating examination.

###### **b. Observations and Findings**

The licensee assisted in the development of three dynamic simulator scenarios. The NRC conducted an on-site preparation visit during the week of January 31, 2000, to validate examination materials and familiarize themselves with the details of the examination.

###### **(1) Written and operating Examinations Development:**

The written examinations were developed in accordance with NUREG 1021, Revision 8. The examiners identified no significant examination material deficiencies. Facility cooperation and feedback significantly enhanced the timely development and administration of the examination.

###### **(3) Examination Results**

The licensee's training department personnel administered the written examinations on February 4, 2000, in accordance with NUREG-1021, Revision 8. The examiners reviewed the results of the written examinations and found that all 12 applicants passed. The licensee conducted a post-examination item analysis of the SRO and RO written examinations. This analysis identified four questions where both SRO and RO applicants exhibited knowledge deficiencies. The analysis also identified two SRO specific and two RO specific knowledge deficiencies. The training department was briefed in these areas. The licensee submitted no post-examination comments.

The examiners identified several deficiencies in applicant performance during the operating examination. Details of the deficiencies are described in each individual's examination report, Form ES-303-1, "Operator Licensing Examination Report." Copies of the evaluations were forwarded under separate correspondence to the Site Training Manager. The licensee should evaluate the deficiencies and provide appropriate remedial training for those operators, as necessary.

c. Conclusion

All of the applicants passed the examination. The NRC did not identify any significant generic training deficiencies. The licensee identified eight written deficiencies and the NRC identified four performance deficiencies during the examination process.

**V. Management Meetings**

**X1. Exit Meeting Summary**

At the conclusion of the examination, the examiners met with representatives of the plant staff listed on the following page and discussed the results of the examinations and other issues. No proprietary material was provided.

PARTIAL LIST OF PERSONS CONTACTED

Licensee:

- \*W. Dorman, Acting Manager Site Support Services
- \*C. Gannon, Plant General Manager
- \*J. Gawron, Training Manager
- \*G. Johnson, Superintendent Plant Operations Assessment
- \*J. Keenan, Vice President, Brunswick Nuclear Plant
- \*G. Ludlum, Continuing Training Supervisor
- \*J. Lyash, Director Site Operations
- \*R. Mullis, Superintendent Operations Training
- \*B. Noll, Operations Manager
- \*T. Pearson, Initial Training Supervisor
- \*A. Pope, Manager Operations Support
- \*S. Tabor, Supervisor Regulatory Affairs
- \*H. Wall, Manager Outage and Scheduling

NRC:

- T. Easlick, Senior Resident Inspector, Brunswick
- E. Brown, Resident Inspector, Brunswick
- E. Guthrie, Resident Inspector, Brunswick

\*Attended exit interview

ITEMS OPENED, CLOSED, AND DISCUSSED

None

SIMULATION FACILITY REPORT

Facility Licensee: Carolina Power and Light Corporation - Brunswick Nuclear Plant Units  
1 & 2

Facility Docket Nos.: 50-325 and 50-324

Operating Tests Administered on: February 14 - 25, 2000

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, no fidelity or configuration control items were identified.



ENCLOSURE 3

WRITTEN EXAMINATIONS AND ANSWER KEY

A copy of the written examination and answer keys was provided to the members of your training staff at the conclusion of the examination.