

September 3, 1985

Docket Nos. 50-325/324

Mr. E. E. Utley  
Senior Executive Vice President  
Power Supply and Engineering & Construction  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 90 and 115 to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your submittal of June 18, 1985.

The amendments change the Technical Specifications (TS) to delete the requirements for radioactivity monitors on individual branches of the Reactor Building Component Cooling Water (Service Water) System.

A copy of the Safety Evaluation is also enclosed.

Sincerely,

Original signed by/

Marshall Grotenhuis, Project Manager  
Operating Reactors Branch #2  
Division of Licensing

Enclosures:

1. Amendment No. 90 to License No. DPR-71
2. Amendment No. 115 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures:  
See next page

DISTRIBUTION  
Docket File  
NRC PDR  
Local PDR  
ORB#2 Reading  
HThompson

WMeinke  
SNorris  
MGrotenhuis  
OELD  
LJHarmon  
ELJordan

BGrimes  
TBarnhart (8)  
WJones  
MVirgilio  
ACRS (10)

OPA, CMiles  
RDiggs  
Gray File  
Extra - 5  
JPartlow

DL:ORB#2  
SNorris:ajs  
08/16/85

DL:ORB#2  
MGrotenhuis  
08/16/85

DL:ORB#2  
DVassallo  
08/21/85

OELD  
08/29/85

DL:AD-OR  
GLainas  
08/30/85

Mr. E. E. Utley  
Carolina Power & Light Company  
Brunswick Steam Electric Plant; Units 1 and 2

cc:

Richard E. Jones, Esquire  
Carolina Power & Light Company  
336 Fayetteville Street  
Raleigh, North Carolina 27602

George F. Trowbridge, Esquire  
Shaw, Pittman, Potts and Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

Mr. Charles R. Dietz  
Plant Manager  
Post Office Box 458  
Southport, North Carolina 28461

Mr. Franky Thomas, Chairman  
Board of Commissioners  
Post Office Box 249  
Bolivia, North Carolina 28422

Mrs. Chrys Baggett  
State Clearinghouse  
Budget and Management  
116 West Jones Street  
Raleigh, North Carolina 27603

Resident Inspector  
U. S. Nuclear Regulatory Commission  
Star Route 1  
Post Office Box 208  
Southport, North Carolina 28461

J. Nelson Grace  
Regional Administrator  
Region II Office  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Dayne H. Brown, Chief  
Radiation Protection Branch  
Division of Facility Services  
Department of Human Resources  
Post Office Box 12200  
Raleigh, North Carolina 27605



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90  
License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee) dated June 18, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-71 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 90, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Domenic B. Vassallo, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 3, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Pages

3/4 3-63

3/4 3-65

3/4 3-66

TABLE 3.3.5.8-1RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u> <sup>(a)</sup>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Liquid Radwaste Radioactivity Effluent Monitor (Providing alarm and automatic termination of release)	*	110
2. Liquid Radwaste Effluent Flow Measurement Device	*	111
3. Main Service Water Effluent Radioactivity Monitor	*	112
4. Stabilization Pond Effluent Composite Sampler	**	113
5. Stabilization Pond Effluent Flow Measurement Device	**	114
6. Condensate Storage Tank Level Indicating Device	*	115
7. Service Water Effluent from Augmented Off-gas Precooler Radioactivity Monitor	***	112

TABLE 3.3.5.8-1 (Continued)

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

NOTES

- \* At all times
- \*\* At all times other than when the line is valved out and locked.
- \*\*\* At all times while the AOG system precoolers is in operation once this monitor is installed and after the AOG system becomes operational; however, if the AOG system becomes operational prior to the monitor being installed, then action statement 112 will be implemented.  
[NOTE: This monitor is to be installed].
- (a) Refer to Appendix E of the OFFSITE DOSE CALCULATION MANUAL for specific instrumentation identification numbers.

TABLE 4.3.5.8-1RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u> <sup>(a)</sup>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Liquid Radwaste Radioactivity Effluent Monitor (Providing alarm and automatic termination of release)	D	M	R <sup>(b)</sup>	Q <sup>(c)</sup>
2. Liquid Radwaste Effluent Flow Measurement Device	D <sup>(e)</sup>	NA	R	Q
3. Main Service Water Effluent Radioactivity Monitor	D	M	R <sup>(b)</sup>	Q <sup>(d)</sup>
4. Stabilization Pond Effluent Composite Sampler	D	NA	R	Q
5. Stabilization Pond Effluent Flow Measurement Device	D	NA	R	Q
6. Condensate Storage Tank Level Indicating Device	D <sup>(f)</sup>	NA	R	Q
7. Service Water Effluent from Augmented Off-Gas Precooler Radioactivity Monitor	D	M	R <sup>(b)</sup>	Q





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 115  
License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee) dated June 18, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-62 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 115, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Domenic B. Vassallo, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 3, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 115

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Pages

3/4 3-63

3/4 3-65

3/4 3-66

TABLE 3.3.5.8-1RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u> <sup>(a)</sup>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Liquid Radwaste Radioactivity Effluent Monitor (Providing alarm and automatic termination of release)	*	110
2. Liquid Radwaste Effluent Flow Measurement Device	*	111
3. Main Service Water Effluent Radioactivity Monitor	*	112
4. Stabilization Pond Effluent Composite Sampler	**	113
5. Stabilization Pond Effluent Flow Measurement Device	**	114
6. Condensate Storage Tank Level Indicating Device	*	115
7. Service Water Effluent from Augmented Off-gas Precooler Radioactivity Monitor	***	112

TABLE 3.3.5.8-1 (Continued)RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATIONNOTES

- \* At all times
- \*\* At all times other than when the line is valved out and locked.
- \*\*\* At all times while the AOG system precooler is in operation once this monitor is installed and after the AOG system becomes operational; however, if the AOG system becomes operational prior to the monitor being installed, then action statement 112 will be implemented.  
[NOTE: This monitor is to be installed].
- (a) Refer to Appendix E of the OFFSITE DOSE CALCULATION MANUAL for specific instrumentation identification numbers.

TABLE 4.3.5.8-1RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u> <sup>(a)</sup>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Liquid Radwaste Radioactivity Effluent Monitor (Providing alarm and automatic termination of release)	D	M	R <sup>(b)</sup>	Q <sup>(c)</sup>
2. Liquid Radwaste Effluent Flow Measurement Device	D <sup>(e)</sup>	NA	R	Q
3. Main Service Water Effluent Radioactivity Monitor	D	M	R <sup>(b)</sup>	Q <sup>(d)</sup>
4. Stabilization Pond Effluent Composite Sampler	D	NA	R	Q
5. Stabilization Pond Effluent Flow Measurement Device	D	NA	R	Q
6. Condensate Storage Tank Level Indicating Device	D <sup>(f)</sup>	NA	R	Q
7. Service Water Effluent from Augmented Off-Gas Precooler Radioactivity Monitor	D	M	R <sup>(b)</sup>	Q



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 90 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 115 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY  
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By letter dated June 18, 1985, the Carolina Power & Light Company (CP&L, the licensee) requested a change to the limiting conditions for operation (LCO) for Brunswick Steam Electric Plant, Units 1 and 2 as set forth in the Technical Specifications (TS) of Facility Operating License Nos. DPR-71 and DPR-62.

The proposed changes are to eliminate redundancy in specification requirements relating to radioactive liquid effluent monitoring instrumentation (Specification 3/4.3.5.8 with its associated Tables 3.3.5.8-1 and 4.3.5.8-1). The proposed changes implement technical changes and clarifications that eliminate unnecessary requirements for liquid process monitors and modify notations to reflect current plant configuration in line with NUREG-0473, "Standard Radiological Technical Specifications for BWRs," Revision 2, February 1, 1980.

2.0 EVALUATION

In discussions with the licensee prior to issuance of the Radiological Effluent Technical Specifications (RETS) in Amendment Nos. 62 and 88, reactor building component cooling water (service water) lines were identified as potential radiological effluent release paths. These included effluents from residual heat removal (heat exchangers A and B), reactor building closed cooling water heat exchangers, Division I residual heat removal pump seal coolers, and Division II heat removal pump seal coolers. Commitments to monitor these five effluents were included in the TS for each unit although it was understood and recorded that "these monitors were to be installed pending completion of future plant modifications."

In the present submittal, the licensee points out that potential radioactivity in service water from any of these five sources is detected by the main service water effluent monitor for each unit. In effect, these five lines are process lines that lead into the one service water effluent line for each unit.

We find that the requirements for radioactivity monitors on individual branches of the Reactor Building Component Cooling Water (Service Water) System may be deleted. This deletion is acceptable because these monitors would be process monitors, not effluent monitors, and as such should not be covered by the RETS according to current criteria. Potential radioactivity in the final service water effluent would be detected by the main service water monitor required operable for each unit by Item 3 in Table 3.3.5.8-1. The accompanying adjustment of Table notations to reflect current plant configuration is also acceptable.

Based on the foregoing evaluation, we find that the proposed changes are acceptable and that the proposed changes as stated may be incorporated in the TS.

### 3.0 ENVIRONMENTAL CONSIDERATIONS

The amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

### 4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: W. Meinke

Dated: September 3, 1985