



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. 96
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 July 1, 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:

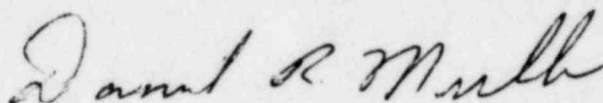
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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 96, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 26, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 96

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 3-7
3/4 3-8a
3/4 3-43
3/4 3-43a

TABLE 4.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION^(a)</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Intermediate Range Monitors: (C51-IRM-K601A,B,C,D,E,F,G,H)				
a. Neutron Flux - High	D	S/U ^{(b)(c)} , W ^(d)	R	2
	D	W	R	3, 4, 5
b. Inoperative	NA	W ^(d)	NA	2, 3, 4, 5
2. Average Power Range Monitor: (C51-APRM-CH.A,B,C,D,E,F)				
a. Neutron Flux - High 15%	S	S/U ^{(b)(m)} , W ^(d)	Q	2
	S	W ⁽ⁿ⁾	Q	5
b. Flow-Biased Neutron Flux - High	S	S/U ^(b) , W	W ^{(e)(f)} , Q	1
c. Fixed Neutron Flux - High, 120%	S	S/U ^(b) , W	W ^(e) , Q	1
d. Inoperative	NA	W ^{(m)(n)}	NA	1, 2, 5
e. Downscale	NA	W	NA	1
f. LPRM	D	NA	(g)	1, 2, 5
3. Reactor Vessel Steam Dome Pressure - High (B21-PT-NO23A,B,C,D) (B21-PTM-NO23A-1,B-1,C-1,D-1)				
	NA ^(k)	NA	R ^(l)	1, 2
	D	M	M	1, 2
4. Reactor Vessel Water Level - Low, Level 1 (B21-LT-NO17A-1,B-1,C-1,D-1) (B21-LTM-NO17A-1,B-1,C-1,D-1)				
	NA ^(k)	NA	R ^(l)	1, 2
	D	M	M	1, 2

TABLE 4.3.1-1 (Continued)REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) Within 24 hours prior to startup, if not performed within the previous 7 days.
- (c) The IRM channels shall be compared to the APRM channels and the SRM instruments for overlap during each startup, if not performed within the previous 7 days.
- (d) When changing from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, perform the required surveillance within 12 hours after entering OPERATIONAL CONDITION 2.
- (e) This calibration shall consist of the adjustment of the APRM readout to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.
- (f) This calibration shall consist of the adjustment of the APRM flow-biased setpoint to conform to a calibrated flow signal.
- (g) The LPRMs shall be calibrated at least once per effective full power month (EFPM) using the TIP system.
- (h) This calibration shall consist of a physical inspection and actuation of these position switches.
- (i) Instrument alignment using a standard current source.
- (j) Calibration using a standard radiation source.
- (k) The transmitter channel check is satisfied by the trip unit channel check. A separate transmitter check is not required.
- (l) Transmitters are exempted from the monthly channel calibration.
- (m) Placement of Reactor Mode Switch into the Startup/Hot Standby position is permitted for the purpose of performing the required surveillance prior to withdrawal of control rods for the purpose of bringing the reactor to criticality.
- (n) Placement of Reactor Mode Switch into the Shutdown or Refuel position is permitted for the purpose of performing the required surveillance provided all control rods are fully inserted and the vessel head bolts are tensioned.

TABLE 4.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)				
a. Upscale (Flow Biased)	NA	S/U(c) ^M	R(b)(a)	1
b. Inoperative	NA	S/U(c)(e) ^M , Q(f)	NA	1, 2, 5
c. Downscale	NA	S/U(c) ^M	NA	1
d. Upscale (Fixed)	NA	S/U(c)(e) ^M , Q(d)(f)	R(a)	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)				
a. Upscale	NA	S/U(c) ^M	R(a)	1*
b. Inoperative	NA	S/U(c) ^Q	NA	1*
c. Downscale	NA	S/U(c) ^M	R(a)	1*
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)				
a. Detector not full in	NA	S/U(c) ^{W(d)}	NA	2, 5
b. Upscale	NA	S/U(c) ^{W(d)}	NA	2, 5
c. Inoperative	NA	S/U(c) ^{W(d)}	NA	2, 5
d. Downscale	NA	S/U(c) ^{W(d)}	NA	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> (C51-IRM-K601A,B,C,D,E,F,G,H)				
a. Detector not full in	NA	S/U(c)(e) ^{W(d)}	NA	2
	NA	W(f)	NA	5
b. Upscale	NA	S/U(c) ^{W(d)}	NA	2
	NA	W	NA	5
c. Inoperative	NA	S/U(c) ^{W(d)}	NA	2
	NA	W	NA	5
d. Downscale	NA	S/U(c) ^{W(d)}	NA	2
	NA	W	NA	5

TABLE 4.3.4-1 (Cont'd)

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> (a)	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
5. <u>SCRAM DISCHARGE VOLUME</u> (C11-LSH-N013E)				
a. Water Level - High	NA	Q	R	1, 2, 5**

* When THERMAL POWER is greater than the preset power level of the RWM and RSCS.

** With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(a) CHANNEL CALIBRATIONS are electronic.

(b) This calibration shall consist of the adjustment of the APRM flow biased setpoint to conform to a calibrated flow signal.

(c) Within 24 hours prior to startup, if not performed within the previous 7 days.

(d) When changing from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, perform the required surveillance within 12 hours after entering OPERATIONAL CONDITION 2.

(e) Placement of Reactor Mode Switch into the Startup/Hot Standby position is permitted for the purpose of performing the required surveillance prior to withdrawal of control rods for the purpose of bringing the reactor to criticality.

(f) Placement of Reactor Mode Switch into the Shutdown or Refuel position is permitted for the purpose of performing the required surveillance provided all control rods are fully inserted and the vessel head bolts are tensioned.



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. 121
License No. DPR-62

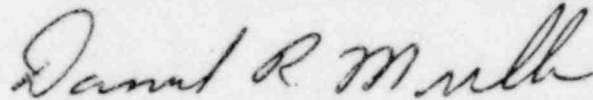
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company (the licensee) dated July 1, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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. 121, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 26, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 121

FACILITY OPERATING LICENSE NO. DFR-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 3-7
3/4 3-8a
3/4 3-43
3/4 3-43a

TABLE 4.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> ^(a)	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Intermediate Range Monitors: (C51-IRM-K601A,B,C,D,E,F,G,H)				
a. Neutron Flux - High	D	S/U ^{(b)(c)} , W ^(d)	R	2
	D	W	R	3, 4, 5
b. Inoperative	NA	W ^(d)	NA	2, 3, 4, 5
2. Average Power Range Monitor: (C51-APRM-CH.A,B,C,D,E,F)				
a. Neutron Flux - High 15%	S	S/U ^{(b)(m)} , W ^(d)	Q	2
	S	W ⁽ⁿ⁾	Q	5
b. Flow-Biased Neutron Flux - High	S	S/U ^(b) , W	W ^{(e)(f)} , Q	1
c. Fixed Neutron Flux - High, 120%	S	S/U ^(b) , W	W ^(e) , Q	1
d. Inoperative	NA	W ^{(m)(n)}	NA	1, 2, 5
e. Downscale	NA	W	NA	1
f. LPRM	D	NA	(g)	1, 2, 5
3. Reactor Vessel Steam Dome Pressure - High (B21-PT-NO23A,B,C,D) (B21-PTM-NO23A-1,B-1,C-1,D-1)				
	NA ^(k)	NA	R ⁽¹⁾	1, 2
	D	M	M	1, 2
4. Reactor Vessel Water Level - Low, Level 1 (B21-LT-NO17A-1,B-1,C-1,D-1) (B21-LTM-NO17A-1,B-1,C-1,D-1)				
	NA ^(k)	NA	R ⁽¹⁾	1, 2
	D	M	M	1, 2

TABLE 4.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) Within 24 hours prior to startup, if not performed within the previous 7 days.
- (c) The IRM channels shall be compared to the APRM channels and the SRM instruments for overlap during each startup, if not performed within the previous 7 days.
- (d) When changing from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, perform the required surveillance within 12 hours after entering OPERATIONAL CONDITION 2.
- (e) This calibration shall consist of the adjustment of the APRM readout to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.
- (f) This calibration shall consist of the adjustment of the APRM flow-biased setpoint to conform to a calibrated flow signal.
- (g) The LPRMs shall be calibrated at least once per effective full power month (EFPM) using the TIP system.
- (h) This calibration shall consist of a physical inspection and actuation of these position switches.
- (i) Instrument alignment using a standard current source.
- (j) Calibration using a standard radiation source.
- (k) The transmitter channel check is satisfied by the trip unit channel check. A separate transmitter check is not required.
- (l) Transmitters are exempted from the monthly channel calibration.
- (m) Placement of Reactor Mode Switch into the Startup/Hot Standby position is permitted for the purpose of performing the required surveillance prior to withdrawal of control rods for the purpose of bringing the reactor to criticality.
- (n) Placement of Reactor Mode Switch into the Shutdown or Refuel position is permitted for the purpose of performing the required surveillance provided all control rods are fully inserted and the vessel head bolts are tensioned.

TABLE 4.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)				
a. Upscale (Flow Biased)	NA	S/U(c), M	R(b)(a)	1
b. Inoperative	NA	S/U(c)(e), Q(f)	NA	1, 2, 5
c. Downscale	NA	S/U(c), M	NA	1
d. Upscale (Fixed)	NA	S/U(c)(e), Q(d)(f)	R(a)	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)				
a. Upscale	NA	S/U(c), M	R(a)	1*
b. Inoperative	NA	S/U(c), Q	NA	1*
c. Downscale	NA	S/U(c), M	R(a)	1*
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)				
a. Detector not full in	NA	S/U(c), W(d)	NA	2, 5
b. Upscale	NA	S/U(c), W(d)	NA	2, 5
c. Inoperative	NA	S/U(c), W(d)	NA	2, 5
d. Downscale	NA	S/U(c), W(d)	NA	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> (C51-IRM-K601A,B,C,D,E,F,G,H)				
a. Detector not full in	NA	S/U(c)(e), W(d)	NA	2
	NA	W(f)	NA	5
b. Upscale	NA	S/U(c), W(d)	NA	2
	NA	W	NA	5
c. Inoperative	NA	S/U(c), W(d)	NA	2
	NA	W	NA	5
d. Downscale	NA	S/U(c), W(d)	NA	2
	NA	W	NA	5

TABLE 4.3.4-1 (Cont'd)

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> ^(a)	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
5. <u>SCRAM DISCHARGE VOLUME</u> (C12-LSH-N013E)				
a. Water Level - High	NA	Q	R	1, 2, 5**

* When THERMAL POWER is greater than the preset power level of the RWM and RSCS.

** With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(a) CHANNEL CALIBRATIONS are electronic.

(b) This calibration shall consist of the adjustment of the APERM flow biased setpoint to conform to a calibrated flow signal.

(c) Within 24 hours prior to startup, if not performed within the previous 7 days.

(d) When changing from OPERATIONAL CONDITION 1 to OPERATIONAL CONDITION 2, perform the required surveillance within 12 hours after entering OPERATIONAL CONDITION 2.

(e) Placement of Reactor Mode Switch into Startup/Hot Standby position is permitted for the purpose of performing the required surveillance prior to withdrawal of control rods for the purpose of bringing the reactor to criticality.

(f) Placement of Reactor Mode Switch into the Shutdown or Refuel position is permitted for the purpose of performing the required surveillance provided all control rods are fully inserted and the vessel head bolts are tensioned.