

December 2, 1983

Docket Nos. 50-325/324

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

Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 59 and 85 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 December 6, 1982.

These amendments modify the Technical Specifications (TS) to provide a clarification of certain TS requirements, provide editorial corrections of certain TS requirements, and provide TS changes to reflect consistency with the actual plant design. The changes proposed on TS page 3/4 6-18 were found to be not desirable. We discussed this with your staff. They agreed and that page was not amended.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,

Original signed by/

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

Enclosures:

1. Amendment No. 59 to DPR-71
2. Amendment No. 85 to DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

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Docket Nos. 50-325/324

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Executive Vice President
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

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These amendments modify the technical specifications (TS) to provide a clarification of certain TS requirements, provide editorial corrections of certain TS requirements, and provide TS changes to reflect consistency with the actual plant design.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,

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

Enclosures:

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

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M. KARMAN
10/9/83

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

cc:

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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. 59
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 December 6, 1982, 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. 59, 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: December 2, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 59

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Revise the Appendix A Technical Specifications as follows:

Remove

3/4 1-19

3/4 6-28

3/4 1-3

3/4 3-40

3/4 3-41

3/4 3-42

3/4 3-43

3/4 3-43a

Insert

3/4 1-19

3/4 6-28

3/4 1-3

3/4 3-40

3/4 3-41

3/4 3-42

3/4 3-43

3/4 3-43a

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

4.1.5 The standby liquid control system shall be demonstrated OPERABLE:

- a. At least once per 24 hours by verifying that:
 1. The volume and temperature of the sodium pentaborate solution are within the limits of Figures 3.1.5-1 and 3.1.5-2, and
 2. The heat tracing circuit is OPERABLE.
- b. At least once per 31 days by:
 1. Starting each pump and recirculating demineralized water to the test tank,
 2. Verifying the continuity of the explosive charge, and
 3. Determining the concentration of boron in solution by chemical analysis. This test shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limit established in Figure 3.1.5-2.
- c. At least once per 18 months during shutdown by:
 1. Initiating one of the standby liquid control system loops, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. Both injection test loops shall be tested in 36 months.
 2. Demonstrating that the minimum flow requirement of 41.2 gpm at a pressure of greater than or equal to 1190 psig is met.
 3. Demonstrating that the pump relief valve setpoint is 1400 ± 50 psig.

CONTAINMENT SYSTEMS

CONTAINMENT ATMOSPHERE DILUTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.6.2 The containment atmosphere dilution (CAD) system shall be OPERABLE with:

- a. An OPERABLE flow path capable of supplying nitrogen to the drywell, and
- b. A minimum supply of 4350 gallons of liquid nitrogen.

APPLICABILITY: CONDITION 1*.

ACTION:

With the CAD system inoperable, restore the CAD system to OPERABLE status within 31 days or be in at least STARTUP within the next 8 hours. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.6.2 The CAD system shall be demonstrated to be OPERABLE:

- a. At least once per 31 days by verifying that:
 1. The system contains a minimum of 4350 gallons of liquid nitrogen, and
 2. Each valve (manual, power-operated, or automatic) in the flow path not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 18 months by:
 1. Cycling each power operated (excluding automatic) valve in the flow path through at least one complete cycle of full travel, and
 2. Verifying that each automatic valve in the flow path actuates to its correct position on a Group 2 and 6 isolation test signal.

*When oxygen concentration is required to be < 4% per Specification 3.6.6.3.

REACTIVITY CONTROL SYSTEMS

3/4.1.3 CONTROL RODS

CONTROL ROD OPERABILITY

LIMITING CONDITION FOR OPERATION

3.1.3.1 All control rods shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

- a. With one control rod inoperable due to being immovable, as a result of excessive friction or mechanical interference, or known to be untrippable:
 1. Within one hour:
 - a) Verify that the inoperable control rod, if withdrawn, is separated from all other inoperable control rods by at least two control cells in all directions.
 - b) Disarm the associated directional control valves hydraulically by closing the insert and withdraw isolation valves.
 2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours.
 3. Restore the inoperable control rod to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With one or more control rods inoperable for causes other than addressed in ACTION a, above:
 1. If the inoperable control rod(s) is withdrawn, within one hour:
 - a) Verify that the inoperable withdrawn control rod(s) is separated from all other inoperable control rods by at least two control cells in all directions, and
 - b) Demonstrate the insertion capability of the inoperable withdrawn control rod(s) by inserting the control rod(s) at least one notch by drive water pressure within the normal operating range*, or
 - c) Fully insert the inoperable withdrawn control rod(s) and disarm the associated directional control valves either:
 - 1) Electrically, or
 - 2) Hydraulically by closing the drive water and exhaust water isolation valves.

*The inoperable control rod may then be withdrawn to a position no further withdrawn than its position when found to be inoperable.

TABLE 3.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>MINIMUM NUMBER OF OPERABLE CHANNELS PER TRIP SYSTEM(a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)		
a. Upscale (Flow Biased)	2	1
b. Inoperative	2	1, 2, 5
c. Downscale	2	1
d. Upscale (Fixed)	2	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)		
a. Upscale	1	1*
b. Inoperative	1	1*
c. Downscale	1	1*
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)		
a. Detector not full in (b)	1	2, 5
b. Upscale (c)	1	2, 5
c. Inoperative (c)	1	2, 5
d. Downscale (b)	1	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> (d) (C51-IRM-K601A,B,C,D,E,F,G,H)		
a. Detector not full in (e)	2	2, 5
b. Upscale	2	2, 5
c. Inoperable	2	2, 5
d. Downscale (e)	2	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u> (C11-LSH-NO13E)		
a. Water Level - High	1#	1, 2, 5**

TABLE 3.3.4-1 (Continued)

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

NOTE

- (a) The minimum number of OPERABLE CHANNELS may be reduced by one for up to 2 hours in one of the trip systems for maintenance and/or testing except for Rod Block Monitor function.
- (b) This function is bypassed if detector is reading >100 cps or the IRM channels are on range 3 or higher.
- (c) This function is bypassed when the associated IRM channels are on range 8 or higher.
- (d) A total of 6 IRM instruments must be OPERABLE.
- (e) This function is bypassed when the IRM channels are on range 1.
- * When THERMAL POWER exceeds 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.
- # This signal is contained in the Channel A logic only.

TABLE 3.3.4-2

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1. <u>APRM (C51-APRM-CH. A,B,C,D,E,F)</u>		
a. Upscale (Flow Biased)	$\leq (0.66W + 42\%) \frac{T^*}{MTPF}$	$\leq (0.66W + 42\%) \frac{T^*}{MTPF}$
b. Inoperative	NA	NA
c. Downscale	$> 3/125$ of full scale	$> 3/125$ of full scale
d. Upscale (Fixed)	$\leq 12\%$ of RATED THERMAL POWER	$\leq 12\%$ of RATED THERMAL POWER
2. <u>ROD BLOCK MONITOR (C51-RBM-CH.A,B)</u>		
a. Upscale	$\leq (0.66W + 41\%) \frac{T^*}{MTPF}$	$\leq (0.66W + 41\%) \frac{T^*}{MTPF}$
b. Inoperative	NA	NA
c. Downscale	$\geq 3/125$ of full scale	$\geq 3/125$ of full scale
3. <u>SOURCE RANGE MONITORS (C51-SRM-K600A,B,C,D)</u>		
a. Detector not full in	NA	NA
b. Upscale	$\leq 1 \times 10^5$ cps	$\leq 1 \times 10^5$ cps
c. Inoperative	NA	NA
d. Downscale	≥ 3 cps	≥ 3 cps
4. <u>INTERMEDIATE RANGE MONITORS (C51-IRM-K601A,B,C,D,E,F,G,H)</u>		
a. Detector not full in	NA	NA
b. Upscale	$\leq 108/125$ of full scale	$\leq 108/125$ of full scale
c. Inoperative	NA	NA
d. Downscale	$\geq 3/125$ of full scale	$\geq 3/125$ of full scale
5. <u>SCRAM DISCHARGE VOLUME (C11-LSH-NO13E)</u>		
a. Water Level High	≤ 73 gallons	≤ 73 gallons

*T=2.43 for 8x8 fuel
T=2.48 for 8x8R fuel
T=2.48 for P8x8R fuel

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) , Q	NA	1, 2, 5
c. Downscale	NA	S/U ^(c) , M	NA	1
d. Upscale (Fixed)	NA	S/U ^(c) , Q	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	NA	2, 5
b. Upscale	NA	S/U ^(c) , W	NA	2, 5
c. Inoperative	NA	S/U ^(c) , W	NA	2, 5
d. Downscale	NA	S/U ^(c) , W	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) , W ^(d)	NA	2
	NA	W	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^(a)</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
5. <u>SCRAM DISCHARGE VOLUME</u> (C11-LSH-NO13E)				
a. Water Level - High	NA	Q	R	1, 2, 5**

(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 CONDITION 1 to CONDITION 2, perform the required surveillance within 12 hours after entering CONDITION 2.

* 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.



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. 85
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 December 6, 1982, 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. 85, 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: December 2, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 85

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Revise the Appendix A Technical Specifications as follows:

<u>Remove</u>	<u>Insert</u>
3/4 3-62	3/4 3-62
3/4 1-19	3/4 1-19
3/4 6-28	3/4 6-28
3/4 3-40	3/4 3-40
3/4 3-41	3/4 3-41
3/4 3-42	3/4 3-42
3/4 3-43a	3/4 3-43a

INSTRUMENTATION

3/4.3.6 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.6.1 The Anticipated Transient Without Scram recirculation pump trip (ATWS-RPT) system instrumentation trip systems shown in Table 3.3.6.1-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6.1-2.

APPLICABILITY: CONDITION 1.

ACTION:

- a. With an ATWS recirculation pump trip system instrumentation trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.6.1-2, declare the trip system inoperable until the trip system is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the requirements for the Minimum Number of OPERABLE Trip Systems per Operating Pump not satisfied for one Trip Function, restore the inoperable trip system to OPERABLE status within 14 days or be in at least STARTUP within the next 8 hours.

SURVEILLANCE REQUIREMENTS

4.3.6.1.1 Each ATWS recirculation pump trip system instrumentation trip system shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.6.1.1-1.

4.3.6.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months and shall include calibration of time delay relays and timers necessary for proper functioning of the trip system.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

4.1.5 The standby liquid control system shall be demonstrated OPERABLE:

- a. At least once per 24 hours by verifying that:
 1. The volume and temperature of the sodium pentaborate solution are within the limits of Figures 3.1.5-1 and 3.1.5-2, and
 2. The heating tracing circuit is OPERABLE.
- b. At least once per 31 days by:
 1. Starting each pump and recirculating demineralized water to the test tank,
 2. Verifying the continuity of the explosive charge, and
 3. Determining the concentration of boron in solution by chemical analysis. This test shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limit established in Figure 3.1.5-2.
- c. At least once per 18 months during shutdown by:
 1. Initiating one of the standby liquid control system loops, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. Both injection test loops shall be tested in 36 months.
 2. Demonstrating that the minimum flow requirement of 41.2 gpm at a pressure of greater than or equal to 1190 psig is met.
 3. Demonstrating that the pump relief valve setpoint is 1400 ± 50 psig.

CONTAINMENT SYSTEMS

CONTAINMENT ATMOSPHERE DILUTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.6.2 The containment atmosphere dilution (CAD) system shall be OPERABLE with:

- a. An OPERABLE flow path capable of supplying nitrogen to the drywell, and
- b. A minimum supply of 4350 gallons of liquid nitrogen.

APPLICABILITY: CONDITION 1*.

ACTION:

With the CAD system inoperable, restore the CAD system to OPERABLE status within 31 days or be in at least STARTUP within the next 8 hours. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.6.2 The CAD system shall be demonstrated to be OPERABLE:

- a. At least once per 31 days by verifying that:
 1. The system contains a minimum of 4350 gallons of liquid nitrogen, and
 2. Each valve (manual, power-operated, or automatic) in the flow path not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 18 months by:
 1. Cycling each power-operated (excluding automatic) valve in the flow path through at least one complete cycle of full travel, and
 2. Verifying that each automatic valve in the flow path actuates to its correct position on a Group 2 and 6 isolation test signal.

*When oxygen concentration is required to be < 4% per Specification 3.6.6.3.

TABLE 3.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>MINIMUM NUMBER OF OPERABLE CHANNELS, PER TRIP SYSTEM^(a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)		
a. Upscale (Flow Biased)	2	1
b. Inoperative	2	1, 2, 5
c. Downscale	2	1
d. Upscale (Fixed)	2	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)		
a. Upscale	1	1*
b. Inoperative	1	1*
c. Downscale	1	1*
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)		
a. Detector not full in ^(b)	1	2, 5
b. Upscale ^(c)	1	2, 5
c. Inoperative ^(c)	1	2, 5
d. Downscale ^(b)	1	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> ^(d) (C51-IRM-K601A,B,C,D,E,F,G,H)		
a. Detector not full in ^(e)	2	2, 5
b. Upscale	2	2, 5
c. Inoperable ^(e)	2	2, 5
d. Downscale ^(e)	2	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u> (C12-LSH-N013E)		
a. Water Level - High	1#	1, 2, 5**

TABLE 3.3.4-1 (Continued)

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

NOTE

- (a) The minimum number of OPERABLE CHANNELS may be reduced by one for up to 2 hours in one of the trip systems for maintenance and/or testing except for Rod Block Monitor function.
- (b) This function is bypassed if detector is reading >100 cps or the IRM channels are on range 3 or higher.
- (c) This function is bypassed when the associated IRM channels are on range 8 or higher.
- (d) A total of 6 IRM instruments must be OPERABLE.
- (e) This function is bypassed when the IRM channels are on range 1.
- * When THERMAL POWER exceeds 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.
- # This signal is contained in the Channel A logic only.

TABLE 3.3.4-2

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1. <u>APRM (C51-APRM-CH. A,B,C,D,E,F)</u>		
a. Upscale (Flow Biased)	$< (0.66W + 42\%) \frac{T^*}{MTPF}$	$< (0.66W + 42\%) \frac{T^*}{MTPF}$
b. Inoperative	NA	NA
c. Downscale	$> 3/125$ of full scale	$> 3/125$ of full scale
d. Upscale (Fixed)	$< 12\%$ of RATED THERMAL POWER	$< 12\%$ of RATED THERMAL POWER
2. <u>ROD BLOCK MONITOR (C51-RBM-CH.A,B)</u>		
a. Upscale	$< (0.66W + 39\%) \frac{T^*}{MTPF}$	$< (0.66W + 39\%) \frac{T^*}{MTPF}$
b. Inoperative	NA	NA
c. Downscale	$> 3/125$ of full scale	$> 3/125$ of full scale
3. <u>SOURCE RANGE MONITORS (C51-SRM-K600A,B,C,D)</u>		
a. Detector not full in	NA	NA
b. Upscale	$< 1 \times 10^5$ cps	$< 1 \times 10^5$ cps
c. Inoperative	NA	NA
d. Downscale	> 3 cps	> 3 cps
4. <u>INTERMEDIATE RANGE MONITORS (C51-IRM-K601A,B,C,D,E,F,G,H)</u>		
a. Detector not full in	NA	NA
b. Upscale	$< 108/125$ of full scale	$< 108/125$ of full scale
c. Inoperative	NA	NA
d. Downscale	$> 3/125$ of full scale	$> 3/125$ of full scale
5. <u>SCRAM DISCHARGE VOLUME (C12-LSH-N013E)</u>		
a. Water Level High	< 73 gallons	< 73 gallons

*T=2.60 for 7 x 7 fuel.
T=2.43 for 8 x 8 fuel.
T=2.39 for 8 x 8R fuel.
T=2.39 for P8 x 8R fuel.

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>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
5. <u>SCRAM DISCHARGE VOLUME</u> (C12-LSH-NO13E)				
a. Water Level - High	NA	Q	R	1, 2, 5**

(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 CONDITION 1 to CONDITION 2, perform the required surveillance within 12 hours after entering CONDITION 2.

* 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 59 TO FACILITY LICENSE NO. DPR-71 AND
AMENDMENT NO. 85 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 December 6, 1982, the Carolina Power & Light Company (the licensee) submitted proposed changes to the Technical Specifications appended to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed changes would modify the Technical Specifications to provide a clarification of certain requirements, provide editorial corrections and provide changes to reflect consistency with the actual plant design. During our review we have found certain changes to the proposed Technical Specifications to be not desirable. We have discussed these changes with the licensee. They agreed with the NRC staff and the changes have not been incorporated.

2.0 Evaluation

The amendments consist of clarifications, etc. in five areas:

1. ATWS Recirculation Pump Trip System Instrumentations.
2. Standby Liquid Control System.
3. Containment Atmosphere Dilution System.
4. Drywell Suppression Pool Vacuum Breakers.
5. Control Rod Instrumentation.

(1) Technical Specification 3.3.6.1, ATWS Recirculation Pump Trip System Instrumentation: Revise the first paragraph to capitalize the first letter of the words "Anticipated Transient Without Scram."

"Anticipated Transient Without Scram" appears elsewhere with the first letter of each word capitalized. To maintain consistency with standard usage, Technical Specification 3.3.6.1, should be revised in this manner. We have reviewed this proposed change and find it is a purely administrative change.

(2) Technical Specification 4.1.5, Standby Liquid Control System (SLCS) Surveillance Requirements: (1) Revise item C.2 to read "Demonstrating that the minimum flow requirement of 41.2 gpm at a pressure of greater than or equal to 1190 psig is met" and (2) delete the asterisk and note for items C.1 and C.2 of the Unit 1 Technical Specifications.

The SLCS and pumps have sufficient pressure margins, up to the system relief valve setting of approximately 1400 psig, to assure solution infection into the reactor above the normal pressure. To clarify that 1190 psig is the minimum pressure that will ensure the required system flow rate will be met, Surveillance Requirements should be revised to state "at a pressure of greater than or equal to 1190 psig."

The onetime-only exemption for Unit 1, which extended the scheduled date for testing of the SLCS flow and pressure requirements has expired. References to this exemption should therefore be deleted. We have reviewed these changes and find that they are purely administrative.

(3) Technical Specification 4.6.6.2, Containment Atmosphere Dilution System (CADS) Surveillance requirements: (1) Delete the phrase "not testable during plant operation" from item b.1 and (2) delete the double asterisk and note for item b.2 of Unit 1 Technical Specifications.

Requirements for cycling of CADS power operated (excluding automatic) valves in flow paths not testable during plant operation are not applicable since the current design of the Brunswick Steam Electric Plant permits testing of the CADS valves during plant operation. The phrase "not testable during plant operation" should therefore be deleted from surveillance requirement 4.6.6.2.b.1.

The onetime-only exemption for Unit 1, which extended the scheduled date for cycling of the CADS valves in the flow path not testable during plant operation has expired. References to this exemption should therefore be deleted. We have reviewed these changes and find that they are purely administrative.

(4) Technical Specification 3.6.4.1, Drywell-Suppression Pool Vacuum Breakers, Action Items b and c: Revised the ending sentences to read "to the closed position or enter ACTION statement d, below."

As written, the Technical Specifications may appear to be ambiguous in that ACTION statement d applies to ACTION statement a, b, and c. At first glance ACTION statement d may not appear to apply to Action Statement a, because it explicitly states an alternate limiting condition for operation. However, in this case ACTION statement d applies to the alternate limiting condition which is a part of ACTION statement a, and therefore does apply to ACTION statement a. We have discussed this with the licensee staff and they have agreed with our interpretation, therefore the proposed change has not been made.

(5) Technical Specification 3.1.3, 3.3.4 and 4.3.4 deal with administrative controls for the withdrawal of control rods, control rod block instrumentation and attendant surveillance requirements. The proposed changes do not change the requirements of these specifications. These changes are all administrative in nature and are required to insure consistency between Units 1 and 2 and to correct a number of typographical errors.

Thus the proposed changes described above are either purely administrative changes or impose additional testing requirements.

3.0 Environmental Considerations

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

4.0 Conclusions

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.

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Dated: December 2, 1983