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. 96 and 121 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 July 1, 1985.

The amendments change the Technical Specifications (TS) by modifying the surveillance requirements for the Reactor Protection System Instrumentation and the Control Rod Withdrawal Block Instrumentation.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,

Marshall Grotenhuis, Project Manager BWR Project Directorate #2 Division of BWR Licensing

#### Enclosures:

- Amendment No. 96 to License No. DPR-71
- 2. Amendment No. 121 to License No. DPR-62
- Safety Evaluation

cc w/enclosures: See next page

DISTRIBUTION

Docket-File. NRC PDR Local PDR 2D#2 Reading

RBernero

SNorris MGrotenhuis

0ELD LJHarmon OPA

BGrimes TBarnhart (8)

**WJones** ACRS (10) Explositer RDiggs Gray File **JPartlow** 

DBL:PD#2 SNorrisino 2/21/86

DBL:PD#2 MGrotenhuis 3/10/86

DBL:PD#2:D DMud 1000

8604040598 86032

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

Thomas A. Baxter, Esquire Shaw, Pittman, Potts & Trowbridge 1800 M Street, N. W. Washington, D. C. 20036

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

Mr. Christopher Chappell, 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

Regional Administrator, Region II U. S. Nuclear Regulatory Commission 101 Marietta Street, Suite 2900 Atlanta, Georgia 30323

Mr. 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. 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:

8604040603 860326 PDR ADOCK 05000324 PDR PDR

#### (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

	FUNCTIONAL UNIT INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED	
1.	<pre>Intermediate Range Monitors:   (C51-IRM-K601A,B,C,D,E,F,G,H)</pre>					
	a. Neutron Flux - High	D	s/U(b)(c), W(d	) R	2	J
,		<b>D</b> .	W	R	3, 4, 5	
	b. Inoperative	NA	W(q)	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	ı
	•	<b>s</b> .	W(n)	Q	5	ı
	b. Flow-Biased Neutron Flux - High	S	s/u <sup>(b)</sup> , w	w <sup>(e)(f)</sup> , Q	1 .	
	c. Fixed Neutron Flux - High, 120%	S	s/u <sup>(b)</sup> , w	W <sup>(e)</sup> , Q	1	
	d. Inoperative	NA .	W(m)(n)	NA	1, 2, 5	1
	e. Downscale	NA	W	NA	1	ı
	f. LPRM	D	NA	(g)	1, 2, 5	(
3.	Reactor Vessel Steam Dome					
	Pressure - High	NA(k)	374	<sub>R</sub> (1)	1 2	
	(B21-PT-NO23A,B,C,D) (B21-PTM-NO23A-1,B-1,C-1,D-1)	D D	NA M	M	1, 2 1, 2	
4.	Reactor Vessel Water Level -					
	Low, Level 1	NA(k)	374	<sub>R</sub> (1)	1 2	
	(B21-LT-N017A-1,B-1,C-1,D-1) (B21-LTM-N017A-1,B-1,C-1,D-1)	NA D	NA M	M M	1, 2 1, 2	
	(222 2211 102711 232 230 232 27	-	<del></del>		•	

96

#### 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.
- (i) 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.
- (1) 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

TRI	P FUN	CTION AND INSTRUMENT NUMBER	CHANNEL CHECK		HANNEL IBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRE	
1.	APRM	(C51-APRM-CH.A,B,C,D,E,F)					
	a.	Upscale (Flow Biased)	NA	s/u(c), w	R(b)(a)	1	
	b.	Inoperative	NA	s/ii(c)(e) O(t)	NA	1, 2, 5	1
	c.	Downscale	NA	s/U <sup>(c)</sup> ,M	NA	1	(
	d.	Upscale (Fixed)	NA	S/U(c)(e),Q(d)(f)	R <sup>(a)</sup>	2, 5	1
2.	ROD	BLOCK MONITOR (C51-RBM-CH.A,B)	• •				•
	_	Headal o	NA	s/U(c) ,M	<sub>R</sub> (a)	1*	
	<b>a.</b>	Upscale Inoperative	NA NA			1*	
	b.	Downscale	NA NA	s/u(c) ,Q s/u(c) ,M	NA R(a)	1*	
	c.	Downscare	NA	, m	K	1	
3.	SOUR	CE RANGE MONITORS (C51-SRM-K600	)A,B,C,D)				
	a.	Detector not full in	ŇA	s/u(c) , $w(d)$	NA	2, 5	
	b.	Upscale	NA	6/11(C) 11(Q)	NA	2, 5 2, 5	
	c.	Inoperative	NA	6/11/C) (1)/Q)	NA	2, 5	l
	d.	Downscale	NA ·	S/U(c) ,W(d)	NA	2, 5	ļ
4.	INTE	RMEDIATE RANGE MONITORS (C51-IF	RM-K601A,B,C,D,	E,F,G,H)			(
	a.	Detector not full in	NA NA	s/y <sup>(c)(e)</sup> ,w <sup>(d)</sup>	NA NA	2 5	
		•	· · · · · · · · · · · · · · · · · · ·	(-)		,	
	<b>b.</b>	Upscale	NA	s/u <sup>(c)</sup> ,w <sup>(d)</sup>	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

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

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

(a) CHANNEL CALIBRATIONS are electronic.

(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.

(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.

<sup>\*\*</sup> With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

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

<sup>(</sup>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.



# UNITED STATES NOCLEAR 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

and R Mulh

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. 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 3-7

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

TABLE 4.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL (a)	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
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	i) R	2
	D	W	R ·	3, 4, 5
b. Inoperative	NA .	M(q)	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 <sup>(b)(m)</sup> , W <sup>(c</sup>	d) Q	2
•	S	W(n)	Q	5
b. Flow-Biased Neutron Flux - High	S	s/u <sup>(b)</sup> , w	W <sup>(e)(f)</sup> , Q	1
c. Fixed Neutron Flux - High, 120%	<b>S</b>	s/u <sup>(b)</sup> , w	w <sup>(e)</sup> , Q	1
d. Inoperative	NA 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)	NA(k)		<sub>R</sub> (1)	1, 2
(B21-PTM-NO23A-1,B-1,C-1,D-1)	D	<sub></sub> M	М	1, 2
4. Reactor Vessel Water Level -		,		
Low, Level 1 (B21-LT-NO17A-1,B-1,C-1,D-1)	NA(k)	NA	<sub>R</sub> (1)	1, 2
(B21-LTM-NO17A-1,B-1,C-1,D-1)	D	М	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.
- (1) Transmitters are exempted from the monthly channel calibration.
- (m) Placement of Reactor Mode Swich 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

TRI	P FUNCTION AND INSTRUMEN	CHANNEL T NUMBER CHECK		CHANNEL LIBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED	
1.	APRM (C51-APRM-CH.A,B,	C,D,E,F)				
	a. Upscale (Flow Bias	ed) NA	S/U(c) M S/U(c)(e) ,Q(f)	R(b)(a)	1	
	b. Inoperative	NA	S/U(c)(è) ,Q(f)	NA	1, 2, 5	7
	c. Downscale	NA	S/U(c), M S/U(c)(e),Q(d)(f	, NA ,	1	\
	d. Upscale (Fixed)	NA	$s/U^{(c)(e)},Q^{(d)(i)}$	R(a)	2, 5	
2.	ROD BLOCK MONITOR (C51	-RBM-CH.A,B)				
		NA	s/u(c) ,M	<sub>R</sub> (a)	1*	
	a. Upscale	NA NA			1*	
	b. Inoperative	NA NA	s/U(c) ,Q s/U(c) ,Μ	NA R(a)	1*	
	c. Downscale	NA	5/0 , n	K	<b>4</b>	
3.	SOURCE RANGE MONITORS	(C51-SRM-K600A,B,C,D)	•			
	a. Detector not full	in NA	s/u(c) , $w(d)$	NA	2, 5 2, 5 2, 5	1
	b. Upscale	NA	s/u(c),w(d)	NA	2, 5	ŀ
	c. Inoperative	NA	s/u(c),w(d)	NA	2, 5	
	d. Downscale	NA	S/U(c) ,W(d) S/U(c) ,W(d) S/U(c) ,W(d)	NA	2, 5	
4.	INTERMEDIATE RANGE MONI	TORS (C51-IRM-K601A,B,C,	D,E,F,G,H)			(
	a. Detector not full	in NA	s/U(c)(e) ,W(d) W(f)	NA	2	1
	2. 2000000	NA	ម្ហ(f)	NA	5	ı
		****	•		•	
	h Upagala			NΔ	,	
	b. Upscale	NA NA	s/u(c) ,w(d)	NA NA	2 5	
	•	NA NA	s/u <sup>(c)</sup> ,w <sup>(d)</sup>	NA	5	
	<ul><li>b. Upscale</li><li>c. Inoperative</li></ul>	NA NA NA	s/u <sup>(c)</sup> ,w <sup>(d)</sup> w s/u <sup>(c)</sup> ,w <sup>(d)</sup>	NA NA	5	
	•	NA NA	s/U <sup>(c)</sup> ,W <sup>(d)</sup> w s/U <sup>(c)</sup> ,W <sup>(d)</sup>	NA	5	
	•	NA NA NA	s/u <sup>(c)</sup> ,w <sup>(d)</sup> w s/u <sup>(c)</sup> ,w <sup>(d)</sup>	NA NA	5	

# TABLE 4.3.4-1 (Cont'd)

# CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

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

<sup>\*</sup> When THERMAL POWER is greater than the preset power level of the RWM and RSCS.

(a) CHANNEL CALIBRATIONS are electronic.

(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.

<sup>\*\*</sup> With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

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



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

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION SUPPORTING AMENDMENT NO. 96 TO FACILITY LICENSE NO. DPR-71 AND

AMENDMENT NO. 121 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 July 1, 1985, the Carolina Power & Light Company (CP&L), the licensee) requested a change to the surveillance requirements 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 revision would affect the surveillance requirements for the Reactor Protection System Instrumentation and the Control Rod Withdrawal Block Instrumentation as given in Tables 4.3.1-1 and 4.3.4-1 of the Brunswick 1 and Brunswick 2 TS.

#### 2.0 EVALUATION

Changes by the licensee are proposed in Table 4.3.1-1, "Reactor Protection System Instrumentation Surveillance Requirements", and in Table 4.3.4-1 "Control Rod Withdrawal Block Instrumentation Surveillance Requirements." The changes are discussed individually below.

#### 1. Table 4.3.1-2, Intermediate Range Monitors

A requirement for performance of a weekly Channel Functional Test of the Intermediate Range Monitor Neutron Flux-High and Inoperative Trips in Operational Conditions 2 through 5 has been added. This additional test serves to increase the assurance that this equipment is operating properly. In addition, this change is consistent with NUREG-0123, BWR/4,5 Standard Technical Specifications. Therefore, the change is acceptable.

# 2. Table 4.3.1-2, Average Power Range Monitor (APRM)

Two footnotes are added to the table which pertains to the APRM surveillance. The first (footnote (m)) would permit placing the Reactor Mode Switch in Operational Condition 2 (Startup/Hot Standby) for the purpose of performing surveillance (a channel functional test) on the neutron Flux-High 15% and APRM Inoperative trips prior to withdrawing rods for the purpose of going critical. The surveillance is currently performed by circuit jumping.

Footnote # on Table 1.2 of the current specifications permits such RMS switching provided that a second licensed operator or other qualified person verify that the control rods are all inserted. We find this change (footnote (m) to Table 4.3.1-1) to be acceptable since the provision for verification by a second person is required.

The second (footnote (n)) would permit placing the RMS in shutdown or refuel position when all control rods are fully inserted and the vessel bolts are tensioned when surveillance (a channel functional test) is being performed on the APRM Neutron Flux - High 15% trip and on the APRM Inoperative Trip. Footnotes ## and \*\*\* of Table 1.2 of the Specification permit placement of the Mode Switch in the refuel position for performance of certain tests when in Modes 3 and 4. Also Specification 4.9.1 permits placing the Mode Switch in Mode 2 when performing certain surveillance in Mode 5. Placing the Reactor Mode Switch in modes other than the one which the plant actually is, has therefore been previously found acceptable to permit equipment testing in tightly controlled situations such as this. We have reviewed the implications of this change and based on our review we find its extension to surveillance of the APRM to be acceptable in view of the requirement that all control rods be inserted.

#### 3. Table 4.3.1-1, <u>Intermediate Range Detectors</u>

A reference to existing footnote (d) has been added to the required weekly surveillance of the IRM high flux trip. This footnote permits this surveillance to be performed within 12 hours after entering Mode 2 from Mode 1. This provision is currently applicable to the surveillance of the APRM 15% power trip. We have reviewed the implications of this change and based on this review we find its use on the similar IRM trip to be acceptable.

# 4. Table 4.3.4-1, Average Power Range Monitor (APRM)

Footnote (e), which is identical to footnote (m) above is added to the start-up channel functional test surveillance for the inoperative and fixed upscale trips. Footnote (f) which is identical to footnote (n) above is added to the quarterly surveillance for these trips. These additions are acceptable for the reasons given for the (m) and (n) footnotes above.

# 5. Table 4.3.4-1, Intermediate Range Monitors

Footnote (e) is added to the start-up channel functional test surveillance for the "Detector not full in" trip and footnote (f) is added to the weekly surveillance for this trip. This is acceptable for the reasons given above for the (m) and (n) footnotes.

#### 6. Table 4.3.4-2, Source Range Monitors

Footnote (d) which is identical to footnote (d) of Table 4.3.1-1 has been added to the weekly channel functional test surveillance for the source range monitor rod block trips. The footnote is currently applicable to the weekly surveillance requirements for the IRM trips. We have reviewed the implication of this change and based on our review we find its use for the source range monitor trips to be acceptable.

In addition to the changes described above to Tables 4.3.1-1 and 4.3.4-1 certain editorial changes have been made for purposes of clarification. We find these changes to be acceptable since they do not alter the substance of the specifications.

Based on our review, which is described above, we conclude that the proposed changes to the Technical Specifications for Brunswick Units 1 and 2 are acceptable.

#### 3.0 ENVIRONMENTAL CONSIDERATIONS

The amendments involve 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. Brooks

Dated: March 26, 1986