

ENCLOSURE 1

SERIAL: NLS-84-143

Brunswick Steam Electric Plant

Proposed Technical Specification Pages - Unit 1

(CP&L Serial: 84TSB14)

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Summary List of Revisions
Brunswick Unit 1

<u>Page</u>	<u>Comment</u>
3/4 3-7	<p>Item 1.a - added weekly surveillance requirement to the channel functional test</p> <p>Item 1.b - added note (d) to channel functional test surveillance requirement</p> <p>Item 2.a - added note (m) to startup and note (n) to weekly (operational condition 5) surveillance requirements</p> <p>Item 2.d - added notes (m) and (n) to the channel functional test surveillance requirements</p>
3/4 3-8a	<p>Notes (d) and (e) - changed "CONDITION" to "OPERATIONAL CONDITION"</p> <p>Note (e) - ">" change to "greater than or equal to"</p> <p>Notes (m) and (n) - new notes added</p>
3/4 3-43	<p>Item 1.b - added note (e) to startup and (f) to quarterly channel functional test surveillance requirement</p> <p>Item 1.d - added note (e) to startup and (d) and (f) to quarterly channel functional test surveillance requirement</p> <p>Item 3.a/b/c/d - added note (d) to weekly channel functional test surveillance requirement</p> <p>Item 4.a - added note (e) to startup and note (f) to weekly (operational condition 5) channel functional test surveillance requirement</p>
3/4 3-43a	<p>Note (d) - "CONDITION" changed to "OPERATIONAL CONDITION"</p> <p>Notes (e) and (f) - new notes added</p>

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) D	NA M	R ⁽¹⁾ M	1, 2 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) D	NA M	R ⁽¹⁾ M	1, 2 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)	R ^(b) (a)	1
b. Inoperative	NA	S/U ^(c) (e), Q ^(f)	NA	1, 2, 5
c. Downscale	NA	S/U ^(c)	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^(a)</u>	<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.

ENCLOSURE 2

SERIAL: NLS-84-143

Brunswick Steam Electric Plant

Proposed Technical Specification Pages - Unit 2

(CP&L Serial: 84TSB14)

Summary List of Revisions
Brunswick Unit 2

<u>Page</u>	<u>Comment</u>
3/4 3-7	<p>Item 1.a - added weekly surveillance requirement to the channel functional test</p> <p>Item 1.b - added note (d) to channel functional test surveillance requirement</p> <p>Item 2.a - added note (m) to startup and note (n) to weekly (operational condition 5) surveillance requirements</p> <p>Item 2.d - added notes (m) and (n) to the channel functional test surveillance requirements</p>
3/4 3-8a	<p>Notes (d) and (e) - changed "CONDITION" to "OPERATIONAL CONDITION"</p> <p>Note (e) - ">" change to "greater than or equal to"</p> <p>Notes (m) and (n) - new notes added</p>
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FUNCTIONAL UNIT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION ^(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)	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) D	NA M	R ⁽¹⁾ M	1, 2 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) D	NA M	R ⁽¹⁾ M	1, 2 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.
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- (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.

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1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)				
a. Upscale (Flow Biased)	NA	S/U ^(c)	R ^{(b)(a)}	1
b. Inoperative	NA	S/U ^{(c)(e)} , Q ^(f)	NA	1, 2, 5
c. Downscale	NA	S/U ^(c)	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^(a)</u>	<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.

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