- (4) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
 - (1) Maximum Power Level

C.

PPL Susquehanna, LLC is authorized to operate the facility at reactor core power levels not in excess of 3489 megawatts thermal in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 242 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PPL Susquehanna, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 178 to Facility Operating License No. NPF-14, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 178. For SRs that existed prior to Amendment 178, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 178.

(3) Conduct of Work Activities During Fuel Load and Initial Startup

The operating licensee shall review by committee all facility construction, Preoperational Testing, and System Demonstration activities performed concurrently with facility initial fuel loading or with the facility Startup Test

Amendment No. 5, 143, 178, 180, 188, 194, 235, 236, 237, 238, 240, 242 |

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(continued)

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SUSQUEHANNA - UNIT 1

TS/TOC-1

- 1 Amendment 184, 215, 217, 222, 225, 234,242

MINIMUM CRITICAL POWER The MCPR shall be the smallest critical power ratio RATIO (MCPR) (CPR) that exists in the core for each class of fuel. The CPR is that power in the assembly that is calculated by application of the appropriate correlation(s) to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power. MODE A MODE shall correspond to any one inclusive combination of mode switch position, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel. **OPERABLE - OPERABILITY** A system, subsystem, division, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s). PHYSICS TESTS PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation. These tests are: Described in Chapter 14, Initial Test Program а. of the FSAR;

- b. Authorized under the provisions of 10 CFR 50.59; or
- c. Otherwise approved by the Nuclear Regulatory Commission.

(continued)

SUSQUEHANNA – UNIT 1

1.1-5

- -NOTES
- 1. Refer to Table 3.3.1.1-1 to determine which SRs apply for each RPS Function.
- 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability.

	SURVEILLANCE	FREQUENCY
SR 3.3.1.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.1.2	Perform CHANNEL CHECK.	24 hours
SR 3.3.1.1.3	NOTENOTENOTE	
	Verify the absolute difference between the average power range monitor (APRM) channels and the calculated power is \leq 2% RTP while operating at \geq 25% RTP.	7 days
SR 3.3.1.1.4	NOTENOTENOTENOTE	
	Perform CHANNEL FUNCTIONAL TEST.	7 days
		(continued)

SUSQUEHANNA - UNIT 1

Table 3.3.1.1-1 (page 1 of 3) Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
. Intermediate Range Monitors					
a. Neutron Flux-High	2	3	G	SR 3.3.1.1.1 SR 3.3.1.1.4 SR 3.3.1.1.6 SR 3.3.1.1.7 SR 3.3.1.1.11 SR 3.3.1.1.15	≤ 122/125 divisions of full scale
	5 ^(a)	3	н	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.15	\leq 122/125 divisions of full scale
b. Inop	2	3	G	SR 3.3.1.1.4 SR 3.3.1.1.15	NA
	5 ^(a)	3	H	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
2. Average Power Range Monitors					
a. Neutron Flux-High (Setdown)	2	3 ^(c)	G	SR 3.3.1.1.2 SR 3.3.1.1.7 SR 3.3.1.1.8 SR 3.3.1.1.12 SR 3.3.1.1.18	≤ 20% RTP
b. Simulated Thermal Power-High	1	3 ^(c)	F	SR 3.3.1.1.2 SR 3.3.1.1.3 SR 3.3.1.1.8 SR 3.3.1.1.12 SR 3.3.1.1.18 SR 3.3.1.1.20	≤ 0.62 W + 64.2% RTP ^(b) ar ≤ 115.5% RTP

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

^(b) 0.62(W-ΔW) + 64.2% RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."

(c) Each APRM channel provides inputs to both trip systems.

SUSQUEHANNA - UNIT 1

3.3 INSTRUMENTATION

3.3.2.1 Control Rod Block Instrumentation

LCO 3.3.2.1 The control rod block instrumentation for each Function in Table 3.3.2.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.2.1-1.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME	
Α.	One rod block monitor (RBM) channel inoperable.	A.1	Restore RBM channel to OPERABLE status	24 hours	
B.	Required Action and associated Completion Time of Condition A not met.	B.1	Place one RBM channel in trip.	1 hour	
	Two RBM channels inoperable.				
C.	Rod worth minimizer (RWM) inoperable during reactor startup.	C.1	Suspend control rod movement except by scram.	Immediately ,	
		OR			
		C.2.1.1	Verify ≥ 12 rods withdrawn.	Immediately	
		OR			
	·	C.2.1.2	Verify by administrative methods that startup with RWM inoperable has not been performed in the last calendar year.	Immediately	
·		AND	•	(continued)	

----NOTES-----

- 1. Refer to Table 3.3.2.1-1 to determine which SRs apply for each Control Rod Block Function.
- 2. When an RBM channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains control rod block capability.

	SURVEILLANCE	FREQUENCY
SR 3.3.2.1.1	Perform CHANNEL FUNCTIONAL TEST.	184 days
SR 3.3.2.1.2	Not required to be performed until 1 hour after any control rod is withdrawn at \leq 10% RTP in MODE 2.	
	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.2.1.3	Not required to be performed until 1 hour after THERMAL POWER is \leq 10% RTP in MODE 1.	
	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.2.1.4	Verify the RBM:	
	a. Low Power Range - Upscale Function is not bypassed when APRM Simulated Thermal Power is ≥ 28% RTP and ≤ Intermediate Power Range Setpoint specified in the COLR.	24 months
		(continued)

PPL Rev. Control Rod Block Instrumentation 3.3.2.1

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
	b. Intermediate Power Range - Upscale Function is not bypassed when APRM Simulated Thermal Power is > Intermediate Power Range Setpoint specified in the COLR and ≤ High Power Range Setpoint specified in the COLR.	
	c. High Power Range - Upscale Function is not bypassed when APRM Simulated Thermal Power is > High Power Range Setpoint specified in the COLR.	
SR 3.3.2.1.5	Verify the RWM is not by passed when THERMAL POWER is \leq 10% RTP.	24 months
SR 3.3.2.1.6	Not required to be performed until 1 hour after reactor mode switch is in the shutdown position.	
	Perform CHANNEL FUNCTIONAL TEST.	24 months
SR 3.3.2.1.7	NOTENOTENOTENOTENOTENOTENOTENOTE	
	Perform CHANNEL CALIBRATION	24 months
SR 3.3.2.1.8	Verify control rod sequences input to the RWM are in conformance with BPWS.	Prior to declaring RWM OPERABLE following loading of sequence into RWM

Table 3.3.2.1-1 (page 1 of 1) Control Rod Block Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1.	Rod Block Monitor				
	a. Low Power Range - Upscale	(a)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7 ^{(i)(j)}	(f)
	b. Intermediate Power Range - Upscale	(b)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7 ^{(i)(j)}	(f)
	c. High Power Range - Upscale	(c), (d)	2	SR 3.3.2.1.1 SR 3.3.2.1.4 SR 3.3.2.1.7 ^{(1)(j)}	(f)
	d. Inop	(d), (e)	2	SR 3.3.2.1.1	NA
2.	Rod Worth Minimizer	1 ^(g) , 2 ^(g)	1	SR 3.3.2.1.2 SR 3.3.2.1.3 SR 3.3.2.1.5 SR 3.3.2.1.8	NA
3.	Reactor Mode Switch - Shutdown Position	(h)	2	SR 3.3.2.1.6	NA

(a) THERMAL POWER is ≥ 28% RTP and ≤ Intermediate Power Range Setpoint specified in the COLR and MCPR is less than the limit specified in the COLR.

(b) THERMAL POWER is > Intermediate Power Range Setpoint specified in the COLR and ≤ High Power Range Setpoint specified in the COLR and MCPR is less than the limit specified in the COLR.

(c) THERMAL POWER is > High Power Range Setpoint specified in the COLR and < 90% RTP and MCPR is less than the limit specified in the COLR.

(d) THERMAL POWER is ≥ 90% RTP and MCPR is less than the limit specified in the COLR.

(e) THERMAL POWER is ≥ 28% RTP and < 90% RTP and MCPR is less than the limit specified in the COLR.

(f) Allowable value specified in the COLR:

(g) With THERMAL POWER $\leq 10\%$ RTP.

(h) Reactor mode switch in the shutdown position.

(i) If the as-found channel setpoint is not the Nominal Trip Setpoint but is conservative with respect to the Allowable Value, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service.

(j) The instrument channel setpoint shall be reset to the Nominal Trip Setpoint at the completion of the surveillance; otherwise, the channel shall be declared inoperable. The NTSP and the methodology used to determine the NTSP is specified in the SSES Final Safety Analysis Report.

SUSQUEHANNA – UNIT 1

5.6 Reporting Requirements (continued)

5.6.4 <u>Not Used</u>

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1. The Average Planar Linear Heat Generation Rate for Specification 3.2.1;
 - 2. The Minimum Critical Power Ratio for Specification 3.2.2;
 - 3. The Linear Heat Generation Rate for Specification 3.2.3;
 - 4. The Shutdown Margin for Specification 3.1.1;
 - 5. Oscillation Power Range Monitor (OPRM) Trip Setpoints, for Specification 3.3.1.1; and
 - 6. The Allowable Values and power range setpoints for Rod Block Monitor Upscale Functions for Specification 3.3.2.1, Table 3.3.2.1-1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC.

When an initial assumed power level of 102 percent of rated power is specified in a previously approved method, this refers to the power level associated with the design basis analyses, or 3510 MWt. The power level of 3510 MWt is 100.6% of the rated thermal power level of 3489 MWt. The RTP of 3489 MWt may only be used when feedwater flow measurement (used as input to the reactor thermal power measurement) is provided by the Leading Edge Flow Meter (LEFM \checkmark^{TM}) as described in the LEFM \checkmark^{TM} Topical Report and supplement referenced below. When feedwater flow measurements from the LEFM \checkmark^{TM} system are not available, the core thermal power level may not exceed the originally approved RTP of 3441 MWt, but the value of 3510 MWt

(continued)

SUSQUEHANNA - UNIT 1

TS / 5.0-21

Amendment 186, 194, 215, 217, 230, 238, 242

- (4) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) PPL Susquehanna, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
 - (1) Maximum Power Level

PPL Susquehanna, LLC is authorized to operate the facility at reactor core power levels not in excess of 3489 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational test, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) <u>Technical Specifications and Environmental Protection Plan</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 220 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PPL Susquehanna, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 151 to Facility Operating License No. NPF-22, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 151. For SRs that existed prior to Amendment 151, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment-151.

2.C.(3)

C.

PPL Susquehanna, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Protection Review Report for the facility and as approved in Fire Protection Program, Section 9.5, SER, SSER#1, SSER#2, SSER#3, SSER#4, SSER#6, Safety Evaluation of Fire Protection Report dated August 9, 1989, Safety Evaluation

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3.3.2.2	Feedwater – Main Turbine High Water Level Trip	
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3.3.3.1	Post Accident Monitoring (PAM) Instrumentation	
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(continued)

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1.1 Definitions (continued)

MINIMUM CRITICAL POWER RATIO (MCPR)	The MCPR shall be the smallest critical power ratio (CPR) that exists in the core for each class of fuel. The CPR is that power in the assembly that is calculated by application of the appropriate correlation(s) to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.
MODE	A MODE shall correspond to any one inclusive combination of mode switch position, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel.
OPERABLE OPERABILITY	A system, subsystem, division, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).
PHYSICS TESTS	PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation. These tests are:
	a. Described in Chapter 14, Initial Test Program of the FSAR;
	b. Authorized under the provisions of 10 CFR 50.59; or
	c. Otherwise approved by the Nuclear Regulatory Commission.

(continued)

SUSQUEHANNA - UNIT 2

Amendment 151,220

NOTES

- 1. Refer to Table 3.3.1.1-1 to determine which SRs apply for each RPS Function.
- 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability.

· · · · · · · · · · · · · · · · · · ·	SURVEILLANCE	FREQUENCY
SR 3.3.1.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.1.2	Perform CHANNEL CHECK.	24 hours
SR 3.3.1.1.3	NOTENOTENOTE	
	Verify the absolute difference between the average power range monitor (APRM) channels and the calculated power is $\leq 2\%$ RTP while operating at $\geq 25\%$ RTP.	7 days
SR 3.3.1.1.4	NOTENOTENOTENOTENOTENOTENOTE 2 Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2.	
	Perform CHANNEL FUNCTIONAL TEST.	7 days
	· · · · · · · · · · · · · · · · · · ·	(continued)

SUSQUEHANNA – UNIT 2

TS / 3.3-3

Amendment 151, 207, 220

Table 3.3.1.1-1 (page 1 of 3)

Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Intermediate Range Monitors			· .		
a. Neutron	2	3	G	SR 3.3.1.1.1	≤ 122/125 divisions
Flux-High				SR 3.3.1.1.4	of full scale
				SR 3.3.1.1.6	
				SR 3.3.1.1.7	
				SR 3.3.1.1.11	
				SR 3.3.1.1.15	
	5 ^(a)	3	н	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.15	\leq 122/125 divisions of full scale
b. Inop	2	3	G	SR 3.3.1.1.4 SR 3.3.1.1.15	NA
	5 ^(a)	3	н	SR 3.3.1.1.5 SR 3.3.1.1.15	NA
2. Average Power Range Monitors					
a. Neutron Flux-High (Setdown)	2	3 ^(c)	G	SR 3.3.1.1.2 SR 3.3.1.1.7 SR 3.3.1.1.8 SR 3.3.1.1.12 SR 3.3.1.1.18	≤ 20% RTP
b. Simulated Thermal Power-High	1	3 ^(c)	F	SR 3.3.1.1.2 SR 3.3.1.1.3 SR 3.3.1.1.8 SR 3.3.1.1.12 SR 3.3.1.1.18 SR 3.3.1.1.18 SR 3.3.1.1.20	≤ 0.62 W + 64.2% RTP ^(b) an ≤ 115.5% RTP (continued)

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

(b) 0.62(W-ΔW) + 64.2% RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating."

(c) Each APRM channel provides inputs to both trip systems.

SUSQUEHANNA – UNIT 2

TS / 3.3-7

Amendment 15/1, 202, 207,220

3.3 INSTRUMENTATION

- 3.3.2.1 Control Rod Block Instrumentation
- LCO 3.3.2.1 The control rod block instrumentation for each Function in Table 3.3.2.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.2.1-1.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One rod block monitor (RBM) channel inoperable.	A.1 Restore RBM channel to OPERABLE status.	24 hours
 B. Required Action and associated Completion Time of Condition A not met. 	B.1 Place one RBM channel in trip.	1 hour.
OR		
Two RBM channels inoperable.		
C. Rod worth minimizer (RWM) inoperable during reactor startup.	C.1 Suspend control rod movement except by scram.	Immediately
	OR	
	C.2.1.1 Verify \geq 12 rods withdrawn.	Immediately
	OR	
	C.2.1.2 Verify by administrative methods that startup with RWM inoperable has not been performed in the last calendar year. AND	Immediately
		(continued)

-NOTES---

- 1. Refer to Table 3.3.2.1-1 to determine which SRs apply for each Control Rod Block Function.
- 2. When an RBM channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains control rod block capability.

FREQUENCY
184 days
92 days
92 days
24 months (continued)

PPL Rev. Control Rod Block Instrumentation 3.3.2.1

SURVEILLANCE REQUIREMENTS	r
SURVEILLANCE	FREQUENCY
SR 3.3.2.1.4 Verify the RMB: (continued)	
b. Intermediate Power Range – Upscale Function is not bypassed when APRM Simulated Thermal Power is > Intermediate Power Range Setpoint specified in the COLR and ≤ High Power Range Setpoint specified in the COLR.	· · · · · ·
 c. High Power Range – Upscale Function is not bypassed when APRM Simulated Thermal Power > High Power Range Setpoint specified in the COLR. 	
SR 3.3.2.1.5 Verify the RWM is not by passed when THERMAL POWER is \leq 10% RTP.	24 months
SR 3.3.2.1.6NOTENOTE	
Not required to be performed until 1 hour after reactor mode switch is in the shutdown position.	
Perform CHANNEL FUNCTIONAL TEST.	24 months
SR 3.3.2.1.7NOTENOTE	
Neutron detectors are excluded.	
Perform CHANNEL CALIBRATION.	24 months
SR 3.3.2.1.8 Verify control rod sequences input to the RWM are in conformance with BPWS.	Prior to declaring RWM OPERABLE following loading of sequence into RWM

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Table 3.3.2.1-1 (page 1 of 1)

Control Rod	Block	Instrumentation	
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	APPLICABLE			
	MODES OR			
	OTHER SPECIFIED	REQUIRED	SURVEILLANCE	ALLOWABLE
FUNCTION		CHANNELS	REQUIREMENTS	VALUE
FUNCTION	CONDITIONS	CHAINNELS	REQUIREMENTS	VALUE
Rod Block Monitor				
a. Low Power Range -	(a)	2	SR 3.3.2.1.1	(f)
Upscale			SR 3.3.2.1.4	
opecate			SR 3.3.2.1.7 ^{(i)(j)}	
b. Intermediate Power	(b)	2	SR 3.3.2.1.1	(f)
Range – Upscale		<i>k</i> -	SR 3.3.2.1.4	
			SR 3.3.2.1.7 ^{(i)(j)}	
c. High Power Range -	(c), (d)	2	SR 3.3.2.1.1	(f)
Upscale		2	SR 3.3.2.1.4	
- r -			SR 3.3.2.1.7 ^{(i)(j)}	
d. Inop	(d), (e)	2	SR 3.3.2.1.1	NA
Rod Worth Minimizer	1 ^(g) , 2 ^(g)	1	SR 3.3.2.1.2	NA
	۰, <i>۲</i>	I	SR 3.3.2.1.3	
			SR 3.3.2.1.5	1
			SR 3.3.2.1.8	
Reactor Mode Switch-	(h)	2	SR 3.3.2.1.6	NA
Shutdown Position		–		

(a) THERMAL POWER is ≥ 28% RPT and ≤ Intermediate Power Range Setpoint specified in the COLR and MCPR is less than the limit specified in the COLR.

(b) THERMAL POWER is > Intermediate Power Range Setpoint specified in the COLR and ≤ High Power Range Setpoint specified in the COLR and MCPR is less than the limit specified in the COLR.

(c) THERMAL POWER is > High Power Range Setpoint specified in the COLR and < 90% RTP and MCPR is less than the limit specified in the COLR.

(d) THERMAL POWER is \geq 90% RTP and MCPR is less than the limit specified in the COLR.

(e) THERMAL POWER is ≥ 28% RTP and < 90% RTP and MCPR is less than the limit specified in the COLR.

- (f) Allowable Value specified in the COLR.
- (g) With THERMAL POWER \leq 10% RTP.
- (h) Reactor mode switch in the shutdown position.
- (i) If the as-found channel setpoint is not the Nominal Trip Setpoint but is conservative with respect to the Allowable Value, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service.
- (j) The instrument channel setpoint shall be reset to the Nominal Trip Setpoint at the completion of the surveillance; otherwise, the channel shall be declared inoperable. The NTSP and the methodology used to determine the NTSP is specified in the SSES Final Safety Analysis Report.

5.6 Reporting Requirements (continued)

5.6.4 Not Used

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 - 1. The Average Planar Linear Heat Generation Rate for Specification 3.2.1;
 - 2. The Minimum Critical Power Ratio for Specification 3.2.2;
 - 3. The Linear Heat Generation Rate for Specification 3.2.3;
 - 4. The Shutdown Margin for Specification 3.1.1;
 - 5. Oscillation Power Range Monitor (OPRM) Trip setpoints, for Specification 3.3.1.1; and
 - 6. The Allowable Values and power range setpoints for Rod Block Monitor Upscale Functions for Specification 3.3.2.1, Table 3.3.2.1-1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC.

When an initial assumed power level of 102 percent of rated power is specified in a previously approved method, this refers to the power level associated with the design basis analyses, or 3510 MWt. The power level of 3510 MWt is 100.6% of the rated thermal power level of 3489 MWt. The RTP of 3489 MWt may only be used when feedwater flow measurement (used as input to the reactor thermal power measurement) is provided by the Leading Edge Flow Meter (LEFM✓TM) as described in the LEFM✓TM Topical Report and supplement referenced below. When feedwater flow measurements from the LEFM✓TM system are not available, the

(continued)

SUSQUEHANNA - UNIT 2

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