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SUSQUEHANNA - UNIT 1

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TABLE 3.3.1-1
REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
1. Intermediate Range Monitors: (b)			
a. Neutron Flux - High	2 3, 4 5(c)	3 2 3(d)	1 2 3
b. Inoperative	2 3, 4 5	3 2 3(d)	1 2 3
2. Average Power Range Monitor (e):			
a. Neutron Flux - Upscale, Setdown	2 3 5(c)(L)	2 2 2(d)	1 2 3
b. Flow Biased Simulated Thermal Power - Upscale	1	2	4
c. Neutron Flux - Upscale	1	2	4
d. Inoperative	1, 2 3 5(c)(L)	2 2 2(d)	1 2 3
3. Reactor Vessel Steam Dome Pressure - High	1, 2(f)	2	1
4. Reactor Vessel Water Level - Low, Level 3	1, 2	2	1
5. Main Steam Line Isolation Valve - Closure	1(g)	4	4
6. Main Steam Line Radiation - High	1, 2(f)	2	5

REACTOR PROTECTION SYSTEM INSTRUMENTATIONTABLE NOTATIONS

- (a) A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter. Upon determination that a trip setpoint cannot be restored to within its specified value during performance of the CHANNEL CALIBRATION, the appropriate ACTION, 3.3.1a or 3.3.1b, shall be followed.
- (b) This function is automatically bypassed when the reactor mode switch is in the Run position.
- (c) The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn and shutdown margin demonstrations performed per Specification 3.10.3.
- (d) The non-coincident NMS reactor trip function logic is such that all channels go to both trip systems. Therefore, when the "shorting links" are removed, the Minimum OPERABLE Channels Per Trip System is 4 APRMS and 6 IRMS.
- (e) An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.
- (f) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (g) This function is automatically bypassed when the reactor mode switch is not in the Run position.
- (h) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
- (i) With any control rod withdrawn.
- (j) This function shall be automatically bypassed when turbine first stage pressure is less than 108 psig or 17% of the value of first stage pressure in psia at valves wide open (V.W.O.) steam flow, equivalent to THERMAL POWER of about 24% of RATED THERMAL POWER.
- (k) Also actuates the EOC-RPT system.
 - (1) This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

TABLE 4.3.1.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION ^(a)	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
1. Intermediate Range Monitors: a. Neutron Flux - High b. Inoperative	S/U,S, ^(b) S NA	S/U ^(c) , W W S/U ^(c) , W	SA SA NA	2 3, 4, 5 2, 3, 4, 5
2. Avg. Power Range Monitor ^(f) : a. Neutron Flux - Upscale, Setdown b. Flow Biased Simulated Thermal Power-Upscale c. Fixed Neutron Flux - Upscale d. Inoperative	S/U,S, ^(b) S S,D ^(g) S NA	S/U ^(c) , W W S/U ^(c) , Q S/U ^(c) , Q S/U ^(c) , Q	SA SA W ^{(d)(c)} , SA, R ^(h) W ^(d) , SA NA	2 3, 5 (K) 1 1 1, 2, 3, 5 (K)
3. Reactor Vessel Steam Dome Pressure - High	NA	Q	Q	1, 2
4. Reactor Vessel Water Level - Low, Level 3	S	NA	Q	1, 2
5. Main Steam Line Isolation Valve - Closure	NA	Q	R	1
6. Main Steam Line Radiation - High	S	Q	R	1, 2 ⁽ⁱ⁾
7. Drywell Pressure - High	NA	Q	R	1, 2

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Amendment No. 115

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION ^(a)	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
8. Scram Discharge Volume Water Level - High				
a. Level Transmitter	NA	Q	R	1, 2, 5 ⁽ⁱ⁾
b. Float Switch	NA	Q	R	1, 2, 5 ⁽ⁱ⁾
9. Turbine Stop Valve - Closure	NA	Q	R	1
10. Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low	NA	Q	R	1
11. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
12. Manual Scram	NA	W	NA	1, 2, 3, 4, 5

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) The IRM and SRM channels shall be determined to overlap for at least 0.5 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 0.5 decades during each controlled shutdown, if not performed within the previous 7 days.
- (c) Within 24 hours prior to startup, if not performed within the previous 7 days.
- (d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER \geq 25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER. Any APRM channel gain adjustment made in compliance with Specification 3.2.2 shall not be included in determining the absolute difference.
- (e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.
- (f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH) using the TIP system.
- (g) Verify measured core flow to be greater than or equal to established core flow at the existing loop flow.
- (h) This calibration shall consist of verifying the 6 ± 1 second simulated thermal power time constant.
- (i) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (j) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (k) This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed by Specification 3.10.3.

SUSQUEHANNA - UNIT 1

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Amendment No. 115

TABLE 3.3.6-1
CONTROL ROD BLOCK INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. <u>ROD BLOCK MONITOR</u> ^(a)			
a. Upscale	2	1*	60
b. Inoperative	2	1*	60
c. Downscale	2	1*	60
2. <u>APRM</u>			
a. Flow Biased Neutron Flux - Upscale	4	1	61
b. Inoperative	4	1, 2, 5 ^(f)	61
c. Downscale	4	1	61
d. Neutron Flux - Upscale, Startup	4	2, 5 ^(f)	61
3. <u>SOURCE RANGE MONITORS</u>			
a. Detector not full in ^(b)	3	2	61
	2	5	61
b. Upscale ^(c)	3	2	61
	2	5	61
c. Inoperative ^(c)	3	2	61
	2	5	61
d. Downscale ^(d)	3	2	61
	2 ^{AAA}	5	61
4. <u>INTERMEDIATE RANGE MONITORS</u>			
a. Detector not full in	6	2, 5	61
b. Upscale	6	2, 5	61
c. Inoperative ^(e)	6	2, 5	61
d. Downscale	6	2, 5	61
5. <u>SCRAM DISCHARGE VOLUME</u>			
a. Water Level-High	2	1, 2, 5 ^{AA}	62
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>			
a. Upscale	2	1	62
b. Inoperative	2	1	62
c. Comparator	2	1	62

TABLE 3.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

ACTION

- ACTION 60 - Declare the RBM inoperable and take the ACTION required by Specification 3.1.4.3.
- ACTION 61 - With the number of OPERABLE Channels:
- a. One less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 7 days or place the inoperable channel in the tripped condition within the next hour.
 - b. Two or more less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within 1 hour.
- ACTION 62 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within 1 hour.

NOTES

- * With THERMAL POWER \geq 30% of RATED THERMAL POWER.
- ** With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- *** Not required when eight or fewer fuel assemblies (adjacent to the SRMs) are in the core.
- a. The RBM shall be automatically bypassed when a peripheral control rod is selected or the reference APRM channel indicates less than 30% of RATED THERMAL POWER.
- b. This function shall be automatically bypassed if detector count rate is \geq 100 cps or the IRM channels are on range 3 or higher.
- c. This function is automatically bypassed when the associated IRM channels are on range 8 or higher.
- d. This function is automatically bypassed when the IRM channels are on range 3 or higher.
- e. This function is automatically bypassed when the IRM channels are on range 1.
- f. This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

TABLE 4.3.6-1

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> ^(a)	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
1. <u>ROD BLOCK MONITOR</u>				
a. Upscale	NA	S/U(b),H	Q	1* 2
b. Inoperative	NA	S/U(b),H	NA	1*
c. Downscale	NA	S/U(b),H	Q	1*
2. <u>APRM</u>				
a. Flow Biased Neutron Flux - Upscale	S	S/U(b),W	SA	1
b. Inoperative	NA	S/U(b),W	NA	1, 2, 5***
c. Downscale	S	S/U(b),W	SA	1
d. Neutron Flux - Upscale, Startup	S	S/U(b),W	SA	2, 5***
3. <u>SOURCE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U(b),W	NA	2, 5
b. Upscale	NA	S/U(b),W	Q	2, 5
c. Inoperative	NA	S/U(b),W	NA	2, 5
d. Downscale	NA	S/U(b),W	Q	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U(b),W	NA	2, 5
b. Upscale	S	S/U(b),W	Q	2, 5
c. Inoperative	NA	S/U(b),W	NA	2, 5
d. Downscale	S	S/U(b),W	Q	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u>				
a. Water Level-High	NA	H	R	1, 2, 5**
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>				
a. Upscale	NA	S/U(b),H	Q	1
b. Inoperative	NA	S/U(b),H	NA	1
c. Comparator	NA	S/U(b),H	Q	1

TABLE 4.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) Within 24 hours prior to startup, if not performed within the previous 7 days.
- * With THERMAL POWER \geq 30% of RATED THERMAL POWER.
- ** With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- *** This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

TABLE 3.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
1. Intermediate Range Monitors: (b)			
a. Neutron Flux - High	2 3, 4 5(c)	3 2 3(d)	1 2 3
b. Inoperative	2 3, 4 5	3 2 3(d)	1 2 3
2. Average Power Range Monitor (e):			
a. Neutron Flux - Upscale, Setdown	2 3(c) (L) 5	2 2(d) 2	1 2 3
b. Flow Biased Simulated Thermal Power - Upscale	1	2	4
c. Neutron Flux - Upscale	1	2	4
d. Inoperative	1, 2 3(c) (L) 5	2 2 2(d)	1 2 3
3. Reactor Vessel Steam Dome Pressure - High	1, 2(f)	2	1
4. Reactor Vessel Water Level - Low, Level 3	1, 2	2	1
5. Main Steam Line Isolation Valve - Closure	1(g)	4	4
6. Main Steam Line Radiation - High	1, 2(f)	2	5

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATIONS

(a)	A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter. Upon determination that a trip setpoint cannot be restored to within its specified value during performance of the CHANNEL CALIBRATION, the appropriate ACTION, 3.3.1a or 3.3.1b, shall be followed.
(b)	This function is automatically bypassed when the reactor mode switch is in the Run position.
(c)	The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn and shutdown margin demonstrations performed per Specification 3.10.3.
(d)	The non-coincident NMS reactor trip function logic is such that all channels go to both trip systems. Therefore, when the "shorting links" are removed, the Minimum OPERABLE Channels Per Trip System is 4 APRMS and 6 IRMS.
(e)	An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel.
(f)	This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
(g)	This function is automatically bypassed when the reactor mode switch is not in the Run position.
(h)	This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.
(i)	With any control rod withdrawn.*
(j)	This function shall not be automatically bypassed when turbine first stage pressure is greater than an allowable value of 136 psig.
(k)	Also actuates the EOC-RPT system.

(1) This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

* Not required for control rods removed per Specification 3.9.10.1 or 3.9.10.2.

TABLE 4.3.1.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION ^(a)	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
1. Intermediate Range Monitors:				
a. Neutron Flux - High	S/U,S, ^(b) S	S/U ^(c) , W W	SA SA	2 3, 4, 5
b. Inoperative	NA	S/U ^(c) , W	NA	2, 3, 4, 5
2. Avg. Power Range Monitor ^(f) :				
a. Neutron Flux - Upscale, Setdown	S/U,S, ^(b) S	S/U ^(c) , W W	SA SA	2 3, 5 (k)
b. Flow Biased Simulated Thermal Power-Upscale	S,D ^(g)	S/U ^(c) , Q	W ^{(d)(e)} , SA, R ^(h)	1
c. Fixed Neutron Flux - Upscale	S	S/U ^(c) , Q	W ^(d) , SA	1
d. Inoperative	NA	S/U ^(c) , Q	NA	1, 2, 3, 5 (k)
3. Reactor Vessel Steam Dome Pressure - High	NA	Q	Q	1, 2
4. Reactor Vessel Water Level - Low, Level 3	S	NA	Q	1, 2
5. Main Steam Line Isolation Valve - Closure	NA	Q	R	1
6. Main Steam Line Radiation - High	S	Q	R	1, 2 ⁽ⁱ⁾
7. Drywell Pressure - High	NA	Q	R	1, 2

SUSQUEHANNA - UNIT 2

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Amendment No. 84

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION ^(a)	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
8. Scram Discharge Volume Water Level - High				
a. Level Transmitter	NA	Q	R	1, 2, 5 ⁽ⁱ⁾
b. Float Switch	NA	Q	R	1, 2, 5 ⁽ⁱ⁾
9. Turbine Stop Valve - Closure	NA	Q	R	1
10. Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low	NA	Q	R	1
11. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
12. Manual Scram	NA	W	NA	1, 2, 3, 4, 5

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) The IRM and SRM channels shall be determined to overlap for at least 0.5 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 0.5 decades during each controlled shutdown, if not performed within the previous 7 days.
- (c) Within 24 hours prior to startup, it not performed within the previous 7 days.
- (d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER \geq 25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER. Any APRM channel gain adjustment made in compliance with Specification 3.2.2 shall not be included in determining the absolute difference.
- (e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.
- (f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH) using the TIP system.
- (g) Verify measured core flow to be greater than or equal to established core flow at the existing loop flow.
- (h) This calibration shall consist of verifying the 6 ± 1 second simulated thermal power time constant.
- (i) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.10.1.
- (j) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (k) This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

SUSQUEHANNA - UNIT 2

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Amendment No. 84

TABLE 3.3.6-1

<u>CONTROL ROD BLOCK INSTRUMENTATION</u>			
<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. <u>ROD BLOCK MONITOR</u> ^(a)			
a. Upscale	2	1 ^A	60
b. Inoperative	2	1 ^A	60
c. Downscale	2	1 ^A	60
2. <u>APRH</u>			
a. Flow Biased Neutron Flux - Upscale	4	1	61
b. Inoperative	4	1, 2, 5 ^(f)	61
c. Downscale	4	1	61
d. Neutron Flux - Upscale, Startup	4	2, 5 ^(f)	61
3. <u>SOURCE RANGE MONITORS</u>			
a. Detector not full in ^(b)	3	2	61
	2	5	61
b. Upscale ^(c)	3	2	61
	2	5	61
c. Inoperative ^(c)	3	2	61
	2	5	61
d. Downscale ^(d)	3	2	61
	2 ^{AAA}	5	61
4. <u>INTERMEDIATE RANGE MONITORS</u>			
a. Detector not full in	6	2, 5	61
b. Upscale	6	2, 5	61
c. Inoperative ^(e)	6	2, 5	61
d. Downscale	6	2, 5	61
5. <u>SCRAM DISCHARGE VOLUME</u>			
a. Water Level-High	2	1, 2, 5 ^{AA}	62
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>			
a. Upscale	2	1	62
b. Inoperative	2	1	62
c. Comparator	2	1	62

TABLE 3.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

ACTION

- ACTION 60 - Declare the RBM inoperable and take the ACTION required by Specification 3.1.4.3.
- ACTION 61 - With the number of OPERABLE Channels:
- a. One less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 7 days or place the inoperable channel in the tripped condition within the next hour.
 - b. Two or more less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within 1 hour.
- ACTION 62 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within 1 hour.

NOTES

- * With THERMAL POWER \geq 30% of RATED THERMAL POWER.
- ** With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- *** Not required when eight or fewer fuel assemblies (adjacent to the SRMs) are in the core.
- (a) The RBM shall be automatically bypassed when a peripheral control rod is selected or the reference APRM channel indicates less than 30% of RATED THERMAL POWER.
- (b) This function shall be automatically bypassed if detector count rate is \geq 100 cps or the IRM channels are on range 3 or higher.
- (c) This function is automatically bypassed when the associated IRM channels are on range 8 or higher.
- (d) This function is automatically bypassed when the IRM channels are on range 3 or higher.
- (e) This function is automatically bypassed when the IRM channels are on range 1.
- (f) This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.

SUSQUEHANNA - UNIT 2

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TABLE 4.3.6-1

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION^(a)</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
1. <u>ROD BLOCK MONITOR</u>				
a. Upscale	NA	S/U ^(b) ,H	SA	1*
b. Inoperative	NA	S/U ^(b) ,H	NA	1*
c. Downscale	NA	S/U ^(b) ,H	SA	1*
2. <u>APRM</u>				
a. Flow Biased Neutron Flux - Upscale	S	S/U ^(b) ,W	SA	1
b. Inoperative	NA	S/U ^(b) ,W	NA	1, 2, 5 ***
c. Downscale	S	S/U ^(b) ,W	SA	1
d. Neutron Flux - Upscale, Startup	S	S/U ^(b) ,W	SA	2, 5 ***
3. <u>SOURCE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U ^(b) ,W	NA	2, 5
b. Upscale	NA	S/U ^(b) ,W	SA	2, 5
c. Inoperative	NA	S/U ^(b) ,W	NA	2, 5
d. Downscale	NA	S/U ^(b) ,W	SA	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U ^(b) ,W	NA	2, 5
b. Upscale	S	S/U ^(b) ,W	SA	2, 5
c. Inoperative	NA	S/U ^(b) ,W	NA	2, 5
d. Downscale	S	S/U ^(b) ,W	SA	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u>				
a. Water Level-High	NA	Q	R	1, 2, 5**
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>				
a. Upscale	NA	S/U ^(b) ,H	Q	1
b. Inoperative	NA	S/U ^(b) ,H	NA	1
c. Comparator	NA	S/U ^(b) ,H	Q	1

TABLE 4.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) Within 24 hours prior to startup, if not performed within the previous 7 days.
- * With THERMAL POWER \geq 30% of RATED THERMAL POWER.
- ** With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- *** This function is required to be OPERABLE only prior to and during Shutdown Margin demonstrations as performed per Specification 3.10.3.