FEB 18 1988

Docket Nos. 50-325 and 324

Mr. E. E. Utley
Senior Executive Vice President
Power Supply and Engineering & Construction
Carolina Power & Light Company
Raleigh, North Carolina 27602

SUBJECT: ISSUANCE OF CORRECT TECHNICAL SPECIFICATION PAGES
(TAC NOS. 60281 AND 60282)

Dear Mr. Utley:

Enclosed are the correct Technical Specification (TS) pages for Operating License Nos. DPR-71 and DPR-62 for Amendment Nos. 114/141 and for Amendment Nos. 115/142. The Amendment Nos., as listed in the lower right hand corner of the pages, were incorrect on some of the pages. All pages are being reissued.

Sincerely,

/S/

Ernest D. Sylvester, Project Manager
Project Directorate II-1
Division of Reactor Projects I/II

Enclosures:
1. Corrected TS pages to Amendment Nos. 114/141
2. Corrected TS pages to Amendment Nos. 115/142

cc w/enclosures:
See next page

PE:PD21:DRPR	LA:PD21:DRPR	PM:PD21:DRPR	D:PD21:DRPR
JHayes:pda	PAnderson	ESylvester	EAdensam
2/12/88	2/12/88	2/18/88	2/ /88

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ATTACHMENT TO LICENSE AMENDMENT NO. 114

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.

Remove Pages	Insert Pages
3/4 4-1	3/4 4-1
-	3/4 4-1a
-	3/4 4-1b
B 3/4 4-1	B 3/4 4-1

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM

RECIRCULATION LOOPS

LIMITING CONDITION FOR OPERATION

3.4.1.1 Two reactor coolant recirculation loops shall be in operation with the cross-tie valve closed, the pump discharge valves OPERABLE, and the pump discharge bypass valves OPERABLE or closed and

a. Total core flow shall be greater than or equal to 35 million lbs/hr, or

b. THERMAL POWER shall be less than or equal to the limit specified in Figure 3.4.1.1-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1* and 2*.

ACTION:

a. With both reactor coolant system recirculation loops not in operation, immediately initiate an orderly reduction of THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, and restore both loops to operation within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours.

b. With one reactor coolant system recirculation loop not in operation, immediately initiate either an orderly reduction of THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours or increase core flow so that it is greater than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, and restore both loops to operation within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours.

c. With two reactor coolant system recirculation loops in operation and total core flow less than 35 million lbs/hr and THERMAL POWER greater than the limit specified in Figure 3.4.1,1-1:

   1. Immediately initiate action to reduce THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, or

   2. Immediately initiate action to increase core flow so that it is greater than 35 million lbs/hr within 2 hours, or

   3. Determine the APRM and LPRM neutron flux noise levels within 2 hours, and:

      a) If the APRM and LPRM neutron flux noise levels are less than three times their established baseline levels or less than 5% peak-to-peak, continue to determine the noise levels at least once per 24 hours and within 1 hour after the completion of a THERMAL POWER increase of at least 5% of RATED THERMAL POWER, or

      b) If the APRM or LPRM neutron flux noise levels are greater than or equal to three times their established baseline levels and greater than 5% peak-to-peak, immediately initiate corrective action and restore the noise levels to within the required limits within 2 hours by increasing core flow to greater than 35 million lbs/hr and/or by initiating an orderly reduction of

*See Special Test Exception 3.10.4.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

THERMAL POWER to less than or equal to the limit specified in Figure 3.4.1.1-1.

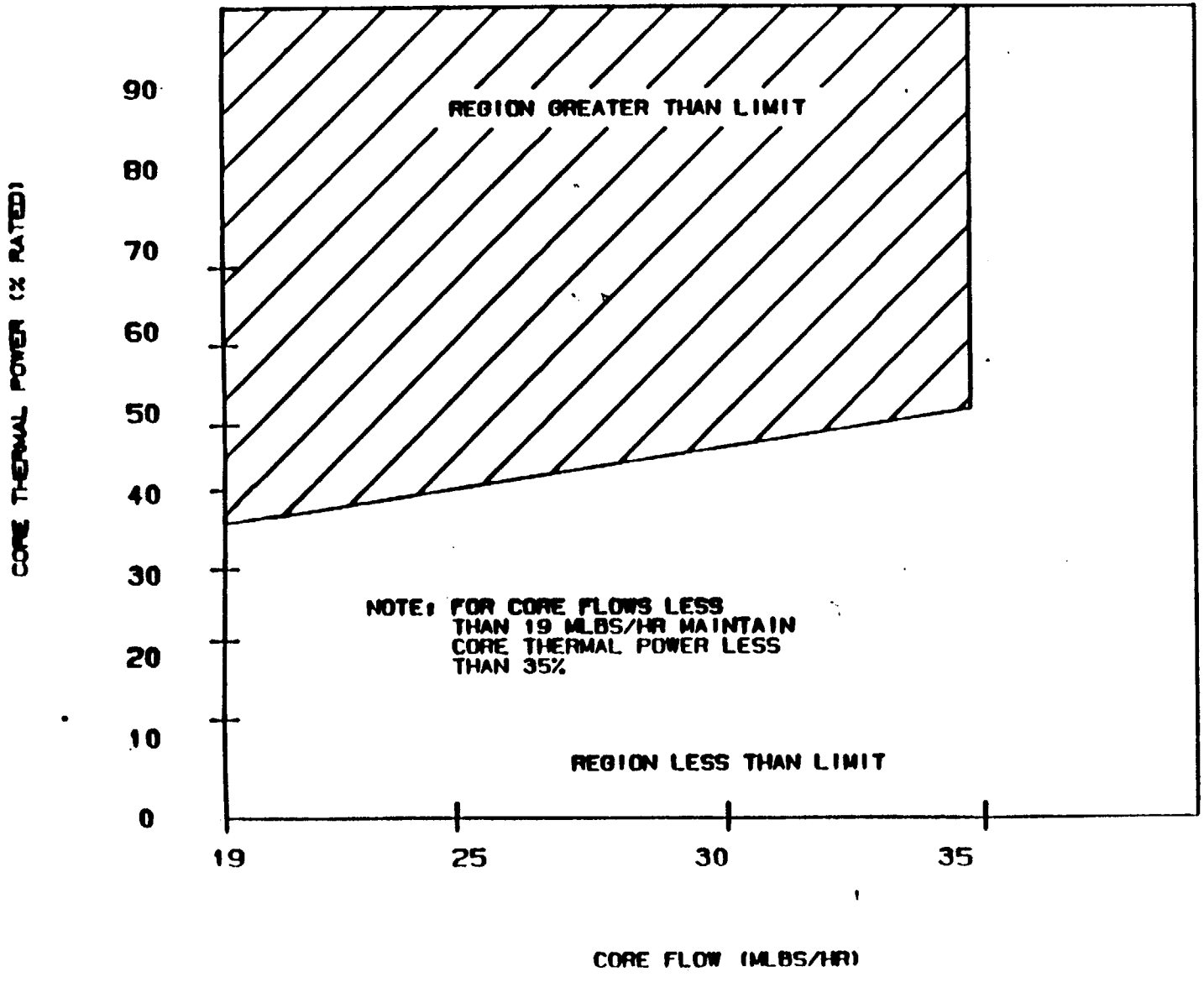
SURVEILLANCE REQUIREMENTS

4.4.1.1.1 Each pump discharge valve and bypass valve shall be demonstrated OPERABLE by cycling each valve through at least one complete cycle of full travel during each COLD SHUTDOWN which exceeds 48 hours, if not performed in the previous 31 days.

4.4.1.1.2 Each pump discharge bypass valve, if not OPERABLE, shall be verified to be closed at least once per 31 days.

4.4.1.1.3 Establish baseline APRM and LPRM neutron flux noise values at a point below the 100% rated rod line during startup testing following each refueling outage.

FIGURE 3.4.1.1-1
THERMAL POWER LIMITATIONS



3/4.4.1 RECIRCULATION SYSTEM

Operation with a reactor core coolant recirculation loop inoperable is restricted until an evaluation of the performance of the ECCS during one loop operation has been performed, evaluated, and determined to be acceptable.

An inoperable jet pump is not, in itself, a sufficient reason to declare a recirculation loop inoperable, but it does present a hazard in case of a design basis accident by increasing the blowdown area and eliminating the capability of reflooding the core. Thus, the requirement for shutdown of the facility with a jet pump inoperable.

In order to prevent undue stress on the vessel nozzles and bottom head region, the recirculation loop temperatures should be within 50°F of each other prior to start-up of an idle loop.

Since the coolant in the bottom of the vessel is at a lower temperature than the water in the upper regions of the core, undue stress on the vessel would result if the temperature difference were greater than 145°F.

Neutron flux noise limits are established to ensure early detection of limit cycle neutron flux oscillations. BWR cores typically operate with neutron flux noise caused by random boiling and flow noise. Typical neutron flux noise levels of 1 to 12% of rated power (peak-to-peak) have been reported for the range of low to high recirculation loop flow during both single and dual recirculation loop operation. Neutron flux noise levels significantly larger than these values are considered in the thermal/mechanical fuel design and are found to be of negligible consequence. In addition, stability tests at operating BWR's have demonstrated that when stability related neutron flux limit cycle oscillations occur they result in peak-to-peak neutron flux limit cycles 5 to 10 times the typical values. Therefore, actions taken to reduce neutron flux noise levels exceeding three (3) times the typical value are sufficient to ensure early detection of limit cycle neutron flux oscillations.

Data to establish baseline APRM and LPRM neutron flux noise values is obtained at a point below the 100% rated rod line. A minimum of two detectors of one LPRM string per core octant and two detectors of one LPRM string near the center of the core should be monitored. Detectors used for monitoring should be selected to provide core wide representation. Substitutions are permitted for inoperable LPRM detectors.

These specifications are based on the guidance of General Electric SIL #380, Rev. 1, 2-10-84.

ATTACHMENT TO LICENSE AMENDMENT NO. 141

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.

Remove Pages	Insert Pages
3/4 4-1	3/4 4-1
-	3/4 4-1a
-	3/4 4-1b
B 3/4 4-1	B 3/4 4-1

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 RECIRCULATION SYSTEM

RECIRCULATION LOOPS

LIMITING CONDITION FOR OPERATION

3.4.1.1 Two reactor coolant recirculation loops shall be in operation with the cross-tie valve closed, the pump discharge valves OPERABLE, the pump discharge bypass valves OPERABLE or closed and

a. Total core flow shall be greater than or equal to 35 million lbs/hr, or

b. THERMAL POWER shall be less than or equal to the limit specified in Figure 3.4.1.1-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1* and 2*.

ACTION:

a. With both reactor coolant system recirculation loops not in operation, immediately initiate an orderly reduction of THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, and restore both loops to operation within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours.

b. With one reactor coolant system recirculation loop not in operation, immediately initiate either an orderly reduction of THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours or increase core flow so that it is greater than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, and restore both loops to operation within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours.

c. With two reactor coolant system recirculation loops in operation and total core flow less than 35 million lbs/hr and THERMAL POWER greater than the limit specified in Figure 3.4.1.1-1:

   1. Immediately initiate action to reduce THERMAL POWER so that it is less than or equal to the limit specified in Figure 3.4.1.1-1 within 2 hours, or

   2. Immediately initiate action to increase core flow so that it is greater than 35 million lbs/hr within 2 hours, or

   3. Determine the APRM and LPRM neutron flux noise levels within 2 hours, and:

      a) If the APRM and LPRM neutron flux noise levels are less than three times their established baseline levels or less than 5% peak-to-peak, continue to determine the noise levels at least once per 24 hours and within 1 hour after the completion of a THERMAL POWER increase of at least 5% of RATED THERMAL POWER, or

      b) If the APRM or LPRM neutron flux noise levels are greater than or equal to three times their established baseline levels and greater than 5% peak-to-peak, immediately initiate corrective action and restore the noise levels to within the required limits within 2 hours by increasing core flow to greater than 35 million lbs/hr and/or by initiating an orderly reduction of

*See Special Test Exception 3.10.4.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

THERMAL POWER to less than or equal to the limit specified in Figure 3.4.1.1-1.

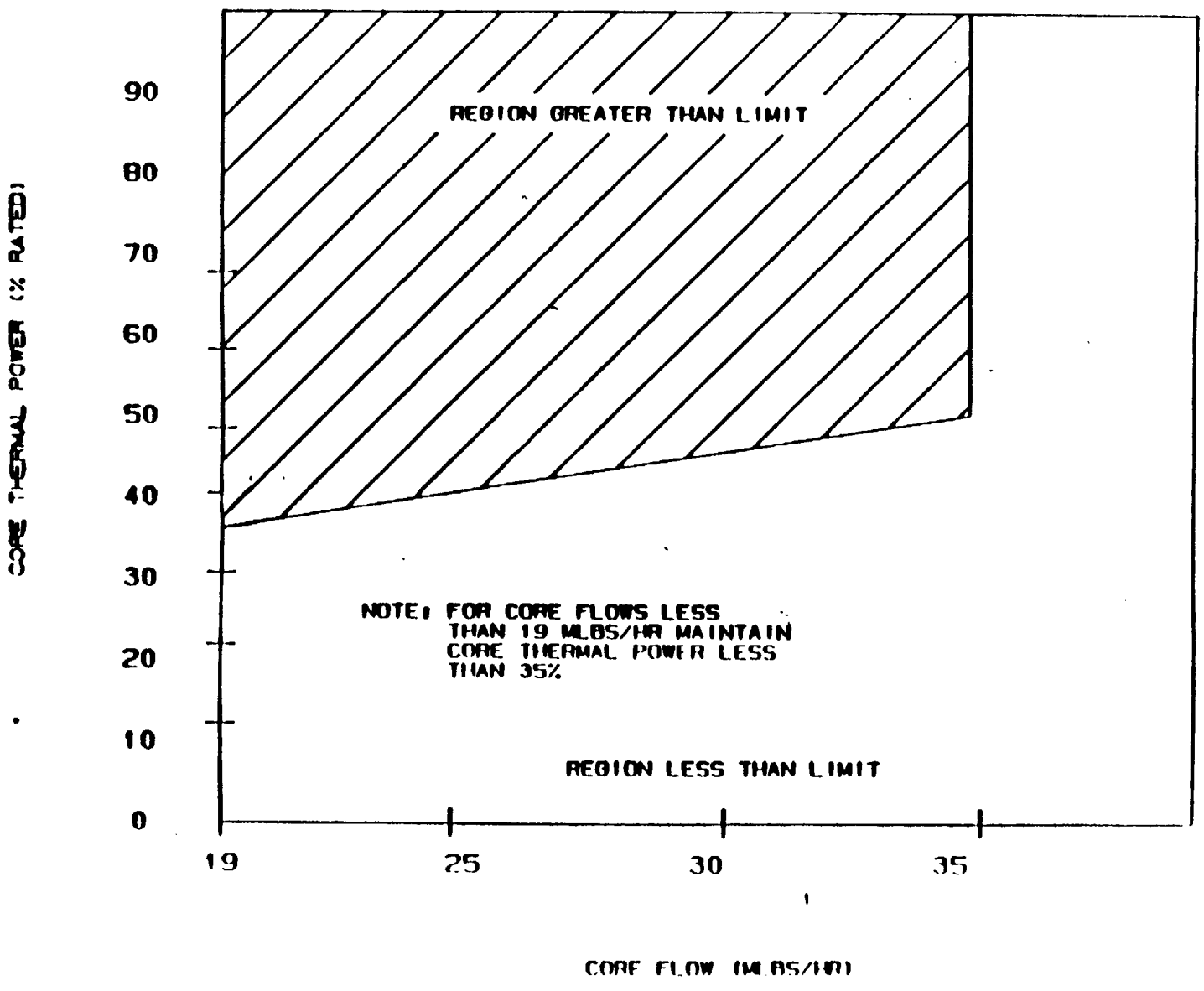
SURVEILLANCE REQUIREMENTS

4.4.1.1.1 Each pump discharge valve and bypass valve shall be demonstrated OPERABLE by cycling each valve through at least one complete cycle of full travel during each COLD SHUTDOWN which exceeds 48 hours, if not performed in the previous 31 days.

4.4.1.1.2 Each pump discharge bypass valve, if not OPERABLE, shall be verified to be closed at least once per 31 days.

4.4.1.1.3 Establish baseline APRM and LPRM neutron flux noise values at a point below the 100% rated rod line during startup testing following each refueling outage.

FIGURE 3.4.1.1-1
THERMAL POWER LIMITATIONS



3/4.4.1 RECIRCULATION SYSTEM

Operation with a reactor core coolant recirculation loop inoperable is restricted until an evaluation of the performance of the ECCS during one loop operation has been performed, evaluated, and determined to be acceptable.

An inoperable jet pump is not, in itself, a sufficient reason to declare a recirculation loop inoperable, but it does present a hazard in case of a design basis accident by increasing the blowdown area and eliminating the capability of reflooding the core. Thus, the requirement for shutdown of the facility with a jet pump inoperable.

In order to prevent undue stress on the vessel nozzles and bottom head region, the recirculation loop temperatures should be within 50°F of each other prior to start-up of an idle loop.

Since the coolant in the bottom of the vessel is at a lower temperature than the water in the upper regions of the core, undue stress on the vessel would result if the temperature difference were greater than 145°F.

Neutron flux noise limits are established to ensure early detection of limit cycle neutron flux oscillations. BWR cores typically operate with neutron flux noise caused by random boiling and flow noise. Typical neutron flux noise levels of 1 to 12% of rated power (peak-to-peak) have been reported for the range of low to high recirculation loop flow during both single and dual recirculation loop operation. Neutron flux noise levels significantly larger than these values are considered in the thermal/mechanical fuel design and are found to be of negligible consequence. In addition, stability tests at operating BWR's have demonstrated that when stability related neutron flux limit cycle oscillations occur they result in peak-to-peak neutron flux limit cycles 5 to 10 times the typical values. Therefore, actions taken to reduce neutron flux noise levels exceeding three (3) times the typical value are sufficient to ensure early detection of limit cycle neutron flux oscillations.

Data to establish baseline APRM and LPRM neutron flux noise values is obtained at a point below the 100% rated rod line. A minimum of two detectors of one LPRM string per core octant and two detectors of one LPRM string near the center of the core should be monitored. Detectors used for monitoring should be selected to provide core wide representation. Substitutions are permitted for inoperable LPRM detectors.

These specifications are based on the guidance of General Electric SIL #380, Rev. 1, 2-10-84.

ATTACHMENT TO LICENSE AMENDMENT NO. 115

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.

Remove Pages	Insert Pages
3/4 3-11	3/4 3-11
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
3/4 3-14	3/4 3-14
3/4 3-15	3/4 3-15
3/4 3-16	3/4 3-16
3/4 3-25	3/4 3-25
3/4 3-29b	3/4 3-29b
-	3/4 3-29c

TABLE 3.3.2-1

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level -				
1. Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1) (B21-LTM-N017A-1,B-1,C-1,D-1)	2, 6, 7, 8	2	1, 2, 3	20
2. Low, Level 2 (B21-LT-N024A-1,B-1, and B21-LT-N025A-1,B-1) (B21-LTM-N024A-1,B-1 and B21-LTM-N025A-1,B-1)	1, 3	2	1, 2, 3	20
b. Drywell Pressure - High (C71-PT-N002A,B,C,D) (C71-PTM-N002A-1,B-1,C-1,D-1)	2, 6, 7	2	1, 2, 3	20
c. Main Steam Line				
1. Radiation - High (D12-RM-K603A,B,C,D)	1	2	1, 2, 3	21
2. Pressure - Low (B21-PT-N015A,B,C,D) (B21-PTM-N015A-1,B-1,C-1,D-1)	1	2	1	22
3. Flow - High (B21-PDT-N006A,B,C,D; B21-PDT-N007A,B,C,D; B21-PDT-N008A,B,C,D; B21-PDT-N009A,B,C,D) (B21-PDTM-N006A-1,B-1,C-1,D-1; B21-PDTM-N007A-1,B-1,C-1,D-1; B21-PDTM-N008A-1,B-1,C-1,D-1; B21-PDTM-N009A-1,B-1,C-1,D-1)	1	2/line	1	22

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
PRIMARY CONTAINMENT ISOLATION (Continued)				
d. Main Steam Line Tunnel Temperature - High (B21-TS-N010A,B,C,D; B21-TS-N011A,B,C,D; B21-TS-N012A,B,C,D; B21-TS-N013A,B,C,D)	1	2(d)	1, 2, 3	21
e. Condenser Vacuum - Low (B21-PT-N056A,B,C,D) (B21-PTM-N056A-1,B-1,C-1,D-1)	1	2	1, 2(e)	21
f. Turbine Building Area Temperature - High (B21-TS-3225A,B,C,D; B21-TS-3226A,B,C,D; B21-TS-3227A,B,C,D; B21-TS-3228A,B,C,D; B21-TS-3229A,B,C,D; B21-TS-3230A,B,C,D; B21-TS-3231A,B,C,D; B21-TS-3232A,B,C,D)	1	4(d)	1, 2, 3	21

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
2. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Building Exhaust Radiation - High (D12-RM-N010A,B)	6	1	1, 2, 3, 5, and*	23
b. Drywell Pressure - High (C71-PT-N002A,B,C,D) (C71-PTM-N002A-1,B-1,C-1,D-1)	2, 6, 7	2	1, 2, 3	23
c. Reactor Vessel Water Level - Low, Level 2 (B21-LT-N024A-1,B-1 and B21-LT-N025A-1,B-1) (B21-LTM-N024A-1,B-1 and B21-LTM-N025A-1,B-1)	1, 3	2	1, 2, 3	23
3. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. A Flow - High (C31-dFS-N603-1A,1B)	3	1	1, 2, 3	24
b. Area Temperature - High (C31-TS-N600A,B,C,D,E,F)	3	2	1, 2, 3	24
c. Area Ventilation A Temp. - High (C31-TS-N602A,B,C,D,E,F)	3	2	1, 2, 3	24
d. SLCS Initiation (C41A-S1)	3 (f)	NA	1, 2, 3	24
e. Reactor Vessel Water Level - Low, Level 2 (B21-LT-N024 A-1,B-1 and B21-LT-N025 A-1,B-1) (B21-LTM-N024 A-1,B-1 and B21-LTM-N025 A-1,B-1)	1, 3	2	1, 2, 3	24

TABLE 3.3.2-1 (Continued)
ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
4. CORE STANDBY COOLING SYSTEMS ISOLATION				
a. High Pressure Coolant Injection System Isolation				
1. HPCI Steam Line Flow - High (E41-PDT-N004; E41-PDT-N005) (E41-PDTS-N004-2; E41-PDTS-N005-2)	4	1	1, 2, 3	25
2. HPCI Steam Line High Flow Time Delay Relay (E41-TDR-K33; E41-TDR-K43)	NA	1	1, 2, 3	25
3. HPCI Steam Supply Pressure - Low (E41-PSL-N001A,B,C,D)	4	2	1, 2, 3	25
4. HPCI Steam Line Tunnel Temperature - High (E41-TS-3314; E41-TS-3315; E41-TS-3316; E41-TS-3317; E41-TS-3318; E41-TS-3354; E41-TS-3488; E41-TS-3489)	4	2	1, 2, 3	25
5. Bus Power Monitor (E41-K55 and E41-K56)	NA(g)	1/bus	1, 2, 3	26
6. HPCI Turbine Exhaust Diaphragm Pressure - High (E41-PSH-N012A,B,C,D)	4	2	1, 2, 3	25

TABLE 3.3.2-1

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
5. Bus Power Monitor (E51-K42 and E51-K43)	NA (g)	1/bus	1, 2, 3	26
6. RCIC Turbine Exhaust Diaphragm Pressure - High (E51-PS-N012A,B,C,D)	5	2	1, 2, 3	25
7. RCIC Steam Line Ambient Temp - High (E51-TS-N603A,B)	5	1	1, 2, 3	25
8. RCIC Steam Line Area Δ Temp - High (E51-dTS-N604A,B)	5	1	1, 2, 3	25
9. RCIC Equipment Room Ambient Temp - High (E51-TS-N602A,B)	5	1	1, 2, 3	25
10. RCIC Equipment Room Δ Temp - High (E51-dTS-N601A,B)	5	1	1, 2, 3	25
5. SHUTDOWN COOLING SYSTEM ISOLATION				
a. Reactor Vessel Water Level - Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1) (B21-LTM-N017A-1,B-1,C-1,D-1)	2, 6, 7, 8	2	1, 2, 3	27
b. Reactor Steam Dome Pressure- High (B32-PS-N018A,B)	7, 8	1	1, 2, 3	27

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTIONS

ACTION 20 - Be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 21 - Be in at least START-UP with the main steam line isolation valves closed within 2 hours or be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.

ACTION 22 - Be in at least START-UP within 2 hours.

ACTION 23 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.

ACTION 24 - Isolate the reactor water cleanup system.

ACTION 25 - Close the affected system isolation valves and declare the affected system inoperable.

ACTION 26 - Verify power availability to the bus at least once per 12 hours.

ACTION 27 - Deactivate the shutdown cooling supply and reactor vessel head spray isolation valves in the closed position until the reactor steam dome pressure is within the specified limits.

NOTES

* When handling irradiated fuel in the secondary containment.

(a) See Specification 3.6.3.1, Table 3.6.3.1-1 for valves in each valve group.

(b) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

(c) With only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

(d) A channel is OPERABLE if 2 of 4 instruments in that channel are OPERABLE.

(e) With reactor steam pressure $\geq$ 500 psig.

(f) Closes only RWCU outlet isolation valve.

(g) Alarm only.

TABLE 4.3.2-1

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level -				
1. Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1)	NA[a]	NA	R[b]	1, 2, 3
(B21-LTM-N017A-1,B-1,C-1,D-1)	D	M	M	1, 2, 3
2. Low, Level 2 (B21-LT-N024A-1,B-1 and B21-LT-N025A-1,B-1)	NA[a]	NA	R[b]	1, 2, 3
(B21-LTM-N024A-1,B-1 and B21-LTM-N025A-1,B-1)	D	M	M	1, 2, 3
b. Drywell Pressure - High (C71-PT-N002A,B,C,D)	NA[a]	NA	R[b]	1, 2, 3
(C71-PTM-N002A-1,B-1,C-1,D-1)	D	M	M	1, 2, 3
c. Main Steam Line 1. Radiation - High (D12-RM-K603A,B,C,D)	D	W	R[d]	1, 2, 3
2. Pressure - Low (B21-PT-N015A,B,C,D)	NA[a]	NA	R[b]	1
(B21-PTM-N015A-1,B-1,C-1,D-1)	D	M	M	1
3. Flow - High (B21-PDT-N006A,B,C,D; B21-PDT-N007A,B,C,D; B21-PDT-N008A,B,C,D; B21-PDT-N009A,B,C,D)	NA[a]	NA	R[b]	1
(B21-PDTM-N006A-1,B-1,C-1,D-1; B21-PDTM-N007A-1,B-1,C-1,D-1; B21-PDTM-N008A-1,B-1,C-1,D-1; B21-PDTM-N009A-1,B-1,C-1,D-1)	D	M	M	1

TABLE 4.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
5. SHUTDOWN COOLING SYSTEM ISOLATION				
a. Reactor Vessel Water Level - Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1)	NA[a]	NA	R[b]	1, 2, 3
(B21-LTM-N017A-1,B-1,C-1,D-1)	D	M	M	1, 2, 3
b. Reactor Steam Dome Pressure - High (B32-PS-N018A,B)	NA	S/U[c], M	R	1, 2, 3

TABLE 4.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

NOTES

* When handling irradiated fuel in the secondary containment.

When reactor steam pressure $\geq$ 500 psig.

(a) The transmitter channel check is satisfied by the trip unit channel check. A separate transmitter check is not required.

(b) Transmitters are exempted from the monthly channel calibration.

(c) If not performed within the previous 31 days.

(d) Testing shall verify that the mechanical vacuum pump trips and the mechanical vacuum pump line valve closes.

ATTACHMENT TO LICENSE AMENDMENT NO. 142

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.

Remove Pages	Insert Pages
3/4 3-11	3/4 3-11
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
3/4 3-14	3/4 3-14
3/4 3-15	3/4 3-15
3/4 3-16	3/4 3-16
3/4 3-16a	3/4 3-16a
3/4 3-25	3/4 3-25
3/4 3-29c	3/4 3-29c

TABLE 3.3.2-1

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level -				
1. Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1) (B21-LTM-N017A-1,B-1,C-1,D-1)	2, 6, 7, 8	2	1, 2, 3	20
2. Low, Level 2 (B21-LT-N024A-1,B-1, and B21-LT-N025A-1,B-1) (B21-LTM-N024A-1,B-1, and B21-LTM-N025A-1,B-1)	1, 3	2	1, 2, 3	20
b. Drywell Pressure - High (C72-PT-N002A,B,C,D) (C72-PTM-N002A-1,B-1,C-1,D-1)	2, 6, 7	2	1, 2, 3	20
c. Main Steam Line				
1. Radiation - High (D12-RM-K603A,B,C,D)	1	2	1, 2, 3(h)	21
2. Pressure - Low (B21-PT-N015A,B,C,D) (B21-PTM-N015A-1,B-1,C-1,D-1)	1	2	1	22
3. Flow - High (B21-PDT-N006A,B,C,D; B21-PDT-N007A,B,C,D; B21-PDT-N008A,B,C,D; B21-PDT-N009A,B,C,D) (B21-PDTM-N006A-1,B-1,C-1,D-1; B21-PDTM-N007A-1,B-1,C-1,D-1; B21-PDTM-N008A-1,B-1,C-1,D-1; B21-PDTM-N009A-1,B-1,C-1,D-1)	1	2/line	1	22

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
PRIMARY CONTAINMENT ISOLATION (Continued)				
4. Flow - High (B21-PDTS-N006A-2; B21-PDTS-N007B-2; B21-PDTS-N008C-2; B21-PDTS-N009D-2)	1	2	2, 3	21
d. Main Steam Line Tunnel Temperature - High (B21-TS-N010A,B,C,D; B21-TS-N011A,B,C,D; B21-TS-N012A,B,C,D; B21-TS-N013A,B,C,D)	1	2(d)	1, 2, 3	21
e. Condenser Vacuum - Low (B21-PT-N056A,B,C,D) (B21-PTM-N056A-1,B-1,C-1,D-1)	1	2	1, 2(e)	21
f. Turbine Building Area Temperature - High (B21-TS-3225A,B,C,D; B21-TS-3226A,B,C,D; B21-TS-3227A,B,C,D; B21-TS-3228A,B,C,D; B21-TS-3229A,B,C,D; B21-TS-3230A,B,C,D; B21-TS-3231A,B,C,D; B21-TS-3232A,B,C,D)	1	4(d)	1, 2, 3	21

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
2. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Building Exhaust Radiation - High (D12-RM-N010A,B)	6	1	1, 2, 3, 5, and*	23
b. Drywell Pressure - High (C72-PT-N002A,B,C,D) (C72-PTM-N002A-1,B-1,C-1,D-1)	2, 6, 7	2	1, 2, 3	23
c. Reactor Vessel Water Level - Low, Level 2 (B21-LT-N024A-1,B-1, and B21-LT-N025A-1,B-1) (B21-LTM-N024A-1,B-1, and B21-LTM-N025A-1,B-1)	1, 3	2	1, 2, 3	23
3. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. Δ Flow - High (C31-dFS-N603-1A,1B)	3	1	1, 2, 3	24
b. Area Temperature - High (C31-TS-N600A,B,C,D,E,F)	3	2	1, 2, 3	24
c. Area Ventilation Δ Temp. - High (C31-TS-N602A,B,C,D,E,F)	3	2	1, 2, 3	24
d. SLCS Initiation (C41A-S1)	3(f)	NA	1, 2, 3	24
e. Reactor Vessel Water Level - Low, Level 2 (B21-LT-N024A-1,B-1, and B21-LT-N025A-1,B-1) (B21-LTM-N024A-1,B-1, and B21-LTM-N025A-1,B-1)	1, 3	2	1, 2, 3	24

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
4. CORE STANDBY COOLING SYSTEMS ISOLATION				
a. High Pressure Coolant Injection System Isolation				
1. HPCI Steam Line Flow - High (E41-PDT-N004; E41-PDT-N005) (E41-PDTS-N004-2; E41-PDTS-N005-2)	4	1	1, 2, 3	25
2. HPCI Steam Line High Flow Time Delay Relay (E41-TDR-K33; E41-TDR-K43)	NA	1	1, 2, 3	25
3. HPCI Steam Supply Pressure - Low (E41-PSL-N001A,B,C,D)	4	2	1, 2, 3	25
4. HPCI Steam Line Tunnel Temperature - High (E41-TS-3314; E41-TS-3315; E41-TS-3316; E41-TS-3317; E41-TS-3318; E41-TS-3354; E41-TS-3488; E41-TS-3489)	4	2	1, 2, 3	25
5. Bus Power Monitor (E41-K55 and E41-K56)	NA(g)	1/bus	1, 2, 3	26
6. HPCI Turbine Exhaust Diaphragm Pressure - High (E41-PSH-N012A,B,C,D)	4	2	1, 2, 3	25

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION AND INSTRUMENT NUMBER	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
5. Bus Power Monitor (E51-K42 and E51-K43)	NA(g)	1/bus	1, 2, 3	26
6. RCIC Turbine Exhaust Diaphragm Pressure - High (E51-PS-N012A,B,C,D)	5	2	1, 2, 3	25
7. RCIC Steam Line Ambient Temp. - High (E51-TS-N603A,B)	5	1	1, 2, 3	25
8. RCIC Steam Line Area Δ Temp. - High (E51-dTS-N604A,B)	5	1	1, 2, 3	25
9. RCIC Equipment Room Ambient Temp. - High (E51-TS-N602A,B)	5	1	1, 2, 3	25
10. RCIC Equipment Room Δ Temp. - High (E51-dTS-N601A,B)	5	1	1, 2, 3	25
5. SHUTDOWN COOLING SYSTEM ISOLATION				
a. Reactor Vessel Water Level - Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1) (B21-LTM-N017A-1,B-1,C-1,D-1)	2, 6, 7, 8	2	1, 2, 3	27
b. Reactor Steam Dome Pressure - High (B32-PS-N018A,B)	7, 8	1	1, 2, 3	27

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTIONS

ACTION 20 - Be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 21 - Be in at least STARTUP with the main steam line isolation valves closed within 2 hours or be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.

ACTION 22 - Be in at least STARTUP within 2 hours.

ACTION 23 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.

ACTION 24 - Isolate the reactor water cleanup system.

ACTION 25 - Close the affected system isolation valves and declare the affected system inoperable.

ACTION 26 - Verify power availability to the bus at least once per 12 hours.

ACTION 27 - Deactivate the shutdown cooling supply and reactor vessel head spray isolation valves in the closed position until the reactor steam dome pressure is within the specified limits.

NOTES

* When handling irradiated fuel in the secondary containment.

a. See Specification 3.6.3.1, Table 3.6.3.1-1 for valves in each valve group.

b. A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

c. With only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

d. A channel is OPERABLE if 2 of 4 instruments in the channel are OPERABLE.

e. With reactor steam pressure $\geq$ 500 psig.

f. Closes only RWCU outlet isolation valve.

g. Alarm only.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTIONS

(h) Within 24 hours prior to the planned start of the hydrogen injection test, with reactor power at greater than 22% of rated thermal power, the normal full-power radiation background level and associated trip setpoints may be changed based on a calulated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test program based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and the associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of the hydrogen injection test or within 12 hours of establishing reactor power levels below 22% of rated thermal power, while these functions are required to be operable.

TABLE 4.3.2-1

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level -				
1. Low, Level 1 (B21-LT-N017A-1,B-1,C-1,D-1)	NA[a]	NA	R[b]	1, 2, 3
(B21-LTM-N017A-1,B-1,C-1,D-1)	D	M	M	1, 2, 3
2. Low, Level 2 (B21-LT-N024A-1,B-1 and B21-LT-N025A-1,B-1)	NA[a]	NA	R[b]	1, 2, 3
(B21-LTM-N024A-1,B-1 and B21-LTM-N025A-1,B-1)	D	M	M	1, 2, 3
b. Drywell Pressure - High (C72-PT-N002A,B,C,D)	NA[a]	NA	R[b]	1, 2, 3
(C72-PTM-N002A-1,B-1,C-1,D-1)	D	M	M	1, 2, 3
c. Main Steam Line				
1. Radiation - High (D12-RM-K603A,B,C,D)	D	W	R[d]	1, 2, 3
2. Pressure - Low (B21-PT-N015A,B,C,D)	NA[a]	NA	R[b]	1
(B21-PTM-N015A-1,B-1,C-1,D-1)	D	M	M	1
3. Flow - High (B21-PDT-N006A,B,C,D; B21-PDT-N007A,B,C,D; B21-PDT-N008A,B,C,D; B21-PDT-N009A,B,C,D)	NA[a]	NA	R[b]	1
(B21-PDTM-N006A-1,B-1,C-1,D-1; B21-PDTM-N007A-1,B-1,C-1,D-1; B21-PDTM-N008A-1,B-1,C-1,D-1; B21-PDTM-N009A-1,B-1,C-1,D-1)	D	M	M	1

TABLE 4.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

NOTES

* When handling irradiated fuel in the secondary containment.

\# When reactor steam pressure $\geq$ 500 psig.

(a) The transmitter channel check is satisfied by the trip unit channel check. A separate transmitter check is not required.

(b) Transmitters are exempted from the monthly channel calibration.

(c) If not performed within the previous 31 days.

(d) Testing shall verify that the mechanical vacuum pump trips and the mechanical vacuum pump line valve closes.