ATTACHMENT I

PROPOSED CHANGES TO
TECHNICAL SPECIFICATIONS

9004120217 900329
PDR ADOCK 05000413
P PDC

Capable of being closed by operator action during periods when containment isolation valves may be opened under administrative controls pursuant to Surveillance Requirement 4.6.1.1.

DEFINITIONS

CONTAINMENT INTEGRITY

1.7 CONTAINMENT INTEGRITY shall exist when:

a. All penetrations required to be closed during accident conditions are either:

1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or

2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, ~~except as provided in Table 3.6-2 of Specification 3.6.3,~~ or

3)

b. All equipment hatches are closed and sealed,

c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,

d. The containment leakage rates are within the limits of Specification 3.6.1.2, and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATION

1.9 CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microCurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

$\bar{E}$ - AVERAGE DISINTEGRATION ENERGY

1.11 $\bar{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the sample) of the sum of the average beta and gamma energies per disintegration (MeV/d) for the radionuclides in the sample.

or operator action during periods when containment isolation valves are open under administrative control **,

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions~~, except as provided in Table 3.6-2 of Specification 3.6.3~~.

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3; and

c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than P_a, 14.68 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than to 0.60 L_a.

* Except valves, blind flanges, and deactivated automatic valves which are located inside the annulus or the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

** Valves which may be opened on an intermittent basis under administrative control are identified in FSAR Tables 16.6.2-1 and 16.6.2-2.

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of:

1) Less than or equal to L_a, 0.30% by weight of the containment air per 24 hours at P_a, 14.68 psig, or

2) (Unit 1) Less than or equal to L_t, 0.12% by weight of the containment air per 24 hours at a reduced pressure of P_t, 7.34 psig.

b. A combined leakage rate of less than 0.60 L_a for all penetrations and valves subject to Type B and C tests, when pressurized to P_a, and

c. A combined bypass leakage rate of less than 0.07 L_a for all penetrations identified ~~in Table 3.6-1~~ as secondary containment* bypass leakage paths when pressurized to P_a

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With: (a) the measured overall integrated containment leakage rate exceeding 0.75 L_a or 0.75 L_t, as applicable, or (b) the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding 0.60 L_a, or (c) the combined bypass leakage rate exceeding 0.07 L_a, restore the overall integrated leakage rate to less than 0.75 L_a or less than 0.75 L_t, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than 0.60 L_a, and the combined bypass leakage rate to less than 0.07 L_a prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972 or the mass-plot method:

* Secondary containment bypass leakage paths are identified in Catawba FSAR Table 16.6-1.

TABLE 3.6-1

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M216	Pressurizer Relief Tank Makeup	Auxiliary Building	Type C
M212	Nitrogen to Pressurizer Relief Tank	Auxiliary Building	Type C
M327	Reactor Coolant Pump Motor Drain Tank Pump Discharge	Auxiliary Building	Type C
M259	Reactor Makeup Water Flush Header	Auxiliary Building	Type C
M373	Ice Condenser Glycol Pumps Discharge Line	Auxiliary Building	Type C
M372	Ice Condenser Glycol Pumps Suction Line	Auxiliary Building	Type C
M332	Cont. Hydrogen Purge Inlet Blower Discharge Line	Atmosphere	Type C
M348	Reactor Coolant Drain Tank Gas Space to Waste Gas System	Auxiliary Building	Type C
M221	Ventilation Unit Condensate Drain Header	Auxiliary Building	Type C
M356	Equipment Decontamination Line	Auxiliary Building	Type C
M358	Refueling Water Pump Suction	Auxiliary Building	Type C
M377	Refueling Cavity Fill Line	Auxiliary Building	Type C
M235	Pressurizer Sample	Auxiliary Building	Type C
M310	Reactor Coolant Hot leg Sample	Auxiliary Building	Type C

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TABLE 3.6-1 (Continued)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M323	Component Cooling to Component Cooling Drain Sump	Auxiliary Building	Type C
M240	Nuclear Service Water to Reactor Coolant Pump and Lower Cont. Vent. Units	Auxiliary Building	Type C
M230	Nuclear Service Water from Reactor Coolant Pump and Lower Cont. Vent. Units	Auxiliary Building	Type C
M385	Nuclear Service Water to Upper Containment Ventilation Units In	Turbine Building	Type C
M308	Nuclear Service Water to Upper Containment Ventilation Units Out	Turbine Building	Type C
M213	Incore Instrumentation Room Purge In	Auxiliary Building	Type C
M140	Incore Instrumentation Room Purge Out	Auxiliary Building	Type C
M456	Upper Compartment Purge Inlet	Auxiliary Building	Type C
M432	Upper Compartment Purge Inlet	Auxiliary Building	Type C
M357	Lower Compartment Purge Inlet	Auxiliary Building	Type C
M368	Containment Purge Exhaust	Auxiliary Building	Type C
M433	Containment Purge Exhaust	Auxiliary Building	Type C
M434	Lower Compartment Purge Inlet	Auxiliary Building	Type C

TABLE 3.6-1 (Continued)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M386	Containment Air Release	Auxiliary Building	Type C
M204	Containment Air Addition	Auxiliary Building	Type C
M316	Int. Fire Protection Header - Hose Racks	Auxiliary Building	Type C
M337	Demineralized Water	Auxiliary Building	Type C
M220	Instrument Air	Auxiliary Building	Type C
M219	Station Air	Auxiliary Building	Type C
M215	Breathing Air	Auxiliary Building	Type C
M329	Reactor Coolant Pump Motor Oil Fill	Auxiliary Building	Type C
M361	Int. Fire Protection Header - Sprinklers	Auxiliary Building	Type C
M119	Containment Purge Exhaust	Auxiliary Building	Type C
M331	Nitrogen Supply to Cold Leg Accumulators	Auxiliary Building	Type C
M322	Safety Injection Test Line	Auxiliary Building	Type C
M454	UHI Test Line	Auxiliary Building	Type C Note 1
M328*	Component Cooling to Reactor Vessel Support and RCP Coolers	Auxiliary Building	Type C

*Not applicable for Unit 1 until after the first refueling outage.

Note 1: Upon capping of penetrations associated with deletion of UHI, this specification is no longer applicable.

~~TABLE 3.6-2~~

Unit one penetrations (all are test type B and C) that need not be tested until prior to entering HOT SHUTDOWN following the Unit One first refueling.

PENETRATION NUMBER	SERVICE	RELEASE LOCATION
M230	Nuclear Service Water from Reactor Coolant Pump and Lower Containment Ventilation Units.	Auxiliary Building
M215	Breathing Air	Auxiliary Building
M219	Station Air	Auxiliary Building
M358	Refueling Water Pump Suction	Auxiliary Building
M356	Equipment Decontamination Line	Auxiliary Building
M345	Recycle Holdup Tank from Reactor Coolant Drain Tank (Valve 1WL506 only)	Auxiliary Building
M204	Containment Air Addition	Auxiliary Building
M259	Reactor Makeup Water Flush Header	Auxiliary Building
E101-450	Electrical penetrations for various equipment	Auxiliary Building
M374	Containment Floor Sump and Incore Instrumentation Sump Pump Discharge	Auxiliary Building

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves ~~specified in Tables 3.6-2a and 3.6-2b~~ shall be OPERABLE with isolation times ~~as shown in Tables 3.6-2a and 3.6-2b.~~ less than or equal to the required isolation times*.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one or more ~~of the~~ containment isolation valve(s) specified in ~~Tables 3.6-2a and 3.6-2b~~ FSAR Section 16.6 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 ~~The~~ Each containment isolation valves ~~specified in Tables 3.6-2a and 3.6-2b~~ shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

* Required isolation times are provided in FSAR Section 16.6.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each containment isolation valve ~~specified in Table 3.6-2a and 3.6-2b~~ shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;**

b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position;**

c. Verifying that on a Containment Radioactivity-High test signal, each purge and exhaust valve actuates to its isolation position; and

d. Verifying that on a High Relative Humidity (≥70%) isolation test signal, each upper and lower containment purge supply and exhaust valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic containment isolation valve ~~of Table 3.6-2a and 3.6-2b~~ shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

**This surveillance need not be performed until prior to entering HOT SHUTDOWN following the Unit 1 first refueling.

TABLE 3.6-2a

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation		
BB-57B#	Steam Generator 1A Blowdown Containment Outside Isolation	10
BB-21B#	Steam Generator 1B Blowdown Containment Outside Isolation	10
BB-61B#	Steam Generator 1C Blowdown Containment Outside Isolation	10
BB-10B#	Steam Generator 1D Blowdown Containment Outside Isolation	10
BB-56A#	Steam Generator 1A Blowdown Containment Inside Isolation	10
BB-19A#	Steam Generator 1B Blowdown Containment Inside Isolation	10
BB-60A#	Steam Generator 1C Blowdown Containment Inside Isolation	10
BB-8A#	Steam Generator 1D Blowdown Containment Inside Isolation	10
BB-148B#	Steam Generator 1A Blowdown Containment Isolation Bypass	10
BB-150B#	Steam Generator 1B Blowdown Containment Isolation Bypass	10
BB-149B#	Steam Generator 1C Blowdown Containment Isolation Bypass	10
BB-147B#	Steam Generator 1D Blowdown Containment Isolation Bypass	10
CA-149#	Steam Generator 1A Main Feedwater to Auxiliary Feedwater Nozzle Isolation	5
CA-150#	Steam Generator 1B Main Feedwater to Auxiliary Feedwater Nozzle Isolation	5
CA-151#	Steam Generator 1C Main Feedwater to Auxiliary Feedwater Nozzle Isolation	5
CA-152#	Steam Generator 1D Main Feedwater to Auxiliary Feedwater Nozzle Isolation	5
CA-185#	Auxiliary Nozzle Temper SG1A	5
CA-186#	Auxiliary Nozzle Temper SG1B	5
CA-187#	Auxiliary Nozzle Temper SG1C	5
CA-188#	Auxiliary Nozzle Temper SG1D	5
CF-60#	Steam Generator 1D Feedwater Containment Isolation	5
CF-51#	Steam Generator 1C Feedwater Containment Isolation	5
CF-42#	Steam Generator 1B Feedwater Containment Isolation	5
CF-33#	Steam Generator 1A Feedwater Containment Isolation	5
CF-90#	Steam Generator 1A Feedwater Purge Valve	5
CF-89#	Steam Generator 1B Feedwater Purge Valve	5
CF-88#	Steam Generator 1C Feedwater Purge Valve	5
CF-87#	Steam Generator 1D Feedwater Purge Valve	5

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TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
KC-305B#	Excess Letdown Hx Supply Containment Isolation (Outside)	≤20
KC-315B#	Excess Letdown Hx Return Header Containment Isolation (Outside)	≤20
KC-320A#	NCDT Hx Supply Hdr Containment Isolation (Outside)	≤20
KC-332B#	NCDT Hx Return Hdr Containment Isolation (Inside)	≤20
KC-333A#	NCDT Hx Return Hdr Containment Isolation (Outside)	≤20
KC-429B	RB Drain Header Inside Containment Isolation	≤10
KC-430A	RB Drain Header Outside Containment Isolation	≤10
NB-260B	Reactor Makeup Water Tank to Flush Header	≤10
NC-53B	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Outside	≤10
NC-54A	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Inside	≤10
NC-56B	RMW Pump Disch Cont Isolation	≤10
NC-195B	NC Pump Motor Oil Containment Isolation Outside	≤10
NC-196A	NC Pump Motor Oil Containment Isolation Inside	≤10
NF-228A	Unit 1 Air Handling Units Glycol Supply Containment Isolation Outside	≤10
NF-233B	Unit 1 Air Handling Units Glycol Return Containment Isolation Inside	≤10
NF-234A	Unit 1 Air Handling Units Glycol Return Containment Isolation Outside	≤10
NI-47A	Accumulator N_2 Supply Outside Containment Isolation	≤10
NI-95A	Test Hdr Inside Containment Isolation	≤10
NI-96B	Test Hdr Outside Containment Isolation	≤10
NI-120B	Safety Injection Pump to Accumulator Fill Line Isolation	≤10
NI-122B#	Hot Leg Injection Check 1NI124, 1NI128 Test Isolation	≤10
NI-154B#	Hot Leg Recirculation Check 1NI125, 1NI129 Test Isolation	≤10
NI-255B	UHI Check Valve Test Line Isolation	≤10 } Note 1
NI-258A	UHI Check Valve Test Line Isolation	≤10
NI-264B	UHI Check Valve Test Line Outside Containment Isolation	≤10

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
NI-266A	UHI Check Valve Test Line Inside Containment Isolation	<10 Note 1
NI-267A	UHI Check Valve Test Line Inside Containment Isolation	<10
NI-153A#	Hot Leg Injection Check NI156, NI159 Test Isolation	<10
NM-3A	Pressurizer Liquid Sample Line Inside Containment Isolation	<10
NM-6A	Pressurizer Steam Sample Line Inside Containment Isolation	<10
NM-7B	Pressurizer Sample Header Outside Containment Isolation	<10
NM-22A	NC Hot Leg A Sample Line Inside Containment Isolation	<10
NM-25A	NC Hot Leg C Sample Line Inside Containment Isolation	<10
NM-26B	NC Hot Leg Sample Hdr Outside Containment Isolation	<10
NM-72B	NI Accumulator 1A Sample Line Inside Containment Isolation	<10
NM-75B	NI Accumulator 1B Sample Line Inside Containment Isolation	<10
NM-78B	NI Accumulator 1C Sample Line Inside Containment Isolation	<10
NM-81B	NI Accumulator 1D Sample Line Inside Containment Isolation	<10
NM-82A	NI Accumulator Sample Hdr Outside Containment Isolation	<10
NM-187A#	SG 1A Upper Shell Sample Containment Isolation Inside	<10
NM-190A#	SG 1A Blowdown Line Sample Containment Isolation Inside	<10
NM-191B#	SG 1A Sample Hdr Containment Isolation Outside	<10
NM-197B#	SG 1B Upper Shell Sample Containment Isolation Inside	<10
NM-200B#	SG 1B Blowdown Line Sample Containment Isolation Inside	<10
NM-201A#	SG 1B Sample Hdr Containment Isolation Outside	<10
NM-207A#	SG 1C Upper Shell Sample Containment Isolation Inside	<10
NM-210A#	SG 1C Blowdown Line Sample Containment Isolation Inside	<10
NM-211B#	SG 1C Sample Hdr Containment Isolation Outside	<10
NM-217B#	SG 1D Upper Shell Sample Containment Isolation Inside	<10
NM-220B#	SG 1D Blowdown Line Sample Containment Isolation Inside	<10
NM-221A#	SG 1D Sample Hdr Containment Isolation Outside	<10
NV-15B	Letdown Containment Isolation Outside	<10
NV-89A	NC Pumps Seal Return Containment Isolation Inside	<10
NV-91B	NC Pumps Seal Return Containment Isolation Outside	<10
NV-314B#	Charging Line Containment Isolation Outside	<10

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable

TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
NV-11A	45 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-13A	75 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-10A	High Pressurizer Letdown Orifice Outlet - Containment Isolation	≤10
NV-872A	Standby Makeup Pump to RCS seals	≤10
RF-389B	Interior Fire Protection Containment Hose Rack Isolation Valve (Outside Containment)	≤5
RF-447B	Reactor Building Sprinklers Containment Isolation Valve (Outside Containment)	≤5
VB-83B	Breathing Air Unit 1 Containment Isolation	≤10
VY-18B**	Containment H_2 Purge to Annulus Inside Containment Isolation	≤10
VY-17A**	Containment H_2 Purge to Annulus Outside Containment Isolation	≤10
VY-15B**	Containment H_2 Purge Blower Outlet, Containment Isolation (Outside)	≤10
VI-312A	RB Isolation Valve for VI Supply to annulus Vent.	≤10
VP-1B**	Upper Containment Purge Supply #1 Outside Isolation	≤5
VP-2A**	Upper Containment Purge Supply #1 Inside Isolation	≤5
VP-3B**	Upper Containment Purge Supply #2 Outside Isolation	≤5
VP-4A**	Upper Containment Purge Supply #2 Inside Isolation	≤5
VP-6B**	Lower Containment Purge Supply #1 Outside Isolation	≤5
VP-7A**	Lower Containment Purge Supply #1 Inside Isolation	≤5
VP-8B**	Lower Containment Purge Supply #2 Outside Isolation	≤5
VP-9A**	Lower Containment Purge Supply #2 Inside Isolation	≤5
VP-10A**	Upper Containment Purge Exhaust #1 Inside Isolation	≤5

TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
VP-11B**	Upper Containment Purge Exhaust #1 Outside Isolation	≤5
VP-12A**	Upper Containment Purge Exhaust #2 Inside Isolation	≤5
VP-13B**	Upper Containment Purge Exhaust #2 Outside Isolation	≤5
VP-15A**	Lower Containment Purge Exhaust #1 Inside Isolation	≤5
VP-16B**	Lower Containment Purge Exhaust #1 Outside Isolation	≤5
VP-17A**	Incore Instru. Room Purge Supply Inside Isolation	≤5
VP-18B**	Incore Instru. Room Purge Supply Outside Isolation	≤5
VP-19A**	Incore Instru. Room Purge Exhaust Inside Isolation	≤5
VP-20B**	Incore Instru. Room Purge Exhaust Outside Isolation	≤5
VQ-2A**	Containment Air Release Inside Isolation	≤5
VQ-3B**	Containment Air Release Outside Isolation	≤5
VQ-15B**	Containment Air Addition Outside Isolation	≤5
VQ-16A**	Containment Air Addition Inside Isolation	≤5
VS-54B	Unit 1 Containment Header Outside Isolation	≤15
WL-807B#	NCDT Pumps Discharge Outside Containment Isolation	≤10
WL-805A#	NCDT Pumps Discharge Inside Containment Isolation	≤10
WL-450A	NCDT Vent Inside Containment Isolation	≤10
WL-451B	NCDT Vent Outside Containment Isolation	≤10
WL-825A#**	RB Sump Pump Discharge Inside Containment Isolation	≤10
WL-827B#**	RB Sump Pump Discharge Outside Containment Isolation	≤10
YM-119B	Demin. Water Containment Outside Isolation	≤10
2. Phase "B" Isolation		
KC-338B#	NC Pump Supply Header Pent. Isolation (Outside)	≤40
KC-424B#	NC Pumps Return Hdr. Pent. Inside Isolation	≤40
KC-425A#	NC Pumps Return Hdr. Outside Isolation	≤40

TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation (Continued)		
RN-437B	Supply to NC Pumps and LCVU Supply Outside Containment Isolation	<60
RN-484A	Return from NC Pumps and LCVU Return Inside Containment Isolation	<60
RN-487B	Return from NC Pumps and LCVU Return Outside Containment Isolation	<60
RN-404B	Supply to Upper Containment Supply Ventilation Units Containment Isolation (Outside)	<10
RN-429A	Return from Upper Containment Ventilation Units Containment Isolation (Inside)	<10
RN-432B	Return from Upper Containment Ventilation Units Containment Isolation (Outside)	<10
VI-77B	Instrument Air Containment Outside Isolation	<10
SM-1 #	Main Steam 1D Isolation	<5
SM-3 #	Main Steam 1C Isolation	<5
SM-5 #	Main Steam 1B Isolation	<5
SM-7 #	Main Steam 1A Isolation	<5
SM-9 #	Main Steam 1D Isolation Bypass Ctrl.	<5
SM-10 #	Main Steam 1C Isolation Bypass Ctrl.	<5
SM-11 #	Main Steam 1B Isolation Bypass Ctrl.	<5
SM-12 #	Main Steam 1A Isolation Bypass Ctrl.	<5
SV-19 #	Main Steam 1A PORV	<5
SV-13 #	Main Steam 1B PORV	<5
SV-7 #	Main Steam 1C PORV	<5
SV-1 #	Main Steam 1D PORV	<5
WL-867A**	Containment Vent Unit Drains Inside Containment Isolation	<10
WL-869B**	Containment Vent Unit Drains Outside Containment Isolation	<10

TABLE 3.6-2a (Continued)

CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
3. Manual		
NC-141	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NC-142	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NI-3	Boron Injection Tank Line to Cold Legs	N.A.
FW-11	Refueling Water Pump Suction	N.A.
FW-13	Refueling Water Pump Suction	N.A.
CF-91#	Feedwater 1A	N.A.
CF-93#	Feedwater 1B	N.A.
CF-95#	Feedwater 1C	N.A.
CF-97#	Feedwater 1D	N.A.
CA-121#	Aux. Feedwater 1A	N.A.
BW-1#	Aux. Feedwater 1A	N.A.
CA-120#	Aux. Feedwater 1B	N.A.
BW-26#	Aux. Feedwater 1B	N.A.
CA-119#	Aux. Feedwater 1C	N.A.
BW-17#	Aux. Feedwater 1C	N.A.
CA-118#	Aux. Feedwater 1D	N.A.
BW-10#	Aux. Feedwater 1D	N.A.
SM-16#	Main Steam 1A	N.A.
SM-73#*	Main Steam 1A	N.A.
SM-105#	Main Steam 1A	N.A.
SM-121#	Main Steam 1A	N.A.
SM-143#	Main Steam 1A	N.A.
SM-72#*	Main Steam 1B	N.A.
SM-104#	Main Steam 1B	N.A.
SM-120#	Main Steam 1B	N.A.
SM-142#	Main Steam 1B	N.A.
SA-1#	Main Steam 1B	N.A.
SM-17#	Main Steam 1B	N.A.
SM-18#	Main Steam 1C	N.A.
SM-71#*	Main Steam 1C	N.A.

TABLE 3.6-2a (Continued)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
3. Manual (Continued)		
SM-103#	Main Steam 1C	N.A.
SM-119#	Main Steam 1C	N.A.
SM-141#	Main Steam 1C	N.A.
SA-4#	Main Steam 1C	N.A.
SM-19#	Main Steam 1D	N.A.
SM-70#*	Main Steam 1D	N.A.
SM-102#	Main Steam 1D	N.A.
SM-118#	Main Steam 1D	N.A.
SM-140#	Main Steam 1D	N.A.
WE-20*	Cont Bldg Supply Isol	N.A.
WE-22*	Cont Bldg Supply Isol	N.A.
WE-56*	Cont Bldg Supply Isol	N.A.
FW-4*	Refueling Water	N.A.
NV-862#*	Pressurizer Auxiliary Spray ND Outside Containment	N.A.
WLA-21#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.
WLA-24#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.

TABLE NOTATIONS

* May be opened on an intermittent basis under administrative control.

** Valve also receives a High Radiation (H) and/or a High Relative Humidity isolation signal.

Not subject to Type C leakage tests.

NOTE: Times are for valve operation only, and do not include any sensor response or circuit delay times. See Specification 3/4 3.2 for system actuation response times.

TABLE 3.6-2b

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation		
BB-57B#	Steam Generator 2A Blowdown Containment Outside Isolation	<10
BB-21B#	Steam Generator 2B Blowdown Containment Outside Isolation	<10
BB-61B#	Steam Generator 2C Blowdown Containment Outside Isolation	<10
BB-10B#	Steam Generator 2D Blowdown Containment Outside Isolation	<10
BB-56A#	Steam Generator 2A Blowdown Containment Inside Isolation	<10
BB-19A#	Steam Generator 2B Blowdown Containment Inside Isolation	<10
BB-60A#	Steam Generator 2C Blowdown Containment Inside Isolation	<10
BB-8A#	Steam Generator 2D Blowdown Containment Inside Isolation	<10
BB-148B#	Steam Generator 2A Blowdown Containment Isolation Bypass	<10
BB-150B#	Steam Generator 2B Blowdown Containment Isolation Bypass	<10
BB-149B#	Steam Generator 2C Blowdown Containment Isolation Bypass	<10
BB-147B#	Steam Generator 2D Blowdown Containment Isolation Bypass	<10
CA-149#	Steam Generator 2A Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-150#	Steam Generator 2B Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-151#	Steam Generator 2C Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-152#	Steam Generator 2D Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-185#	Auxiliary Nozzle Temper SG2A	<5
CA-186#	Auxiliary Nozzle Temper SG2B	<5
CA-187#	Auxiliary Nozzle Temper SG2C	<5
CA-188#	Auxiliary Nozzle Temper SG2D	<5
CF-60#	Steam Generator 2D Feedwater Containment Isolation	<5
CF-51#	Steam Generator 2C Feedwater Containment Isolation	<5
CF-42#	Steam Generator 2B Feedwater Containment Isolation	<5
CF-33#	Steam Generator 2A Feedwater Containment Isolation	<5
CF-90#	Steam Generator 2A Feedwater Purge Valve	<5
CF-89#	Steam Generator 2B Feedwater Purge Valve	<5
CF-88#	Steam Generator 2C Feedwater Purge Valve	<5
CF-87#	Steam Generator 2D Feedwater Purge Valve	<5

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
KC-305B#	Excess Letdown Hx Supply Containment Isolation (Outside)	≤20
KC-315B#	Excess Letdown Hx Return Header Containment Isolation (Outside)	≤20
KC-320A#	NCDT Hx Supply Hdr Containment Isolation (Outside)	≤20
KC-332B#	NCDT Hx Return Hdr Containment Isolation (Inside)	≤20
KC-333A#	NCDT Hx Return Hdr Containment Isolation (Outside)	≤20
KC-429B	RB Drain Header Inside Containment Isolation	≤10
KC-430A	RB Drain Header Outside Containment Isolation	≤10
NB-260B	Reactor Makeup Water Tank to Flush Header	≤10
NC-53B	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Outside	≤10
NC-54A	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Inside	≤10
NC-56B	RMW Pump Disch Cont Isolation	≤10
NC-195B	NC Pump Motor Oil Containment Isolation Outside	≤10
NC-196A	NC Pump Motor Oil Containment Isolation Inside	≤10
NF-228A	Unit 2 Air Handling Units Glycol Supply Containment Isolation Outside	≤10
NF-233B	Unit 2 Air Handling Units Glycol Return Containment Isolation Inside	≤10
NF-234A	Unit 2 Air Handling Units Glycol Return Containment Isolation Outside	≤10
NI-47A	Accumulator N_2 Supply Outside Containment Isolation	≤10
NI-95A	Test Hdr Inside Containment Isolation	≤10
NI-96B	Test Hdr Outside Containment Isolation	≤10
NI-120B	Safety Injection Pump to Accumulator Fill Line Isolation	≤10
NI-122B#	Hot Leg Injection Check 2NI124, 2NI128 Test Isolation	≤10
NI-154B#	Hot Leg Recirculation Check 2NI125, 2NI129 Test Isolation	≤10
NI-255B	UHI Check Valve Test Line Isolation	≤10 Note 1
NI-259A	UHI Check Valve Test Line Isolation	≤10 Note 1
NI-264B	UHI Check Valve Test Line Outside Containment Isolation	≤10 Note 1

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)	
1. Phase "A" Isolation (Continued)			
NI-266A	UHI Check Valve Test Line Inside Containment Isolation	<10	Note 1
NI-267A	UHI Check Valve Test Line Inside Containment Isolation	<10	
NI-153A#	Hot Leg Injection Check NI156, NI159 Test Isolation	<10	
NM-3A	Pressurizer Liquid Sample Line Inside Containment Isolation	<10	
NM-6A	Pressurizer Steam Sample Line Inside Containment Isolation	<10	
NM-7B	Pressurizer Sample Header Outside Containment Isolation	<10	
NM-22A	NC Hot Leg A Sample Line Inside Containment Isolation	<10	
NM-25A	NC Hot Leg B Sample Line Inside Containment Isolation	<10	
NM-26B	NC Hot Leg Sample Hdr Outside Containment Isolation	<10	
NM-72B	NI Accumulator 2A Sample Line Inside Containment Isolation	<10	
NM-75B	NI Accumulator 2B Sample Line Inside Containment Isolation	<10	
NM-78B	NI Accumulator 2C Sample Line Inside Containment Isolation	<10	
NM-81B	NI Accumulator 2D Sample Line Inside Containment Isolation	<10	
NM-82A	NI Accumulator Sample Hdr Outside Containment Isolation	<10	
NM-187A#	SG 2A Upper Shell Sample Containment Isolation Inside	<10	
NM-190A#	SG 2A Blowdown Line Sample Containment Isolation Inside	<10	
NM-191B#	SG 2A Sample Hdr Containment Isolation Outside	<10	
NM-197B#	SG 2B Upper Shell Sample Containment Isolation Inside	<10	
NM-200B#	SG 2B Blowdown Line Sample Containment Isolation Inside	<10	
NM-201A#	SG 2B Sample Hdr Containment Isolation Outside	<10	
NM-207A#	SG 2C Upper Shell Sample Containment Isolation Inside	<10	
NM-210A#	SG 2C Blowdown Line Sample Containment Isolation Inside	<10	
NM-211B#	SG 2C Sample Hdr Containment Isolation Outside	<10	
NM-217B#	SG 2D Upper Shell Sample Containment Isolation Inside	<10	
NM-220B#	SG 2D Blowdown Line Sample Containment Isolation Inside	<10	
NM-221A#	SG 2D Sample Hdr Containment Isolation Outside	<10	
NV-[illegible]B	Letdown Containment Isolation Outside	<10	
NV-89A	NC Pumps Seal Return Containment Isolation Inside	<10	
NV-91B	NC Pumps Seal Return Containment Isolation Outside	<10	
NV-314B#	Charging Line Containment Isolation Outside	<10	

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
NV-11A	45 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-13A	75 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-10A	High Pressurizer Letdown Orifice Outlet - Containment Isolation	≤10
NV-872A	Standby Makeup Pump to RCS seals	≤10
RF-389B	Interior Fire Protection Containment Hose Rack Isolation Valve (Outside Containment)	≤5
RF-447B	Reactor Building Sprinklers Containment Isolation Valve (Outside Containment)	≤5
VB-83B	Breathing Air Unit 2 Containment Isolation	≤10
VY-18B**	Containment H_2 Purge to Annulus Inside Containment Isolation	≤10
VY-17A**	Containment H_2 Purge to Annulus Outside Containment Isolation	≤10
VY-15B**	Containment H_2 Purge Blower Outlet, Containment Isolation (Outside)	≤10
VI-312A	[illegible] Isolation Valve for VI Supply to annulus Vent	≤10
VP-1B**	Upper Containment Purge Supply #1 Outside Isolation	≤5
VP-2A**	Upper Containment Purge Supply #1 Inside Isolation	≤5
VP-3B**	Upper Containment Purge Supply #2 Outside Isolation	≤5
VP-4A**	Upper Containment Purge Supply #2 Inside Isolation	≤5
VP-5B**	Lower Containment Purge Supply #1 Outside Isolation	≤5
VP-7A**	Lower Containment Purge Supply #1 Inside Isolation	≤5
VP-8B**	Lower Containment Purge Supply #2 Outside Isolation	≤5
VP-9A**	Lower Containment Purge Supply #2 Inside Isolation	≤5
VP-10A**	Upper Containment Purge Exhaust #1 Inside Isolation	≤5

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
VP-11B**	Upper Containment Purge Exhaust #1 Outside Isolation	<5
VP-12A**	Upper Containment Purge Exhaust #2 Inside Isolation	<5
VP-13B**	Upper Containment Purge Exhaust #2 Outside Isolation	<5
VP-15A**	Lower Containment Purge Exhaust #1 Inside Isolation	<5
VP-16B**	Lower Containment Purge Exhaust #1 Outside Isolation	<5
VP-17A**	Incore Instru. Room Purge Supply Inside Isolation	<5
VP-18B**	Incore Instru. Room Purge Supply Outside Isolation	<5
VP-19A**	Incore Instru. Room Purge Exhaust Inside Isolation	<5
VP-20B**	Incore Instru. Room Purge Exhaust Outside Isolation	<5
VQ-2A**	Containment Air Release Inside Isolation	<5
VQ-3B**	Containment Air Release Outside Isolation	<5
VQ-15B**	Containment Air Addition Outside Isolation	<5
VQ-16A**	Containment Air Addition Inside Isolation	<5
VS-54B	Unit 2 Containment Header Outside Isolation	<15
WL-807B#	NCDT Pumps Discharge Outside Containment Isolation	<10
WL-805A#	NCDT Pumps Discharge Inside Containment Isolation	<10
WL-450A	NCDT Vent Inside Containment Isolation	<10
WL-451B	NCDT Vent Outside Containment Isolation	<10
WL-825A#**	RB Sump Pump Discharge Inside Containment Isolation	<10
WL-827B#**	RB Sump Pump Discharge Outside Containment Isolation	<10
YM-119B	Demin. Water Containment Outside Isolation	<10
2. Phase "B" Isolation		
KC-338B#	NC Pump Supply Header Pent. Isolation (Outside)	<40
KC-424B#	NC Pumps Return Hdr. Pent. Inside Isolation	<40
KC-425A#	NC Pumps Return Hdr. Outside Isolation	<40

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation (Continued)		
RN-437B	Supply to NC Pumps and LCVU Supply Outside Containment Isolation	<60
RN-484A	Return From NC Pumps and LCVU Return Inside Containment Isolation	<60
RN-487B	Return from NC Pumps and LCVU Return Outside Containment Isolation	<60
RN-404B	Supply to Upper Containment Supply Ventilation Units Containment Isolation (Outside)	<10
RN-429A	Return from Upper Containment Ventilation Units Containment Isolation (Inside)	<10
RN-432B	Return from Upper Containment Ventilation Units Containment Isolation (Outside)	<10
VI-77B	Instrument Air Containment Outside Isolation	<10
SM-1 #	Main Steam 2D Isolation	<5
SM-3 #	Main Steam 2C Isolation	<5
SM-5 #	Main Steam 2B Isolation	<5
SM-7 #	Main Steam 2A Isolation	<5
SM-9 #	Main Steam 2D Isolation Bypass Ctrl.	<5
SM-10 #	Main Steam 2C Isolation Bypass Ctrl.	<5
SM-11 #	Main Steam 2B Isolation Bypass Ctrl.	<5
SM-12 #	Main Steam 2A Isolation Bypass Ctrl.	<5
SV-19 #	Main Steam 2A PORV	<5
SV-13 #	Main Steam 2B PORV	<5
SV-7 #	Main Steam 2C PORV	<5
SV-1 #	Main Steam 2D PORV	<5
WL-867A**	Containment Vent Unit Drains Inside Containment Isolation	<10
WL-869B**	Containment Vent Unit Drains Outside Containment Isolation	<10

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
3. Manual		
NC-141	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NC-142	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NI-3	Boron Injection Tank Line to Cold Legs	N.A.
FW-11	Refueling Water Pump Suction	N.A.
FW-13	Refueling Water Pump Suction	N.A.
CF-91#	Feedwater 2A	N.A.
CF-93#	Feedwater 2B	N.A.
CF-95#	Feedwater 2C	N.A.
CF-97#	Feedwater 2D	N.A.
CF-121#	Aux. Feedwater 2A	N.A.
BW-1#	Aux. Feedwater 2A	N.A.
CA-120#	Aux. Feedwater 2B	N.A.
BW-26#	Aux. Feedwater 2B	N.A.
CA-119#	Aux. Feedwater 2C	N.A.
BW-17#	Aux. Feedwater 2C	N.A.
CA-118#	Aux. Feedwater 2D	N.A.
BW-10#	Aux. Feedwater 2D	N.A.
SM-16#	Main Steam 2A	N.A.
SM-73#	Main Steam 2A	N.A.
SM-105#	Main Steam 2A	N.A.
SM-121#	Main Steam 2A	N.A.
SM-143#	Main Steam 2A	N.A.
SM-72# *	Main Steam 2B	N.A.
SM-104#	Main Steam 2B	N.A.
SM-120#	Main Steam 2B	N.A.
SM-142#	Main Steam 2B	N.A.
SA-1#	Main Steam 2B	N.A.
SM-17#	Main Steam 2B	N.A.
SM-28#	Main Steam 2C	N.A.
SM-71#*	Main Steam 2C	N.A.

TABLE 3.6-2b (Continued)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
3. Manual (Continued)		
SM-103#	Main Steam 2C	N.A.
SM-119#	Main Steam 2C	N.A.
SM-141#	Main Steam 2C	N.A.
SA-4#	Main Steam 2C	N.A.
SM-19#	Main Steam 2D	N.A.
SM-70#*	Main Steam 2D	N.A.
SM-102#	Main Steam 2D	N.A.
SM-118#	Main Steam 2D	N.A.
SM-140#	Main Steam 2D	N.A.
WE-20*	Cont Bldg Supply Isol	N.A.
WE-22*	Cont Bldg Supply Isol	N.A.
WE-56*	Cont Bldg Supply Isol	N.A.
FW-4*	Refueling Water	N.A.
NV-862#*	Pressurizer Auxiliary Spray ND Outside Containment	N.A.
WLA-21#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.
WLA-24#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.

TABLE NOTATIONS

* May be opened on an intermittent basis under administrative control.

** Valve also receives a High Radiation (H) and/or a High Relative Humidity isolation signal.

Not subject to Type C leakage tests.

NOTE: Times are for valve operation only, and do not include any sensor response or circuit delay times. See Specification 3/4 3.2 for system actuation response times.

BASES

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere, and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with those assigned other inoperable ESF equipment.

3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of GDC 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. Either recombiner unit is capable of controlling the expected hydrogen generation associated with: (1) zirconium-water reactions, (2) radiolytic decomposition of water, and (3) corrosion of metals within containment. These Hydrogen Control Systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations Following a LOCA," March 1971.

The OPERABILITY of at least 35 to 36 igniters per train (70 of 72 for both trains) ensures that the Distributed Ignition System will maintain an effective coverage throughout the containment provided the two inoperable ignitors are not on corresponding redundant circuits which provide coverage for the same region. This system of igniters will initiate combustion of any significant amount of hydrogen released after a degraded core accident. This system is to ensure burning in a controlled manner as the hydrogen is released instead of allowing it to be ignited at high concentrations by a random ignition source.

Containment isolation valves are listed in FSAR Tables 16.6-2 and 16.6-3. These valves with a required isolation time have a value given in the "MAX ISOLATION TIME" column. Changes to the FSAR are made in accordance with the requirements of 10 CFR 50.59. Secondary containment bypass leakage paths and the required test type (Type C) are listed in FSAR Table 16.6-1.

ATTACHMENT II

PROPOSED CHANGES TO FSAR

16.6 COMMITMENTS RELATED TO ENGINEERED SAFETY FEATURES (NON-ESF SYSTEMS)

16.6-1 CONTAINMENT LEAKAGE

COMMITMENT

Secondary containment bypass leakage paths shall be identified in Table 16.6.1-1.

APPLICABILITY:

See Catawba Technical Specification Limiting Condition for Operation 3.6.1.2.

REMEDIAL ACTION:

See Catawba Technical Specification Limiting Condition for Operation 3.6.1.2.

TESTING REQUIREMENTS:

See Catawba Technical Specification Surveillance Requirement 4.6.1.2.

BASES:

Technical Specification 3.6.1.2c specifies a combined bypass leakage rate of less than 0.07 La for all penetrations identified in Table 16.6.1-1 as secondary containment bypass leakage paths when pressurized to Pa. Identification of secondary containment bypass leakage paths in Table 16.6.1-1, rather than in Catawba Technical Specifications Section 3/4.6.1, allows future changes to be evaluated in accordance with the process described in 10 CFR 50.59.

TABLE 16.6.1-1 (Page 1 of 4)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M216	Pressurizer Relief Tank Makeup	Auxiliary Building	Type C
M212	Nitrogen to Pressurizer Relief Tank	Auxiliary Building	Type C
M327	Reactor Coolant Pump Motor Drain Tank Pump Discharge	Auxiliary Building	Type C
M259	Reactor Makeup Water Flush Header	Auxiliary Building	Type C
M373	Ice Condenser Glycol Pumps Discharge Line	Auxiliary Building	Type C
M372	Ice Condenser Glycol Pumps Suction Line	Auxiliary Building	Type C
M332	Cont. Hydrogen Purge Inlet Blower Discharge Line	Atmosphere	Type C
M348	Reactor Coolant Drain Tank Gas Space to Waste Gas System	Auxiliary Building	Type C
M221	Ventilation Unit Condensate Drain Header	Auxiliary Building	Type C
M356	Equipment Decontamination Line	Auxiliary Building	Type C
M358	Refueling Water Pump Suction	Auxiliary Building	Type C
M377	Refueling Cavity Fill Line	Auxiliary Building	Type C
M235	Pressurizer Sample	Auxiliary Building	Type C

TABLE 16.6.1-1 (Page 2 of 4)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M310	Reactor Coolant Hot Leg Sample	Auxiliary Building	Type C
M323	Component Cooling to Component Cooling Drain Sump	Auxiliary Building	Type C
M240	Nuclear Service Water to Reactor Coolant Pump and Lower Cont. Vent. Units	Auxiliary Building	Type C
M230	Nuclear Service Water From Reactor Coolant Pump and Lower Cont. Vent. Units	Auxiliary Building	Type C
M385	Nuclear Service Water to Upper Containment Ventilation Units In	Turbine Building	Type C
M308	Nuclear Service Water to Upper Containment Ventilation Units Out	Turbine Building	Type C
M213	Incore Instrumentation Room Purge In	Auxiliary Building	Type C
M140	Incore Instrumentation Room Purge Out	Auxiliary Building	Type C
M456	Upper Compartment Purge Inlet	Auxiliary Building	Type C
M432	Upper Compartment Purge Inlet	Auxiliary Building	Type C
M357	Lower Compartment Purge Inlet	Auxiliary Building	Type C
M368	Containment Purge Exhaust	Auxiliary Building	Type C
M433	Containment Purge Exhaust	Auxiliary Building	Type C
M[illegible]	Lower Compartment Purge Inlet	Auxiliary Building	Type C

TABLE 16.6.1-1 (Page 3 of 4)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE	
M386	Containment Air Release	Auxiliary Building	Type C	
M204	Containment Air Addition	Auxiliary Building	Type C	
M316	Int. Fire Protection Header - Hose Racks	Auxiliary Building	Type C	
M337	Demineralized Water	Auxiliary Building	Type C	
M220	Instrument Air	Auxiliary Building	Type C	
M219	Station Air	Auxiliary Building	Type C	
M215	Breathing Air	Auxiliary Building	Type C	
M329	Reactor Coolant Pump Motor Oil Fill	Auxiliary Building	Type C	
M361	Int. Fire Protection Header - Sprinklers	Auxiliary Building	Type C	
M119	Containment Purge Exhaust	Auxiliary Building	Type C	
M331	Nitrogen Supply to Cold Leg Accumulators	Auxiliary Building	Type C	
M322	Safety Injection Test Line	Auxiliary Building	Type C	
M454	UHI Test Line	Auxiliary Building	Type C	Note 1
M328*	Component Cooling to Reactor Vessel Support and RCP Coolers	Auxiliary Building	Type C	

*Not applicable for Unit 1 until after the first refueling outage.

Note 1: Upon capping of penetrations associated with deletion of UHI, this specification is no longer applicable.

TABLE 16.6.1-1 (Page 4 of 4)

Note:

Unit one penetrations (all are test type B and C that need not be tested until prior to entering HOT SHUTDOWN following the Unit One first refueling.

PENETRATION NUMBER	SERVICE	RELEASE LOCATION
M230	Nuclear Service Water from Reactor Coolant Pump and Lower Containment Ventilation Units	Auxiliary Building
M215	Breathing Air	Auxiliary Building
M219	Station Air	Auxiliary Building
M358	Refueling Water Pump Suction	Auxiliary Building
M356	Equipment Decontamination Line	Auxiliary Building
M345	Recycle Holdup Tank from Reactor Coolant Drain Tank (Valve 1WL806 only)	Auxiliary Building
M204	Containment Air Addition	Auxiliary Building
M259	Reactor Makeup Water Flush Header	Auxiliary Building
E101-450	Electrical penetrations for various equipment	Auxiliary Building
M374	Containment Floor Sump and Incore Instrumentation Sump Pump Discharge	Auxiliary Building

16.6 COMMITMENTS RELATED TO ENGINEERED SAFETY FEATURES (NON-ESF SYSTEMS)

16.6-2 CONTAINMENT ISOLATION VALVES

COMMITMENT

Containment isolation valves and the required isolation times shall be identified in Table 16.6.2-1 (Unit 1) and 16.6.2-2 (Unit 2).

APPLICABILITY:

See Catawba Technical Specification Limiting Condition for Operation 3.6.3.

REMEDIAL ACTION:

See Catawba Technical Specification Limiting Condition for Operation 3.6.3.

TESTING REQUIREMENTS:

See Catawba Technical Specification Surveillance Requirements 4.6.3.1, 4.6.3.2, and 4.6.3.3.

BASES:

Technical Specification 3.6.3 requires containment isolation valves to be operable with isolation times less than or equal to the required isolation times. Containment isolation valves and required isolation times are identified in Tables 16.6.2-1 (Unit 1) and 16.6.2-2 (Unit 2). Identification of containment isolation valves and isolation times in Tables 16.6.2-1 and 16.6.2-2, rather than in Catawba Technical Specifications Section 3/4.6.3, allows future changes to be evaluated in accordance with the process described in 10 CFR 50.59.

TABLE 16.6.2-1 (Page 1 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation		
BB-57B#	Steam Generator 1A Blowdown Containment Outside Isolation	<10
BB-21B#	Steam Generator 1B Blowdown Containment Outside Isolation	<10
BB-61B#	Steam Generator 1C Blowdown Containment Outside Isolation	<10
BB-10B#	Steam Generator 1D Blowdown Containment Outside Isolation	<10
BB-56A#	Steam Generator 1A Blowdown Containment Inside Isolation	<10
BB-19A#	Steam Generator 1B Blowdown Containment Inside Isolation	<10
BB-60A#	Steam Generator 1C Blowdown Containment Inside Isolation	<10
BB-8A#	Steam Generator 1D Blowdown Containment Inside Isolation	<10
BB-148B#	Steam Generator 1A Blowdown Containment Isolation Bypass	<10
BB-150B#	Steam Generator 1B Blowdown Containment Isolation Bypass	<10
BB-149B#	Steam Generator 1C Blowdown Containment Isolation Bypass	<10
BB-147B#	Steam Generator 1D Blowdown Containment Isolation Bypass	<10
CA-149#	Steam Generator 1A Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-150#	Steam Generator 1B Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-151#	Steam Generator 1C Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-152#	Steam Generator 1D Main Feedwater to Auxiliary Feedwater Nozzle Isolation	<5
CA-185#	Auxiliary Nozzle Temper SG1A	<5
CA-186#	Auxiliary Nozzle Temper SG1B	<5
CA-187#	Auxiliary Nozzle Temper SG1C	<5
CA-188#	Auxiliary Nozzle Temper SG1D	<5
CF-60#	Steam Generator 1D Feedwater Containment Isolation	<5
CF-51#	Steam Generator 1C Feedwater Containment Isolation	<5
CF-42#	Steam Generator 1B Feedwater Containment Isolation	<5
CF-33#	Steam Generator 1A Feedwater Containment Isolation	<5
CF-90#	Steam Generator 1A Feedwater Purge Valve	<5
CF-89#	Steam Generator 1B Feedwater Purge Valve	<5
CF-88#	Steam Generator 1C Feedwater Purge Valve	<5
CF-87#	Steam Generator 1D Feedwater Purge Valve	<5

TABLE 16.6.2-1 (Page 2 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)	
1. Phase "A" Isolation (Continued)			
KC-305B#	Excess Letdown Hx Supply Containment Isolation (Outside)	≤20	
KC-315B#	Excess Letdown Hx Return Header Containment Isolation (Outside)	≤20	
KC-320A#	NCDT Hx Supply Hdr Containment Isolation (Outside)	≤20	
KC-332B#	NCDT Hx Return Hdr Containment Isolation (Inside)	≤20	
KC-333A#	NCDT Hx Return Hdr Containment Isolation (Outside)	≤20	
KC-429B	RB Drain Header Inside Containment Isolation	≤10	
KC-430A	RB Drain Header Outside Containment Isolation	≤10	
NB-260B	Reactor Makeup Water Tank to Flush Header	≤10	
NC-53B	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Outside	≤10	
NC-54A	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Inside	≤10	
NC-56B	RMW Pump Disch Cont Isolation	≤10	
NC-195B	NC Pump Motor Oil Containment Isolation Outside	≤10	
NC-196A	NC Pump Motor Oil Containment Isolation Inside	≤10	
NF-228A	Unit 1 Air Handling Units Glycol Supply Containment Isolation Outside	≤10	
NF-233B	Unit 1 Air Handling Units Glycol Return Containment Isolation Inside	≤10	
NF-234A	Unit 1 Air Handling Units Glycol Return Containment Isolation Outside	≤10	
NI-47A	Accumulator N_2 Supply Outside Containment Isolation	≤10	
NI-95A	Test Hdr Inside Containment Isolation	≤10	
NI-96B	Test Hdr Outside Containment Isolation	≤10	
NI-120B	Safety Injection Pump to Accumulator Fill Line Isolation	≤10	
NI-122B#	Hot Leg Injection Check 1NI124, 1NI128 Test Isolation	≤10	
NI-154B#	Hot Leg Recirculation Check 1NI125, 1NI129 Test Isolation	≤10	
NI-255B	UHI Check Valve Test Line Isolation	≤10	Note 1
NI-258A	UHI Check Valve Test Line Isolation	≤10	
NI-264B	UHI Check Valve Test Line Outside Containment Isolation	≤10	

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 16.6.2-1 (Page 3 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)	
1. Phase "A" Isolation (Continued)			
NI-266A	UHI Check Valve Test Line Inside Containment Isolation	≤10	Note 1
NI-267A	UHI Check Valve Test Line Inside Containment Isolation	≤10	
NI-153A#	Hot Leg Injection Check NI156, NI159 Test Isolation	≤10	
NM-3A	Pressurizer Liquid Sample Line Inside Containment Isolation	≤10	
NM-6A	Pressurizer Steam Sample Line Inside Containment Isolation	≤10	
NM-7B	Pressurizer Sample Header Outside Containment Isolation	≤10	
NM-22A	NC Hot Leg A Sample Line Inside Containment Isolation	≤10	
NM-25A	NC Hot Leg C Sample Line Inside Containment Isolation	≤10	
NM-26B	NC Hot Leg Sample Hdr Outside Containment Isolation	≤10	
NM-72B	NI Accumulator 1A Sample Line Inside Containment Isolation	≤10	
NM-75B	NI Accumulator 1B Sample Line Inside Containment Isolation	≤10	
NM-78B	NI Accumulator 1C Sample Line Inside Containment Isolation	≤10	
NM-81B	NI Accumulator 1D Sample Line Inside Containment Isolation	≤10	
NM-82A	NI Accumulator Sample Hdr Outside Containment Isolation	≤10	
NM-187A#	SG 1A Upper Shell Sample Containment Isolation Inside	≤10	
NM-190A#	SG 1A Blowdown Line Sample Containment Isolation Inside	≤10	
NM-191B#	SG 1A Sample Hdr Containment Isolation Outside	≤10	
NM-197B#	SG 1B Upper Shell Sample Containment Isolation Inside	≤10	
NM-200B#	SG 1B Blowdown Line Sample Containment Isolation Inside	≤10	
NM-201A#	SG 1B Sample Hdr Containment Isolation Outside	≤10	
NM-207A#	SG 1C Upper Shell Sample Containment Isolation Inside	≤10	
NM-210A#	SG 1C Blowdown Line Sample Containment Isolation Inside	≤10	
NM-211B#	SG 1C Sample Hdr Containment Isolation Outside	≤10	
NM-217B#	SG 1D Upper Shell Sample Containment Isolation Inside	≤10	
NM-220B#	SG 1D Blowdown Line Sample Containment Isolation Inside	≤10	
NM-221A#	SG 1D Sample Hdr Containment Isolation Outside	≤10	

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 16.6.2-1 (Page 4 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
NV-15B	Letdown Containment Isolation Outside	≤10
NV-89A	NC Pumps Seal Return Containment Isolation Inside	≤10
NV-91B	NC Pumps Seal Return Containment Isolation Outside	≤10
NV-314B#	Charging Line Containment Isolation Outside	≤10
NV-11A	45 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-13A	75 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-10A	High Pressurizer Letdown Orifice Outlet - Containment Isolation	≤10
NV-872A	Standby Makeup Pump to RCS seals	≤10
RF-389B	Interior Fire Protection Containment Hose Rack Isolation Valve (Outside Containment)	≤5
RF-447B	Reactor Building Sprinklers Containment Isolation Valve (Outside Containment)	≤5
VB-83B	Breathing Air Unit 1 Containment Isolation	≤10
VY-18B**	Containment H_2 Purge to Annulus Inside Containment Isolation	≤10
VY-17A**	Containment H_2 Purge to Annulus Outside Containment Isolation	≤10
VY-15B**	Containment H_2 Purge Blower Outlet, Containment Isolation (Outside)	≤10
VI-312A	RB Isolation Valve for VI Supply to annulus Vent.	≤10
VP-1B**	Upper Containment Purge Supply #1 Outside Isolation	≤5
VP-2A**	Upper Containment Purge Supply #1 Inside Isolation	≤5
VP-3B**	Upper Containment Purge Supply #2 Outside Isolation	≤5
VP-4A**	Upper Containment Purge Supply #2 Inside Isolation	≤5
VP-6B**	Lower Containment Purge Supply #1 Outside Isolation	≤5
VP-7A**	Lower Containment Purge Supply #1 Inside Isolation	≤5
VP-8B**	Lower Containment Purge Supply #2 Outside Isolation	≤5

TABLE 16.6.2-1 (Page 5 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
VP-9A**	Lower Containment Purge Supply #2 Inside Isolation	≤5
VP-10A**	Upper Containment Purge Exhaust #1 Inside Isolation	≤5
VP-11B**	Upper Containment Purge Exhaust #1 Outside Isolation	≤5
VP-12A**	Upper Containment Purge Exhaust #2 Inside Isolation	≤5
VP-13B**	Upper Containment Purge Exhaust #2 Outside Isolation	≤5
VP-15A**	Lower Containment Purge Exhaust #1 Inside Isolation	≤5
VP-16B**	Lower Containment Purge Exhaust #1 Outside Isolation	≤5
VP-17A**	Incore Instru. Room Purge Supply Inside Isolation	≤5
VP-18B**	Incore Instru. Room Purge Supply Outside Isolation	≤5
VP-19A**	Incore Instru. Room Purge Exhaust Inside Isolation	≤5
VP-20B**	Incore Instru. Room Purge Exhaust Outside Isolation	≤5
VQ-2A**	Containment Air Release Inside Isolation	≤5
VQ-3B**	Containment Air Release Outside Isolation	≤5
VQ-15B**	Containment Air Addition Outside Isolation	≤5
VQ-16A**	Containment Air Addition Inside Isolation	≤5
VS-54B	Unit 1 Containment Header Outside Isolation	≤15
WL-807B#	NCDT Pumps Discharge Outside Containment Isolation	≤10
WL-805A#	NCDT Pumps Discharge Inside Containment Isolation	≤10
WL-450A	NCDT Vent Inside Containment Isolation	≤10
WL-451B	NCDT Vent Outside Containment Isolation	≤10
WL-825A#**	RB Sump Pump Discharge Inside Containment Isolation	≤10
WL-827B#**	RB Sump Pump Discharge Outside Containment Isolation	≤10
YM-119B	Demin. Water Containment Outside Isolation	≤10

TABLE 16.6.2-1 (Page 6 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation		
KC-338B#	NC Pump Supply Header Pent. Isolation (Outside)	≤40
KC-424B#	NC Pumps Return Hdr. Pent. Inside Isolation	≤40
KC-425A#	NC Pumps Return Hdr. Outside Isolation	≤40
RN-437B	Supply to NC Pumps and LCVU Supply Outside Containment Isolation	≤60
RN-484A	Return from NC Pumps and LCVU Return Inside Containment Isolation	≤60
RN-487B	Return from NC Pumps and LCVU Return Outside Containment Isolation	≤60
RN-404B	Supply to Upper Containment Supply Ventilation Units Containment Isolation (Outside)	≤10
RN-429A	Return from Upper Containment Ventilation Units Containment Isolation (Inside)	≤10
RN-432B	Return from Upper Containment Ventilation Units Containment Isolation (Outside)	≤10
VI-77B	Instrument Air Containment Outside Isolation	≤10
SM-1 #	Main Steam 1D Isolation	≤5
SM-3 #	Main Steam 1C Isolation	≤5
SM-5 #	Main Steam 1B Isolation	≤5
SM-7 #	Main Steam 1A Isolation	≤5
SM-9 #	Main Steam 1D Isolation Bypass Ctrl.	≤5
SM-10 #	Main Steam 1C Isolation Bypass Ctrl.	≤5
SM-11 #	Main Steam 1B Isolation Bypass Ctrl.	≤5
SM-12 #	Main Steam 1A Isolation Bypass Ctrl.	≤5
SV-19 #	Main Steam 1A PORV	≤5
SV-13 #	Main Steam 1B PORV	≤5
SV-7 #	Main Steam 1C PORV	≤5
SV-1 #	Main Steam 1D PORV	≤5

TABLE 16.6.2-1 (Page 7 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation (Continued)		
WL-867A**	Containment Vent Unit Drains Inside Containment Isolation	≤10
WL-869B**	Containment Vent Unit Drains Outside Containment Isolation	≤10
3. Manual		
NC-141	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NC-142	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NI-3	Boron Injection Tank Line to Cold Legs	N.A.
FW-11	Refueling Water Pump Suction	N.A.
FW-13	Refueling Water Pump Suction	N.A.
CF-91#	Feedwater 1A	N.A.
CF-93#	Feedwater 1B	N.A.
CF-95#	Feedwater 1C	N.A.
CF-97#	Feedwater 1D	N.A.
CA-121#	Aux. Feedwater 1A	N.A.
BW-1#	Aux. Feedwater 1A	N.A.
CA-120#	Aux. Feedwater 1B	N.A.
BW-26#	Aux. Feedwater 1B	N.A.
CA-119#	Aux. Feedwater 1C	N.A.
BW-17#	Aux. Feedwater 1C	N.A.
CA-118#	Aux. Feedwater 1D	N.A.
BW-10#	Aux. Feedwater 1D	N.A.
SM-16#	Main Steam 1A	N.A.
SM-73#*	Main Steam 1A	N.A.
SM-105#	Main Steam 1A	N.A.
SM-121#	Main Steam 1A	N.A.
SM-143#	Main Steam 1A	N.A.
SM-72#*	Main Steam 1B	N.A.
SM-104#	Main Steam 1B	N.A.

TABLE 16.6.2-1 (Page 8 of 8)

UNIT 1 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
3. Manual (Continued)		
SM-120#	Main Steam 1B	N.A.
SM-142#	Main Steam 1B	N.A.
SA-1#	Main Steam 1B	N.A.
SM-17#	Main Steam 1B	N.A.
SM-18#	Main Steam 1C	N.A.
SM-71#*	Main Steam 1C	N.A.
SM-103#	Main Steam 1C	N.A.
SM-119#	Main Steam 1C	N.A.
SM-141#	Main Steam 1C	N.A.
SA-4#	Main Steam 1C	N.A.
SM-19#	Main Steam 1D	N.A.
SM-70#*	Main Steam 1D	N.A.
SM-102#	Main Steam 1D	N.A.
SM-118#	Main Steam 1D	N.A.
SM-140#	Main Steam 1D	N.A.
WE-20*	Cont Bldg Supply Isol	N.A.
WE-22*	Cont Bldg Supply Isol	N.A.
WE-56*	Cont Bldg Supply Isol	N.A.
FW-4*	Refueling Water	N.A.
NV-862#*	Pressurizer Auxiliary Spray ND Outside Containment	N.A.
WLA-21#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.
WLA-24#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.

TABLE NOTATIONS

* May be opened on an intermittent basis under administrative control.
** Valve also receives a High Radiation (H) and/or a High Relative Humidity isolation signal.
# Not subject to Type C leakage tests.

NOTE: Times are for valve operation only, and do not include any sensor response or circuit delay times. See Specification 3/4 3.2 for system actuation response times.

TABLE 16.6.2-2 (Page 1 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation		
BB-57B#	Steam Generator 2A Blowdown Containment Outside Isolation	≤10
BB-21B#	Steam Generator 2B Blowdown Containment Outside Isolation	≤10
BB-61B#	Steam Generator 2C Blowdown Containment Outside Isolation	≤10
BB-10B#	Steam Generator 2D Blowdown Containment Outside Isolation	≤10
BB-56A#	Steam Generator 2A Blowdown Containment Inside Isolation	≤10
BB-19A#	Steam Generator 2B Blowdown Containment Inside Isolation	≤10
BB-60A#	Steam Generator 2C Blowdown Containment Inside Isolation	≤10
BB-8A#	Steam Generator 2D Blowdown Containment Inside Isolation	≤10
BB-148B#	Steam Generator 2A Blowdown Containment Isolation Bypass	≤10
BB-150B#	Steam Generator 2B Blowdown Containment Isolation Bypass	≤10
BB-149B#	Steam Generator 2C Blowdown Containment Isolation Bypass	≤10
BB-147B#	Steam Generator 2D Blowdown Containment Isolation Bypass	≤10
CA-149#	Steam Generator 2A Main Feedwater to Auxiliary Feedwater Nozzle Isolation	≤5
CA-150#	Steam Generator 2B Main Feedwater to Auxiliary Feedwater Nozzle Isolation	≤5
CA-151#	Steam Generator 2C Main Feedwater to Auxiliary Feedwater Nozzle Isolation	≤5
CA-152#	Steam Generator 2D Main Feedwater to Auxiliary Feedwater Nozzle Isolation	≤5
CA-185#	Auxiliary Nozzle Temper SG2A	≤5
CA-186#	Auxiliary Nozzle Temper SG2B	≤5
CA-187#	Auxiliary Nozzle Temper SG2C	≤5
CA-188#	Auxiliary Nozzle Temper SG2D	≤5
CF-60#	Steam Generator 2D Feedwater Containment Isolation	≤5
CF-51#	Steam Generator 2C Feedwater Containment Isolation	≤5
CF-42#	Steam Generator 2B Feedwater Containment Isolation	≤5
CF-33#	Steam Generator 2A Feedwater Containment Isolation	≤5
CF-90#	Steam Generator 2A Feedwater Purge Valve	≤5
CF-89#	Steam Generator 2B Feedwater Purge Valve	≤5
CF-88#	Steam Generator 2C Feedwater Purge Valve	≤5
CF-87#	Steam Generator 2D Feedwater Purge Valve	≤5

TABLE 16.6.2-2 (Page 2 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)	
1. Phase "A" Isolation (Continued)			
KC-305B#	Excess Letdown Hx Supply Containment Isolation (Outside)	≤20	
KC-315B#	Excess Letdown Hx Return Header Containment Isolation (Outside)	≤20	
KC-320A#	NCDT Hx Supply Hdr Containment Isolation (Outside)	≤20	
KC-332B#	NCDT Hx Return Hdr Containment Isolation (Inside)	≤20	
KC-333A#	NCDT Hx Return Hdr Containment Isolation (Outside)	≤20	
KC-429B	RB Drain Header Inside Containment Isolation	≤10	
KC-430A	RB Drain Header Outside Containment Isolation	≤10	
NB-260B	Reactor Makeup Water Tank to Flush Header	≤10	
NC-53B	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Outside	≤10	
NC-54A	Nitrogen to Pressurizer Relief Tank #1 Containment Isolation Inside	≤10	
NC-56B	RMW Pump Disch Cont Isolation	≤10	
NC-195B	NC Pump Motor Oil Containment Isolation Outside	≤10	
NC-196A	NC Pump Motor Oil Containment Isolation Inside	≤10	
NF-228A	Unit 2 Air Handling Units Glycol Supply Containment Isolation Outside	≤10	
NF-233B	Unit 2 Air Handling Units Glycol Return Containment Isolation Inside	≤10	
NF-234A	Unit 2 Air Handling Units Glycol Return Containment Isolation Outside	≤10	
NI-47A	Accumulator N_2 Supply Outside Containment Isolation	≤10	
NI-95A	Test Hdr Inside Containment Isolation	≤10	
NI-96B	Test Hdr Outside Containment Isolation	≤10	
NI-120B	Safety Injection Pump to Accumulator Fill Line Isolation	≤10	
NI-122B#	Hot Leg Injection Check 2NI124, 2NI128 Test Isolation	≤10	
NI-154B#	Hot Leg Recirculation Check 2NI125, 2NI129 Test Isolation	≤10	
NI-255B	UHI Check Valve Test Line Isolation	≤10	Note 1
NI-258A	UHI Check Valve Test Line Isolation	≤10	Note 1
NI-264B	UHI Check Valve Test Line Outside Containment Isolation	≤10	Note 1

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 16.6.2-2 (Page 3 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)	
1. Phase "A" Isolation (Continued)			
*NI-266A	UHI Check Valve Test Line Inside Containment Isolation	<10	Note 1
NI-267A	UHI Check Valve Test Line Inside Containment Isolation	<10	
NI-153A#	Hot Leg Injection Check NI156, NI159 Test Isolation	<10	
NM-3A	Pressurizer Liquid Sample Line Inside Containment Isolation	<10	
NM-6A	Pressurizer Steam Sample Line Inside Containment Isolation	<10	
NM-7B	Pressurizer Sample Header Outside Containment Isolation	<10	
NM-22A	NC Hot Leg A Sample Line Inside Containment Isolation	<10	
NM-25A	NC Hot Leg C Sample Line Inside Containment Isolation	<10	
NM-26B	NC Hot Leg Sample Hdr Outside Containment Isolation	<10	
NM-72B	NI Accumulator 2A Sample Line Inside Containment Isolation	<10	
NM-75B	NI Accumulator 2B Sample Line Inside Containment Isolation	<10	
NM-78B	NI Accumulator 2C Sample Line Inside Containment Isolation	<10	
NM-81B	NI Accumulator 2D Sample Line Inside Containment Isolation	<10	
NM-82A	NI Accumulator Sample Hdr Outside Containment Isolation	<10	
NM-187A#	SG 2A Upper Shell Sample Containment Isolation Inside	<10	
NM-190A#	SG 2A Blowdown Line Sample Containment Isolation Inside	<10	
NM-191B#	SG 2A Sample Hdr Containment Isolation Outside	<10	
NM-197B#	SG 2B Upper Shell Sample Containment Isolation Inside	<10	
NM-200B#	SG 2B Blowdown Line Sample Containment Isolation Inside	<10	
NM-201A#	SG 2B Sample Hdr Containment Isolation Outside	<10	
NM-207A#	SG 2C Upper Shell Sample Containment Isolation Inside	<10	
NM-210A#	SG 2C Blowdown Line Sample Containment Isolation Inside	<10	
NM-211B#	SG 2C Sample Hdr Containment Isolation Outside	<10	
NM-217B#	SG 2D Upper Shell Sample Containment Isolation Inside	<10	
NM-220B#	SG 2D Blowdown Line Sample Containment Isolation Inside	<10	
NM-221A#	SG 2D Sample Hdr Containment Isolation Outside	<10	

Note 1: Upon capping of penetrations associated with deletion of UHI, these specifications are no longer applicable.

TABLE 16.6.2-2 (Page 4 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
NV-15B	Letdown Containment Isolation Outside	≤10
NV-89A	NC Pumps Seal Return Containment Isolation Inside	≤10
NV-91B	NC Pumps Seal Return Containment Isolation Outside	≤10
NV-314B#	Charging Line Containment Isolation Outside	≤10
NV-11A	45 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-13A	75 gpm Letdown Orifice Outlet - Containment Isolation	≤10
NV-10A	High Pressurizer Letdown Orifice Outlet - Containment Isolation	≤10
NV-872A	Standby Makeup Pump to RCS seals	≤10
RF-389B	Interior Fire Protection Containment Hose Rack Isolation Valve (Outside Containment)	≤5
RF-447B	Reactor Building Sprinklers Containment Isolation Valve (Outside Containment)	≤5
VB-83B	Breathing Air Unit 2 Containment Isolation	≤10
VY-18B**	Containment H_2 Purge to Annulus Inside Containment Isolation	≤10
VY-17A**	Containment H_2 Purge to Annulus Outside Containment Isolation	≤10
VY-15B**	Containment H_2 Purge Blower Outlet, Containment Isolation (Outside)	≤10
VI-312A	RB Isolation Valve for VI Supply to annulus Vent.	≤10
VP-1B**	Upper Containment Purge Supply #1 Outside Isolation	≤5
VP-2A**	Upper Containment Purge Supply #1 Inside Isolation	≤5
VP-3B**	Upper Containment Purge Supply #2 Outside Isolation	≤5
VP-4A**	Upper Containment Purge Supply #2 Inside Isolation	≤5
VP-6B**	Lower Containment Purge Supply #1 Outside Isolation	≤5
VP-7A**	Lower Containment Purge Supply #1 Inside Isolation	≤5
VP-8B**	Lower Containment Purge Supply #2 Outside Isolation	≤5

TABLE 16.6.2-2 (Page 5 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
1. Phase "A" Isolation (Continued)		
VP-9A**	Lower Containment Purge Supply #2 Inside Isolation	≤5
VP-10A**	Upper Containment Purge Exhaust #1 Inside Isolation	≤5
VP-11B**	Upper Containment Purge Exhaust #1 Outside Isolation	≤5
VP-12A**	Upper Containment Purge Exhaust #2 Inside Isolation	≤5
VP-13B**	Upper Containment Purge Exhaust #2 Outside Isolation	≤5
VP-15A**	Lower Containment Purge Exhaust #1 Inside Isolation	≤5
VP-16B**	Lower Containment Purge Exhaust #1 Outside Isolation	≤5
VP-17A**	Incore Instru. Room Purge Supply Inside Isolation	≤5
VP-18B**	Incore Instru. Room Purge Supply Outside Isolation	≤5
VP-19A**	Incore Instru. Room Purge Exhaust Inside Isolation	≤5
VP-20B**	Incore Instru. Room Purge Exhaust Outside Isolation	≤5
VQ-2A**	Containment Air Release Inside Isolation	≤5
VQ-3B**	Containment Air Release Outside Isolation	≤5
VQ-15B**	Containment Air Addition Outside Isolation	≤5
VQ-16A**	Containment Air Addition Inside Isolation	≤5
VS-54B	Unit 2 Containment Header Outside Isolation	≤15
WL-807B#	NCDT Pumps Discharge Outside Containment Isolation	≤10
WL-805A#	NCDT Pumps Discharge Inside Containment Isolation	≤10
WL-450A	NCDT Vent Inside Containment Isolation	≤10
WL-451B	NCDT Vent Outside Containment Isolation	≤10
WL-825A#**	RB Sump Pump Discharge Inside Containment Isolation	≤10
WL-827B#**	RB Sump Pump Discharge Outside Containment Isolation	≤10
YM-119B	Demin. Water Containment Outside Isolation	≤10

TABLE 16.6.2-2 (Page 6 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation		
KC-338B#	NC Pump Supply Header Pent. Isolation (Outside)	≤40
KC-424B#	NC Pumps Return Hdr. Pent. Inside Isolation	≤40
KC-425A#	NC Pumps Return Hdr. Outside Isolation	≤40
RN-437B	Supply to NC Pumps and LCVU Supply Outside Containment Isolation	≤60
RN-484A	Return from NC Pumps and LCVU Return Inside Containment Isolation	≤60
RN-487B	Return from NC Pumps and LCVU Return Outside Containment Isolation	≤60
RN-404B	Supply to Upper Containment Supply Ventilation Units Containment Isolation (Outside)	≤10
RN-429A	Return from Upper Containment Ventilation Units Containment Isolation (Inside)	≤10
RN-432B	Return from Upper Containment Ventilation Units Containment Isolation (Outside)	≤10
VI-77B	Instrument Air Containment Outside Isolation	≤10
SM-1 #	Main Steam 2D Isolation	≤5
SM-3 #	Main Steam 2C Isolation	≤5
SM-5 #	Main Steam 2B Isolation	≤5
SM-7 #	Main Steam 2A Isolation	≤5
SM-9 #	Main Steam 2D Isolation Bypass Ctrl.	≤5
SM-10 #	Main Steam 2C Isolation Bypass Ctrl.	≤5
SM-11 #	Main Steam 2B Isolation Bypass Ctrl.	≤5
SM-12 #	Main Steam 2A Isolation Bypass Ctrl.	≤5
SV-19 #	Main Steam 2A PORV	≤5
SV-13 #	Main Steam 2B PORV	≤5
SV-7 #	Main Steam 2C PORV	≤5
SV-1 #	Main Steam 2D PORV	≤5

TABLE 16.6.2-2 (Page 7 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (s)
2. Phase "B" Isolation (Continued)		
WL-867A**	Containment Vent Unit Drains Inside Containment Isolation	≤10
WL-869B**	Containment Vent Unit Drains Outside Containment Isolation	≤10
3. Manual		
NC-141	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NC-142	NC Pump H_2 Drain Tank Pump Discharge	N.A.
NI-3	Boron Injection Tank Line to Cold Legs	N.A.
FW-11	Refueling Water Pump Suction	N.A.
FW-13	Refueling Water Pump Suction	N.A.
CF-91#	Feedwater 2A	N.A.
CF-93#	Feedwater 2B	N.A.
CF-95#	Feedwater 2C	N.A.
CF-97#	Feedwater 2D	N.A.
CF-121#	Aux. Feedwater 2A	N.A.
BW-1#	Aux. Feedwater 2A	N.A.
CA-120#	Aux. Feedwater 2B	N.A.
BW-26#	Aux. Feedwater 2B	N.A.
CA-119#	Aux. Feedwater 2C	N.A.
BW-17#	Aux. Feedwater 2C	N.A.
CA-118#	Aux. Feedwater 2D	N.A.
BW-10#	Aux. Feedwater 2D	N.A.
SM-16#	Main Steam 2A	N.A.
SM-73#	Main Steam 2A	N.A.
SM-105#	Main Steam 2A	N.A.
SM-121#	Main Steam 2A	N.A.
SM-143#	Main Steam 2A	N.A.
SM-72#*	Main Steam 2B	N.A.
SM-104#	Main Steam 2B	N.A.

TABLE 16.6.2-2 (Page 8 of 8)

UNIT 2 CONTAINMENT ISOLATION VALVES

VALVE NUMBER	FUNCTION	MAXIMUM ISOLATION TIME (±)
3. Manual (Continued)		
SM-120#	Main Steam 2B	N.A.
SM-142#	Main Steam 2B	N.A.
SA-1#	Main Steam 2B	N.A.
SM-17#	Main Steam 2B	N.A.
SM-18#	Main Steam 2C	N.A.
SM-71#*	Main Steam 2C	N.A.
SM-103#	Main Steam 2C	N.A.
SM-119#	Main Steam 2C	N.A.
SM-141#	Main Steam 2C	N.A.
SA-4#	Main Steam 2C	N.A.
SM-19#	Main Steam 2D	N.A.
SM-70#*	Main Steam 2D	N.A.
SM-102#	Main Steam 2D	N.A.
SM-118#	Main Steam 2D	N.A.
SM-140#	Main Steam 2D	N.A.
WE-20*	Cont Bldg Supply Isol	N.A.
WE-22*	Cont Bldg Supply Isol	N.A.
WE-56*	Cont Bldg Supply Isol	N.A.
FW-4*	Refueling Water	N.A.
NV-862#*	Pressurizer Auxiliary Spray ND Outside Containment	N.A.
WLA-23#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.
WLA-24#*	Steam Generator Drain Pump Discharge Outside Containment Isolation	N.A.

TABLE NOTATIONS

* May be opened on an intermittent basis under administrative control.
** Valve also receives a High Radiation (H) and/or a High Relative Humidity isolation signal.
\# Not subject to Type C leakage tests.

NOTE: Times are for valve operation only, and do not include any sensor response or circuit delay times. See Specification 3/4 3.2 for system actuation response times.

ATTACHMENT III

DISCUSSION, NO SIGNIFICANT HAZARDS ANALYSIS AND
ENVIRONMENTAL IMPACT STATEMENT

DISCUSSION, NO SIGNIFICANT HAZARDS ANALYSIS AND ENVIRONMENTAL IMPACT STATEMENT

The proposed amendment relocates Catawba Nuclear Station Technical Specification Table 3.6-1, Secondary Containment Bypass Leakage Paths, Table 3.6-2a, Unit 1 Containment Isolation Valves, and Table 3.6-2b, Unit 2 Containment Isolation Valves, to Catawba FSAR Chapter 16, Selected Licensee Commitments (SLC) Manual. The proposed changes to Technical Specifications 1.7, 4.6.1.1, 3.6.1.2, 3.6.3, 4.6.3.1, 4.6.3.2, 4.6.3.3, and Basis Section 3/4.6.4 reflect the relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b to the FSAR and clarify the existing Specifications.

The proposed relocation of Technical Specification Tables 3.6-1, 3.6-2a and 3.6-2b is an administrative change because all the information in these tables is contained in proposed FSAR Table 16.6.1-1, Secondary Containment Bypass Leakage Paths, Table 16.6.2-1, Unit 1 Containment Isolation Valves, and Table 16.6.2-2, Unit 2 Containment Isolation Valves. A copy of the SLC manual will be maintained at the control room, and the proposed FSAR Tables will be readily available to the operators. The proposed changes would not result in any change to the intent or requirements of any Limiting Condition for Operation or Surveillance Requirement.

Technical Specification Tables 3.6-2a and 3.6-2b permit the opening of certain manual valves during operation as long as they are administratively controlled. Operation of these valves allows testing, maintenance, and other activities. The proposed change and footnote to Surveillance Requirement 4.6.1.1 supports the removal of TS Tables 3.6-2a and 3.6-2b. These proposed changes do not result in any change to existing requirements.

Proposed changes to Technical Specifications 4.6.1.1, 3.6.1.2, 3.6.3, 4.6.3.1, 4.6.3.2, and 4.6.3.3 delete references to Technical Specification Tables 3.6-1, 3.6-2a, and 3.6-2b to reflect the relocation of these Tables into Catawba FSAR Chapter 16. These revisions do not change the intent of the Technical Specifications or make any requirement less restrictive.

The additions of the words "containment" and/or "containment isolation" to Technical Specification Surveillance Requirements 4.6.3.1, 4.6.3.2, and 4.6.3.3 are also an administrative change. These proposed changes clarify the existing Specification and are intended to avoid possible confusion as to the valves covered by Technical Specification 3/4.6.3. The intent of the Specification will not be changed as a result of the additional wording.

The proposed changes to Basis Section 3/4.6.3 reflect the relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b to the SLC manual. The changes to the Basis also indicate that future changes to the proposed SLCs would be evaluated in accordance with the process described in 10 CFR 50.59 to determine whether an unreviewed safety question is involved. Changes determined to involve an unreviewed safety consideration will require prior NRC approval. Changes determined not to involve an unreviewed safety consideration could be pursued without prior NRC approval as revisions to the FSAR. A report of such changes, including a summary of the safety evaluation of each, would be submitted annually to the NRC pursuant to 10 CFR 50.59. All changes made to the FSAR would also be submitted to the NRC with the annual FSAR update, or more frequently, as required by 10 CFR 50.71. The NRC has determined as part of its implementing policy for Technical Specifications improvements that the subject penetrations and valves are appropriate for this process.

A similar change, for McGuire Nuclear Station, deleting corresponding tables from the TS and adding them to the McGuire FSAR has already been approved.

10 CFR 50.92 states that a proposed amendment involves no significant hazards considerations if operation in accordance with the proposed amendment would not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or

2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3) Involve a significant reduction in the margin of safety.

The proposed relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b to the FSAR does not involve an increase in the probability or consequences of any previously evaluated accident. The proposed amendment does not change any Technical Specification requirement. The relocation of these Tables is an administrative change which does not impact previous assumptions and conclusions of FSAR accident analysis. Relocation of these Tables to the FSAR does not adversely affect containment leakage or integrity.

The proposed relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed amendment is administrative in nature and would not result in changes to the design or operation of Catawba Nuclear Station. The relocation of these Tables does not create any new accident scenarios.

The proposed relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b does not involve a significant reduction in a margin of safety. The transfer of the Technical Specification Tables to the FSAR is an administrative matter which does not affect margins of safety. The allowed containment leak rate is unaffected, and there is no reduction in any margin of safety.

The proposed amendments to Technical Specifications 4.6.1.1, 3.6.1.2, 3.6.3, 4.6.3.1, 4.6.3.2, and 4.6.3.2 are administrative changes which do not involve any significant hazards consideration. These changes have been itemized and described previously in this analysis. These are purely administrative changes which clarify the Technical Specifications and reflect the relocation of Tables 3.6-1, 3.6-2a, and 3.6-2b to the FSAR. These changes do not involve an increase in the probability or consequences of an accident previously evaluated or create the possibility of a new or different kind of accident from any accident previously evaluated. These changes do not involve any reduction in a margin of safety.

Based on the preceding discussions, Duke Power Company concludes that the proposed amendment does not involve a significant hazards consideration.

Environmental Impact

The proposed Technical Specification change has been reviewed against the criteria of 10 CFR 51.22 for environmental considerations. As shown above, the proposed change does not involve a significant hazards consideration, nor increases individual or cumulative occupational radiation exposures, Based on this, the proposed amendment meets the criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.