TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL(s)(a)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (b)	APPLICABLE OPERATIONAL CONDITION	ACTION
3. MAIN STEAM LINE ISOLATION				
a. Reactor Vessel Water Level - Low, Low, Low, Level 1	Ø X	2	1, 2, 3	21
b. Main Steam Line Radiation - High	C	2	1, 2, 3	21
c. Main Steam Line Pressure - Low	P	2	1	22
d. Main Steam Line Flow - High	D	2/line	1, 2, 3	20
e. Condenser Vacuum - Low	UA	2	1, 2, 3	21
f. Main Steam Line Tunnel Temperature - High	E	2/line	1, 2, 3	21
g. Main Steam Line Tunnel Δ Temperature - High	E	2	1, 2, 3	21
h. Manual Initiation	NA	1	1, 2, 3	24
4. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. RWCS Δ Flow - High	J	1	1, 2, 3	23
b. RWCS Area Temperature - High	W	3	1, 2, 3	23
c. RWCS Area Ventilation Δ Temp. - High	W	3	1, 2, 3	23
d. SLCS Initiation	(d)	NA	1, 2, 3	23
e. Reactor Vessel Water Level - Low Low, Level 2	B	2	1, 2, 3	23
f. RWCS Δ Pressure - High	J	1	1, 2, 3	23
g. Manual Initiation	NA	1	1, 2, 3	24

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. PRIMARY CONTAINMENT ISOLATION		
a. Reactor Vessel Water Level		
1) Low, Level 3	≥ 13.0 inches*	≥ 11.5 inches
2) Low Low, Level 2	≥ -38.0 inches*	≥ -45.0 inches
3) Low Low Low, Level 1	≥ -129 inches*	≥ -136 inches
b. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig
c. Manual Initiation	NA	NA
2. SECONDARY CONTAINMENT ISOLATION		
a. Reactor Vessel Water Level - Low Low, Level 2	≥ -38.0 inches*	≥ -45.0 inches
b. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig
c. Refuel Floor High Exhaust Duct Radiation - High	≤ 2.5 mR/hr.**	≤ 4.0 mR/hr.**
d. Railroad Access Shaft Exhaust Duct Radiation - High	≤ 2.5 mR/hr.**	≤ 4.0 mR/hr.**
e. Refuel Floor Wall Exhaust Duct Radiation - High	≤ 2.5 R/hr.**	≤ 4.0 mR/hr.**
f. Manual Initiation	NA	NA
3. MAIN STEAM LINE ISOLATION		
a. Reactor Vessel Water Level - Low Low, Level #1	≥ -38 (-129) inches*	≥ -45.0 (-136) inches
b. Main Steam Line Radiation - High	≤ 3 X full power background	≤ 3.6 X full power background
c. Main Steam Line Pressure - Low	≥ 861 psig	≥ 841 psig
d. Main Steam Line Flow - High	≤ 107 psid	≤ 110 psid

TABLE 3.3.2-3

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
1. PRIMARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level	
1) Low, Level 3	$\leq 10^{(a)}$
2) Low Low, Level 2	$\leq 1.0^{*}/\leq 10^{(a)**}$
3) Low Low Low, Level 1	$\leq 10^{(a)}$
b. Drywell Pressure - High	$\leq 10^{(a)}$
c. Manual Initiation	NA
2. SECONDARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level-Low Low, Level 2	$\leq 10^{(a)}$
b. Drywell Pressure - High	$\leq 10^{(a)}$
c. Refuel Floor High Exhaust Duct Radiation - High$^{(b)}$	$\leq 10^{(a)}$
d. Railroad Access Shaft Exhaust Duct Radiation - High$^{(b)}$	$\leq 10^{(a)}$
e. Refuel Floor Wall Exhaust Duct Radiation -High$^{(b)}$	$\leq 10^{(a)}$
f. Manual Initiation	NA
3. MAIN STEAM LINE ISOLATION	
a. Reactor Vessel Water Level- Low Low Low, Level 1$^{(a)(b)}$	$\leq 10^{(a)}$
b. Main Steam Line Radiation - High	$\leq 1.0^{*}/\leq 10^{(a)**}$
c. Main Steam Line Pressure - Low	$\leq 1.0^{*}/\leq 10^{(a)**}$
d. Main Steam Line Flow-High	$\leq 0.5^{*}/\leq 10^{(a)**}$
e. Condenser Vacuum - Low	NA
f. Main Steam Line Tunnel Temperature - High	NA
g. Main Steam Line Tunnel Δ Temperature - High	NA
h. Manual Initiation	NA
4. REACTOR WATER CLEANUP SYSTEM ISOLATION	
a. RWCS Δ Flow - High	$\leq 10^{(a)\#\#}$
b. RWCS Area Temperature - High	NA
c. RWCS Area Ventilation Temperature ΔT - High	NA
d. SLCS Initiation	NA
e. Reactor Vessel Water Level - Low Low, Level 2	$\leq 10^{(a)}$
f. RWCS Δ Pressure - High	NA
g. Manual Initiation	NA
5. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION	
a. RCIC Steam Line Δ Pressure - High	$\leq 10^{(a)\#\#\#}$
b. RCIC Steam Supply Pressure - Low	$\leq 10^{(a)}$
c. RCIC Turbine Exhaust Diaphragm Pressure - High	NA
d. RCIC Equipment Room Temperature - High	NA
e. RCIC Equipment Room Δ Temperature - High	NA
f. RCIC Pipe Routing Area Temperature - High	NA
g. RCIC Pipe Routing Area Δ Temperature - High	NA
h. RCIC Emergency Area Cooler Temperature - High	NA
i. Manual Initiation	NA

TABLE 4.3.2.1-1 (Continued)

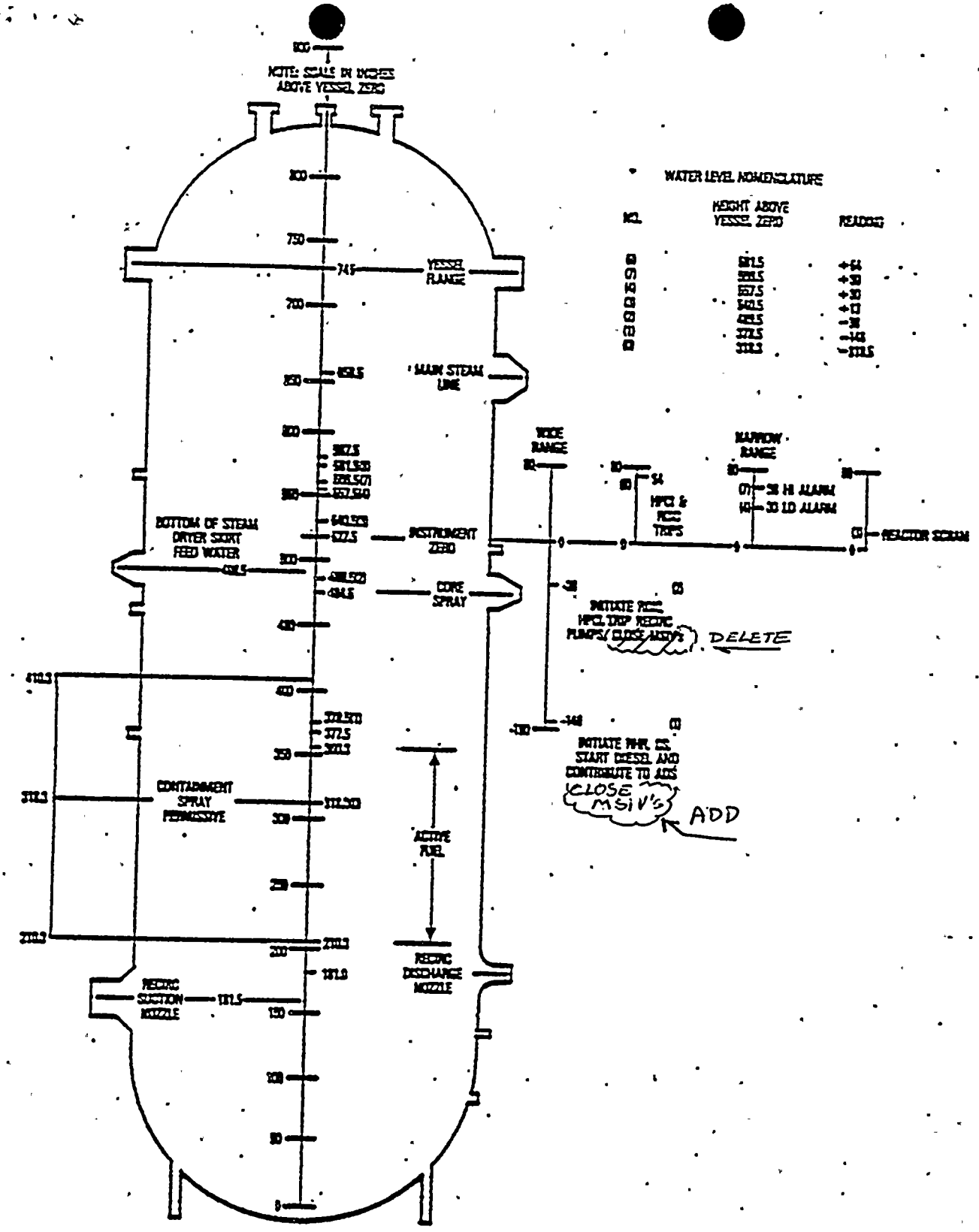
ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
3. MAIN STEAM LINE ISOLATION				
a. Reactor Vessel Water Level - (Low, Low Low, Level ~~0~~ 1)	S	M	R	1, 2, 3
b. Main Steam Line Radiation - High	S	M	R	1, 2, 3
c. Main Steam Line Pressure - Low	NA	M	Q	1
d. Main Steam Line Flow - High	S	M	R	1, 2, 3
e. Condenser Vacuum - Low	NA	M	Q	1, 2**, 3**
f. Main Steam Line Tunnel Temperature - High	NA	M	Q	1, 2, 3
g. Main Steam Line Tunnel Δ Temperature - High	NA	M	Q	1, 2, 3
h. Manual Initiation	NA	R	NA	1, 2, 3
4. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. RWCS Δ Flow - High	S	M	R	1, 2, 3
b. RWCS Area Temperature - High	NA	M	Q	1, 2, 3
c. RWCS Area Ventilation Δ Temperature - High	NA	M	Q	1, 2, 3
d. SLCS Initiation	NA	R	NA	1, 2, 3
e. Reactor Vessel Water Level - Low Low, Level 2	S	M	R	1, 2, 3
f. RWCS Δ Pressure - High	S	M	R	1, 2, 3
g. Manual Initiation	NA	R	NA	1, 2, 3

TABLE 3.6.3-1

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNAL(s)[a]	
a. Automatic Isolation Valves[b]			
MSIV			
HV-141F022 A,B,C,D	5	X,~~B~~,C,D,E,P,UA	
HV-141F028 A,B,C,D	5	X,~~B~~,C,D,E,P,UA	
MSL Drain			
HV-141F016	10	X,~~B~~,C,D,E,P,UA	
HV-141F019	10	X,~~B~~,C,D,E,P,UA	
RCIC Steam Supply			
HV-149F007[c]	20	K	
HV-149F008[c]	20	K	
HV-149F088	3	K	
HPCI Steam Supply			
HV-155F002[c]	50	L	
HV-155F003[c]	50	L	
HV-155F100	3	L	
RHR - Shutdown Cooling Suction[d]			
HV-151F008	52	M,UB	18
HV-151F009	52	M,UB	18
RWCU Suction[e]			
HV-144F001	30	B,J,W	18
HV-144F004	30	B,J,W	18
RHR - Reactor Vessel Head Spray			
HV-151F022	30	M,UB,Z	
HV-151F023	20	M,UB,Z	



Bases Figure B 3/4 3-1

REACTOR VESSEL WATER LEVEL