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Amendment No. 36

TABLE 3.3.2-1 (Continued)  
ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL(s)<sup>(a)</sup></u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM<sup>(b)</sup></u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
<b>7. <u>RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u></b>				
a. Reactor Vessel Water Level - Low, Level 3	A	2	1, 2, 3	26
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	UB	1	1, 2, 3	26
<del>c. RHR Equipment Area Temperature - High</del>	<del>H</del>	<del>1</del>	<del>1, 2, 3</del>	<del>26</del>   6
<del>d. RHR Equipment Area Temperature - High</del>	<del>H</del>	<del>1</del>	<del>1, 2, 3</del>	<del>26</del>
e. RHR Flow - High	H	1	1, 2, 3	26
f. Manual Initiation	NA	1	1, 2, 3	24
g. Drywell Pressure - High	Z	2	1, 2, 3	26

TABLE 3.3.2-2 (Continued)  
ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
h. HPCI Pipe Routing Area Δ Temperature - High	≤ 89°F##	≤ 98°F##**
i. Manual Initiation	NA	NA
j. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig
<u>7. RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u>		
a. Reactor Vessel Water Level - Low, Level 3	≥ 13.0 inches*	≥ 11.5 inches
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	≤ 98 psig	≤ 108 psig
<del>c. RHR Equipment Area Δ Temperature - High</del>	<del>≤ 89°F</del>	<del>≤ 90.5°F</del>
<del>d. RHR Equipment Area Temperature - High</del>	<del>≤ 167°F</del>	<del>≤ 170.5°F</del>
e. RHR Flow - High	≤ 25,000 gpm	≤ 26,000 gpm
f. Manual Initiation	NA	NA
g. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig

\*See Bases Figure B 3/4 3-1.

#Lower setpoints for TSH-G33-1N600 E, F and TDSH-G33-1N602 E, F.

##15 minute time delay.

\*\*This trip function need not be OPERABLE from October 19, 1989 to January 19, 1990.

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

<u>TRIP FUNCTION</u>	<u>RESPONSE TIME (Seconds)#</u>
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
j. Drywell Pressure - High	≤10(a)
<b>6. <u>HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION</u></b>	
a. HPCI Steam Flow - High	≤10(a)###
b. HPCI Steam Supply Pressure - Low	≤10(a)
c. HPCI Turbine Exhaust Diaphragm Pressure - High	NA
d. HPCI Equipment Room Temperature - High	NA
e. HPCI Equipment Room Δ Temperature - High	NA
f. HPCI Emergency Area Cooler Temperature - High	NA
g. HPCI Pipe Routing Area Temperature - High	NA
h. HPCI Pipe Routing Area Δ Temperature - High	NA
i. Manual Initiation	NA
j. Drywell Pressure - High	≤10(a)
<b>7. <u>RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u></b>	
a. Reactor Vessel Water Level - Low, Level 3	≤10(a)
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	NA
<del>c. RHR Equipment Area Δ Temperature - High</del>	<del>NA</del>
<del>d. RHR Equipment Area Temperature - High</del>	<del>NA</del>
e. RHR Flow - High	NA
f. Manual Initiation	NA
g. Drywell Pressure - High	≤10(a)

(a) The isolation system instrumentation response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME. Isolation system instrumentation response time specified includes the delay for diesel generator starting assumed in the accident analysis.

(b) Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\*Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed for MSIV Valves.

\*\*Isolation system instrumentation response time for associated valves except MSIVs.

#Isolation system instrumentation response time specified for the Trip Function actuating each valve group shall be added to isolation time shown in Table 3.6.3-1 and 3.6.5.2-1 for valves in each valve group to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

##With time delay of 45 seconds.

###With time delay of 3 seconds.

####With time delay of 3 seconds.

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Effective Date:  
October 20, 1989  
Amendment No. 94

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<u>HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION (Continued)</u>				
d. HPCI Equipment Room Temperature - High	NA	M	Q	1, 2, 3
e. HPCI Equipment Room Δ Temperature - High	NA	M	Q	1, 2, 3
f. HPCI Emergency Area Cooler Temperature - High	NA	M	Q	1, 2, 3
g. HPCI Pipe Routing Area Temperature - High	NA	M	Q	1, 2, 3
h. HPCI Pipe Routing Area Δ Temperature - High	NA	M	Q	1, 2, 3****
i. Manual Initiation	NA	R	NA	1, 2, 3
j. Drywell Pressure - High	NA	M	R	1, 2, 3
<u>7. RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u>				
a. Reactor Vessel Water Level - Low, Level 3	S	M	R	1, 2, 3
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	NA	M	Q	1, 2, 3
<del>c. RHR Equipment Area Δ Temperature - High</del>	<del>NA</del>	<del>M</del>	<del>Q</del>	<del>1, 2, 3</del>
<del>d. RHR Equipment Area Temperature - High</del>	<del>NA</del>	<del>M</del>	<del>Q</del>	<del>1, 2, 3</del>
e. RHR Flow - High	S	M	R	1, 2, 3
f. Manual Initiation	NA	R	NA	1, 2, 3
g. Drywell Pressure - High	NA	M	R	1, 2, 3

\* When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.  
 \*\* When reactor steam dome pressure > 1043 psig and/or any turbine stop valve is open.  
 \*\*\* When VENTING or PURGING the drywell per Specification 3.11.2.8.  
 \*\*\*\* This trip function need not be OPERABLE from October 19, 1989 to January 19, 1990.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL(S)(a)</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (b)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
7. <u>RIIR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u>				
a. Reactor Vessel Water Level - Low, Level 3	A	2	1, 2, 3	26
b. Reactor Vessel (RIIR Cut-in Permissive) Pressure - High	UB	1	1, 2, 3	26
<del>c. RIIR Equipment Area A Temperature - High</del>	<del>H</del>	<del>1</del>	<del>1, 2, 3</del>	<del>26</del>
<del>d. RIIR Equipment Area Temperature - High</del>	<del>H</del>	<del>1</del>	<del>1, 2, 3</del>	<del>26</del>
e. RIIR Flow - High	H	1	1, 2, 3	26
f. Manual Initiation	HA	1	1, 2, 3	24
g. Drywell Pressure - High	Z	2	1, 2, 3	26

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
7. <u>RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u>		
a. Reactor Vessel Water Level - Low, Level 3	$\geq 13.0$ inches <sup>A</sup>	$\geq 11.5$ inches
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	$\leq 98$ psig	$\leq 108$ psig
<del>c. RHR Equipment Area <math>\Delta</math> Temperature - High</del>	<del><math>\leq 89^{\circ}\text{F}</math></del>	<del><math>\leq 90.5^{\circ}\text{F}</math></del>
<del>d. RHR Equipment Area Temperature - High</del>	<del><math>\leq 167^{\circ}\text{F}</math></del>	<del><math>\leq 170.5^{\circ}\text{F}</math></del>
e. RHR Flow - High	$\leq 25,000$ gpm	$\leq 26,000$ gpm
f. Manual Initiation	NA	NA
g. Drywell Pressure - High	$\leq 1.72$ psig	$\leq 1.88$ psig

<sup>A</sup>See Bases Figure B 3/4 3-1.

<sup>#</sup>Lower setpoints for TSH-G33-2N600 E, F and TDSH-G33-2N602 E, F.

<sup>##</sup>15 minute time delay.

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

<u>TRIP FUNCTION</u>	<u>RESPONSE TIME (Seconds)#</u>
<b>6. <u>HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION</u></b>	
a. HPCI Steam Flow - High	<10 <sup>(a)####</sup>
b. HPCI Steam Supply Pressure - Low	<10 <sup>(a)</sup>
c. HPCI Turbine Exhaust Diaphragm Pressure - High	NA
d. HPCI Equipment Room Temperature - High	NA
e. HPCI Equipment Room Δ Temperature - High	NA
f. HPCI Emergency Area Cooler Temperature - High	NA
g. HPCI Pipe Routing Area Temperature - High	NA
h. HPCI Pipe Routing Area Δ Temperature - High	NA
i. Manual Initiation	NA
j. Drywell Pressure - High	<10 <sup>(a)</sup>
<b>7. <u>RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u></b>	
a. Reactor Vessel Water Level - Low, Level 3	≤10 <sup>(a)</sup>
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	NA
<del>c. RHR Equipment Area Δ Temperature - High</del>	<del>NA</del>
<del>d. RHR Equipment Area Temperature - High</del>	<del>NA</del>
e. RHR Flow - High	NA
f. Manual Initiation	NA
g. Drywell Pressure - High	≤10 <sup>(a)</sup>

(a) The isolation system instrumentation response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME. Isolation system instrumentation response time specified includes the delay for diesel generator starting assumed in the accident analysis.

(b) Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\*Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed for MSIV Valves.

\*\*Isolation system instrumentation response time for associated valves except MSIVs.

#Isolation system instrumentation response time specified for the Trip Function actuating each valve group shall be added to isolation time shown in Table 3.6.3-1 and 3.6.5.2-1 for valves in each valve group to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

##With time delay of 45 seconds.

###With time delay of 3 seconds.

####With time delay of 3 seconds.

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<u>HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION (Continued)</u>				
d. HPCI Equipment Room Temperature - High	NA	M	Q	1, 2, 3
e. HPCI Equipment Room $\Delta$ Temperature - High	NA	M	Q	1, 2, 3
f. HPCI Emergency Area Cooler Temperature - High	NA	M	Q	1, 2, 3
g. HPCI Pipe Routing Area Temperature - High	NA	M	Q	1, 2, 3
h. HPCI Pipe Routing Area $\Delta$ Temperature - High	NA	M	Q	1, 2, 3****
i. Manual Initiation	NA	R	NA	1, 2, 3
j. Drywell Pressure - High	NA	M	R	1, 2, 3
<u>7. RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION</u>				
a. Reactor Vessel Water Level - Low, Level 3	S	M	R	1, 2, 3
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	NA	M	Q	1, 2, 3
<del>c. RHR Equipment Area <math>\Delta</math> Temperature - High</del>	<del>NA</del>	<del>M</del>	<del>Q</del>	<del>1, 2, 3</del>
<del>d. RHR Equipment Area Temperature - High</del>	<del>NA</del>	<del>M</del>	<del>Q</del>	<del>1, 2, 3</del>
e. RHR Flow - High	S	M	R	1, 2, 3
f. Manual Initiation	NA	R	NA	1, 2, 3
g. Drywell Pressure - High	NA	M	R	1, 2, 3

\*When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

\*\*When reactor steam dome pressure > 1043 psig and/or any turbine stop valve is open.

\*\*\*When VENTING or PURGING the drywell per Specification 3.11.2.8.

\*\*\*\*This trip function need not be OPERABLE from October 19, 1989 to January 19, 1990.