

TABLE 3.3-3

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. SAFETY INJECTION AND FEEDWATER ISOLATION						
a. Manual Initiation	2	1	2	Not Applicable	1, 2, 3, 4	18
b. Automatic Actuation Logic	2	1	2	Not Applicable	1, 2, 3, 4	13, 36
c. Containment Pressure-High	3	2	2	≤ 5.33 psig	1, 2, 3	14
d. Pressurizer Pressure-Low	3	2	2	≥ 1841 psig	1, 2, 3 ⁽¹⁾	14
e. Steamline Pressure-Low	3/loop	2/loop any loop	2/loop any loop	≥ 495.8 psig steam line pressure	1, 2, 3 ⁽¹⁾	14

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RE-CIRCULATION MODE						
a. Manual Initiation	2 sets 2 switches/ set	1 set	2 sets	Not Applicable	1, 2, 3, 4	18
b. Automatic Actuation Logic Coincident with Safety Injection Signal	2	1	2	Not Applicable	1, 2, 3	18
c. Refueling Water Storage Tank Level-Low	4	2	3	≥ 13' 9" and ≤ 14' 4"	1, 2, 3	16

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
2. CONTAINMENT SPRAY						
a. Manual	2 sets	1 set 2 switches	2 sets	Not Applicable	1, 2, 3, 4	18
b. Automatic Actuation Logic	2	1	2	Not Applicable	1, 2, 3, 4	13
c. Containment Pressure-- High-High	4	2	3	≤ 11.43 psig	1, 2, 3	16
3. CONTAINMENT ISOLATION						
a. Phase "A" Isolation						
1) Manual	2	1	2	Not Applicable	1, 2, 3, 4	18
2) From Safety Injection Automatic Actuation Logic	2	1	2	Not Applicable	1, 2, 3, 4	13
b. Phase "B" Isolation						
1) Manual	2 sets (2 switches/ set)	1 set	2 sets	Not Applicable	1, 2, 3, 4	18
2) Automatic Actuation Logic	2	1	2	Not Applicable	1, 2, 3, 4	13
3) Containment Pressure--High-High	4	2	3	≤ 11.43 psig	1, 2, 3	16

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
4. STEAM LINE ISOLATION						
a. Manual	2/steam line	1/steam line	2/operating steam line	Not Applicable	1, 2, 3	18
b. Automatic Actuation Logic	2	1	2	Not Applicable	1, 2, 3	13
c. Containment Pressure Intermediate-High-High	3	2	2	≤ 7.33 psig	1, 2, 3	14
d. Steamline Pressure-Low	3/loop	2/loop any loop	2/loop any loop	≥ 495.8 psig steam line pressure	1, 2, 3 ⁽¹⁾	14
e. Steamline Pressure Rate-High Negative	3/loop	2/loop any loop	2/operating loop	≤ 104.2 psi with a time constant ≥ 50 seconds	3 ⁽²⁾	14
5. TURBINE TRIP & FEEDWATER ISOLATION						
a. Steam Generator Water Level--High-High, P-14	3/loop	2 loop in any operating loop	2/loop in each operating loop	≤ 81.7% of narrow range instrument span each steam generator	1, 2, 3	14

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. SAFETY INJECTION AND FEEDWATER ISOLATION				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
c. Containment Pressure-High	S	R ⁽²⁾⁽³⁾	Q ⁽²⁾⁽³⁾	1, 2, 3
d. Pressurizer Pressure--Low	S	R	Q	1, 2, 3
e. Steam Line Pressure--Low	S	R	Q	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RECIRCULATION MODE				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic Coincident with Safety Injection Signal	N.A.	N.A.	M ⁽¹⁾	1, 2, 3
c. Refueling Water Storage Tank Level-Low	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
c. Containment Pressure-High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) From Safety Injection Automatic Actuation Logic	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
b. Phase "B" Isolation				
1) Manual	N.A.	N.A.	R	1, 2, 3, 4
2) Automatic Actuation Logic	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
3) Containment Pressure--High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. STEAM LINE ISOLATION				
a. Manual	N.A.	N.A.	R	1, 2, 3
b. Automatic Actuation Logic	N.A.	N.A.	M ⁽¹⁾	1, 2, 3
c. Containment Pressure--Intermediate-High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
d. Steamline Pressure--Low	S	R	Q	1, 2, 3
e. Steamline Pressure Rate-High Negative	S	R	Q	1, 2, 3
5. TURBINE TRIP & FEEDWATER ISOLATION				
a. Steam Generator Water Level--High-High	S	R	Q	1, 2, 3
6. LOSS OF POWER				
a. 4.16kv Emergency Bus Under-voltage (Loss of Voltage) Trip Feed & Start Diesel	N.A.	R	Q	1, 2, 3, 4
b. 4.16kv and 480v Emergency Bus Undervoltage (Degraded Voltage)	N.A.	R	Q	1, 2, 3, 4

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. By performing the following air lock leakage rate testing at the frequency specified in the Containment Leakage Rate Testing Program:
 1. Verify no detectable seal leakage when the gap between the door seals is pressurized for at least 2 minutes to:
 - a) Personnel air lock $\geq P_a$ (43.3 psig).
 - b) Emergency air lock ≥ 10.0 psig.or, quantify⁽⁷⁾ the air lock door seal leakage to ensure that the leakage rate is $\leq 0.0005 L_a$ when tested at $\geq P_a$ (43.3 psig) for the personnel air lock and $\leq 0.0005 L_a$ when tested at ≥ 10.0 psig for the emergency air lock.
 2. Conduct the overall air lock leakage tests,⁽⁸⁾ at $\geq P_a$ (43.3 psig), and verify the overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$ (43.3 psig):
 - a) At the frequency specified in the Containment Leakage Rate Testing Program, and
 - b) Following maintenance performed on the outer personnel air lock door which may result in a decrease in closure force on any part of the door sealing surface.
- b. At least once per 18 months during shutdown by verifying that only one door in each air lock can be opened at a time.

(7) An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.

(8) Results shall be evaluated against the acceptance criteria applicable to LCO 3.6.1.2.

CONTAINMENT SYSTEMS

INTERNAL PRESSURE

LIMITING CONDITION FOR OPERATION

3.6.1.4 Containment internal air pressure shall be ≥ 12.8 psia and ≤ 14.2 psia..

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment internal air pressure not within the above limits, restore the internal pressure to within the limits 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

4.6.1.4 The containment internal pressure shall be determined to be within the limits at least once per 12 hours.

CONTAINMENT SYSTEMS

AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.1.5 Containment average air temperature shall be $\geq 70^{\circ}\text{F}$ and $\leq 105^{\circ}\text{F}$.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment average air temperature not within the above limits restore the average air temperature to within the limits within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.5 The containment average air temperature shall be determined to be within limits at least once per 24 hours.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 6 months by:
 - 1. Verifying the contained solution volume in the tank, and
 - 2. Verifying the concentration of the NaOH solution by chemical analysis.

- d. At least once per 18 months, during shutdown, by:
 - 1. Cycling each valve in the chemical addition system flow path that is not testable during plant operation, through at least one complete cycle of full travel.
 - 2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.
 - 3. Verifying that each chemical injection pump starts automatically on a test signal.

CONTAINMENT SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

- b. With one or more penetration flow paths with two containment isolation valves inoperable, isolate the affected penetration flow path within 1 hour by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one or more penetration flow paths with one containment isolation valve inoperable, isolate the affected penetration flow path within 72 hours by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange; and verify the affected penetration flow path is isolated at least once per 31 days. Otherwise, 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 Each containment isolation valve shall be demonstrated OPERABLE*:

- a. By verifying each purge supply and exhaust valve is deactivated in the closed position at least once per 31 days for valves outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for valves inside containment.
- b. By verifying, at the frequency specified in the Inservice Testing Program, the isolation time of each automatic power operated containment isolation valve that is not locked, sealed, or otherwise secured in position, and required to be closed during accident conditions, is within limits.
- c. By verifying, at least once per 18 months, each automatic power operated containment isolation valve that is not locked, sealed, or otherwise secured in position, and required to be closed during accident conditions, actuates to the isolation position on an actual or simulated actuation signal.

* Locked or sealed closed valves, except for the containment purge supply and exhaust valves, may be opened on an intermittent basis under administrative control.

ADMINISTRATIVE CONTROLS

OFFSITE DOSE CALCULATION MANUAL (ODCM) (Continued)

- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

6.16 Moved to the PROCESS CONTROL PROGRAM.

6.17 Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions⁽¹⁾. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, except that the next Type A test performed after the May 29, 1993 Type A test shall be performed no later than May 28, 2008.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 43.3 psig.

The maximum allowable containment leakage rate, L_a , at P_a , shall be 0.10% of containment air weight per day.

Leakage Rate acceptance criteria are:

- a. Containment leakage rate acceptance criterion is $\leq 1.0 L_a$ for the overall Type A leakage test and $< 0.60 L_a$ for the Type B and Type C tests on a minimum pathway leakage rate (MNPLR) basis. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $< 0.60 L_a$ on a maximum pathway leakage rate (MXPLR)⁽²⁾ basis for Type B and Type C tests and $< 0.75 L_a$ for Type A tests.

(1) Exemptions to Appendix J of 10 CFR 50 dated November 19, 1984, December 5, 1984, and July 26, 1995.

(2) For penetrations which are isolated by use of a closed valve(s), blind flange(s), or de-activated automatic valve(s), the MXPLR of the isolated penetration is assumed to be the measured leakage through the isolation device(s).

TABLE 3.3-3

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1. SAFETY INJECTION AND FEEDWATER ISOLATION						
a. Manual Initiation	2	1	2	N.A.	1, 2, 3, 4	18
b. Automatic Actuation Logic and Actuation Relays	2	1	2	N.A.	1, 2, 3, 4	13, 36
c. Containment Pressure-High	3	2	2	≤ 5.3 psig	1, 2, 3	14
d. Pressurizer Pressure-Low	3	2	2	≥ 1852 psig	1, 2, 3	14
e. Steamline Pressure-Low	3/loop	2/loop any loop	2/operating loop	≥ 494 psig*	1, 2, 3	14
1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RECIRCULATION MODE						
a. Automatic Actuation Logic Coincident with Safety Injection Signal	2	1	2	N.A.	1, 2, 3, 4	18
b. Refueling Water Storage Tank Level-Extreme Low	4	2	3	≥ 31' 8" and ≤ 31' 10"	1, 2, 3, 4	16

* Time constants utilized in the lead-lag controllers for Steam Line Pressure-Low are $\tau_1 \geq 50$ seconds and $\tau_2 \leq 5$ seconds. CHANNEL CALIBRATION shall ensure that these time constants are adjusted to these values.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
2. CONTAINMENT SPRAY						
a. Manual Initiation	2 sets (2 switches/ set)	1 set	2 sets	N.A.	1, 2, 3, 4	18
b. Automatic Actuation Logic and Actuation Relays	2	1	2	N.A.	1, 2, 3, 4	13
c. Containment Pressure-- High-High	4	2	3	≤ 11.4 psig	1, 2, 3	16
3. CONTAINMENT ISOLATION						
a. Phase "A" Isolation						
1) Manual Initiation	2	1	2	N.A.	1, 2, 3, 4	18
2) Automatic Actuation Logic and Actuation Relays	2	1	2	N.A.	1, 2, 3, 4	13
3) Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.					
b. Phase "B" Isolation						
1) Manual Initiation	2 sets (2 switches/ set)	1 set	2 sets	N.A.	1, 2, 3, 4	18
2) Automatic Actuation Logic and Actuation Relays	2	1	2	N.A.	1, 2, 3, 4	13
3) Containment Pressure--High-High	4	2	3	≤ 11.4 psig	1, 2, 3, 4	16

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALLOWABLE VALUE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
4. STEAM LINE ISOLATION						
a. Manual Initiation						
1. Individual	1/steam line	1/steam line	1/operating steam line	N.A.	1, 2, 3	41
2. System	2 sets (2 switches/set)	1 set	2 sets	N.A.	1, 2, 3	18
b. Automatic Actuation Logic and Actuation Relays	2	1	2	N.A.	1, 2, 3	13
c. Containment Pressure Intermediate-High-High	3	2	2	≤ 7.3 psig	1, 2, 3	14
d. Steamline Pressure-Low	3/loop	2/loop any loop	2/operating loop	≥ 494 psig*	1, 2, 3 ⁽¹⁾	14
e. Steamline Pressure Rate--High Negative	3/loop	2/loop any loop	2/operating loop	≤ 103.6 psi with a time constant ≥ 50 seconds	3 ⁽²⁾	14

* Time constants utilized in the lead-lag controllers for Steam Line Pressure-Low are $\tau_1 \geq 50$ seconds and $\tau_2 \leq 5$ seconds. CHANNEL CALIBRATION shall ensure that these time constants are adjusted to these values.

TABLE 4.3-2

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. SAFETY INJECTION AND FEEDWATER ISOLATION				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
c. Containment Pressure-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
d. Pressurizer Pressure--Low	S	R	Q	1, 2, 3
e. Steam Line Pressure--Low	S	R	Q	1, 2, 3
1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RECIRCULATION MODE				
a. Automatic Actuation Logic Coincident with Safety Injection Signal	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
b. Refueling Water Storage Tank Level-Extreme Low	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3, 4

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
2. CONTAINMENT SPRAY				
a. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
b. Automatic Actuation Logic, and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
c. Containment Pressure-High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
3. CONTAINMENT ISOLATION				
a. Phase "A" Isolation				
1. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
2. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
3. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements.			
b. Phase "B" Isolation				
1. Manual Initiation	N.A.	N.A.	R	1, 2, 3, 4
2. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3, 4
3. Containment Pressure--High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3, 4

TABLE 4.3-2 (Continued)

ENGINEERING SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. STEAM LINE ISOLATION				
a. Manual Initiation				
1. Individual	N.A.	N.A.	R	1, 2, 3
2. System	N.A.	N.A.	R	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3
c. Containment Pressure--Intermediate-High-High	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
d. Steamline Pressure--Low	S	R	Q	1, 2, 3
e. Steamline Pressure Rate-High Negative	S	R	Q	1, 2, 3
5. TURBINE TRIP AND FEEDWATER ISOLATION				
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	M ⁽¹⁾	1, 2, 3
b. Steam Generator Water Level--High-High, P-14	S	R ^{(2) (3)}	Q ^{(2) (3)}	1, 2, 3
c. Safety Injection	See Functional Unit 1 above for all Safety Injection Surveillance Requirements.			

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

- 4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:
- a. By performing the following air lock leakage rate testing at the frequency specified in the Containment Leakage Rate Testing Program:
 1. Verify no detectable seal leakage when the gap between the door seals is pressurized for at least 2 minutes to:
 - a) Personnel air lock $\geq P_a$ (44.9 psig).
 - b) Emergency air lock ≥ 10.0 psig.or, quantify⁽⁷⁾ the air lock door seal leakage to ensure that the leakage rate is $\leq 0.0005 L_a$ when tested at $\geq P_a$ (44.9 psig) for the personnel air lock and $\leq 0.0005 L_a$ when tested at ≥ 10.0 psig for the emergency air lock.
 2. Conduct the overall air lock leakage tests,⁽⁸⁾ at $\geq P_a$ (44.9 psig), and verify the overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$ (44.9 psig):
 - a) At the frequency specified in the Containment Leakage Rate Testing Program, and
 - b) Following maintenance performed on the outer personnel air lock door which may result in a decrease in closure force on any part of the door sealing surface.
 - b. At least once per 18 months during shutdown by verifying that only one door in each air lock can be opened at a time.

(7) An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.

(8) Results shall be evaluated against the acceptance criteria applicable to LCO 3.6.1.2.

CONTAINMENT SYSTEMS

INTERNAL PRESSURE

LIMITING CONDITION FOR OPERATION

3.6.1.4 Containment internal air pressure shall be ≥ 12.8 psia and ≤ 14.2 psia.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment internal air pressure not within the above limits, restore the internal pressure to within the limits 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

4.6.1.4 The containment internal pressure shall be determined to be within the limits at least once per 12 hours.

CONTAINMENT SYSTEMS

AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.1.5 Containment average air temperature shall be $\geq 70^{\circ}\text{F}$ and $\leq 105^{\circ}\text{F}$.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the containment average air temperature not within the above limits restore the average air temperature to within the limits within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.5 The containment average air temperature shall be determined to be within limits at least once per 24 hours.

CONTAINMENT SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

- b. With one or more penetration flow paths with two containment isolation valves inoperable, isolate the affected penetration flow path within 1 hour by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one or more penetration flow paths with one containment isolation valve inoperable, isolate the affected penetration flow path within 72 hours by use of at least one closed and deactivated automatic valve, closed manual valve, or blind flange; and verify the affected penetration flow path is isolated at least once per 31 days. Otherwise, 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 Each containment isolation valve shall be demonstrated OPERABLE*:

- a. By verifying each purge supply and exhaust valve is deactivated in the closed position at least once per 31 days for valves outside containment and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for valves inside containment.
- b. By verifying, at the frequency specified in the Inservice Testing Program, the isolation time of each automatic power operated containment isolation valve that is not locked, sealed, or otherwise secured in position, and required to be closed during accident conditions, is within limits.
- c. By verifying, at least once per 18 months, each automatic power operated containment isolation valve that is not locked, sealed, or otherwise secured in position, and required to be closed during accident conditions, actuates to the isolation position on an actual or simulated actuation signal.

* Locked or sealed closed valves, except for the containment purge supply and exhaust valves, may be opened on an intermittent basis under administrative control.

ADMINISTRATIVE CONTROLS

CONTAINMENT LEAKAGE RATE TESTING PROGRAM (Continued)

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 44.9 psig.

The maximum allowable containment leakage rate, L_a , at P_a , shall be 0.10% of containment air weight per day.

Leakage Rate acceptance criteria are:

- a. Containment leakage rate acceptance criterion is $\leq 1.0 L_a$ for the overall Type A leakage test and $< 0.60 L_a$ for the Type B and Type C tests on a minimum pathway leakage rate (MNPLR) basis. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $< 0.60 L_a$ on a maximum pathway leakage rate (MXPLR) ⁽²⁾ basis for Type B and Type C tests and $< 0.75 L_a$ for Type A tests.
- b. Air lock testing acceptance criteria and required action are as stated in Specification 3.6.1.3 titled "Containment Air Locks."

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

6.18 TECHNICAL SPECIFICATIONS (TS) BASES CONTROL PROGRAM

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 1. a change in the TS incorporated in the license; or

(2) For penetrations which are isolated by use of a closed valve(s), blind flange(s), or de-activated automatic valve(s), the MXPLR of the isolated penetration is assumed to be the measured leakage through the isolation device(s).