

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
R. Two or more Nuclear Service Water Suction Transfer-Low Pit Level channels in one or more pits inoperable.	R.1 Align the Nuclear Service Water System for Standby Nuclear Service Water Pond recirculation.	4 hours
	<u>OR</u>	
	R.2.1 Be in MODE 3.	10 hours
	<u>AND</u>	
	R.2.2 Be in MODE 5.	40 hours

SURVEILLANCE REQUIREMENTS

-----NOTE-----
Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

SURVEILLANCE	FREQUENCY
SR 3.3.2.1 Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2 Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3 -----NOTE----- Final actuation of pumps or valves not required. ----- Perform TADOT.	31 days
SR 3.3.2.4 Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.5 Perform COT.	92 days
SR 3.3.2.6 Perform SLAVE RELAY TEST.	92 days
SR 3.3.2.7 Perform COT.	31 days

(continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.3.2.8 -----NOTE----- Verification of setpoint not required for manual initiation functions. ----- Perform TADOT.</p>	18 months
<p>SR 3.3.2.9 -----NOTE----- This Surveillance shall include verification that the time constants are adjusted to the prescribed values. ----- Perform CHANNEL CALIBRATION.</p>	18 months
<p>SR 3.3.2.10 -----NOTE----- Not required to be performed for the turbine driven AFW pump until 24 hours after SG pressure is \geq 600 psig. ----- Verify ESFAS RESPONSE TIMES are within limit.</p>	18 months on a STAGGERED TEST BASIS
<p>SR 3.3.2.11 Perform COT.</p>	18 months
<p>SR 3.3.2.12 Perform ACTUATION LOGIC TEST.</p>	18 months

Table 3.3.2-1 (page 1 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
1. Safety Injection^(b)						
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure - High	1,2,3	3	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 1.4 psig	1.2 psig
d. Pressurizer Pressure - Low	1,2,3 ^(a)	4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 1839 psig	1845 psig
2. Containment Spray						
a. Manual Initiation	1,2,3,4	1 per train, 2 trains	B	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure - High High	1,2,3	4	E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 3.2 psig	3.0 psig
3. Containment Isolation^(b)						
a. Phase A Isolation						
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					

(continued)

(a) Above the P-11 (Pressurizer Pressure) interlock.

(b) The requirements of this Function are not applicable to Containment Purge Ventilation System and Hydrogen Purge System components, since the system containment isolation valves are sealed closed in MODES 1, 2, 3, and 4.

Table 3.3.2-1 (page 2 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
3. Containment Isolation (continued)						
b. Phase B Isolation						
(1) Manual Initiation	1,2,3,4	1 per train, 2 trains	B	SR 3.3.2.8	NA	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(3) Containment Pressure - High High	1,2,3	4	E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 3.2 psig	3.0 psig
4. Steam Line Isolation						
a. Manual Initiation						
(1) System	1,2(b),3(b)	2 trains	F	SR 3.3.2.8	NA	NA
(2) Individual	1,2(b),3(b)	1 per line	G	SR 3.3.2.8	NA	NA
b. Automatic Actuation Logic and Actuation Relays	1,2(b),3(b)	2 trains	H	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
c. Containment Pressure - High High	1,2(b),3(b)	4	E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 3.2 psig	3.0 psig
d. Steam Line Pressure						
(1) Low	1,2(b),3(a)(b)	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 744 psig	775 psig

(continued)

(a) Above the P-11 (Pressurizer Pressure) interlock.

(b) Except when all MSIVs are closed and de-activated.

Table 3.3.2-1 (page 3 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
4. Steam Line Isolation (continued)						
(2) Negative Rate - High	3 ^{(b)(c)}	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 122.8 ^(d) psi	100 ^(d) psi
5. Turbine Trip and Feedwater Isolation						
a. Turbine Trip						
(1) Automatic Actuation Logic and Actuation Relays	1,2	2 trains	I	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA
(2) SG Water Level-High-High (P-14)	1,2	4 per SG	J	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.5 SR 3.3.2.6 SR 3.3.2.9 SR 3.3.2.10	≤ 85.6% (Unit 1) ≤ 78.9% (Unit 2)	83.9% (Unit 1) 77.1% (Unit 2)
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements. See Item 5.a.(1) for Applicable MODES.					
b. Feedwater Isolation						
(1) Automatic Actuation Logic and Actuation Relays	1,2 ^(e) ,3 ^(e)	2 trains	H	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA	NA

(continued)

(b) Except when all MSIVs are closed and de-activated.

(c) Trip function automatically blocked above P-11 (Pressurizer Pressure) interlock and may be blocked below P-11 when Steam Line Isolation Steam Line Pressure - Low is not blocked.

(d) Time constant utilized in the rate/lag controller is ≥ 50 seconds.

(e) Except when all MFIVs, MFCVs, and associated bypass valves are closed and de-activated or isolated by a closed manual valve.