TABLE 3.3-5

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIA .. NG SIGNAL AND FUNCTION RESPONSE TIME IN SECONDS 1. Manual Safety Injection (ECCS) a. Not Applicable Feedwater Isolation Not Applicable Reactor Trip (SI) Not Applicable Containment Isolation-Phase "A" Not Applicable Containment Ventilation Isolation Not Applicable Auxiliary Feedwater Pumps Not Applicable Essential Raw Cooling Water System Not Applicable Emergency Gas Treatment System Not Applicable Containment Spray b. Not Applicable Containment Isolation-Phase "B" Not Applicable Containment Ventilation Isolation Not Applicable Containment Air Return Fan Not Applicable Containment Isolation-Phase "A" C. Not Applicable Emergency Gas Treatment System Not Applicable Containment Ventilation Isolation Not Applicable d. Steam Line Isolation Not Applicable Containment Pressure-High 2. а. Safety Injection (ECCS) ≤ 32.0(1) m.59 b. Reactor Trip (from SI) < 3.0 Feedwater Isolation < 8.0(2) C. Containment Isolation-Phase "A"(3) d. < 18.0⁽⁸⁾/28.0⁽⁹⁾ Containment Ventilation Isolation e. Not Applicable < 60 (13) f. Auxiliary Feedwater Pumps Essential Raw Cooling Water System g. < 65.0⁽⁸⁾/75.0⁽⁹⁾ Emergency Gas Treatment System ≤ 38.0(9) h.

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-May 12, 1987 -Amendment No. 55-

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ENGINEERED SAFETY FEATURES RESPONSE TIMES

INI	TIAT	ING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS	
3.	Pre	essurizer Pressure-Low		
	a.	Safety Injection (ECCS) .	\leq 32.0 ⁽¹⁾ /28.0 ⁽⁷⁾	R59
	b.	Reactor Trip (from SI)	<u><</u> 3.0	
	с.	Feedwater Isolation	≤ 8.0 ⁽²⁾	
	d.	Containment Isolation-Phase "A"(3)	< 18.0 ⁽⁸⁾	
	е.	Containment Ventilation Isolation	Not Applicable	1
	f.	Auxiliary Feedwater Pumps	\leq 60 (13)	1
	g.	Essential Raw Cooling Water System	$\leq 65.0^{(8)}/75.0^{(9)}$	
	h.	Emergency Gas Treatment System	≤ 28.0 ⁽⁸⁾	
4.	Dif	ferential Pressure Between Steam Lines-H	ligh	
	a.	Safety Injection (ECCS)	$\leq 28.0^{(7)}/28.0^{(1)}$	RS
	b.	Reactor Trip (from SI)	< 3.0	•
	с.	Feedwater Isolation	< 8.0 ⁽²⁾	
	d.	Containment Isolation-Phase "A"(3)	< 18.0 ⁽⁸⁾ /28.0 ⁽⁹⁾	
	e.	Containment Ventilation Isolation	Not Applicable	
	f.	Auxiliary Feedwater Pumps	< 60 (/3)	
	g.	Essential Raw Cooling Water System	< 65.0 ⁽⁸⁾ /75.0 ⁽⁹⁾	
	h.	Emergency Gas Treatment System	≤ 38.0 ⁽⁹⁾	
5.	Stewit	am Flow in Two Steam Lines - High Coinci h T _{avo} Low-Low	dent	
	a.	Safety Injection (ECCS)	< 30,0 ⁽⁷⁾ /30,0 ⁽¹⁾	RS
	ь.	Reactor Trip (from SI)	< 5.0	1
	c.	Feedwater Isolation	< 10.0(2)	
	d.	Containment Isolation-Phase "A"(3)	< 20.0 ⁽⁸⁾ /30.0 ⁽⁹⁾	
	e.	Containment Ventilation Isolation	Not Applicable	
	f.	Auxiliary Feedwater Pumps	< 60 (13)	
	g.	Essential Raw Cooling Water System	< 67.0 ⁽⁸⁾ /77.0 ⁽⁹⁾	
	h.	Steam Line Isolation	< 10.0	
	i.	Emergency Gas Treatment System	< 40.0(9)	
			-	

May 12, 1987 Amendment No. 55

SEQUOYAH - UNIT 1

 $A_{i,q_{i+1}} = A_{i,q_{i+1}} + A_{i,q_{i+1}$

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ENGINEERED SAFETY FEATURES RESPONSE TIMES

INI	TIATI	NG SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS	
6.	Ste	am Flow in Two Steam Lines-High		
	Coi	ncident with Steam Line Pressure-Low		
	a.	Safety Injection (ECCS)	$\leq 28.0^{(7)}/28.0^{(1)}$	
	b.	Reactor Trip (from SI)	<u><</u> 3.0	
	с.	Feedwater Isolation	< 8.0 ⁽²⁾	
	d.	Containment Isolation-Phase "A" ⁽³⁾	\leq 18.0 ⁽⁸⁾ /28.0 ⁽⁹⁾	
	e.	Containment Ventilation Isolation	Not Applicable	1
	f.	Auxiliary Feedwater Pumps	≤ 60 (13)	10.00
	g.	Essential Raw Cooling Water System	$\leq 65.0^{(8)}/75.0^{(9)}$	
	h.	Steam Line Isolation	<u><</u> 8.0	
	i.	Emergency Gas Treatment System	≤ 38.0 ⁽⁹⁾	
7.	Con	tainment PressureHigh-High		Inc
	a.	Containment Spray	< 208 ⁽⁹⁾	KO
	b.	Containment Isolation-Phase "B"	< 65 ⁽⁸⁾ /75 ⁽⁹⁾	
	ç.	Steam Line Isolation	< 7.0	1
	d.	Containment Air Return Fan	\geq 540.0 and \leq 660	R1
8.	Ste	am Generator Water LevelHigh-High		
	a.	Turbine Trip	< 2.5	186
	b.	Feedwater Isolation	\leq 11.0 ⁽²⁾	1
9.	Mai	n Steam Generator Water Level -		•
	Low	- Low		
	а.	Motor-driven Auxiliary	≤ 60.0	
		Feedwater Pumps ⁽⁴⁾	승규는 한 것 같은 것	
	b.	Turbine-driven Auxiliary Feedwater Pumps ⁽⁵⁾ (13)	<u><</u> 60.0	1

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-Amendment No. 55, 59, 63--December -31, -1987-

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ENGINEERED SAFETY FEATURES RESPONSE TIMES

ITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
. <u>Station Blackout</u>	
a. Auxiliary Feedwater Pumps	< 60 (13)
. Trip of Main Feedwater Pumps	
a. Auxiliary Feedwater Pumps	$\leq 60^{(13)}$
2. Loss of Power	
a. 6.9 kv Shutdown Board - Degraded Voltage or Loss of Voltage	≤ 10 ⁽¹⁰⁾
RWST Level-Low Coincident with Containment	Sump
Level-High and Safety Injection	
a. Automatic Switchever to	
Containment Sump	<u><</u> 250
. Containment Purge Air Exhaust	
Radioactivity - High	
a. Containment Ventilation Isolation	≤ 10 ⁽⁶⁾
. Containment Gas Monitor	
Radioactivity High	
a. Containment Ventilation Isolation	< 10 ⁽⁶⁾
. Containment Particulate Activity High	
a. Containment Ventilation Isolation	< 10(6)
OTE: This technical specification to be impler the second refueling outage or following whichever is earlier.	mented at the startup foll completion of the modific

SEQUOYAH - UNIT 1

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-Amendment No. 29--May 5, 1983-

INSTRUMENTATION

TABLE 3.3-5 (Continued)

TABLE NOTATION

(10) The response time for loss of voltage is measured from the time voltage is lost until the time full voltage is restored by the diesel. The response time for degraded voltage is measured from the time the load shedding signal is generated, either from the degraded voltage or the SI enable timer, to the time full voltage is restored by the diesel. The response time of the timers is covered by the requirements on their setpoints.

Note 11 added by TS 87-38 submitted September 14, 1987

Note 12 added by TS 88-01 submitted

(13) The provisions of Specification 4.0.4 are not applicable for entry into MODE3 for the Turbine driven Huxiliary Feedwater Pump.

*NOTE: This technical specification to be implemented at the startup -following the second refueling outage or following completion of the -modification, whichever is earlier.

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SEQUOYAH - UNIT 1

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-Amendment No. 29 -May 5, 1983

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Change >	(At least once per 31 days by verifying that)
submitted by 3. TS 87-17	A each automatic control valve in the flow path is OPERABLE whenever the auxiliary feedwater system is placed in automatic control or when above 10% of RATED THERMAL POWER.
	. *

- b. At least once per 18 months during shutdown by:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an auxiliary feedwater actuation test signal and a low auxiliary feedwater pump suction pressure test signal.
 - Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of an auxiliary feedwater actuation test signal.
- c. At least once per 7 days by verifying that each non-automatic valve in the auxiliary feedwater system flowpath is in its correct position.

*The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 for the Turbine - driven Auxiliary Feedwater Pump.

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SEQUOYAH - UNIT 1

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-Amendment No. 12-

TABLE 3.3-5

ENGINEERED SAFETY FEATURES RESPONSE TIMES

Ma	nual	
	그는 그 옷을 알려 갔는 것이 가지 않았다.	
a.	Safety Injection (ECCS)	Not Applicable
	Feedwater Isolation	Not Applicable
	Reactor Trip (SI)	Not Applicable
	Containment Isolation-Phase "A"	Not Applicable
	Containment Ventilation Isolation	Not Applicable
	Auxiliary Feedwater Pumps	Not Applicable
	Essential Raw Cooling Water System	Not Applicable
	Emergency Gas Treatment System	Not Applicable
b.	Containment Spray	Not Applicable
	Containment Isolation-Phase "B"	Not Applicable
	Containment Ventilation Isolation	Not Applicable
	Containment Air Return Fan	Not Applicable
c.	Containment Isolation-Phase "A"	Not Applicable
	Emergency Gas Treatment System	Not Applicable
	Containment Ventilation Isolation	Not Applicable
d.	Steam Line Isolation	Not Applicable
Cor	tainment Pressure-High	
a.	Safety Injection (ECCS)	< 32.0 ⁽¹⁾
b.	Reactor Trip (from SI)	<3.0
с.	Feedwater Isolation	<8.0(2)
d.	Containment Isolation-Phase "A"(3)	<18.0 ⁽⁸⁾ /28.0 ⁽⁹⁾
e.	Containment Ventilation Isolation	Not Applicable
f.	Auxiliary Feedwater Pumps	<60 (13)
g.	Essential Raw Cooling Water System	<65.0 ⁽⁸⁾ /75.0 ⁽⁹⁾
h.	Emergency Gas Treatment System	<38.0(9)

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-May 12, 1987 -Amendment No. 47

ENGINEERED SAFETY FEATURES RESPONSE TIMES

IN	ITIAT	ING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS	
3.	Pr	essurizer Pressure-Low	Seconds	
	a.	Safety Injection (ECCS)	<32.0 ⁽¹⁾ /28.0 ⁽⁷⁾	R47
	b.	Reactor Trip (from SI)	< 3.0	
	с.	Feedwater Isolation	< 8.0(2)	
	d.	Containment Isolation-Phase "A"(3)	<18.0(8)	
	e.	Containment Ventilation Isolation	Not Applicable	
	f.	Auxiliary Feedwater Pumps	<60 (13)	
	g.	Essential Raw Cooling Water System	<65.0 ⁽⁸⁾ /75.0 ⁽⁹⁾	
	h.	Emergency Gas Treatment System	<u><</u> 28.0 ⁽⁸⁾	
4.	Dit	ferential Pressure Between Steam Lines-H	igh	
	a.	Safety Injection (ECCS)	<28.0(7)/28.0(1)	R47
	Ь.	Reactor Trip (from SI)	<3.0	
	с.	Feedwater Isolation	<8.0(2)	
	d.	Containment Isolation-Phase "A"(3)	<18.0(8)/28.0(9)	
	е.	Containment Ventilation Isolation	Not Applicable	
	f.	Auxiliary Feedwater Pumps	(13)	
	g.	Essential Raw Cooling Water System	<65.0(8)/75.0(9)	
	h.	Emergency Gas Treatment System	≤38.0 ⁽⁹⁾	
5.	Ste. with	am Flow in Two Steam Lines - High Coincid	lent	
	a.	Safety Injection (ECCS)	<30.0 ⁽⁷⁾ /30.0 ⁽¹⁾	R47
	b.	Reactor Trip (from SI)	<5.0	
	с.	Feedwater Isolation	<10.0(2)	
	d.	Containment Isolation-Phase "A"(3)	<20.0 ⁽⁸⁾ /30.0 ⁽⁹⁾	
	е.	Containment Ventilation Isolation	Not Applicable	
	f.	Auxiliary Feedwater Pumps	<60 (13)	
	g.	Essential Raw Cooling Water System	<67.0 ⁽⁸⁾ /77.0 ⁽⁹⁾	
	h.	Steam Line Isolation	<10.0	
	i.	Emergency Gas Treatment System	<40.0(9)	

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-May 12, 1987 -Amendment No. 47

ENGINEERED SAFETY FEATURES RESPONSE TIMES

 5. Steam Flow in Two Steam Lines-High Coincident with Steam Line Pressure-Low a. Safety Injection (ECCS) b. Reactor Trip (from SI) c. Feedwater Isolation d. Containment Isolation-Phase "A"⁽³⁾ e. Containment Ventilation Isolation f. Auxiliary Feedwater Pumps g. Essential Raw Cooling Water System h. Steam Line Isolation i. Emergency Gas Treatment System S. Containment PressureHigh-High a. Containment Spray b. Containment Isolation-Phase "B" c. Steam Line Isolation d. Containment Air Return Fan S. Steam Generator Water LevelHigh-High a. Turbine Trip b. Feedwater Isolation 4. Steam Generator Water LevelHigh-High a. Turbine Trip b. Feedwater Isolation 5. Steam Generator Water Level Low-Low a. Motor-driven Auxiliary Feedwater Pumps⁽⁴⁾ b. Turbine-driven Auxiliary Feedwater Pumps⁽⁵⁾ (/3) 	INI	TIATI	NG SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS	
a.Safety Injection (ECCS) $\leq 28.0^{(7)}/28.0^{(1)}$ R47b.Reactor Trip (from SI) ≤ 3.0 $\leq 3.0^{(2)}$ $\leq 8.0^{(2)}$ c.Feedwater Isolation $\leq 8.0^{(2)}$ $\leq 18.0^{(3)}/28.0^{(9)}$ e.Containment Isolation-Phase "A" ⁽³⁾ $\leq 18.0^{(3)}/28.0^{(9)}$ e.Containment Ventilation IsolationNot Applicablef.Auxiliary Feedwater Pumps $\leq 60^{(7)}$ g.Essential Raw Cooling Water System $\leq 65.0^{(8)}/75.0^{(9)}$ h.Steam Line Isolation ≤ 8.0 i.Emergency Gas Treatment System $\leq 38.0^{(9)}$ 7.Containment PressureHigh-High $\leq 208^{(9)}$ a.Containment Isolation-Phase "B" $\leq 208^{(9)}$ c.Steam Line Isolation ≤ 7.0 d.Containment Air Return Fan ≥ 540.0 and ≤ 660 8.Steam Generator Water LevelHigh-Higha.Turbine Trip ≤ 2.5 b.Feedwater Isolationc.Steam Generator Water Level -Low-Lowa.a.Motor-driven Auxiliarya.Motor-driven AuxiliaryFeedwater Pumps ⁽⁴⁾ ≤ 60.0 b.Turbine-driven Auxiliaryfeedwater Pumps ⁽⁵⁾ (/3)	6.	Ste. Coi	am Flow in Two Steam Lines-High ncident with Steam Line Pressure-Low		
7.Containment PressureHigh-High a.Solution Phase "B"Solutionb.Containment Isolation-Phase "B" $\leq 65^{(8)}/75^{(9)}$ R51c.Steam Line Isolation ≤ 7.0 d.Containment Air Return Fan ≥ 540.0 and ≤ 660 8.Steam Generator Water LevelHigh-High a. ≤ 2.5 R55b.Feedwater Isolation $\leq 11.0^{(2)}$ 9.Main Steam Generator Water Level - Low-Low a.Motor-driven Auxiliary Feedwater Pumps ⁽⁴⁾ ≤ 60.0 b.Turbine-driven Auxiliary Feedwater Pumps ⁽⁵⁾ (/3) ≤ 60.0		ton a. b. c. d. e. f. g. h. i.	Safety Injection (ECCS) Reactor Trip (from SI) Feedwater Isolation Containment Isolation-Phase "A" ⁽³⁾ Containment Ventilation Isolation Auxiliary Feedwater Pumps Essential Raw Cooling Water System Steam Line Isolation Emergency Gas Treatment System	$\leq 28.0^{(7)}/28.0^{(1)}$ ≤ 3.0 $\leq 8.0^{(2)}$ $\leq 18.0^{(8)}/28.0^{(9)}$ Not Applicable $\leq 60^{(13)}$ $\leq 65.0^{(8)}/75.0^{(9)}$ ≤ 8.0 $\leq 38.0^{(9)}$	R47
b. Containment Isolation-Phase "B" $\leq 65^{(8)}/75^{(9)}$ c. Steam Line Isolation ≤ 7.0 d. Containment Air Return Fan ≥ 540.0 and ≤ 660 8. <u>Steam Generator Water LevelHigh-High</u> a. Turbine Trip ≤ 2.5 b. Feedwater Isolation $\leq 11.0^{(2)}$ 9. <u>Main Steam Generator Water Level -</u> <u>Low-Low</u> a. Motor-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁴⁾ b. Turbine-driven Auxiliary ≤ 60.0	7.	<u>Con</u>	tainment PressureHigh-High Containment Spray	< 208(9)	R51
 8. <u>Steam Generator Water LevelHigh-High</u> a. Turbine Trip b. Feedwater Isolation ≤ 2.5 ≤ 11.0⁽²⁾ 9. <u>Main Steam Generator Water Level -</u> Low-Low a. Motor-driven Auxiliary Feedwater Pumps⁽⁴⁾ b. Turbine-driven Auxiliary Feedwater Pumps⁽⁵⁾(/3) ≤ 60.0 		b. c. d.	Containment Isolation-Phase "B" Steam Line Isolation Containment Air Return Fan	$\leq 65^{(8)}/75^{(9)}$ ≤ 7.0 $\geq 540.0 \text{ and } \leq 660$	1
a. Turbine Trip ≤ 2.5 (R5: b. Feedwater Isolation ≤ 11.0 ⁽²⁾ 9. <u>Main Steam Generator Water Level -</u> <u>Low-Low</u> a. Motor-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁴⁾ b. Turbine-driven Auxiliary ≤ 60.0	8.	Stea	am Generator Water LevelHigh-High		
9. <u>Main Steam Generator Water Level -</u> <u>Low-Low</u> a. Motor-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁴⁾ b. Turbine-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁵⁾ (/3)		a. b.	Turbine Trip Feedwater Isolation	≤ 2.5 $\leq 11.0(2)$	R55
a. Motor-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁴⁾ b. Turbine-driven Auxiliary ≤ 60.0 Feedwater Pumps ⁽⁵⁾ (/3)	9.	Main Low	n Steam Generator Water Level - -Low		
b. Turbine-driven Auxiliary < 60.0 Feedwater Pumps ⁽⁵⁾ (13)		a.	Motor-driven Auxiliary Feedwater Pumps ⁽⁴⁾	<u>≤</u> 60.0	
		b.	Turbine-driven Auxiliary Feedwater Pumps ^{(5)(/3)}	<u><</u> 60.0	

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Amendment No. 47, 87, 55. -December 31, 1987-

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ENGINEERED SAFETY FEATURES RESPONSE TIMES

11	11ATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
10.	Station Blackout	
	2. Auxiliary Feedwater Pumps	$\leq 60^{(13)}$
11.	Trip of Main Feedwater Pumps	
	a. Auxiliary Feedwater Pumps	≤ 60 ^(/3)
12	Loss of Power	
	3 6.9 kv Shutdown Board - Degraded Voltage or Loss of Voltage	≤ 10 ⁽¹⁰⁾
13.	RVST Level-Low Coincident with Containment	: Sump
	Level-High and Safety Injection	그는 그는 가슴을 가지 않는다.
	a. Automatic Switchover to	
	Containment Sump	<u><</u> 250
14.	Containment Purge Air Exhaust	
	Padioactivity - High	
	 Containment Ventilation Isolation 	≤ 10 ⁽⁶⁾
15.	Containment Gas Monitor	
	Padioactivity High	
	a Containment Ventilation Isolation	≤ 10 ⁽⁶⁾
16.	Containment Particulate Activity High	
	e. Containment Ventilation Isolation	≤ 10 ⁽⁶⁾
×NOTE	This technical specification is to be following the first refueling outage.	implemented during the startup
EQUO	DYAH - UNIT 2 3/4 3-32	Amendmont No. 19

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R18

R18

May 5, 1983 -

INSTRUMENTATION

TABLE 3.3-5 (Continued)

TABLE NOTATION

(10) The response time for loss of voltage is measured from the time voltage is lost until the time full voltage is restored by the diesel. The response time for degraded voltage is measured from the time the load shedding signal is generated, either from the degraded voltage or the SI enable timer, to the time full voltage is restored by the diesel. The response time of the timers is covered by the requirements on their setpoints.

Note 11 added by TS 87-38 submitted September 14, 1987 Note 12 added by TS 88-01 submitted

(13) The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 for the Turbine-driven Auxiliary Feedwater Pump.

*NOTE: This technical specification is to be implemented during the startup following the first refueling outage.

SEQUOYAH - UNIT 2

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Amendment No. 18 MAY 5 1983 R18

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Change /	At least once per 31 days by verifying that
submitted by TS 87-17	3. 1/each automatic control valve in the flow path is OPERABLE whenever the auxiliary feedwater system is placed in automatic control or when above 10% of RATED THERMAL POWER.
b.	At least once per 18 months during shutdown by:
	 Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an auxiliary feedwater actuation test signal and a low auxiliary feedwater pump suction pressure test signal.
	2. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of each auxiliary feedwater actuation test signal

c. At least once per 7 days by verifying that each non-automatic valve in the auxiliary feedwater system flowpath is in its correct position.

* The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 for the Turbine-driven Auxiliary Feedwater Pamp.

SEQUOYAH - UNIT 2

ENCLOSURE 2

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1.

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-88-10)

DESCRIPTION AND JUSTIFICATION FOR PROPOSED CHANGE TO TDAFWP RESPONSE TIME AND ACTUATION SIGNAL TESTING

ENCLOSURE 2

Description of Change

۰.

Tennessee Valley Authority proposes to modify the SQN units 1 and 2 technical specifications to revise the testing requirements for the TDAFWP. In addition, an outdated footnote is being deleted. Each change is described in detail below.

- Footnote 13 is being added to table 3.3-5. It will apply to functional items 2.f, 3.f, 4.f, 5.f, 6.f, 9.b, 10.a, and 11.a. The footnote indicates that the provisions of specification 4.0.4 are not applicable for entry into mode 3 for the TDAFWP.
- 2. A footnote is being added to surveillance requirement (SR) 4.7.1.2.b to indicate that the provisions of specification 4.0.4 are not applicable for entry into mode 3 for the TDAFWP.
- An outdated footnote is being deleted from table 3.3-5, item 12, and note 10. This footnote identified scheduling requirements for a modification that is now complete.
- The wording of unit 2 SR 4.7.1.2.b.2 is revised. The change makes the unit 2 SR wording consistent with unit 1 and the Westinghouse Standard Technical Specifications (STS).

Reason for Change

Two of the changes are necessary to resolve inconsistencies in the technical specification requirements for the TDAFWP. One of the changes is made as a convenience to remove an outdated footnote. Another of the changes is made as a convenience to correct inconsistent wording between the unit 1 and unit 2 technical specifications.

The TDAFWP must have a secondary steam supply pressure greater than 842 pounds per square inch (psig) in order to operate at rated conditions. The reactor coolant system temperature must be greater than 525 degrees F to generate the necessary secondary steam supply system pressure. From a thermodynamic point of view, the steam generator operates at saturated conditions. The reactor coolant system must operate at a temperature greater than the saturation temperature associated with the steam generator pressure in order to transfer energy to the secondary system. The saturation temperature for 842 psig is between 524 degrees F and 525 degrees F.

The reactor must be in mode 3 in order to achieve the necessary steam conditions to operate the TDAFWP at rated conditions. SR 4.7.1.2.a.2 recognizes this fact and allows entry into mode 3 to perform TDAFWP testing. The response time testing requirements in table 3.3-5 and SR 4.7.1.2.b do not clearly allow for entry into mode 3 to perform the special testing. No specific exemption to specification 4.0.4 is identified. Specification 4.0.4 requires performance of the SR before entry into the applicable modes. For auxiliary feedwater, the applicable modes are 1, 2, and 3. The mode change exemption for TDAFWP testing is only used during return to service from an outage, typically a refueling outage for SRs with an 18-month frequency. The decay heat levels are much lower on a return to service from an outage because of the decay time during the outage. In addition, the technical specifications do not allow the reactor to be critical in mode 3. This restriction also serves to limit the decay heat level.

The auxiliary feedwater system is designed to remove full decay heat levels immediately following a reactor trip. As identified in Final Safety Analysis Report (FSAR) Section 10.4.7.2.3, 440 gallons per minute (gal/min) to two steam generators is sufficient to remove this decay heat level. The SQN auxiliary feedwater system consists of two motor-driven auxiliary feedwater pumps (MDAFWPs)(each sized to deliver a minimum of 440 gal/min) and one TDAFWP (nominal capacity of 880 gal/min) for each unit.

Technical specification 3.7.1.2 requires three operable auxiliary feedwater pumps in modes 1, 2, and 3. In addition, the two MDAFWPs must be fully tested before entry into mode 3. The TDAFWP is available, but not fully tested in mode 3.

In summary, the changes to table 3.3-5 and SR 4.7.1.2.b to permit entry into mode 3 to perform TDAFWP testing are appropriate and justified. The changes are consistent with the administrative provisions that already exist for other TDAFWP testing requirements, namely SR 4.7.1.2.a. The technical specifications require two redundant, 100-percent capacity, fully tested MDAFWPs in mode 3. The TDAFWP is also available, but not fully tested. This configuration is more than sufficient to remove the reduced decay heat levels present whenever the mode change provisions are used.

The deletion of the outdated footnote is administrative in nature. The modification discussed in the footnote is complete. This change will remove extraneous information and make the document more user-friendly.

The wording change made to unit 2 SR 4.7.1.2.b.2 is also an administrative change. The revised wording will make the unit 2 SR consistent with the wording of the unit 1 and STS SR wording.

ENCLOSURE 3 PROPOSED TECHNICAL SPECIFICATION CHANGES SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2 DOCKET NOS. 50-327 AND 50-328 (TVA-SQN-TS-88-10)

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DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATIONS

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ENCLOSURE 3 Page 1 of 2

Significant Hazards Evaluation

TVA has evaluated the proposed technical specification change and determined that it does not represent a significant hazards consideration based on criteria established in 10 CFR 50.92(c). Operation of SQN in accordance with the proposed amendment will not:

(1) involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes to table 3.3-5 and SR 4.7.1.2.b correct an inconsistency in the SRs for the TDAFWP. The proposed changes allow for entry into mode 3 to perform response time and actuation signal testing for the TDAFWP. Valid testing cannot be performed until the necessary secondary steam supply conditions are present in mode 3. The proposed changes do not reduce the overall system requirements for the TDAFWP because SR 4.7.1.2.a already has the provisions for entry into mode 3 to perform TDAFWP testing. Because the overall system requirements for the TDAFWP are not reduced, the change does not increase the pubbability or consequences of any accident previously evaluated. Testing the TDAFWP under conditions that are representative of the plant conditions that would be present whenever the TDAFWP would be expected to perform its safety-related function may actually improve system reliability and possibly decrease the probability or consequences of any accident previously evaluated.

The deletion of the outdated footnote is administrative in nature. The footnote serves no purpose now that the modification discussed in the footnote is installed. The wording change made to the unit 2 SR is also administrative. The revised wording is consistent with the unit 1 and STS SR wording. These proposed changes have no effect on any plant system. Because no plant system is affected, the changes do not increase the probability or consequences of any accident previously evaluated.

(2) create the possibility of a new or different kind of accident from any previously analyzed. The proposed changes to table 3.3-5 and SR 4.7.1.2.b correct an inconsistency in the SRs for the TDAFWP. The proposed changes allow for entry into mode 3 to perform response time and actuation signal testing for the TDAFWP. Valid testing cannot be performed until the necessary secondary steam supply conditions are present in mode 3. The proposed changes do not reduce the overall system requirements for the TDAFWP because SR 4.7.1.2.a already has the provisions for entry into mode 3 to perform TDAFWP testing. Because the overall system requirements for the TDAFWP are not reduced, the change does not create the possibility of a new or different kind of accident from any previously analyzed. The deletion of the outdated footnote is administrative in nature. The footnote serves no purpose now that the modification discussed in the footnote is installed. The wording change made to the unit 2 SR is also administrative. The revised wording is consistent with the unit 1 and STS SR wording. These proposed changes have no effect on any plant system. Because no plant system is affected, the changes do not create the possibility of a new or different kind of accident from any previously analyzed.

(3) involve a significant reduction in a margin of safety. The proposed changes to table 3.3-5 and SR 4.7.1.2.b correct an inconsistency in the SRs for the TDAFWP. The proposed changes allow for entry into mode 3 to perform response time and actuation signal testing for the TDAFWP. Valid testing cannot be performed until the necessary secondary steam supply conditions are present in mode 3. The proposed changes do not reduce the overall system requirements for the TDAFWP because SR 4.7.1.2.a already has the provisions for entry into mode 3 to perform TDAFWP testing. Because the overall system requirements for the TDAFWP are not reduced, the change does not reduce the margin of safety. Testing the TDAFWP under conditions that are representative of the plant conditions that would be present whenever the TDAFWP would be expected to perform its safety-related function may actually improve system reliability and possibly increase the margin of safety.

The deletion of the outdated footnote and the wording change are administrative in nature. Because no plant system is affected, the change has no impact on the margin of safety.

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