ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATIONS
2.2.1, 3.3.1, TABLES 2.2-1, 3.3-1, 3.3-2, 4.3-1, ITEM 4

TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TOTAL ALLOWANCE (TA)	Z	SENSOR ERROR (S)	TRIP SETPOINT	ALLOWABLE VALUE
1. Manual Reactor Trip	N.A.	N.A.	N.A.	N.A.	N.A.
2. Power Range, Neutron Flux a. High Setpoint	7.5	4.56	0	≤109% of RTP**	≤111.3% of RTP**
b. Low Setpoint	8.3	4.56	0	≤25% of RTP**	≤27.3% of RTP**
3. Power Range, Neutron Flux, High Positive Rate	1.6	0.5	0	≤5% of RTP** with a time constant ≥2 seconds	≤6.3% of RTP** with a time constant ≥2 seconds
4. Deleted Power Range, Neutron Flux, High Negative Rate	1.6	0.5	0	≤5% of RTP** with a time constant ≥2 seconds	≤6.3% of RTP** with a time constant ≥2 seconds
5. Intermediate Range, Neutron Flux	17.0	8.41	0	≤25% of RTP**	≤31.1% of RTP**
6. Source Range, Neutron Flux	17.0	10.01	0	≤10^5 cps	≤1.4×10^5 cps
7. Overtemperature ΔT	6.8	4.66	1.5 + 0.9#	See Note 1	See Note 2
8. Overpower ΔT	5.5	1.74	1.5	See Note 3	See Note 4
9. Pressurizer Pressure-Low	3.1	0.71*	2.0	≥1870 psig	≥1862 psig
10. Pressurizer Pressure-High	3.1	0.71	2.0	≤2380 psig	≤2388 psig
11. Pressurizer Water Level-High	5.0	2.76	2.0	≤92% of instrument span	≤93.6% of instrument span
12. Reactor Coolant Flow-Low	4.0	3.19	0.6	>91.8% of loop design flow*	>90.9% of loop design flow*

*Loop design flow = 95,400 gpm
**RTP = RATED THERMAL POWER
#1.5% span for ΔT; 0.9% span for Pressurizer Pressure

REACTOR TRIP SYSTEM INSTRUMENTATION SETPOINTS (Continued)

The various Reactor trip circuits automatically open the Reactor trip breakers whenever a condition monitored by the Reactor Trip System reaches a preset or calculated level. In addition to redundant channels and trains, the design approach provides a Reactor Trip System which monitors numerous system variables, therefore providing Trip System functional diversity. The functional capability at the specified trip setting is required for those anticipatory or diverse Reactor trips for which no direct credit was assumed in the safety analysis to enhance the overall reliability of the Reactor Trip System. The Reactor Trip System initiates a Turbine trip signal whenever Reactor trip is initiated. This prevents the reactivity insertion that would otherwise result from excessive Reactor Coolant System cooldown and thus avoids unnecessary actuation of the Engineered Safety Features Actuation System.

Manual Reactor Trip

The Reactor Trip System includes manual Reactor trip capability.

Power Range, Neutron Flux

In each of the Power Range Neutron Flux channels there are two independent bistables, each with its own trip setting used for a High and Low Range trip setting. The Low Setpoint trip provides protection during subcritical and low power operations to mitigate the consequences of a power excursion beginning from low power, and the High Setpoint trip provides protection during power operations to mitigate the consequences of a reactivity excursion from all power levels.

The Low Setpoint trip may be manually blocked above P-10 (a power level of approximately 10% of RATED THERMAL POWER) and is automatically reinstated below the P-10 Setpoint.

Power Range, Neutron Flux, High Rates

The Power Range Positive Rate trip provides protection against rapid flux increases which are characteristic of a rupture of a control rod drive housing. Specifically, this trip complements the Power Range Neutron Flux High and Low trips to ensure that the criteria are met for rod ejection from mid-power.

The Power Range Negative Rate trip provides protection for control rod drop accidents. At high power a single or multiple rod drop accident could cause local flux peaking which could cause an unconservative local DNBR to exist. The Power Range Negative Rate trip will prevent this from occurring by tripping the reactor. No credit is taken for operation of the Power Range Negative Rate trip for those control rod drop accidents for which DNBRs will be greater than the design limit.

TABLE 3.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Manual Reactor Trip	2	1	2	1, 2	1
	2	1	2	3*, 4*, 5*	10
2. Power Range, Neutron Flux					
a. High Setpoint	4	2	3	1, 2	2
b. Low Setpoint	4	2	3	1###, 2	2
3. Power Range, Neutron Flux High Positive Rate	4	2	3	1, 2	2
Deleted 4. Power Range, Neutron Flux High Negative Rate	4	2	3	1, 2	2
5. Intermediate Range, Neutron Flux	2	1	2	1###, 2	3
6. Source Range, Neutron Flux					
a. Startup	2	1	2	2##	4
b. Shutdown	2	1	2	3*, 4*, 5*	10
7. Extended Range, Neutron Flux	2	0	2	3, 4, 5	4
8. Overtemperature ΔT	4	2	3	1, 2	6
9. Overpower ΔT	4	2	3	1, 2	6
10. Pressurizer Pressure--Low (Interlocked with P-7)	4	2	3	1	6
11. Pressurizer Pressure--High	4	2	3	1, 2	6
12. Pressurizer Water Level--High (Interlocked with P-7)	4	2	3	1	6

TABLE 3.3-2

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

FUNCTIONAL UNIT		RESPONSE TIME
1.	Manual Reactor Trip	N.A.
2.	Power Range, Neutron Flux	≤ 0.5 second*
3.	Power Range, Neutron Flux, High Positive Rate	N.A.
4.	Power Range, Neutron Flux, High Negative Rate	≤ 0.5 second*
5.	Intermediate Range, Neutron Flux	N.A.
6.	Source Range, Neutron Flux	≤ 0.5 second*
7.	Extended Range, Neutron Flux	N.A.
8.	Overtemperature ΔT	≤ 8.0 seconds*
9.	Overpower ΔT	≤ 8.0 seconds*
10.	Pressurizer Pressure--Low	≤ 2 seconds
11.	Pressurizer Pressure--High	≤ 2 seconds
12.	Pressurizer Water Level--High	≤ 2 seconds

Deleted

*Neutron detectors are exempt from response time testing. Response time of the neutron flux signal portion of the channel shall be measured from detector output or input of first electronic component in channel.

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TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Manual Reactor Trip	N.A.	N.A.	N.A.	R(14)	N.A.	1, 2, 3*, 4*, 5*
2. Power Range, Neutron Flux						
a. High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q(17)	N.A.	N.A.	1, 2
b. Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1***, 2
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(4)	Q(17)	N.A.	N.A.	1, 2
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R(4)	Q(17)	N.A.	N.A.	1, 2
5. Intermediate Range, Neutron Flux	S	R(4, 5)	S/U(1)	N.A.	N.A.	1***, 2
6. Source Range, Neutron Flux	S	R(4, 5)	S/U(1), Q(9)(17)	N.A.	N.A.	2**, 3, 4, 5
7. Extended Range, Neutron Flux	S	R(4)	Q(12, 17)	N.A.	N.A.	3, 4, 5
8. Overtemperature ΔT	S	R	Q(17)	N.A.	N.A.	1, 2
9. Overpower ΔT	S	R	Q(17)	N.A.	N.A.	1, 2
10. Pressurizer Pressure --Low	S	R	Q(17)	N.A.	N.A.	1

Deleted

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