

TABLE 2.2.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

SUSQUEHANNA - UNIT 1

2-4

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Intermediate Range Monitor, Neutron Flux-High	$\leq 120/125$ divisions of full scale	$\leq 122/125$ divisions of full scale
2. Average Power Range Monitor:		
a. Neutron Flux-Upscale, Setdown	$\leq 15\%$ of RATED THERMAL POWER	$\leq 20\%$ of RATED THERMAL POWER
b. Flow Biased Simulated Thermal Power-Upscale		
1) Flow Biased	$\leq 0.66 W+51\%$ , with a maximum of	$\leq 0.66 W+54\%$ , with a maximum of
2) High Flow Clamped	$\leq 113.5\%$ of RATED THERMAL POWER	$\leq 115.5\%$ of RATED THERMAL POWER
c. Neutron Flux-Upscale	$\leq 118\%$ of RATED THERMAL POWER	$\leq 120\%$ of RATED THERMAL POWER
d. Inoperative	NA	NA
3. Reactor Vessel Steam Dome Pressure - High	$\leq 1037$ psig	$\leq 1057$ psig
4. Reactor Vessel Water Level - Low, Level 3	$> 13.0$ inches above Instrument zero*	$> 11.5$ inches above Instrument zero
5. Main Steam Line Isolation Valve - Closure	$\leq 10\%$ closed	$\leq 11\%$ closed
6. Main Steam Line Radiation - High	$\leq 7.0 \times$ full power background	$\leq 8.4 \times$ full power background
7. Drywell Pressure - High	$< 1.72$ psig	$\leq 1.88$ psig
8. Scram Discharge Volume Water Level - High	$\leq 88$ gallons	$\leq 88$ gallons
9. Turbine Stop Valve - Closure	$\leq 5.5\%$ closed	$\leq 7\%$ closed
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	$\geq 500$ psig	$\geq 460$ psig
11. Reactor Mode Switch Shutdown Position	NA	NA
12. Manual Scram	NA	NA

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

TABLE 3.3.2-2

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<b>1. PRIMARY CONTAINMENT ISOLATION</b>		
a. Reactor Vessel Water Level		
1) Low, Level 3	> 13.0 inches*	> 11.5 inches
2) Low Low, Level 2	> -38.0 inches*	> -45.0 inches
3) Low Low Low, Level 1	> -129 inches*	> -136 inches
b. Drywell Pressure - High	< 1.72 psig	< 1.88 psig
c. Manual Initiation	NA	NA
<b>2. SECONDARY CONTAINMENT ISOLATION</b>		
a. Reactor Vessel Water Level - Low Low, Level 2	≥ -38.0 inches*	≥ -45.0 inches
b. Drywell Pressure - High	< 1.72 psig	< 1.88 psig
c. Refuel Floor High Exhaust Duct Radiation - High	≤ 2.5 mR/hr.**	≤ 4.0 mR/hr.**
d. Railroad Access Shaft Exhaust Duct Radiation - High	≤ 2.5 mR/hr.**	≤ 4.0 mR/hr.**
e. Refuel Floor Wall Exhaust Duct Radiation - High	< 2.5 R/hr.**	< 4.0 mR/hr.**
f. Manual Initiation	NA	NA
<b>3. MAIN STEAM LINE ISOLATION</b>		
a. Reactor Vessel Water Level - Low Low, Level 2	7.0 ≥ -38 inches*	8.4 ≥ -45.0 inches
b. Main Steam Line Radiation - High	< <del>3.0</del> X full power background	< 3.0 X full power background
c. Main Steam Line Pressure - Low	≥ 861 psig	≥ 841 psig
d. Main Steam Line Flow - High	≤ 107 psid	≤ 110 psid

SISOLEHANNNA UNIT 1

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Amendment No. 4

TABLE 1

Off-Site Doses

	<u>NEDO-10174 (Flow Blockage Event)</u>	
	<u>Inhalation (Rem)</u>	<u>Whole Body (Rem)</u>
Exclusion Area (2 hr dose)	.5	0.1
Low Population Zone (30 day dose)	1.1	0.03

	<u>NEDO-10174 Adjusted for SSES x/Q's</u>	
	<u>Inhalation (Rem)</u>	<u>Whole Body (Rem)</u>
Exclusion Area (2 hr)	.47	.085
Low Population Zone (30 day)	.062	.0045

	<u>Control Rod Drop Accident (FSAR 15.4-15)</u>	
	<u>Inhalation (Rem)</u>	<u>Whole Body (Rem)</u>
Exclusion Area (2 hr)	1.07	.136
Low Population Zone (30 day)	.153	.0062

	<u>Loss of Coolant Accident (Design Basis)</u> <u>(FSAR Table 15.6-18)</u>	
	<u>Inhalation (Rem)</u>	<u>Whole Body (Rem)</u>
Exclusion Area (2 hr)	154	5.12
Low Population Zone (30 day)	33.4	.889

100-100000

100-100000

100

100

100-100000

100-100000

100-100000

100

100