ATTACHMENT A

EXISTING TECHNICAL SPECIFICATIONS

UNIT 2

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. Particulate/Iodine	2	1	1	All	13*#
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Automatic Actuation logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
9. CONTROL ROOM ISOLATION (CRIS)		
a. Manual CRIS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)	Not Applicable	Not Applicable
c. Airborne Radiation		
i. Particulate/Iodine	$\leq 5.7 \times 10^4$ cpm**	$\leq 6.0 \times 10^4$ cpm**
ii. Gaseous	$\leq 3.8 \times 10^2$ cpm**	$\leq 4.0 \times 10^2$ cpm**
d. Automatic Actuation Logic	Not Applicable	Not Applicable
10. TOXIC GAS ISOLATION (TGIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Chlorine - High	$\leq$ 14.3 ppm	$\leq$ 15.0 ppm
c. Ammonia - High	$\leq$ 97 ppm	$\leq$ 100 ppm
d. Butane/Propane - High	$\leq$ 193 ppm	$\leq$ 200 ppm
e. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. LOSS OF POWER (LOV)				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage and Degraded Voltage)	S	(6)	(6)	1, 2, 3, 4
8. EMERGENCY FEEDWATER (EFAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	(6)	1, 2, 3
b. SG Level (A/B)-Low and ΔP (A/B) - High	S	(6)	Q	1, 2, 3
c. SG Level (A/B) - Low and No Pressure - Low Trip (A/B)	S	(6)	Q	1, 2, 3
d. Automatic Actuation Logic	N.A.	N.A.	Q(3), SA(4)	1, 2, 3
9. CONTROL ROOM ISOLATION (CRIS)				
a. Manual CRIS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Airborne Radiation				
i. Particulate/Iodine	S	R	M	All
ii. Gaseous	S	R	M	All
d. Automatic Actuation Logic	N.A.	N.A.	R(3)	All
10. TOXIC GAS ISOLATION (TGIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Chlorine - High	S	R	M	All
c. Ammonia - High	S	R	M	All
d. Butane/Propane - High	S	R	M	All
e. Automatic Actuation Logic	N.A.	N.A.	R (3)	All

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (2RT-7820-1 and 2RT-7820-2)	2	1, 2, 3 4	10 R/hr 10 R/hr	$1-10^8$ R/hr	18, 18a 19
b. Containment - Purge Isolation (2RT-7856-1 or 2RT-7857-2)	1	1, 2, 3, 4 6	# #	$10^{-1}-10^5$ mR/hr	17 17b
c. Main Steam Line A Channel consist of 2RT-7874A and 2RT-7875A or 2RT-7874B and 2RT-7875B	1/line	1, 2, 3 4	1 mR/hr (low); 1 R/hr (high) 1 mR/hr (low); 1 R/hr (high)	$10^{-1}-10^4$ mR/hr;	18 19
2. Process Monitors					
a. Fuel Storage Pool Airborne (2RT-7822-1 or 2RT-7823-2)					
i. Gaseous	1	*	#	10^1 -10^7 cpm	16
b. Containment Airborne (2RT-7804-1 or 2RT-7807-2)					
i. Gaseous	1	1, 2, 3, 4 6	# #	10^1 - 10^7 cpm	17a 17b
ii. Particulate	1	1, 2, 3, 4 6	# #	10^1 - 10^7 cpm	17a 17b
iii. Iodine	1	6	#	10^1 - 10^7 cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2)					
i. Particulate	1	All	#	10^1 - 10^7 cpm	13
ii. Gaseous	1	All	#	10^1 - 10^7 cpm	13

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Area Monitors				
a. Containment - High Range (2RT-7820-1, 2RT-7820-2)	S	(2)	M	1, 2, 3, 4
b. Containment - Purge Isolation (2RT-7856-1, 2RT-7857-2)	S	(2)	M	1, 2, 3, 4, 6
c. Main Steam Line (2RT-7874A, 2RT-7875A, 2RT-7874B, 2RT-7875B)	S	R	M	1, 2, 3, 4
2. Process Monitors				
a. Fuel Storage Pool Airborne (2RT-7822-1, 2RT-7823-2)				
i. Gaseous	#	#	#	*
b. Containment Airborne (2RT-7804-1, 2RT-7807-2)				
i. Gaseous	#	#	#	1, 2, 3, 4, 6
ii. Particulate	#	#	#	1, 2, 3, 4, 6
iii. Iodine	#	#	#	6
c. Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i. Particulate	#	#	#	All
ii. Gaseous	#	#	#	All

ATTACHMENT B

EXISTING TECHNICAL SPECIFICATIONS

UNIT 3

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. Particulate/Iodine	2	1	1	All	13*#
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation Logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Automatic Actuation Logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
9. CONTROL ROOM ISOLATION (CRIS)	Not Applicable	Not Applicable
a. Manual CRIS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)		
c. Airborne Radiation		
i. Particulate/Iodine	$\leq 5.7 \times 10^4$ cpm**	$\leq 6.0 \times 10^4$ cpm**
ii. Gaseous	$\leq 3.8 \times 10^2$ cpm**	$\leq 4.0 \times 10^2$ cpm**
d. Automatic Actuation Logic	Not Applicable	Not Applicable
10. TOXIC GAS ISOLATION (TGIS)	Not Applicable	Not Applicable
a. Manual (Trip Buttons)	$\leq$ 14.3 ppm	$\leq$ 15.0 ppm
b. Chlorine - High	$\leq$ 97 ppm	$\leq$ 100 ppm
c. Ammonia - High	$\leq$ 193 ppm	$\leq$ 200 ppm
d. Butane/Propane - High	Not Applicable	Not Applicable
e. Automatic Actuation Logic		

JAN 09 1985

AMENDMENT NO. 13

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. LOSS OF POWER (LOV)				
a. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage and Degraded Voltage)	S	(6)	(6)	1, 2, 3, 4
8. EMERGENCY FEEDWATER (EFAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	(6)	1, 2, 3
b. SG Level (A/B)-Low and ΔP (A/B) - High	S	(6)	Q	1, 2, 3
c. SG Level (A/B) - Low and No Pressure - Low Trip (A/B)	S	(6)	Q	1, 2, 3
d. Automatic Actuation Logic	N.A.	N.A.	Q(3), SA(4)	1, 2, 3
9. CONTROL ROOM ISOLATION (CRIS)				
a. Manual CRIS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Airborne Radiation				
i. Particulate/Iodine	S	R	M	All
ii. Gaseous	S	R	M	All
d. Automatic Actuation Logic	N.A.	N.A.	R(3)	All
10. TOXIC GAS ISOLATION (TGIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Chlorine - High	S	R	M	All
c. Ammonia - High	S	R	M	All
d. Butane/Propane - High	S	R	M	All
e. Automatic Actuation Logic	N.A.	N.A.	R (3)	All

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (3RT-7820-1 and 3RT-7820-2)	2	1, 2, 3 4	10 R/hr 10 R/hr	$1-10^8$ R/hr	18, 18a 19
b. Containment - Purge Isolation (3RT-7856-1 or 3RT-7857-2)	1	1, 2, 3, 4 6	# #	$10^{-1}-10^5$ mR/hr	17 17b
c. Main Steam Line A channel consists of 3RT-7874A and 3RT-7875A or 3RT-7874B and 3RT-7875B	1/line	1, 2, 3 4	1 mR/hr (low); 1 R/hr (high) 1 mR/hr (low); 1 R/hr (high)	$10^{-1}-10^4$ mR/hr;	18 19
2. Process Monitors					
a. Fuel Storage Pool Airborne (3RT-7822-1 or 3RT-7823-2) i. Gaseous	1	*	#	10^1-10^7 cpm	16
b. Containment Airborne (3RT-7804-1 or 3RT-7807-2) i. Gaseous	1	1, 2, 3, 4 6	# #	10^1-10^7 cpm	17a 17b
ii. Particulate	1	1, 2, 3, 4 6	# #	10^1-10^7 cpm	17a 17b
iii. Iodine	1	6	#	10^1-10^7 cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2) i. Particulate/Iodine ii. Gaseous	1 1	All All	# #	10^1-10^7 cpm 10^1-10^7 cpm	13 13

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1.	Area Monitors				
a.	Containment - High Range (3RT-7820-1, 3RT-7820-2)	S	(2)	M	1, 2, 3, 4
b.	Containment - Purge Isolation (3RT-7856-1, 3RT-7857-2)	S	(2)	M	1, 2, 3, 4, 6
c.	Main Steam Line (3RT-7874A, 3RT-7875A, 3RT-7874B, 3RT-7875B)	S	R	M	1, 2, 3, 4
2.	Process Monitors				
a.	Fuel Storage Pool Airborne (3RT-7822-1, 3RT-7823-2)				
i.	Gaseous	#	#	#	*
b.	Containment Airborne (3RT-7804-1, 3RT-7807-2)				
i.	Gaseous	#	#	#	1, 2, 3, 4, 6
ii.	Particulate	#	#	#	1, 3, 3, 4, 6
iii.	Iodine	#	#	#	6
c.	Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i.	Particulate	#	#	#	All
ii.	Gaseous	#	#	#	All

ATTACHMENT C

PROPOSED TECHNICAL SPECIFICATIONS

UNIT 2

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. ~~Particulate/Iodine~~ Deleted	~~2~~	~~1~~	~~1~~	~~All~~	~~13*#~~
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation Logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Automatic Actuation Logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
9. CONTROL ROOM ISOLATION (CRIS)		
a. Manual CRIS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)	Not Applicable	Not Applicable
c. Airborne Radiation		
i. ~~Particulate/Iodine~~ Deleted	~~$\leq 5.7 \times 10^4$ cpm**~~	~~$\leq 6.0 \times 10^4$ cpm**~~
ii. Gaseous	$\leq 3.8 \times 10^2$ cpm**	$\leq 4.0 \times 10^2$ cpm**
d. Automatic Actuation Logic	Not Applicable	Not Applicable
10. TOXIC GAS ISOLATION (TGIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Chlorine - High	$\leq$ 14.3 ppm	$\leq$ 15.0 ppm
c. Ammonia - High	$\leq$ 97 ppm	$\leq$ 100 ppm
d. Butane/Propane - High	$\leq$ 193 ppm	$\leq$ 200 ppm
e. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. LOSS OF POWER (LOV)				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage and Degraded Voltage)	S	(6)	(6)	1, 2, 3, 4
8. EMERGENCY FEEDWATER (EFAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	(6)	1, 2, 3
b. SG Level (A/B)-Low and ΔP (A/B) - High	S	(6)	Q	1, 2, 3
c. SG Level (A/B) - Low and No Pressure - Low Trip (A/B)	S	(6)	Q	1, 2, 3
d. Automatic Actuation Logic	N.A.	N.A.	Q(3), SA(4)	1, 2, 3
9. CONTROL ROOM ISOLATION (CRIS)				
a. Manual CRIS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Airborne Radiation				
i. ~~Particulate/Iodine~~ Deleted	~~S~~	~~R~~	~~M~~	~~All~~
ii. Gaseous	S	R	M	All
d. Automatic Actuation Logic	N.A.	N.A.	R(3)	All
10. TOXIC GAS ISOLATION (TGIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Chlorine - High	S	R	M	All
c. Ammonia - High	S	R	M	All
d. Butane/Propane - High	S	R	M	All
e. Automatic Actuation Logic	N.A.	N.A.	R(3)	All

TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (2RT-7820-1 and 2RT-7820-2)	2	1, 2, 3	10 R/hr	$1-10^8$ R/hr	18, 18a
		4	10 R/hr		19
b. Containment - Purge Isolation (2RT-7856-1 or 2RT-7857-2)	1	1, 2, 3, 4	#	$10^{-1}-10^5$ mR/hr	17
		6	#		17b
c. Main Steam Line A Channel consist of 2RT-7874A and 2RT-7875A or 2RT-7874B and 2RT-7875B	1/line	1, 2, 3	1 mR/hr (low); 1 R/hr (high)	$10^{-1}-10^4$ mR/hr;	18
		4	1 mR/hr (low); 1 R/hr (high)		19
2. Process Monitors					
a. Fuel Storage Pool Airborne (2RT-7822-1 or 2RT-7823-2) i. Gaseous	1	*	#	10^1-10^7 cpm	16
b. Containment Airborne (2RT-7804-1 or 2RT-7807-2) i. Gaseous	1	1, 2, 3, 4	#	10^1-10^7 cpm	17a
		6	#		17b
ii. Particulate	1	1, 2, 3, 4		10^1-10^7 cpm	17a
		6	#		17b
iii. Iodine	1	6	#	10^1-10^7 cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2)					
i. ~~Particulate~~ Deleted	~~1~~	~~All~~	~~#~~	~~10^1-10^7 cpm~~	~~13~~
ii. Gaseous	1	All	#	10^1-10^7 cpm	13

SAN ONOFRE - UNIT 2

3/4 3-35

AMENDMENT NO.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Area Monitors				
a. Containment - High Range (2RT-7820-1, 2RT-7820-2)	S	(2)	M	1, 2, 3, 4
b. Containment - Purge Isolation (2RT-7856-1, 2RT-7857-2)	S	(2)	M	1, 2, 3, 4, 6
C. Main Steam Line (2RT-7874A, 2RT-7875A, 2RT-7874B, 2RT-7875B)	S	R	M	1, 2, 3, 4
2. Process Monitors				
a. Fuel Storage Pool Airborne (2RT-7822-1, 2RT-7823-2) i. Gaseous	#	#	#	*
b. Containment Airborne (2RT-7804-1, 2RT-7807-2)				
i. Gaseous	#	#	#	1, 2, 3, 4, 6
ii. Particulate	#	#	#	1, 2, 3, 4, 6
iii. Iodine	#	#	#	6
C. Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i. ~~Particulate~~ Deleted	~~#~~	~~#~~	~~#~~	~~All~~
ii. Gaseous	#	#	#	All

SAN ONOFRE - UNIT 2

3/4 3-38

AMENDMENT NO.

ATTACHMENT D

PROPOSED TECHNICAL SPECIFICATIONS

UNIT 3

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
9. CONTROL ROOM ISOLATION (CRIS)					
a. Manual CRIS (Trip Buttons)	2	1	1	All	13*#
b. Manual SIAS (Trip Buttons)	2 sets of 2/unit	1 set of 2	2 sets of 2/unit	1, 2, 3, 4	8
c. Airborne Radiation					
i. ~~Particulate/Iodine~~ Deleted	~~2~~	~~1~~	~~1~~	~~All~~	~~13*#~~
ii. Gaseous	2	1	1	All	13*#
d. Automatic Actuation Logic	1/train	1	1	All	13*#
10. TOXIC GAS ISOLATION (TGIS)					
a. Manual (Trip Buttons)	2	1	1	All	14*#, 15*#
b. Chlorine - High	2	1	1	All	14*#, 15*#
c. Ammonia - High	2	1	1	All	14*#, 15*#
d. Butane/Propane - High	2	1	1	All	14*#, 15*#
e. Automatic Actuation Logic	1/train	1	1	All	14*#, 15*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP VALUE	ALLOWABLE VALUES
9. CONTROL ROOM ISOLATION (CRIS)		
a. Manual CRIS (Trip Buttons)	Not Applicable	Not Applicable
b. Manual SIAS (Trip Buttons)	Not Applicable	Not Applicable
c. Airborne Radiation		
i. ~~Particulate/Iodine~~ Deleted	~~$\leq 5.7 \times 10^4$ cpm**~~	~~$\leq 6.0 \times 10^4$ cpm**~~
ii. Gaseous	$\leq 3.8 \times 10^2$ cpm**	$\leq 4.0 \times 10^2$ cpm**
d. Automatic Actuation Logic	Not Applicable	Not Applicable
10. TOXIC GAS ISOLATION (TGIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Chlorine - High	$\leq$ 14.3 ppm	$\leq$ 15.0 ppm
c. Ammonia - High	$\leq$ 97 ppm	$\leq$ 100 ppm
d. Butane/Propane - High	$\leq$ 193 ppm	$\leq$ 200 ppm
e. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 4.3-2 (continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. LOSS OF POWER (LOV)				
a. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage and Degraded Voltage)	S	(6)	(6)	1, 2, 3, 4
8. EMERGENCY FEEDWATER (EFAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	(6)	1, 2, 3
b. SG Level (A/B)-Low and ΔP (A/B) - High	S	(6)	Q	1, 2, 3
c. SG Level (A/B) - Low and No Pressure - Low Trip (A/B)	S	(6)	Q	1, 2, 3
d. Automatic Actuation Logic	N.A.	N.A.	Q(3), SA(4)	1, 2, 3
9. CONTROL ROOM ISOLATION (CRIS)				
a. Manual CRIS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Airborne Radiation				
i. ~~Particulate/Iodine~~ Deleted	~~S~~	~~R~~	~~M~~	~~All~~
ii. Gaseous	S	R	M	All
d. Automatic Actuation Logic	N.A.	N.A.	R(3)	All
10. TOXIC GAS ISOLATION (TGIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Chlorine - High	S	R	M	All
c. Ammonia - High	S	R	M	All
d. Butane/Propane - High	S	R	M	All
e. Automatic Actuation Logic	N.A.	N.A.	R(3)	All

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. Area Monitors					
a. Containment - High Range (3RT-7820-1 and 3RT-7820-2)	2	1, 2, 3	10 R/hr	$1-10^8$ R/hr	18, 18a
		4	10 R/hr		19
b. Containment - Purge Isolation (3RT-7856-1 or 3RT-7857-2)	1	1, 2, 3, 4	#	$10^{-1}-10^5$ mR/hr	17
		6	#		17b
c. Main Steam Line A channel consists of 3RT-7874A and 3RT-7875A or 3RT-7874B and 3RT-7875B	1/line	1, 2, 3	1 mR/hr (low); 1 R/hr (high)	$10^{-1}-10^4$ mR/hr;	18
		4	1 mR/hr (low); 1 R/hr (high)		19
2. Process Monitors					
a. Fuel Storage Pool Airborne (3RT-7822-1 or 3RT-7823-2)					
i. Gaseous	1	*	#	10^1-10^7 cpm	16
b. Containment Airborne (3RT-7804-1 or 3RT-7807-2)					
i. Gaseous	1	1, 2, 3, 4	#	10^1-10^7 cpm	17a
		6	#		17b
ii. Particulate	1	1, 2, 3, 4		10^1-10^7 cpm	17a
		6	#		17b
iii. Iodine	1	6	#	10^1-10^7 cpm	17b
c. Control Room Airborne (2/3 RT-7824-1 or 2/3 RT-7825-2)					
i. ~~Particulate/Iodine~~ Deleted	~~1~~	~~All~~	~~#~~	~~10^1-10^7~~ cpm	13
ii. Gaseous	1	All	#	10^1-10^7 cpm	13

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Area Monitors				
a. Containment - High Range (3RT-7820-1, 3RT-7820-2)	S	(2)	M	1, 2, 3, 4
b. Containment - Purge Isolation (3RT-7856-1, 3RT-7857-2)	S	(2)	M	1, 2, 3, 4, 6
c. Main Steam Line (3RT-7874A, 3RT-7875A, 3RT-7874B, 3RT-7875B)	S	R	M	1, 2, 3, 4
2. Process Monitors				
a. Fuel Storage Pool Airborne (3RT-7822-1, 3RT-7823-2)				
i. Gaseous	#	#	#	*
b. Containment Airborne (3RT-7804-1, 3RT-7807-2)				
i. Gaseous	#	#	#	1, 2, 3, 4, 6
ii. Particulate	#	#	#	1, 3, 3, 4, 6
iii. Iodine	#	#	#	6
c. Control Room Airborne (2/3RT-7824-1, 2/3RT-7825-2)				
i. ~~Particulate~~ Deleted	~~#~~	~~#~~	~~#~~	~~All~~
ii. Gaseous	#	#	#	All