

NPF-10/15-297

ATTACHMENT "A"
EXISTING AND PROPOSED TECHNICAL SPECIFICATIONS
UNIT 2

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TABLE 3.3-3 (Continued)
ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. FUEL HANDLING ISOLATION (FHIS)					
a. Manual (Trip Buttons)	2	1	1	**	16*#
b. Airborne Radiation					
i. Gaseous	2	1	1	**	16*#
ii. Particulate/Iodine	2	1	1	**	16*#
c. Automatic Actuation Logic	1/train	1	1	**	16*#
12. CONTAINMENT PURGE ISOLATION (CPIS)					
a. Manual (Trip Buttons)	2	1	1		
b. Airborne Radiation (2RT7804-1 or 2RT7807-2)				6	17b*#
i. Gaseous	2	1	1	1,2,3,4 6	17a 17b*#
ii. Particulate	2	1	1	1,2,3,4 6	17a 17b*#
iii. Iodine	2	1	1	6	17b*#
c. Containment Area Radiation (Gamma) (2RT7856-1 or 2RT7857-2)	2	1	1	6	17b*#
d. Automatic Actuation Logic	1/train	1	1	1,2,3,4 6	17 17b*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

<u>FUNCTIONAL UNIT</u>	<u>TRIP VALUE</u>	<u>ALLOWABLE VALUES</u>
11. FUEL HANDLING ISOLATION (FHIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(8)	(8)
ii. Particulate/Iodine	$\leq 5.7 \times 10^4 \text{ cpm}^{**}$	$\leq 6.0 \times 10^4 \text{ cpm}^{**}$
c. Automatic Actuation Logic	Not Applicable	Not Applicable
12. CONTAINMENT PURGE ISOLATION (CPIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(6)(7)	(6)(7)
ii. Particulate	(6)(7)	(6)(7)
iii. Iodine	(6)(7)	(6)(7)
c. Containment Area Radiation (Gamma)	$\leq 325 \text{ mR/hr (MODES 1-4)}$ $\leq 2.4 \text{ mR/hr (MODE 6)}$	$\leq 340 \text{ mR/hr (MODES 1-4)}$ $\leq 2.5 \text{ mR/hr (MODE 6)}$
d. 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
11. FUEL HANDLING ISOLATION (FHIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	*
ii. Particulate/Iodine	S	R	M	*
c. Automatic Actuation Logic	N.A.	N.A.	R(3)	*
12. CONTAINMENT PURGE ISOLATION (CPIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	1,2,3,4,6
ii. Particulate	W	R	M	1,2,3,4,6
iii. Iodine	W	R	M	6
c. Containment Area Radiation (Gamma)	S	R	M	1,2,3,4,6
d. Automatic Actuation Logic	N.A.	N.A.	R (3)	1,2,3,4,6

TABLE NOTATION

- (1) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
 - (2) Deleted.
 - (3) Testing of Automatic Actuation Logic shall include energization/de-energization of each initiation relay and verification of the OPERABILITY of each initiation relay.
 - (4) A subgroup relay test shall be performed which shall include the energization/de-energization of each subgroup relay and verification of the OPERABILITY of each subgroup relay. Relays exempt from testing during plant operation shall be limited to only those relays associated with plant equipment which cannot be operated during plant operation. Relays not testable during plant operation shall be tested during each COLD SHUTDOWN exceeding 24 hours unless tested during the previous 6 months.
 - (5) Actuated equipment only; does not result in CIAS.
- * With irradiated fuel in the storage pool.

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TABLE 3.3-6
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
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
ii. Particulate/Iodine	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

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TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. Area Monitors				
a. Containment - High Range (2RT-7820-1, 2RT-7820-2)	S	R	M	1, 2, 3, 4
b. Containment - Purge Isolation (2RT-7856-1, 2RT-7857-2)	S	R	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	#	#	#	*
ii. Particulate/Iodine	#	#	#	*
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

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ATTACHMENT "B"
EXISTING AND PROPOSED TECHNICAL SPECIFICATIONS
UNIT 3

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TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. FUEL HANDLING ISOLATION (FHIS)					
a. Manual (Trip Buttons)	2	1	1	**	16*#
b. Airborne Radiation					
i. Gaseous	2	1	1	**	16*#
ii. Particulate/Iodine	2	1	1	**	16*#
c. Automatic Actuation Logic	1/train	1	1	**	16*#
12. CONTAINMENT PURGE ISOLATION (CPIS)					
a. Manual (Trip Buttons)	2	1	1	6	17b*#
b. Airborne Radiation (3RT-7804-1 or 3RT-7807-2)					
i. Gaseous	2	1	1	1,2,3,4 6	17a 17b*#
ii. Particulate	2	1	1	1,2,3,4 6	17a 17b*#
iii. Iodine	2	1	1	6	17b*#
c. Containment Area Radiation (Gamma) (3RT-7856-1 or 3RT-7857-2)	2	1	1	1,2,3,4 6	17 17b*#
d. Automatic Actuation Logic	1/train	1	1	1,2,3,4 6	17 17b*#

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

<u>FUNCTIONAL UNIT</u>	<u>TRIP VALUE</u>	<u>ALLOWABLE VALUES</u>
11. FUEL HANDLING ISOLATION (FHIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(8)	(8)
ii. Particulate/Iodine	$\leq 5.7 \times 10^4 \text{ cpm}^{**}$	$\leq 6.0 \times 10^4 \text{ cpm}^{**}$
c. Automatic Actuation Logic	Not Applicable	Not Applicable
12. CONTAINMENT PURGE ISOLATION (CPIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Airborne Radiation		
i. Gaseous	(6)(7)	(6)(7)
ii. Particulate	(6)(7)	(6)(7)
iii. Iodine	(6)(7)	(6)(7)
c. Containment Area Radiation (Gamma)	$\leq 325 \text{ mR/hr (MODES 1-4)}$ $\leq 2.4 \text{ mR/hr (Mode 6)}$	$\leq 340 \text{ mR/hr (MODES 1-4)}$ $\leq 2.5 \text{ mR/hr (MODE 6)}$
d. Automatic Actuation Logic	Not Applicable	Not Applicable

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
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
ii. Particulate/Iodine	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	1	All	#	10 ¹ -10 ⁷ cpm	13
ii. Gaseous	1	All	#	10 ¹ -10 ⁷ cpm	13

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TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
11. FUEL HANDLING ISOLATION (FHIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	*
ii. Particulate/Iodine	S	R	M	*
c. Automatic Actuation Logic	N.A.	N.A.	R(3)	*
12. CONTAINMENT PURGE ISOLATION (CPIS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Airborne Radiation				
i. Gaseous	S	R	M	1,2,3,4,6
ii. Particulate	W	R	M	1,2,3,4,6
iii. Iodine	W	R	M	6
c. Containment Area Radiation (Gamma)	S	R	M	1,3,3,4,6
d. Automatic Actuation Logic	N.A.	N.A.	R (3)	1,2,3,4,6

TABLE NOTATION

- (1) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
 - (2) Deleted.
 - (3) Testing of Automatic Actuation Logic shall include energization/de-energization of each initiation relay and verification of the OPERABILITY of each initiation relay.
 - (4) A subgroup relay test shall be performed which shall include the energization/de-energization of each subgroup relay and verification of the OPERABILITY of each subgroup relay. Relays exempt from testing during plant operation shall be limited to only those relays associated with plant equipment which cannot be operated during plant operation. Relays not testable during plant operation shall be tested during each COLD SHUTDOWN exceeding 24 hours unless tested during the previous 6 months.
 - (5) Actuated equipment only; does not result in CIAS.
- * With irradiated fuel in the storage pool.

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TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. Area Monitors				
a. Containment - High Range (3RT-7820-1, 3RT-7820-2)	S	R	M	1, 2, 3, 4
b. Containment - Purge Isolation (3RT-7856-1, 3RT-7857-2)	S	R	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	#	#	#	*
ii. Particulate/Iodine	#	#	#	*
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

REQUEST FOR IODINE/PARTICULATE CHANNEL REMOVAL
FOR
FUEL HANDLING BUILDING ISOLATION
CONTAINMENT AIRBORNE RADIATION MONITORS

SCE Amendment Application Nos. 83 and 68 request the revision of Technical Specifications 3/4.3.2, "Engineered Safety Feature Actuation System Instrumentation," and 3/4.3.3.1, "Radiation Monitoring Instrumentation," to remove requirements relating to the iodine/particulate channels of the Fuel Handling Isolation System airborne radiation monitors.

The iodine/particulate channels presently monitor the Fuel Handling Building process stream and initiate a Fuel Handling Isolation Signal (FHIS) on high radiation. The Standard Review Plan (SRP) delineates requirements for iodine monitoring in the effluent stream and the use of noble gas channels to automatically isolate the Fuel Handling Building. Effluent monitoring is provided by the Plant Vent Stack monitor and therefore the iodine/particulate channels are not required for this function. For automatic isolation of the Fuel Handling Building, both iodine/particulate channels and noble gas channels are used at SONGS Units 2 & 3. The use of the iodine and particulate channels for automatic isolation is in excess of SRP requirements.

This proposed change has been previously requested and denied. Insufficient information was provided in the original proposed change to support the change. The reason for denying this proposed change stemmed from the belief (by NRC) that the Fuel Handling Building had a direct release path to the environment. It was assumed by NRC that, with the removal of the iodine/particulate channel, a potential would exist for releasing radioactive effluent without monitoring.

Because the iodine/particulate channels on these monitors are maintenance intensive and unreliable, this proposed change is being resubmitted. The revised proposed change provides additional details regarding the adequacy of the process and effluent monitoring capability. Justification for reliance on only noble gas for FHIS actuation is also provided.