

TABLE 3.24-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AND AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line (RIA 1049)	(1)	28
b. Steam Generator Blowdown Effluent Line (RIA 0707)	(1)	29
2. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM BUT NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Service Water System Effluent Line (RIA 0833)	(1)	30
b. Turbine Building (Floor Drains) Sumps Effluent Line (RIA 5211)	(1)	30
3. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line (FIC 1051 or 1050)	(1)	31
4. CONTINUOUS COMPOSITE SAMPLERS (Alarm/Trip Setpoints are not applicable)		
a. Turbine Building Sumps Effluent Line	(1)	30
b. Service Water System Effluent	(1)	30

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Table 4.2.1
Minimum Frequencies for Sampling Tests

	<u>Test</u>	<u>Frequency</u>	<u>FSAR Section Reference</u>
6. Spent Fuel Pool	Boron Concentration	Monthly ⁽⁷⁾	9.4
	Bulk Water Temperature	Continuously when bundles are stored in tilt pit racks with less than one year decay ⁽⁶⁾	None
7. Secondary Coolant	Coolant Gross Radioactivity	3 times/7 days with a maximum of 72 hours between samples	None
	pH and specific conductivity	Once/24 hours during power operation	None
	Sodium	3 times/7 days during power operation, with a maximum of 72 hours between samples	None
	Isotopic Analysis for Dose Equivalent I-131 Concentration	a) 1 per 31 days, whenever the gross activity determination indicates iodine concentrations greater than 10% of the allowable limit b) 1 per 6 months, whenever the gross activity determination indicates iodine concentrations below 10% of the allowable limit	

- (1) A daily sample shall be obtained and analyzed if fission product monitor is out of service.
- (2) After at least 2 EFPD and at least 20 days since the last shutdown of longer than 48 hours.
- (3, 4, 5) Deleted
- (6) Reference Specification 3.8.5 for maximum bulk water temperature and monitoring requirements.
- (7) Reference Bases section of Specification 3.8 for minimum boron concentration (≥ 1720 ppm)

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PROPOSED

TSP0287-0003-NL02

TABLE 4.24-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluent Line (RIA 1049)	P	P	R(3)	Q(1)(2)
b. Steam Generator Blowdown Effluent Line (RIA 0707)	D	M	R(3)	Q(1)(2)
2. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM BUT NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE				
a. Service Water System Effluent Line (RIA 0833)	D	M	R(3)	Q(2)
b. Turbine Building (Floor Drains) Sumps Effluent Line (RIA 5211)	D	M	R(3)	Q(2)
3. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line (FIC 1051 or 1050)	D(4)	NA	R	Q
4. TURBINE SUMP EFFLUENT COMPOSITER	D(4)	NA	NA	NA
5. SERVICE WATER SYSTEM EFFLUENT COMPOSITE SAMPLER	D(4)	NA	NA	NA

TABLE 4.24-2 (cont)

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
5. MAIN STEAM SAFETY AND DUMP VALVE DISCHARGE LINE					
a. Gross Gamma Activity Monitor	D	M	R(3)	Q(2)	Above 325°F
6. ENGINEERED SAFEGUARDS ROOM VENT SYSTEM					
a. Noble Gas Activity Monitor	D	M	R(3)	Q(1)(2)	Above 210°F

TABLE NOTATION

- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway occurs if instrument indicates measured levels above the alarm/trip set point.
- (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if either of the following conditions exists.
 - a. Instrument indicates measured levels above the alarm set point (not applicable for Item 3.d, Hi Range Noble Gas).
 - b. Circuit failure.
- (3) a. The CHANNEL CALIBRATION shall be performed using one or more of the reference standards traceable to the National Bureau of Standards or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range.
 - b. For subsequent CHANNEL CALIBRATION, sources that have been related to the (a) calibration may be used.
- (4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous or batch releases are made.

TABLE FREQUENCY NOTATION

D	At least once per 24 hours	Q	At least once per 92 days
M	At least once per 31 days	R	At least once per 18 months
P	Prior to radioactive batch release	W	At least once per week