

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM # OPERABLE</u>	<u>ALARM SETPOINT REQUIRED</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Gross Radioactivity Monitors Providing Automatic Termination of Release				
a. Clean Liquid Radwaste Effluent Line	1	Yes	*	1
b. Aerated Liquid Radwaste Effluent Line	1	Yes	*	1
c. Steam Generator Blowdown Monitor	1	Yes	***★	2
d. Condensate Polishing Facility Waste Neut Sump	1	Yes	***	1
2. Gross Radioactivity Monitors Not Providing Automatic Termination of Release				
a. Reactor Building Closed Cooling Water Monitor#	1	Yes	*	3
3. Flow Rate Measurements				
a. Clean Liquid Radwaste Effluent Line	1	No	*	4
b. Aerated Liquid Radwaste Effluent Line	1	No	*	4
c. Condensate Polishing Facility Waste Neut Sump Discharge Line	1	No	*	4
d. Dilution Water Flow	##	No	*	NA
e. Steam Generator Blowdown Line	###	No	*	NA



March 27, 1995

2-14-95

TABLE 3.3-12 (Continued)

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

Table Notes

* - At all times - which means that channels shall be OPERABLE and in service on a continuous, uninterrupted basis, except that outages are permitted, for a maximum of 12 hours, for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.

** - Deleted.

*** - Modes 1-5 and Mode 6 when pathway is being used except that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.

★★★★

SEE ATTACHED

Since the only source of service water contamination is the reactor building closed cooling water, monitoring of the closed cooling water and conservative leakage assumptions will provide adequate control of service water effluents.

- The dilution water is determined by the use of condenser cooling water and service water pump status. Only those pumps actually discharging to the quarry at the time of release are included. Pump status is only reviewed for purposes of determining flows.

- Determined by the use of valve curves and/or make up flow rates for the purpose of determining flows only.

NA - Not applicable.

MODES 1-6

March 27, 1995

2-14-95

2-14-95

Add to Table 3.3-12 Notes

- **** Modes 1-4, except that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.

TABLE 3.3-12
(Continued)

ACTION STATEMENTS

ACTION 1: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, effluent releases may continue provided that best efforts are made to repair the instrument and that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1; and
2. The original release rate calculations and discharge valving are independently verified by a second individual.

ACTION 2: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that best efforts are made to repair the instrument and that grab samples are analyzed for gross radioactivity (beta or gamma) at a lower limit of detection of at least 3×10^{-6} uCi/ml;

1. Once per 12 hours when the specific activity of the secondary coolant is > 0.01 uCi/gm DOSE EQUIVALENT I-131.
2. Once per 24 hours when the specific activity of the secondary coolant is ≤ 0.01 uCi/gm DOSE EQUIVALENT I-131.

ACTION 3: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this Pathway may continue provided that best efforts are made to repair the instrument and that once per 12 hours grab samples of the service water effluent are collected and analyzed for gross radioactivity (beta or gamma) at a lower limit of detection of at least 2×10^{-6} uCi/ml.

ACTION 4: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that best efforts are made to repair the instrument and that the flow rate is estimated once per 4 hours during actual releases. Pump performance curves may be used to estimate flow.

Substitute
Action 2 with ATTACHED

Substitute Table 3.3-12 Action 2 with below.

ACTION 2: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, either:

1. Suspend all effluent releases via this pathway, or
2. Make best efforts to repair the instrument and obtain grab samples and analyze for gross radioactivity (beta or gamma) at a lower limit of detection of at least 3×10^{-7} uCi/ml;
 - a. Once per 12 hours when the specific activity of the secondary coolant is > 0.01 uCi/gm DOSE EQUIVALENT I-131.
 - b. Once per 24 hours when the specific activity of the secondary coolant is ≤ 0.01 uCi/gm DOSE EQUIVALENT I-131.

Docket No. 50-336
B15432

Attachment 4

Millstone Nuclear Power Station, Unit No. 2
Proposed Technical Specifications Revision
Radioactive Liquid Effluent Monitoring Instrumentation

Retyped Technical Specifications

November 1995

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM # OPERABLE</u>	<u>ALARM SETPOINT REQUIRED</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Gross Radioactivity Monitors Providing Automatic Termination of Release				
a. Clean Liquid Radwaste Effluent Line	1	Yes	*	1
b. Aerated Liquid Radwaste Effluent Line	1	Yes	*	1
c. Steam Generator Blowdown Monitor	1	Yes	****	2
d. Condensate Polishing Facility Waste Neut Sump	1	Yes	***	1
2. Gross Radioactivity Monitors Not Providing Automatic Termination of Release				
a. Reactor Building Closed Cooling Water Monitor#	1	Yes	*	3
3. Flow Rate Measurements				
a. Clean Liquid Radwaste Effluent Line	1	No	*	4
b. Aerated Liquid Radwaste Effluent Line	1	No	*	4
c. Condensate Polishing Facility Waste Neut Sump Discharge Line	1	No	*	4
d. Dilution Water Flow	##	No	*	NA
e. Steam Generator Blowdown Line	###	No	*	NA

MILLSTONE - UNIT 2
0228

3/4 3-51

Amendment No. 104, 105,

TABLE 3.3-12 (Continued)

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

Table Notes

- * - At all times - which means that channels shall be OPERABLE and in service on a continuous, uninterrupted basis, except that outages are permitted, for a maximum of 12 hours, for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.
- ** - Deleted.
- *** - Modes 1-6 when pathway is being used except that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.
- **** - Modes 1-4, except that outages are permitted for a maximum of 12 hours for the purpose of maintenance and performance of required tests, checks, calibrations, or sampling.
- # - Since the only source of service water contamination is the reactor building closed cooling water, monitoring of the closed cooling water and conservative leakage assumptions will provide adequate control of service water effluents.
- ## - The dilution water is determined by the use of condenser cooling water and service water pump status. Only those pumps actually discharging to the quarry at the time of release are included. Pump status is only reviewed for purposes of determining flows.
- ### - Determined by the use of valve curves and/or make up flow rates for the purpose of determining flows only.
- NA - Not applicable.

TABLE 3.3-13
(Continued)

ACTION STATEMENTS

ACTION 1: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, effluent releases may continue provided that best efforts are made to repair the instrument and that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1; and
2. The original release rate calculations and discharge valving are independently verified by a second individual.

ACTION 2: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, either:

1. Suspend all effluent releases via this pathway, or
2. Make best efforts to repair the instrument and obtain grab samples and analyze for gross radioactivity (beta or gamma) at a lower limit of detection of at least 3×10^{-7} $\mu\text{Ci/ml}$;
 - a. Once per 12 hours when the specific activity of the secondary coolant is > 0.01 $\mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.
 - b. Once per 24 hours when the specific activity of the secondary coolant is ≤ 0.01 $\mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.

ACTION 3: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this Pathway may continue provided that best efforts are made to repair the instrument and that once per 12 hours grab samples of the service water effluent are collected and analyzed for gross radioactivity (beta or gamma) at a lower limit of detection of at least 3×10^{-7} $\mu\text{Ci/ml}$.

ACTION 4: With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that best efforts are made to repair the instrument and that the flow rate is estimated once per 4 hours during actual releases. Pump performance curves may be used to estimate flow.