Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

MAY 27 2003

Docket No. 50-336
B18885

RE: 10 CFR 50.90

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02
Limiting Safety System Settings and Instrumentation

In a letter dated May 7, 2002,[1] Dominion Nuclear Connecticut, Inc. (DNC) proposed changes to the Millstone Unit No. 2 Technical Specifications relating to the facility's limiting safety systems settings and instrumentation technical specifications. On November 8, 2002,[2] a request for additional information (RAI) was received from the Nuclear Regulatory Commission (NRC) in regards to the DNC May 7, 2002, license amendment request. On January 16, 2003,[3] DNC provided a response to the November 8, 2002, RAI.

On February 5, 2003,[4] a second request for additional information (RAI) was received from the NRC in regards to the DNC May 7, 2002, license amendment request.

The responses to the questions contained in the RAI were discussed in a March 10, 2003, conference call with the NRC. Attachment 1 provides the DNC

(1) J. Alan Price to U.S. NRC, "Millstone Nuclear Power Station, Unit No. 2, License Basis Document Change Request (LBDCR) 2-1-02, Limiting Safety System Settings and Instrumentation," dated May 7, 2002.

(2) Richard B. Ennis, U.S. NRC, to J. A. Price, "Request for Additional Information, Limiting Safety System Settings and Instrumentation, Millstone Power Station, Unit No. 2 (TAC No. MB5008)," dated November 8, 2002.

(3) J. Alan Price to U.S. NRC, "Millstone Power Station, Unit No. 2, Response to a Request for Additional Information, License Basis Document Change Request (LBDCR) 2-1-02, Limiting Safety System Settings and Instrumentation," dated January 16, 2003.

(4) Rick Ennis, U.S. NRC, to Ravi Joshi, "Issues for Discussion in Upcoming Telephone Conference Regarding Proposed Amendment to Technical Specifications, Limiting Safety System Settings and Instrumentation, Millstone Power Station, Unit No. 2 Docket No. 50-336," dated February 5, 2003.

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response to the February 5, 2003, RAI. Attachment 2 provides the mark-ups of the original retyped pages associated with this RAI response. Attachment 3 provides the revised retyped pages reflecting the proposed changes associated with this RAI response.

The additional information provided in this letter will not affect the conclusions of the Safety Summary and Significant Hazards Consideration discussions provided in the DNC January 16, 2003, submittal.

There are no regulatory commitments contained within this letter.

If you should have any questions on the above, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price
Site Vice President - Millstone

Sworn to and subscribed before me

this 21 day of May, 2003

Diane M. Phillipo
Notary Public

My Commission expires

DIANE M. PHILLIPO
NOTARY PUBLIC
MY COMMISSION EXPIRES 12/31/2005

Attachments (3)

cc: H. J. Miller, Region I Administrator
R. B. Ennis, NRC Senior Project Manager, Millstone Unit No. 2
Millstone Senior Resident Inspector

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
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Docket No. 50-336
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Attachment 1

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02
Limiting Safety System Settings and Instrumentation

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02
Limiting Safety System Settings and Instrumentation

Question 1: *TS Change Nos. 1, 5, and 10*

The response to RAI question 1 in the submittal dated January 16, 2003, states that DNC has proposed to eliminate the Reactor Coolant Pump underspeed trip consistent with the requirements of 10 CFR 50.36. Please justify deleting these TS requirements based on each of four criterion in 10 CFR 50.36(c)(2)(ii).

Response: The proposed changes to Technical Specifications 2.2.1 and 3.3.1.1 for the Reactor Coolant Pump (RCP) Speed-Low (or Underspeed – Reactor Coolant Pumps) functional unit reflects the assumption of the Millstone Unit No. 2 accident analysis. The RCP underspeed trip function is no longer a feature that is credited to mitigate the consequences of a postulated accident. Consistent with the requirements of 10 CFR 50.36, DNC is proposing to eliminate the RCP Underspeed Trip from the Millstone Unit No. 2 Technical Specifications. The following discussion provides a justification for the elimination of the RCP underspeed trip consistent with the requirements of 10 CFR 50.36(c)(2)(ii). 10 CFR 50.36(c)(2)(ii) contains the requirements for items that must be in Technical Specifications. This regulation provides four (4) criteria that can be used to determine the requirements that must be included in the Technical Specifications.

Criterion 1

Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The RCP underspeed trip function is not installed instrumentation that is used to detect, and indicate in the control room, a significant degradation of the reactor coolant pressure boundary. Therefore, the RCP underspeed trip function does not satisfy Criterion 1.

Criterion 2

A process variable, design feature, or operating restriction that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The RCP underspeed trip function is not a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Therefore, the RCP underspeed trip function does not satisfy Criterion 2.

Criterion 3

A System, Structure, or Component (SSC) that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The facility accident analyses do not take credit for the operability of the RCP underspeed trip. Therefore, this feature does not constitute a structure, system, or component that is part of the primary success path which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The RCP underspeed trip function does not satisfy Criterion 3.

Criterion 4

A SSC which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The RCP underspeed trip function has not been shown to be risk significant to public health and safety by either operating experience or probabilistic safety assessment. The RCP underspeed trip is not required to function to ensure radiological dose criteria for the EAB, LPZ, or control room is met. The RCP underspeed trip function no longer constitutes a structure, system, or component, which requires risk review/unavailability monitoring. The RCP underspeed trip function does not satisfy Criterion 4.

Question 2: *TS Change Nos. 6, 13.a -13.f, and 13.h*

The RAI response does not address the concern that the proposed Table 3.3-1 functional unit, item 13 (RPS Logic Matrices) and proposed Table 3.3-4 Action 5 (ESFAS Automatic Actuation Logic) do not entirely model either NUREG-0212 (Specification 3.3.1, 3.3.2) or NUREG-1432 (Specification 3.3.4 -analog, 3.3.6 -analog). Thus, the proposed TS represent a blend of LCO requirements and actions taken from both NUREGs. The staff notes the proposed Actions (Action 5 for RPS Logic Matrices and Action 5 for ESFAS Actuation Logic) includes an allowance to bypass a channel for up to one hour for surveillance testing. The

bypass allowance is consistent with the action requirements in NUREG-0212, but not consistent with the action requirements of NUREG-1432. In the same manner, the staff notes the proposed Action 5 specifies a 48 hour completion time to restore an inoperable channel to operable status for RPS Logic Matrices and ESFAS Actuation Logic that is consistent with requirements in NUREG-1432, but not consistent with the requirements of NUREG-0212. Discuss the technical basis for deviating from current Standard Technical Specification precedents.

The staff recommends adopting NUREG-0212 functional units requirements for Table 3.3-1 that are consistent with current TS functional units surveillances in Table 4.3-1.

Response: The following discussion provides a justification for a 48 hour completion time (as proposed in Action 5 of Table 3.3-1 and Table 3.3-3) to restore an inoperable channel to operable status and a deletion of an allowance to bypass a channel for up to one hour for surveillance testing (as proposed in Actions 5 and 6 of Table 3.3-1 and Action 5 of Table 3.3-3). The proposed changes to Table 3.3-1 and Table 3.3-3 will be consistent with the current industry standard (i.e., NUREG-1432).

As stated in our original submittal dated May 7, 2002, the proposed changes to Technical Specification 3.3.1.1, Table 3.3-1, "Reactor Protective Instrumentation," include new functional units, Item 13 (RPS Logic Matrices) with the proposed Action 5 and Item 14 (RPS Logic Matrix Relay) with the proposed Action 6. These new functional units were added because the current Millstone Unit No. 2 Technical Specifications do not specifically list the RPS Logic Matrices and Logic Matrix Relays, and therefore the current technical specification does not contain guidance as to the required response if an RPS Logic functional unit is determined inoperable or fails a surveillance requirement.

Proposed Action 5 states, "With the minimum channels OPERABLE one less than required by the minimum channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT Standby within 6 hours; however, one channel may be bypassed for up to one (1) hour for surveillance testing per Specification 4.3.1.1."

Based upon our review of proposed Action 5, DNC has determined that the exception included in Action 5 is not necessary. This allowance is unnecessary because the same allowance is included in Millstone Unit No. 2 Specification 3.0.6, which provides a bypass allowance for surveillance testing. This technical specification states "Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform

testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY."

Proposed Action 5 for Millstone Unit No. 2 Technical Specification 3.3.1.1 (Table 3.3-1) allows for a 48 hour restoration time in the event that the minimum required channels of Reactor Protection System Logic Matrices (functional item 13) is not OPERABLE prior to commencing a reactor shutdown to HOT STANDBY. The allowed outage time of 48 hours provides the operator time to take appropriate actions and still ensure that any risk involved in operating with a failed channel is acceptable. Industry operating experience has demonstrated that the probability of a random failure of a second matrix logic channel is low during any given 48 hour interval.

This proposed change is also acceptable because the required actions are used to establish remedial measures that must be taken in response to the degraded conditions in order to minimize risk associated with continued operation while providing time to repair inoperable features. The required actions are consistent with safe operation under the specified condition, considering the OPERABLE status of the redundant systems or features. This includes the capacity and capability of remaining systems or features, a reasonable time for repairs and replacement, and the low probability of a design basis accident or undervoltage event occurring during the repair period. With the loss of one of the required six (6) channels of Reactor Protection System Logic Matrices, this function is degraded. This is acceptable because the accident analyses assume design basis accidents occur with a single failure. Loss of one channel of the required six (6) channels of Reactor Protection System Logic still provides sufficient redundancy (5 channels remain OPERABLE, with only one (1) channel required to process a reactor trip signal) to ensure the required safety functions to mitigate any event is OPERABLE. Therefore, 48 hours is a reasonable allowed outage time for restoration of an inoperable channel of Reactor Protection System Logic Matrices before a reactor shutdown is initiated, thereby minimizing the probability of a significant plant transient (shutdown) while still retaining the capability to initiate the affected Reactor Protection System functions in the event of a design basis event.

The above discussion is also applicable for proposed Action 5 for the new functional units (automatic actuation logic) added to Table 3.3-3, "Engineered Safety Feature Actuation System Instrumentation." Specifically, proposed Action 5 includes an allowance to bypass a channel for up to one (1) hour for surveillance testing and an allowance for a 48 hour restoration time in the event that the minimum required channels of

engineered safety features automatic actuation logic is not OPERABLE prior to commencing a reactor shutdown to HOT STANDBY. Therefore, DNC is withdrawing the proposed change that includes a one (1) hour bypass allowance for surveillance testing from Action 5 of Table 3.3-3. Attachments 2 and 3 respectively provide mark-ups of the original retyped page and revised retyped page (page 3/4 3-16) reflecting this withdrawal.

It is noted that a similar bypass allowance for surveillance testing has been proposed in Action 6 of Table 3.3-1 (functional unit 14, RPS Logic Matrix Relays). DNC has determined that this allowance is also unnecessary because the same allowance is included in Millstone Unit No. 2 Technical Specification 3.0.6. Therefore, DNC is withdrawing the proposed change that includes a one (1) hour bypass allowance for surveillance testing. Attachments 2 and 3 respectively provide mark-ups of the original retyped pages and revised retyped pages (page 3/4 3-5) reflecting this withdrawal.

Question 3: *TS Change No. 17*

Proposed change 17 would add new Surveillance Requirement 4.3.3.1.3 for response time testing of the control room isolation function. The response to RAI question 8 in the submittal dated January 16, 2003, states that the proposed test frequency (one channel every 18 months, with both channels being tested once every 36 months) is consistent with the frequency specified for ESFAS per current TS 4.3.2.1.3. What is the safety basis for the proposed test interval?

Response: The control room isolation function is credited within the plant safety analysis for maintaining control room radiological dose within regulatory limits in the event of a Millstone Unit No. 2 Steam Generator Tube Rupture, and in the event of a Loss of Coolant Accident at Millstone Unit No. 3. The frequency of response time testing was selected consistent with the frequency specified within the Technical Specifications for response time testing of an Engineered Safety Feature (ESF).

The response time of the control room isolation function is currently tested on a monthly basis. The response time of the control room isolation function is currently verified through administrative controls consistent with the requirements of the proposed surveillance, including surveillance frequency. Past operating experience with respect to response time testing results shows that the 18 month frequency will not have an adverse impact on equipment reliability or plant safety. Additionally, the 18 month frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequence occurrences.

However, given that the current Millstone Unit No. 2 Technical Specifications only require one channel operable, proposed Surveillance Requirement 4.3.3.1.3 will be modified by removing reference to a staggered test basis (see Attachments 2 and 3).

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Attachment 2

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02
Mark-ups of the Original Retyped Pages

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02

List of Affected Pages

Technical Specification Section Number	Title of Section	Affected Page with Amendment Number
3.3.2	Instrumentation - Engineered Safety Feature Actuation System Instrumentation	3/4 3-5, Amendment 225 3/4 3-16, Amendment 245
3.3.3.1	Instrumentation - Radiation Monitoring Instrumentation	3/4 3-24, Amendment 245

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3/4.0 APPLICABILITY

September 14, 2000

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in LCO 3.0.6. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour ACTION shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time it is identified that a Limiting Condition for Operation is not met. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Condition for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

3.0.5 When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of its applicable Limiting Condition for Operation, provided: (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied within 2 hours, ACTION shall be initiated to place the unit in a MODE in which the applicable Limiting Condition for Operation does not apply by placing it, as applicable, in:

LIMITING CONDITION FOR OPERATION (Continued)

1. At least HOT STANDBY within the next 6 hours.
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

This specification is not applicable in MODES 5 or 6.

3.0.6 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Condition for Operation except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with a maximum allowable extension not to exceed 25% of the surveillance time interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified surveillance interval, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified surveillance interval, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition of Operation must immediately be declared not met, and the applicable Condition(s) must be entered.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

TABLE 3.3-1 (Continued)

REACTOR PROTECTIVE INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11. Wide Range Logarithmic Neutron Flux Monitor - Shutdown	4	0	2	3, 4, 5	4
12. DELETED					
13. Reactor Protection System Logic Matrices	6	1	6	1, 2, and *	5
14. Reactor Protection System Logic Matrix Relays	4/Matrix	3/Matrix	4/Matrix	1, 2, and *	6
15. Reactor Trip Breakers	4	3	4	1, 2, and *	6

Amendment No. 18, 38, 82,

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TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 3 - NOT USED

ACTION 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, immediately verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, and at least once per 4 hours thereafter.

ACTION 5 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification 4.3.1.1.1.

ACTION 6 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification 4.3.1.1.1.

TABLE 3.3-3

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. SAFETY INJECTION (SIAS)(d)					
a. Manual (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Containment Pressure - High	4	2	3	1, 2, 3	2
c. Pressurizer Pressure - Low	4	2	3	1, 2(e), 3(a)	2
d. Automatic Actuation Logic	2	1	2	1, 2, 3	5
2. CONTAINMENT SPRAY (CSAS)					
a. Manual (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Containment Pressure-- High - High	4	2(b)	3	1, 2, 3	2
c. Automatic Actuation Logic	2	1	2	1, 2, 3	5
3. CONTAINMENT ISOLATION (CIAS)					
a. Manual CIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Manual SIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
c. Containment Pressure - High	4	2	3	1, 2, 3	2
d. Pressurizer Pressure - Low	4	2	3	1, 2(e), 3(a)	2
e. Automatic Actuation Logic	2	1	2	1, 2, 3	5

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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
4. MAIN STEAM LINE ISOLATION					
a. Manual MSI (Trip Buttons) High	2	1	2	1, 2, 3, 4	1
b. Containment Pressure-High	4	2	3	1, 2, 3	2
c. Steam Generator Pressure - Low	4	2	3	1, 2, 3(c)	2
d. Automatic Actuation Logic	2/Steam Generator	1/Steam Generator	2/Steam Generator	1, 2, 3	5
5. ENCLOSURE BUILDING FILTRATION (EBFAS)					
a. Manual EBFAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Manual SIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
c. Containment Pressure-High	4	2	3	1, 2, 3	2
d. Pressurizer Pressure-Low	4	2	3	1, 2, 3(a)	2
e. Automatic Actuation Logic	2	1	2	1, 2, 3	5
6. CONTAINMENT SUMP RECIRCULATION (SRAS)					
a. Manual SRAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Refueling Water Storage Tank - Low	4	2	3	1, 2, 3	4
c. Automatic Actuation Logic	2	1	2	1, 2, 3	5

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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
7. DELETED					
8. LOSS OF POWER					
a.1 4.16 kv Emergency Bus Undervoltage - level one	4/bus	2/Bus	3/bus	1, 2, 3	2
a.2 Automatic Actuation Logic	4/bus	2/bus	3/bus	1, 2, 3	2
b.1 4.16 kv Emergency Bus Undervoltage - level two	4/Bus	2/Bus	3/Bus	1, 2, 3	2
b.2 Automatic Actuation Logic	4/bus	2/bus	3/bus	1, 2, 3	2

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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. AUXILIARY FEEDWATER					
a. Manual	1/pump	1/pump	1/pump	1, 2, 3	6
b. Steam Generator Level - Low	4	2	3	1, 2, 3	2
c. Automatic Actuation Logic	2/Steam Generator	1/Steam Generator	2/Steam Generator	1, 2, 3	5
10. STEAM GENERATOR BLOWDOWN					
a. Steam Generator Level - Low	4	2	3	1, 2, 3	2

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TABLE 3.3-3 (Continued)

TABLE NOTATION

(a) Trip function may be bypassed when pressurizer pressure is < 1850 psia; bypass shall be automatically removed when pressurizer pressure is ≥ 1850 psia.

(b) An SIAS signal is first necessary to enable CSAS logic.

(c) Trip function may be bypassed when steam generator pressure is < 700 psia; bypass shall be automatically removed when steam generator pressure is ≥ 700 psia.

(d) In MODE 4 the HPSI pumps are not required to start automatically on a SIAS.

(e) Trip may be bypassed during testing pursuant to Special Test Exception 3.10.3.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the next 36 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may continue provided the following conditions are satisfied:

a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. The inoperable channel shall either be restored to OPERABLE status, or placed in the tripped condition, with 48 hours.

b. Within 1 hour, all functional units receiving an input from the inoperable channel are also declared inoperable, and the appropriate actions are taken for the affected functional units.

c. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 48 hours, provided one of the inoperable channels is placed in the tripped condition.

TABLE 3.3-3 (Continued)

ACTION 3 - DELETED

ACTION 4 - With the number of OPERABLE channels one less than the Total Number of Channels and with the pressurizer pressure:

a. < 1850 psia: immediately place the inoperable channel in the bypassed condition; restore the inoperable channel to OPERABLE status prior to increasing the pressurizer pressure above 1850 psia.

b. ≥ 1850 psia, operation may continue with the inoperable channel in the bypassed condition, provided the following condition is satisfied:

1. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 2 hours for surveillance testing per Specification 4.3.2.1.1 provided BOTH of the inoperable channels are placed in the bypassed condition.

ACTION 5 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours ~~however, one channel may be bypassed for up to 1 hour for surveillance testing provided the other channel is OPERABLE.~~

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 2 hours or declare the channel inoperable.

b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1.1 Each radiation monitoring instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.3-3.

4.3.3.1.2 The trip value shall be such that the containment purge effluent shall not result in calculated concentrations of radioactivity offsite in excess of 10 CFR Part 20, Appendix B, Table II. For the purposes of calculating this trip value, a $x/Q = 5.8 \times 10^{-6}$ sec/m^3 shall be used when the system is aligned to purge through the building vent and a $x/Q = 7.5 \times 10^{-8}$ sec/m^3 shall be used when the system is aligned to purge through the Unit 1 stack, the gaseous and particulate (Half Lives greater than 8 days) radioactivity shall be assumed to be Xe-133 and Cs-137, respectively. However, the setpoints shall be no greater than 5×10^5 cpm.

4.3.3.1.3 Verify the response time of one control room isolation channel at least once per 18 months. ~~Each test shall include at least one control room isolation channel such that both channels are tested at least once every 36 months.~~ Delete

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Spent Fuel Storage and Ventilation System Isolation	2	*	100 mR/hr	10^{-1} - 10^{+4} mR/hr	13
b. Control Room Isolation	1	ALL MODES	2 mR/hr	10^{-1} - 10^{4} mR/hr	16
c. Containment High Range	1	1,2,3,&4	100 R/hr	10^{0} - 10^{8} R/hr	17
d. Noble Gas Effluent Monitor (high range) (Unit 2 stack)	1	1,2,3,&4	2×10^{-1} uci/cc	10^{-3} - 10^{5} uci/cc	17
2. PROCESS MONITORS					
a. Containment Atmosphere-Particulate	1	ALL MODES**	the value determined in accordance with specification 4.3.3.1.2	10 - 10^{+6} cpm	14
b. Containment Atmosphere-Gaseous	1	ALL MODES**	the value determined in accordance with Specification 4.3.3.1.2	10 - 10^{+6} cpm	14

* With fuel in storage building.
**These radiation monitors are not required to be operable during Type "A" Integrated Leak Rate testing.

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TABLE 3.3-6 (Continued)

TABLE NOTATION

(a) DELETED

ACTION 13 - With the number of area monitors OPERABLE less than required by the MINIMUM CHANNELS OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 14 - With the number of process monitors OPERABLE less than required by the MINIMUM CHANNELS OPERABLE requirement either (a) obtain and analyze grab samples of the monitored parameter at least once per 24 hours, or (b) use a Constant Air Monitor to monitor the parameter.

ACTION 15 - DELETED

ACTION 16 - With the number of OPERABLE channels less than required by the MINIMUM CHANNELS OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.

ACTION 17 - With the number of OPERABLE channels less than required by the MINIMUM CHANNELS OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the discovery or

2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following discovery outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

Docket No. 50-336
B18885

Attachment 3

Millstone Power Station, Unit No. 2
Response to Second Request for Additional Information
License Basis Document Change Request 2-1-02
Retyped Pages

INFO ONLY

3/4.0 APPLICABILITY

September 14, 2000

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in LCO 3.0.6. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour ACTION shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time it is identified that a Limiting Condition for Operation is not met. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Condition for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

3.0.5 When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of its applicable Limiting Condition for Operation, provided: (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are OPERABLE, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied within 2 hours, ACTION shall be initiated to place the unit in a MODE in which the applicable Limiting Condition for Operation does not apply by placing it, as applicable, in:

LIMITING CONDITION FOR OPERATION (Continued)

1. At least HOT STANDBY within the next 6 hours.
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

This specification is not applicable in MODES 5 or 6.

3.0.6 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Condition for Operation except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with a maximum allowable extension not to exceed 25% of the surveillance time interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified surveillance interval, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified surveillance interval, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition of Operation must immediately be declared not met, and the applicable Condition(s) must be entered.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

TABLE 3.3-1 (Continued)

REACTOR PROTECTIVE INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11. Wide Range Logarithmic Neutron Flux Monitor - Shutdown	4	0	2	3, 4, 5	4
12. DELETED					
13. Reactor Protection System Logic Matrices	6	1	6	1, 2, and *	5
14. Reactor Protection System Logic Matrix Relays	4/Matrix	3/Matrix	4/Matrix	1, 2, and *	6
15. Reactor Trip Breakers	4	3	4	1, 2, and *	6

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TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 3 - NOT USED

ACTION 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, immediately verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, and at least once per 4 hours thereafter.

ACTION 5 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours.

ACTION 6 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours.

TABLE 3.3-3

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. SAFETY INJECTION (SIAS)(d)					
a. Manual (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Containment Pressure - High	4	2	3	1, 2, 3	2
c. Pressurizer Pressure - Low	4	2	3	1, 2(e), 3(a)	2
d. Automatic Actuation Logic	2	1	2	1, 2, 3	5
2. CONTAINMENT SPRAY (CSAS)					
a. Manual (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Containment Pressure-- High - High	4	2(b)	3	1, 2, 3	2
c. Automatic Actuation Logic	2	1	2	1, 2, 3	5
3. CONTAINMENT ISOLATION (CIAS)					
a. Manual CIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Manual SIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
c. Containment Pressure - High	4	2	3	1, 2, 3	2
d. Pressurizer Pressure - Low	4	2	3	1, 2(e), 3(a)	2
e. Automatic Actuation Logic	2	1	2	1, 2, 3	5

UNIT 2 ONLY

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
4. MAIN STEAM LINE ISOLATION					
a. Manual MSI (Trip Buttons) High	2	1	2	1, 2, 3, 4	1
b. Containment Pressure-High	4	2	3	1, 2, 3	2
c. Steam Generator Pressure - Low	4	2	3	1, 2, 3(c)	2
d. Automatic Actuation Logic	2/Steam Generator	1/Steam Generator	2/Steam Generator	1, 2, 3	5
5. ENCLOSURE BUILDING FILTRATION (EBFAS)					
a. Manual EBFAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Manual SIAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
c. Containment Pressure-High	4	2	3	1, 2, 3	2
d. Pressurizer Pressure-Low	4	2	3	1, 2, 3(a)	2
e. Automatic Actuation Logic	2	1	2	1, 2, 3	5
6. CONTAINMENT SUMP RECIRCULATION (SRAS)					
a. Manual SRAS (Trip Buttons)	2	1	2	1, 2, 3, 4	1
b. Refueling Water Storage Tank - Low	4	2	3	1, 2, 3	4
c. Automatic Actuation Logic	2	1	2	1, 2, 3	5

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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
7. DELETED					
8. LOSS OF POWER					
a.1 4.16 kv Emergency Bus Undervoltage - level one	4/bus	2/Bus	3/bus	1, 2, 3	2
a.2 Automatic Actuation Logic	4/bus	2/bus	3/bus	1, 2, 3	2
b.1 4.16 kv Emergency Bus Undervoltage - level two	4/Bus	2/Bus	3/Bus	1, 2, 3	2
b.2 Automatic Actuation Logic	4/bus	2/bus	3/bus	1, 2, 3	2

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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. AUXILIARY FEEDWATER					
a. Manual	1/pump	1/pump	1/pump	1, 2, 3	6
b. Steam Generator Level - Low	4	2	3	1, 2, 3	2
c. Automatic Actuation Logic	2/Steam Generator	1/Steam Generator	2/Steam Generator	1, 2, 3	5
10. STEAM GENERATOR BLOWDOWN					
a. Steam Generator Level - Low	4	2	3	1, 2, 3	2

INFO ONLY

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TABLE 3.3-3 (Continued)

TABLE NOTATION

(a) Trip function may be bypassed when pressurizer pressure is < 1850 psia; bypass shall be automatically removed when pressurizer pressure is ≥ 1850 psia.

(b) An SIAS signal is first necessary to enable CSAS logic.

(c) Trip function may be bypassed when steam generator pressure is < 700 psia; bypass shall be automatically removed when steam generator pressure is ≥ 700 psia.

(d) In MODE 4 the HPSI pumps are not required to start automatically on a SIAS.

(e) Trip may be bypassed during testing pursuant to Special Test Exception 3.10.3.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in COLD SHUTDOWN within the next 36 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may continue provided the following conditions are satisfied:

a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. The inoperable channel shall either be restored to OPERABLE status, or placed in the tripped condition, with 48 hours.

b. Within 1 hour, all functional units receiving an input from the inoperable channel are also declared inoperable, and the appropriate actions are taken for the affected functional units.

c. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 48 hours, provided one of the inoperable channels is placed in the tripped condition.

TABLE 3.3-3 (Continued)

ACTION 3 - DELETED

ACTION 4 - With the number of OPERABLE channels one less than the Total Number of Channels and with the pressurizer pressure:

a. < 1850 psia: immediately place the inoperable channel in the bypassed condition; restore the inoperable channel to OPERABLE status prior to increasing the pressurizer pressure above 1850 psia.

b. ≥ 1850 psia, operation may continue with the inoperable channel in the bypassed condition, provided the following condition is satisfied:

1. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be removed from service for up to 2 hours for surveillance testing per Specification 4.3.2.1.1 provided BOTH of the inoperable channels are placed in the bypassed condition.

ACTION 5 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.

INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 2 hours or declare the channel inoperable.

b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1.1 Each radiation monitoring instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.3-3.

4.3.3.1.2 The trip value shall be such that the containment purge effluent shall not result in calculated concentrations of radioactivity offsite in excess of 10 CFR Part 20, Appendix B, Table II. For the purposes of calculating this trip value, a $x/Q = 5.8 \times 10^{-6}$ sec/m^3 shall be used when the system is aligned to purge through the building vent and a $x/Q = 7.5 \times 10^{-8}$ sec/m^3 shall be used when the system is aligned to purge through the Unit 1 stack, the gaseous and particulate (Half Lives greater than 8 days) radioactivity shall be assumed to be Xe-133 and Cs-137, respectively. However, the setpoints shall be no greater than 5×10^5 cpm.

4.3.3.1.3 Verify the response time of the control room isolation channel at least once per 18 months.