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The Northeast Utilities System MAR 1 7 1999

> Docket No. 50-336 B17658

Re: 10CFR50.90

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

# Millstone Nuclear Power Station, Unit No. 2 Proposed Revision to Technical Specifications Emergency Core Cooling System Valves, Atmospheric Steam Dump Valves, and Control Room Ventilation System

### Introduction

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend Operating License DPR-65 by incorporating the attached proposed changes into the Technical Specifications of Millstone Unit No. 2. NNECO is proposing to change Technical Specifications 3.5.2, "Emergency Core Cooling Systems - ECCS Subsystems - Tavg > 300 °F;" 3.7.1.7, "Plant Systems - Atmospheric Steam Dump Valves;" and 3.7.6.1, "Plant Systems - Control Room Emergency Ventilation System." The Bases of the associated Technical Specifications will be modified as necessary to address the proposed changes.

Attachment 1 provides a discussion of the proposed changes and the Safety Summary. Attachment 2 provides the Significant Hazards Consideration. Attachment 3 provides the marked-up version of the appropriate pages of the current Technical Specifications. Attachment 4 provides the retyped pages of the Technical Specifications.

NNECO is also including separate changes to the Millstone Unit No. 2 Technical Specification Bases Section 3/4.6.3, "Containment Isolation Valves." These changes, which were reviewed and approved by the Millstone Unit No. 2 Plant Operations Review Committee in accordance with the provisions of 10CFR50.59, are included for information only. Attachment 5 provides a discussion of the changes and the retyped Bases pages. 040170 1001

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The proposed change to Technical Specification Section B 3/4.7.1.7 is on the same page (B 3/4 7-3a) which has been proposed to be changed in a separate letter dated January 4, 1999.<sup>(1)</sup> The proposed changes contained in this letter do not assume approval of the previously submitted changes.

## Environmental Considerations

NNECO has reviewed the proposed License Amendment Request against the criteria of 10CFR51.22 for environmental considerations. The proposed Technical Specification changes will revise surveillance requirements for Emergency Core Cooling System valves, the atmospheric steam dump valve requirements to focus on the steam release path instead of the individual valves, and the allowed outage times for the atmospheric steam dump alves and Control Room Emergency Ventilation System. These changes will not significantly increase the type and amounts of effluents that may be released off site. In addition, this amendment request will not significantly increase individual or cumulative occupational radiation exposures. Therefore, NNECO has determined the proposed changes will not have a significant effect on the quality of the human environment.

## Conclusions

The proposed changes were evaluated utilizing the criteria of 10CFR50.59 and were determined not to involve an unreviewed safety question. Additionally, we have concluded the proposed changes are safe.

The proposed changes do not involve a significant impact on public health and safety (see the Safety Summary provided in Attachment 1) and do not involve a Significant Hazards Consideration pursuant to the provisions of 10CFR50.92 (see the Significant Hazards Consideration provided in Attachment 2).

## Plant Operations Review Committee and Nuclear Safety Assessment Board

The Plant Operations Review Committee and Nuclear Safety Assessment Board have reviewed and concurred with the determinations.

### Schedule

We request issuance at your earliest convenience, with the amendment to be implemented within 60 days of issuance.

<sup>&</sup>lt;sup>(1)</sup> M. L. Bowling, Jr., letter to the NRC, "Millstone Nuclear Power Station, Unit No. 2 Proposed Technical Specification Revision Engineered Safety Features Pump Testing," dated January 4, 1999.

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#### State Notification

In accordance with 10CFR50.91(b), a copy of this License Amendment Request is being provided to the State of Connecticut.

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,

NORTHEAST NUCLEAR ENERGY COMPANY

R. F Mecci

Vice President - Nuclear Oversight and Regulatory Affairs

Sworn to and subscribed before me

this 17 day of M 1999 Godkas

Notary Public

My Commission expires Commission Expires November 30, 2001

Attachments (5)

cc: See page 4

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cc: H. J. Miller, Region I Administrator

S. Dembek, NRC Project Manager, Millstone Unit No. 2 D. P. Beaulteu, Senior Resident Inspector, Millstone Unit No. 2 W. M. Dean, Director, Millstone Project Directorate W. D. Lanning, Director, Millstone Inspections J. C. Linville, Chief, Inspections Branch, Millstone Inspections E. V. Imbro, Director, Millstone ICAVP Inspections

### Director

Bureau of Air Management Monitoring and Radiation Division Department of Environmental Protection 79 Elm Street Hartford, CT 06106-5127

Docket No. 50-336 B17658

Attachment 1

Millstone Nuclear Power Station, Unit No. 2 Proposed Revision to Technical Specifications Emergency Core Cooling System Valves, Atmospheric Steam Dump Valves, and Control Room Ventilation System Discussion of Proposed Changes

March 1999

# Proposed Revision to Technical Specifications Emergency Core Cooling System Valves, Atmospheric Steam Dump Valves, and Control Room Ventilation System Discussion of Proposed Changes

### Introduction

Northeast Nuclear Energy Company (NNECO) hereby proposes to amend Operating License DPR-65 by incorporating the attached proposed changes into the Technical Specifications of Millstone Unit No. 2. NNECO is proposing to change Technical Specifications 3.5.2, "Emergency Core Cooling Systems – ECCS Subsystems - Tavg ≥ 300 °F;" 3.7.1.7, "Plant Systems - Atmospheric Steam Dump Valves;" and 3.7.6.1, "Plant Systems – Control Room Emergency Ventilation System." The Bases of the associated Technical Specifications will be modified as necessary to address the proposed changes.

## Technical Spracification Changes

Each proposed change is discussed below.

- 1. Technical Specification 3.5.2
  - Surveillance Requirement (SR) 4.5.2.a.10 currently requires the position a. (locked closed) of manual valve 2-CH-434 to be verified every 31 days. 2-CH-434 is the manual isolation valve for 2-CH-435, a spring loaded check valve designed to provide thermal overpressure protection for the regenerative heat exchanger located in the Charging System. (A recent plant modification has removed the valve internals of 2-CH-435.) These two valves are located in a bypass line around charging header valve 2-CH-519. Original plant design required 2-CH-434 to be open so that 2-CH-435 could function as designed. However, 2-CH-435 could divert flow from the alternate hot leg injection flowpath during post loss of coolant accident (LOCA) boron precipitation control. Therefore, NNECO committed to locking closed 2-CH-434.<sup>(1)</sup> The NRC then requested "Technical Specifications require that valve 2-CH-435 be locked closed by removing the breaker to the motor operator of this valve."(2) NNECO provided additional information to the NRC stating that 2-CH-435 is a spring loaded check valve and cannot be locked closed. 2-CH-434 is the

<sup>&</sup>lt;sup>(1)</sup> D. C. Switzer letter to the U. S. Nuclear Regulatory Commission, Millstone Nuclear Power Station, Unit No. 2, dated July 27, 1975.

<sup>(2)</sup> O. D. Parr letter from the U. S. Nuclear Regulatory Commission to NNECO, Supplement No. 2 to the Safety Evaluation for Millstone Nuclear Power Station, Unit No. 2, dated August 1, 1975.

appropriate valve and it will be locked closed by physically locking the valve handwheel.<sup>(3)</sup> 2-CH-434 was then added to Technical Specifications.<sup>(4)</sup>

SR 4.5.2.a.10 will be revised by removing valve 2-CH-434 from the list of valves to check. The associated footnote (\*\*) will also be deleted. 2-CH-434 is a locked closed manual containment isolation valve whose position is verified by SR 4.6.1.1.a. Therefore, it is not necessary to include a requirement to verify the position of 2-CH-434 in two Technical Specification surveillance requirements. However, by modifying SR 4.5.2.a.10 as proposed, the position of valve 2-CH-434 will no longer be verified every 31 days. SR 4.6.1.1.a requires verification of the position of 2-CH-434 prior to entering Mode 4 from Mode 5, if not performed within the previous 92 days, because 2-CH-434 is a locked closed containment isolation valve and is located inside containment. In addition, the locked closed position of 2-CH-434 is verified following a refueling outage, or if 2-CH-434 is within the tagging boundary for system maintenance. Although this change will result in the position of 2-CH-434 being checked less often, there are sufficient Technical Specification and administrative controls to ensure that 2-CH-434 will be maintained in the proper position. An additional benefit of this proposed change will be a reduction in personnel exposure since 2-CH-434 is located inside containment. This proposed change will not result in any modification to Emergency Core Cooling System (ECCS) alignment or operation.

- b. SR 4.5.2.a.10 will be modified by adding a footnote (\*\*) to 2-SI-306. (This footnote effectively replaces the footnote for 2-CH-434 which is proposed to be deleted.) 2-SI-306, which is the Shutdown Cooling (SDC) System throttle valve in the discharge piping of the SDC pumps, is required to be left in a throttled position after SDC has been secured to ensure sufficient low pressure safety injection (LPSI) flow will be available without allowing pump runout. (The SDC pumps are also the LPSI pumps at Millstone Unit No. 2.) The addition of this footnote will clarify that 2-SI-306 is pinned and locked open to the required throttle position. This proposed change will not result in any modification to ECCS alignment or operation.
- c. SR 4.5.2.e and Table 4.5-1, "ECCS Throttled Valves," will be modified by changing the valve nomenclature from throttle valve to injection valve. The valves listed in Table 4.5-1 are the high pressure safety injection (HPSI) valves and LPSI valves. These valves are either throttled (HPSI), or set to fully open (LPSI) to provide the required safety injection flow.

<sup>&</sup>lt;sup>(3)</sup> D. C. Switzer letter to the U. S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2 Proposed License Amendment," dated August 29, 1975.

<sup>&</sup>lt;sup>(4)</sup> O. D. Parr letter from the U. S. Nuclear Regulatory Commission to NNECO, "Amendment No. 4 Change No. 4 License No. DPR-65," dated September 26, 1975.

> Since the required position of some of the valves is fully open, it is not appropriate to refer to them as throttle valves. Revising the valve nomenclature to use the term injection will eliminate the potential conflict between valve name and valve position. This proposed change will not result in any modification to ECCS alignment or operation.

- d. Amendment No. 45<sup>(5)</sup> will be added to the bottom of Page 3/4 5-6a. This is a non-technical change.
- 2. Technical Specification 3.7.1.7
  - a. Index Page VIII will be modified by removing the word "Steam" from the entry for Technical Specification 3.7.1.7. This change is consistent with current Millstone Unit No. 2 terminology. This is not a technical change.
  - b. The terminology used in Technical Specification 3.7.1.7 will be changed from "Atmospheric Steam Dump Valve" to "Atmospheric Dump Valve Line." The addition of "line" will focus the requirements on the steam release paths, instead of just the individual atmospheric dump valves (ADVs). Each ADV line contains an air operated ADV and an upstream manual isolation valve. An ADV line is operable if local manual operation of the associated valves can be used to perform a controlled release of steam to the atmosphere. This more restrictive change expands the scope of this Technical Specification. The removal of "steam" has already been discussed.
  - Action Statement a. will be modified to address one inoperable ADV line C. and the impact an inoperable ADV line will have on the ability of Millstone Unit No. 2 to mitigate a LOCA. With an inoperable ADV line, the ability to accomplish a plant cooldown following a small break LOCA will be adversely impacted. Therefore, a plant shutdown will be necessary if the ADV line is not restored to operable status within 48 hours. Allowing 48 hours to restore the ADV line to operable status is acceptable based on the low probability of a LOCA occurring during this time period, and the subsequent loss of offsite power and the failure of one train of HPSI. 48 hours is also consistent with the allowed outage time for one ECCS train (Technical Specification 3.5.2). If the ADV line is not restored to operable status within 49 hours, the plant will be required to be in Mode 3 within the following 6 hours. However, the time to reach Mode 4 will remain at the following 24 hours to reflect the impact an inoperable ADV line may have on the time to cool down the plant.

<sup>&</sup>lt;sup>(5)</sup> R. W. Reid letter from the U. S. Nuclear Regulatory Commission to NNECO, Amendment No. 45 to Facility Operating License No. DPR-65," dated December 8, 1978

- d. Action Statement b. will be modified to address two inoperable ADV lines and the impact two inoperable ADV lines will have on the ability of Millstone Unit No. 2 to mitigate a loss of coolant accident (LOCA). With two inoperable ADV lines, the ability to accomplish a plant cooldown following a small break LOCA with a loss of offsite power will be severely impacted. Therefore, an immediate plant shutdown will be necessary if at least one ADV line is not restored to operable status within one hour. The plant will be required to be in Mode 3 within the following 6 hours. These time requirements are based on Technical Specification 3.0.3. However, the time to reach Mode 4 will remain at the "following 24 hours" to reflect the impact inoperable ADV lines may have on the time to cool down the plant.
- e. SR 4.7.1.7 will be modified to verify operation of the ADV lines consistent with the accident analysis (FSAR Chapter 14). An ADV line is OPERABLE if local manual operation of the associated valves can be used to perform a controlled release of steam to the atmosphere. Therefore, this SR will be modified to require periodic verification of local manual operation of the valves in the ADV lines.
- f. The Bases of Technical Specification 3.7.1.7 will be modified to be consistent with the proposed changes.
- 3. Technical Specification 3.7.6.1
  - a. An "a." will be added to the current action requirements for Modes 1, 2, 3, and 4 to allow the addition of another set of action requirements.
  - b. A new action requirement (b.) will be added to address the situation when both Control Room Emergency Ventilation Trains are inoperable in Modes 1, 2, 3, and 4. This situation has occurred before as reported by LER 98-014-00,<sup>(6)</sup> and is expected to occur during normal plant operation when the air filters in the common supply header to both trains are cleaned/replaced. Since this is a common supply header, both trains are affected, and both trains would be inoperable.

The proposed action requirements will address this situation so that Technical Specification 3.0.3 will not be entered as a result of an expected plant activity. The proposed action requirements are the same as the requirements of Technical Specification 3.0.3.

<sup>(6)</sup> J. A. Price letter to the NRC, "Millstone Nuclear Power Station, Unit No. 2 Licensee Event Report 98-014-00, Plant Procedures Violate Control Room Ventilation Boundary," dated July 29, 1998.

### Safety Summary

**Technical Specification 3.5.2** 

The removal of 2-CH-434, a manual valve, from the list of valves to be checked every 31 days by SR 4.5.2.a.10 will not change the requirement for this containment isolation valve to be locked closed. The position of valve 2-CH-434, and the associated locking device, will be verified by SR 4.6.1.1.a. Although this change will result in the position of 2-CH-434 being checked less often, there are sufficient Technical Specification and administrative requirements to ensure that 2-CH-434 will be maintained in the proper position. An additional benefit of this proposed change will be a reduction in personnel exposure since 2-CH-434 is located inside containment. This proposed change will not result in any modification to ECCS alignment or operation.

The addition of the footnote to SR 4.5.2.a.10 will clarify that 2-SI-306 is pinned and locked open to the required throttle position. 2-SI-306, which is the SDC System throttle valve in the discharge piping of the SDC pumps, is required to be left in a throttled position after SDC has been secured to ensure sufficient LPSI flow will be available. This proposed change will not result ' any modification to ECCS alignment or operation.

The change in the valve nomenclature in SR 4.5.2.e and Table 4.5-1 from throttle valve to injection valve will eliminate any confusion between valve description and valve operation. This proposed change will not result in any modification to ECCS alignment or operation.

The addition of the License Amendment Number to the bottom of Page 3/4 5-6a will not result in a technical change to this Technical Specification.

Technical Specification 3.7.1.7

The proposed changes will expand the scope of Technical Specification 3.7.1.7 to include the steam release path, instead of just the individual ADVs. The allowed outage times will be modified to address inoperable ADV lines and the impact inoperable ADV lines will have on the ability of Millstone Unit No. 2 to mitigate a LOCA. If one ADV line is inoperable, a plant shutdown will be required if the ADV line is not restored to operable status within 48 hours. An allowed outage time of 48 hours to restore the ADV line to operable status is acceptable based on the low probability of a LOCA occurring during this time period, and the subsequent loss of offsite power and the failure of one train of HPSI. This is also consistent with the allowed outage time for one ECCS train (Technical Specification 3.5.2).

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If two ADV lines are inoperable, a plant shutdown will be required if at least one ADV line is not restored to operable status within one hour. The plant will be required to be in Mode 3 within the following 6 hours. These time requirements are based on Technical Specification 3.0.3. However, the time to reach Mode 4 will remain at the "following 24 hours" to reflect the impact inoperable ADV lines may have on the time to cool down the plant.

The proposed change to the surveillance requirement will ensure operation of the ADV lines, consistent with the accident analysis, is verified.

The proposed change in component nomenclature is consistent with current Millstone Unit No. 2 terminology. This is not a technical change.

The proposed changes to the Bases of Technical Specification 3.7.1.7 are consistent with the changes just described.

## Technical Specification 3.7.6.1

The action requirements for the Control Room Emergency Ventilation System will be modified to address the situation when both Control Room Emergency Ventilation Trains are inoperable in Modes 1, 2, 3, and 4. This situation is expected to occur during normal plant operation when the air filters in the common supply header to both trains are cleaned/replaced. Since this is a common supply header, both trains would be affected and would be inoperable. The proposed action requirements will address this situation so that Technical Specification 3.0.3 will not be entered as a result of an expected plant activity. However, since the proposed action requirements are the same as the requirements of Technical Specification 3.0.3, the time the plant is allowed to operate in this situation will not change.

The proposed changes to the Technical Specifications and associated Bases will ensure that the necessary equipment to mitigate the design basis accidents will be available, or a plant shutdown will be required. The proposed changes will not result in any plant configuration changes. There will be no adverse effect on plant operation or accident mitigation equipment. The plant response to the design basis accidents will not change. Therefore, there will be no adverse impact on public health and safety.

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Attachment 2

Millstone Nuclear Power Station, Unit No. 2 Proposed Revision to Technical Specifications Emergency Core Cooling System Valves, Atmospheric Steam Dump Valves, and Control Room Ventilation System Significant Hazards Consideration

March 1999

# Proposed Revision to Technical Specifications Emergency Core Cooling System Valves, Atmospheric Steam Dump Valves, and Control Room Ventilation System Significant Hazards Consideration

### Significant Hazards Consideration

In accordance with 10CFR50.92, NNECO has reviewed the proposed changes and has concluded that they do not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed changes do not involve an SHC because the changes would not:

 Involve a significant increase in the probability or consequences of an accident previously evaluated.

Technical Specification 3.5.2

The removal of 2-CH-434, a manual valve, from the list of valves to be checked every 31 days by Surveillance Requirement (SR) 4.5.2.a.10 will not change the requirement for this containment isolation valve to be locked closed. The position of valve 2-CH-434, and the associated locking device, will be verified by SR 4.6.1.1.a. Although this change will result in the position of 2-CH-434 being checked less often, there are sufficient Technical Specification and administrative requirements to ensure that 2-CH-434 will be maintained in the proper position. An additional benefit of this proposed change will be a reduction in personnel exposure since 2-CH-434 is located inside containment. This proposed change will not result in any modification to Emergency Core Cooling System (ECCS) alignment or operation.

The addition of the footnote to SR 4.5.2.a.10 will clarify that 2-SI-306 is pinned and locked open to the required throttle position. 2-SI-306, which is the Shutdown Cooling (SDC) System throttle valve in the discharge piping of the SDC pumps, is required to be left in a throttled position after SDC has been secured to ensure sufficient low pressure safety injection (LPSI) flow will be available. This proposed change will not result in any modification to ECCS alignment or operation.

The change in the valve nomenclature used in SR 4.5.2.e and Table 4.5-1 from throttle valve to injection valve will eliminate any confusion between valve description and valve operation. This proposed change will not result in any modification to ECCS alignment or operation.

The addition of the License Amendment Number to the bottom cf Page 3/4 5-6a will not result in a technical change to this Technical Specification.

Technical Specification 3.7.1.7

The proposed changes will expand the scope of Technical Specification 3.7.1.7 to include the steam release path, instead of just the individual atmospheric dump valves (ADVs). The allowed outage times will be modified to address inoperable ADV lines and the impact inoperable ADV lines will have on the ability of Millstone Unit No. 2 to mitigate a loss of coolant accident (LOCA). If one ADV line is inoperable, a plant shutdown will be required if the ADV line is not restored to operable status within 48 hours. An allowed outage time of 48 hours to restore the ADV line to operable status is acceptable based on the low probability of a LOCA occurring during this time period, and the subsequent loss of offsite power and the failure of one train of high pressure safety injection (HPSI). This is also consistent with the allowed outage time for one ECCS train (Technical Specification 3.5.2).

If two ADV lines are inoperable, a plant shutdown will be required if at least one ADV line is not restored to operable status within one hour. The plant will be required to be in Mode 3 within the following 6 hours. These time requirements are based on Technical Specification 3.0.3. However, the time to reach Mode 4 will remain at the "following 24 hours" to reflect the impact inoperable ADV lines may have on the time to cool down the plant.

The proposed change to the surveillance requirement will ensure operation of the ADV lines, consistent with the accident analysis, is verified.

The proposed change in component nomenclature is consistent with current Millstone Unit No. 2 terminology. This is not a technical change.

The proposed changes to the Bases of Technical Specification 3.7.1.7 are consistent with the changes just described.

Technical Specification 3.7.6.1

The action requirements for the Control Room Emergency Ventilation System will be modified to address the situation when both Control Room Emergency Ventilation Trains and inoperable in Modes 1, 2, 3, and 4. This situation is expected to occur During normal plant operation when the air filters in the common supply header to both trains are

cleaned/replaced. Since this is a common supply header, both trains are affected and would be inoperable. The proposed action requirements will address this situation so that Technical Specification 3.0.3 will not be entered as a result of an expected plant activity. However, since the proposed action requirements are the same as the requirements of Technical Specification 3.0.3, the time the plant is allowed to operate in this situation will not change.

The proposed changes to the Technical Specifications and associated Bases will have no adverse effect on plant operation or accident mitigation equipment. The proposed changes will ensure that the necessary equipment to mitigate the design basis accidents will be available, or a plant shutdown will be required. In addition, the proposed changes can not cause an accident, and they will ensure the accident mitigation equipment will continue to operate as assumed in the analyses to mitigate the design basis accidents. Therefore, there will be no significant increase in the probability or consequences of an accident previously evaluated.

 Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes to the Technical Specifications and associated Bases will have no adverse effect on plant operation or accident mitigation equipment. The proposed changes will ensure that the necessary equipment to mitigate the design basis accidents will be available, or a plant shutdown will be required. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The proposed changes to the Technical Specifications and associated Bases will ensure that the necessary equipment to mitigate the design basis accidents will be available, or a plant shutdown will be required. The proposed changes will not result in any plant configuration changes. There will be no adverse effect on plant operation or accident mitigation equipment. The plant response to the design basis accidents will not change. Therefore, there will be no significant reduction in the margin of safety as defined in the Bases for the Technical Specifications affected by these proposed changes.

The NRC has provided guidance concerning the application of standards in 10CFR50.92 by providing certain examples (March 6, 1986, 51 FR 7751) of amendments that are considered not likely to involve an SHC. The minor changes to add a License Amendment number to the bottom of one page, and to remove the word "steam" to be consistent with plant terminology are enveloped by example (i), a purely administrative change to Technical Specifications. Although the other changes

proposed herein are not enveloped by a specific example, this License Amendment Request does not impact the probability of an accident previously evaluated, does not involve a significant increase in the consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident from any accident previously evaluated, and does not result in a significant reduction in a margin of safety. Therefore, NNECO has concluded that the proposed changes do not involve an SHC.