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April 14, 1994

Docket No. 50-336
B14820

Re: 10CFR50.90
10CFR50.91

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

Millstone Nuclear Power Station, Unit No. 2
Proposed Revision to Technical Specifications
Carbon Sample Testing

Introduction

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its Operating License, DPR-65, by incorporating the changes identified in Attachments 1 and 2 into the Millstone Unit No. 2 Technical Specifications. The intent of these changes is to revise Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c to permit carbon samples to be tested in accordance with American Society for Testing and Materials (ASTM) Standard D3803-89 versus American National Standards Institute (ANSI) N509-1976.

In addition, NNECO is requesting that the NRC Staff process this license amendment request on an emergency basis pursuant to 10CFR50.91(a)(5). Currently, Millstone Unit No. 2 is operating in Mode 1 at 100% power; however, the Action Statements for Limiting Conditions for Operation (LCO) 3.6.5.1 and 3.7.6.1 were conservatively entered at 1715 hours on April 12, 1994. These Action Statements require the affected systems to be restored to an operable status within seven days, or the plant be placed in at least hot standby within the next six hours and in cold shutdown in the following 30 hours. The allowed outage times expire on April 19, 1994. Therefore, NNECO is requesting that the license amendment be approved prior to April 19, 1994.

Alternatively, NNECO is requesting that the NRC Staff exercise enforcement discretion associated with LCOs 3.6.5.1 and 3.7.6.1 to be effective until the license amendment is issued. The enforcement discretion would permit NNECO to maintain Millstone Unit No. 2 at steady-state operation while the proposed license amendment is being processed.

NNECO believes that expedited treatment is warranted in this case to avoid an unnecessary plant shutdown and potential operational challenges associated with a shutdown. This request involves no

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significant safety impact since the acceptance criteria were satisfied utilizing a standard methodology (ASTM Standard D3803). Thus, the operational risk associated with the request has no negative impact on public health and safety. This request was discussed during a teleconference between the NRC Staff and NNECO representatives on April 13, 1994.

Background

The Millstone Unit No. 2 Technical Specifications require that charcoal canisters be tested in accordance with NRC Regulatory Guide 1.52, Revision 2, March 1978. The regulatory guide lists the following testing requirements:

Table 2
LABORATORY TESTS FOR ACTIVATED CARBON

Activated Carbon Bed Depth	Assigned Activated Carbon Decontamination Efficiencies	Laboratory Tests for Representative Sample
2 Inches. Air filtration system designed to operate outside the primary containment and relative humidity (RH) is controlled to 70%.	Elemental Iodine 95% Organic Iodine 95%	Per test 5.b at a relative humidity of 70% for a methyl iodide penetration of less than 1%. Note*

* See Table 5-1 of ANSI N509-1976 (Ref. 1)

Table 5-1 of ANSI N509-1976

Summary Table of New Activated Carbon Physical Properties
 Batch Tests to be Performed on Finished Absorbent

Test	Acceptable Test Method	Acceptable Results
Methyl Iodide 80 degrees C and 95% RH	RDT M16-IT per 4.5.3 except 80 degrees C relative humidity air is required for test (pre- and post-loading sweep medium is 25 degrees C) Note: Test to 70% RH in place of 95% RH from Table 2 of Regulatory guide 1.52	99% Note: 95% from Table 2 of Regulatory Guide 1.52

The pre- and post-loading sweep as specified in ANSI N509-1976 potentially damages the carbon medium. ASTM P 89 does not have a different pre- and post-loading sweep temperature and is considered to be more technically correct than the testing methods developed prior to 1987. Nuclear Containment Systems, the vendor who performs the safety-related charcoal testing for NNECO, strongly recommends that the testing of charcoal filters be accomplished in accordance with ASTM Standard D3803-89.

During a review of the recently scheduled ventilation system testing, the Quality and Assessment Services Department discovered a discrepancy in the references identified in the vendor test procedure as compared to the Millstone Unit No. 2 Technical Specification requirements.

A comparison of the testing methods used by the vendor versus the Millstone Unit No. 2 Technical Specification requirements was performed. The vendor revised its procedure to reflect the current references. The vendor completed in-place testing on the referenced ventilation systems in accordance with the current Millstone Unit No. 2 Technical Specification requirements.

The charcoal test canister portion of the surveillance is performed in the vendor's laboratory. During the vendor's review to ensure compliance with the older standards, the vendor identified a problem with the charcoal test canister testing method. The vendor

stated that the charcoal canisters should not be tested in accordance with the requirements specified in the Technical Specifications because:

- 1) The test produces a high failure rate which occurs when the filter bed becomes wet as a result of the required drastic time/temperature/relative humidity change, and
- 2) The NRC has recommended that utilities test charcoal in accordance with ASTM Standard D3803-89 because this standard is the more technically correct test standard.

On April 12, 1994, it was discovered that the vendor's test equipment could not support the 25 degrees C pre-sweep, followed immediately by an 80 degrees C post-load sweep air test, again followed by a 25 degrees C post-sweep as required by the outdated testing standard.

It was determined that the in-place charcoal for the "A" facility of Control Room Emergency Ventilation and Enclosure Building Ventilation charcoal filters were operable since the charcoal medium surveillance requirements were still satisfied based on the fact that no canister surveillance had been performed on the filters since filter changeout.

It was also determined that the in-place charcoal for the "B" facility of Control Room Emergency Ventilation and Enclosure Building Ventilation charcoal filters were not operable because the surveillance performed on these units had been satisfied utilizing a standard (ASTM Standard D3803) not specified in the Millstone Unit No. 2 Technical Specifications. Although the testing which was performed on the charcoal canisters was technically correct and would ensure that both filter systems could satisfy their required safety function, Millstone Unit No. 2 conservatively declared the "B" facilities of both systems inoperable at 1715 hours on April 12, 1994. Previous testing had confirmed that the applicable acceptance criteria of ASTM Standard D3803 were met.

Description of Proposed Changes

NNECO proposes to revise Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c to permit carbon samples to be tested in accordance with ASTM Standard D3803-89 versus ANSI N509-1976.

NNECO proposes to add the following footnote to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c:

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"ASTM D3803-89 shall be used in place of ANSI N509-1976 as referenced in table 2 of Regulatory Guide 1.52."

Also, NNECO is proposing to correct a typographical error in Millstone Unit No. 2 Technical Specification 4.9.15.b.2. Currently, the last line of Technical Specification 4.9.15.b.2 refers to Regulatory Position C.5.a. This reference is incorrect; it should refer to Regulatory Position C.6.a.

Safety Assessment

The proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c do not pose a condition adverse to safety, and there can be no adverse safety consequences created by the proposed changes.

NNECO's proposal to revise Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c will permit carbon samples to be tested in accordance with ASTM D3803-89 versus ANSI N509-1976. ASTM Standard D3803-89 is used industry-wide, and is acknowledged by the NRC as an acceptable method for the testing of activated charcoal bed filters. In addition, testing in accordance with ASTM Standard D3803-89 yields more accurate results than testing in accordance with ANSI N509-1976. The removal efficiency requirement is not affected by the proposed changes.

Additionally, the proposed change to revise Technical Specification 4.9.15.b.2 by correcting the reference to Regulatory Position C.6.a is an administrative correction. It cannot impact public health and safety.

Based on the above, the proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c do not pose a condition adverse to safety. Also, implementation of these proposed changes can not create any adverse safety consequences.

Justification for Emergency License Amendment

Pursuant to 10CFR50.91(a)(5), NNECO hereby requests NRC Staff "emergency" approval of the proposed amendment to Operating License DPR-65. Currently, Millstone Unit No. 2 is operating in Mode 1 at 100% power. Shortly after discovery of this condition on April 12, 1994, at 1715 hours, the Action Statements for LCOs 3.6.5.1 and 3.7.6.1 were conservatively entered. These Action Statements require the affected systems to be restored to an operable status within 7 days, or the plant is required to be in at least hot standby within the next 6 hours, and in cold shutdown within the

following 30 hours. Due to the time requirements of the Action Statements for LCOs 3.6.5.1 and 3.7.6.1, emergency authorization is required by April 19, 1994, to avoid an unnecessary plant shutdown and potential operational challenges associated with an unplanned shutdown required by the Technical Specifications.

Upon discovering the condition, NNECO explored the option of performing the surveillances in accordance with ANSI N509-1976. However, after discussing this issue with the testing vendor, NNECO determined that the vendor was not capable of performing the original test methodology, and that the original test methodology was not as effective in verifying the capability of the charcoal adsorbers as ASTM Standard D3803-89. Replacement of the charcoal adsorbers with new material was explored. Currently, an insufficient quantity of new charcoal medium is available at Millstone Station to replace the subject charcoal. NNECO is making significant efforts to requalify charcoal whose shelf-life has expired. The success of this option within the time-frame of the Action Statements is uncertain. An additional consideration concerning replacement of the current charcoal adsorbers is that the charcoal medium removed would be disposed of as radioactive waste without any apparent safety benefit, since the current test of record is technically acceptable.

The requested emergency license amendment is appropriate because the proposed changes do not involve a significant hazards consideration (SHC) as discussed with the NRC Staff on April 13, 1994. NNECO has determined that these proposed changes are technically acceptable and do not reduce any margin of safety.

Significant Hazards Consideration

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

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

NNECO's proposal to revise Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c will permit carbon samples to be tested in accordance with ASTM D3803-89 versus ANSI N509-1976. ASTM Standard D3803-89 is used industry wide, and is acknowledged by the NRC as an acceptable method for the testing of activated charcoal bed filters. In addition, testing in accordance with ASTM Standard D3803-89 yields more accurate results than testing in accordance with ANSI N509-

1976. The removal efficiency requirement is not affected by the proposed changes.

NNECO's proposal to correct the reference to Regulatory Position C.6.a in Technical Specification 4.9.15.b.2 is an editorial correction.

Based on the above, the proposed changes do not involve an increase in the probability or consequences of an accident previously analyzed.

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

The proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c do not involve any physical modifications to any equipment, structures, or components, nor do they involve any changes to any plant operating procedures. The only change would be to use a more reliable method to determine filter efficiency at the laboratory.

NNECO's proposal to correct the reference to Regulatory Position C.6.a in Technical Specification 4.9.15.b.2 is an editorial correction.

Thus, the proposed changes do not create the possibility of a new or different kind of accident from any previously analyzed.

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

The proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c do not modify the requirement for carbon sample removal efficiency, do not involve a change in any safety limits, setpoints, or design margins, and do not affect any protective boundaries. Additionally, the proposed test methodology has been determined to be more accurate.

NNECO's proposal to correct the reference to Regulatory Position C.6.a in Technical Specification 4.9.15.b.2 is an editorial correction.

Therefore, the proposed changes do not involve a reduction in the margin of safety.

The Commission has provided guidance concerning the application of the standards of 10CFR50.92 by providing certain examples (51 FR 7751, March 6, 1986) of amendments that are not considered

likely to involve a SHC. While the proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c are not enveloped by any of the examples, they do not involve an SHC. The rationale for this conclusion is: (1) the proposed alternative testing methodology (ASTM D3803-89) has been determined to be more accurate than the methodology referenced in Revision 2 of Regulatory Guide 1.52 (ANSI N509-1976), (2) the requirement of Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c for carbon sample removal efficiency is not changed, and (3) ASTM D3803-89 is acknowledged by the NRC as an acceptable method for testing activated charcoal bed filters.

Request for Enforcement Discretion

NNECO hereby requests the NRC Staff exercise discretion not to enforce compliance with the required actions for Millstone Unit No. 2 LCOs 3.6.5.1 and 3.7.6.1 should the processing of the proposed license amendment not be completed by April 19, 1994. NNECO hereby provides justification for enforcement discretion associated with the above LCOs.

1. The Technical Specification Condition that Will Be Violated

Millstone Unit No. 2 LCO 3.6.5.1 requires the operability of two separate and independent Enclosure Building Filtration Systems, and LCO 3.7.6.1 requires the operability of two independent Control Room Emergency Ventilation Systems. The Action Statements for these LCOs require that an inoperable system be restored to an operable status within seven days, or the plant be placed in at least hot standby within the next six hours and in cold shutdown within the following 30 hours.

Millstone Unit No. 2 entered these Action Statements at 1715 hours on April 12, 1994. NNECO, therefore, is requesting enforcement discretion from the LCOs 3.6.5.1 and 3.7.6.1 to permit Millstone Unit No. 2 to avoid an unnecessary plant shutdown. The discretion is requested to be effective until the amendment is issued and implemented. This discretion would permit NNECO to operate Millstone Unit No. 2 while the proposed license amendment is being processed.

2. The Circumstances Surrounding the Situation Including the Need for Prompt Action

Currently, Millstone Unit No. 2 is operating in Mode 1 at 100% power. Shortly after discovery of this condition on April 12, 1994, the Action Statements for LCOs 3.6.5.1 and 3.7.6.1 were entered. The effective time of entry for the Action Statements was 1715 hours. These Action Statements require

the affected systems to be restored to an operable status within 7 days, or the plant is required to be in at least hot standby within the next 6 hours, and in cold shutdown within the following 30 hours. Due to the time requirements of the Action Statements for LCOs 3.6.5.1 and 3.7.6.1, enforcement discretion is requested by April 19, 1994, in the event the proposed license amendment cannot be processed within this time frame. Enforcement discretion will permit Millstone Unit No. 2 to avoid an unnecessary plant shutdown and potential operational challenges associated with an unplanned shutdown required by the Technical Specifications.

Upon discovering the condition, NNECO explored the option of performing the surveillances in accordance with ANSI N509-1976. However, after discussing this issue with the testing vendor, NNECO determined that the vendor was not capable of performing the original test methodology, and that the original test methodology was not as effective in verifying the capability of the charcoal adsorbers as ASTM Standard D3803-89. Replacement of the charcoal adsorbers with new material was explored. Currently, an insufficient quantity of new charcoal medium is available at Millstone Station to replace the subject charcoal. NNECO is making significant efforts to requalify charcoal whose shelf-life has expired. The success of this option within the time-frame of the Action Statements is uncertain. Also, an additional consideration concerning replacement of the current charcoal adsorbers is the fact that the charcoal medium removed would be disposed of as radioactive waste without any apparent safety benefit, since the current test of record is technically acceptable.

The requested enforcement discretion is appropriate because the proposed changes do not involve an SHC. Also, NNECO has determined that these proposed changes are acceptable and do not reduce a margin of safety.

3. Safety Basis for the Request

NNECO believes that there is no adverse safety significance associated with this enforcement discretion. As discussed in the Safety Assessment Section of this letter, the proposed changes to Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c do not pose a condition adverse to safety, and there would be no adverse safety consequences created by the proposed changes.

NNECO's proposal to revise Millstone Unit No. 2 Technical Specifications 4.6.5.1.b.2, 4.6.5.1.c, 4.7.6.1.c.2, 4.7.6.1.d, 4.9.15.b.2, and 4.9.15.c will permit carbon samples to be

tested in accordance with ASTM D3803-89 versus ANSI N509-1976. ASTM Standard D3803-89 is used industry wide, and is acknowledged by the NRC as an acceptable method for the testing of activated charcoal bed filters. Additionally, testing in accordance with ASTM Standard D3803-89 yields more accurate results than testing in accordance with ANSI N509-1976. The removal efficiency requirement is not affected by the proposed changes.

4. Compensatory Measures

Since the charcoal filter testing performed in accordance with ASTM D3803-89 provides a more accurate representation of the efficiency of the charcoal adsorbers and the charcoal adsorbers would be able to perform their intended safety function, no compensatory actions are necessary.

5. Duration of Requested Waiver

The enforcement discretion is being requested for the period of time until the license amendment is issued by the NRC. This will permit Millstone Unit No. 2 to continue operating in Mode 1 at 100% power.

6. Basis for No Significant Hazards Consideration

The basis for this enforcement discretion not involving an SHC is the same as previously discussed for the proposed license amendment.

7. Basis for No Irreversible Environmental Consequences

The requested enforcement discretion involves no environmental consequences. The proposed changes do not result in a reduction in a margin of safety, do not affect the calculated doses, and do not impact the capability of systems to perform their intended safety function to control the release of radiological effluents. Also, they do not affect the associated non-radiological effluents. Thus, the proposed changes do not negatively impact the public health and safety.

8. Safety Review

The Millstone Unit No. 2 Plant Operations Review Committee (PORC) and Nuclear Review Board (NRB) have reviewed and concurred with this request for enforcement discretion.

9. Additional Information

Additional information has been supplied throughout the text of this submittal.

In summary, the proposed enforcement discretion would permit Millstone Unit No. 2 to continue to operate in Mode 1 at 100% power until the proposed license amendment is issued. This request is safe, and it does not constitute a SHC.

Environmental Considerations

NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, NNECO concludes that the proposed changes meet the criteria delineated in 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an environmental impact statement.

The Millstone Unit No. 2 PORC and NRB have reviewed and concurred with the above determinations.

In accordance with 10CFR50.91(b), we are providing the State of Connecticut with a copy of this proposed amendment via facsimile to ensure their awareness of this request.

Schedule Required for NRC Approval

As discussed previously, authorization of these proposed changes is necessary to permit Millstone Unit No. 2 to continue to operate in Mode 1 at 100% power. The Action Statements for LCOs 3.6.5.1 and 3.7.6.1 were conservatively entered at 1715 hours on April 12, 1994. These Action Statements require the affected systems to be restored to operable status within seven days, or the plant be placed in at least hot standby within the next six hours and in cold shutdown in the following 30 hours. The Action Statements will expire on April 19, 1994. Therefore, NNECO requests that the NRC Staff issue the subject amendment by April 19, 1994, to be effective upon issuance. Alternatively, NNECO is requesting that the NRC Staff exercise enforcement discretion associated with LCOs 3.6.5.1 and 3.7.6.1 to be effective until the amendment is issued. By exercising enforcement discretion, the NRC Staff would permit Millstone Unit No. 2 to continue to operate in Mode 1 at 100% power while awaiting issuance of the proposed revision to the Millstone Unit No. 2 Technical Specifications.

NNECO wishes to emphasize our conclusion that this proposed license amendment does not involve any undue safety risk or irreversible

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environmental consequences.

If the NRC Staff should have any questions or comments regarding this submittal, please contact Mr. R. H. Young at (203) 665-3717. We will promptly provide any additional information the NRC Staff may need to respond to this request, and we appreciate your efforts in support of this request.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka
Executive Vice President

BY: *E. A. DeBarba*
E. A. DeBarba
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Subscribed and sworn to before me

this 14th day of April, 1994

Roger J. Dutnick

Date Commission Expires: 3/31/95