

January 16, 1996

Docket No. 50-336
E15501

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
10CFR50 Appendix J, Primary Reactor Containment Leakage Testing
Requirements for Light-Water Cooled Power Reactors Option B
Performance-Based Requirements

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its Operating License, DPR-65, for Millstone Unit No. 2 (MP2) by incorporating the attached Limiting Condition for Operation, 3.6.1 and Surveillance Requirement revisions to Section 4.6.1, "Primary Containment," and the corresponding bases, as well as, the addition of Administrative Controls Section 6.19, "Containment Leakage Rate Testing Program," into the technical specifications. These changes will allow the use of the performance-based containment leakage testing requirements described in 10CFR50, Appendix J, Option B.

Background

Licensees are required to conduct periodic primary reactor containment leakage testing in accordance with 10CFR50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." On September 26, 1995, the Staff amended the Appendix J regulation to allow the use of a performance-based option (Option B) for containment leakage testing. This option is available for voluntary adoption by licensees in lieu of the prescriptive requirements contained in Option A. Option B improves the focus of regulations by eliminating prescriptive requirements that are marginal to safety. Option B allows the test intervals for primary containment to be based on system and component performance and provides greater flexibility for cost-effective implementation methods of regulatory safety objectives.

Discussion

NNECO is proposing to adopt the Appendix J, Option B requirements by implementing a Containment Leakage Rate Testing Program in

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accordance with the guidance provided in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program."

This submittal is considered a Cost Beneficial Licensing Action by NNECO. Implementation of the performance-based containment leakage testing will save in excess of the \$100,000 guideline identified by the Staff with no reduction in public health and safety.

Attachment 1 to this letter provides the safety assessment for the proposed change. Attachment 2 provides the no significant hazards consideration determination. Attachment 3 is a copy of the marked-up version of the appropriate section of the current technical specifications. Attachment 4 provides the proposed retyped technical specification section.

Environmental Impact Evaluation

NNECO has reviewed the proposed technical specification changes in accordance with 10CFR50.92 and concludes that the changes do not involve a significant hazards consideration. NNECO has also reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations and concludes that the changes do not increase the types and amounts of effluent that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Thus, NNECO concludes that the proposal satisfies 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an environmental impact statement.

Implementation Plan

NNECO intends to implement the Containment Leakage Testing Program in April 1996 upon completion of the program development. The Containment Leakage Testing Program is being developed based on the guidance provided in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program." At this time NNECO does not intend to take any exceptions to this guidance.

Nuclear Safety Assessment Board

The Nuclear Safety Assessment Board has reviewed and concurs with the above determinations. In accordance with 10CFR50.91(b), NNECO is providing the State of Connecticut with a copy of this proposed license amendment.

Schedule

NNECO requests that the NRC Staff review and process this proposed amendment prior to April 1, 1996, to be effective upon issuance.

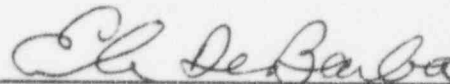
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An NRC decision is needed by this date in order to allow NNECO time to prepare for a mid-cycle surveillance shutdown. In view of this schedular constraint, NNECO will promptly provide any additional information the NRC Staff may need to respond to this request.

There are no commitments contained within this letter. Statements made within this letter are for information only. If there are any questions regarding this submittal, please contact Mr. Eric Bennett at (860) 440-2071.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



E. A. DeBarba
Vice President

cc: T. T. Martin, Region I Administrator
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2
P. D. Swetland, Senior Resident Inspector, Millstone Unit
Nos. 1, 2, and 3

Mr. Kevin T.A. McCarthy, Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Subscribed and sworn to before me

this 16th day of January, 1996

Henry J. Sherman

Date Commission Expires: 8/31/98

Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Proposed Revision to Technical Specifications
10CFR50 Appendix J, Primary Reactor Containment Leakage Testing
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Performance-Based Requirements

Safety Assessment of Proposed Changes

January 1996

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Requirements for Light-Water Cooled Power Reactors Option B
Performance-Based Requirements
Safety Assessment of Proposed Changes**

Background

In 1984, the Staff initiated a program to make regulatory requirements more efficient by eliminating those requirements that had a marginal impact on safety. The Staff recognized that some existing regulatory requirements no longer provide the safety contributions that were originally intended due to either the dynamic nature of the regulatory process or advances in technology.

The performance-based primary containment leakage testing option of 10CFR50, Appendix J, became effective on October 26, 1995. This option allows the use of a revised testing frequency for primary containment systems and components, based on performance history. The use of this option requires the implementation of a program based on Regulatory Guide 1.163, and modification of the technical specifications to reflect this program.

Description of Proposed Change

The technical specifications for Millstone Unit No. 2 will be modified as follows:

1. Limiting Condition for Operation 3.6.1.2.a-c: Replace the " \leq " with a "<" sign for consistency with Appendix J wording on leakage limits.
2. Surveillance Requirements:
 - a. Type "A" tests: Surveillance Requirements 4.6.1.2.a-c are revised to replace specific guidance with a reference to the Containment Leakage Testing Program.
 - b. Type "B & C" tests: Surveillance Requirement 4.6.1.2.d-e are revised to replace specific guidance with a reference to the Containment Leakage Testing Program.

- c. Air lock tests: Surveillance Requirements 4.6.1.3.a-c are revised to replace specific guidance with a reference to the Containment Leakage Testing Program.
 - d. Containment Linear Plate Visual Inspection: Surveillance Requirement 4.6.1.6.3 is revised to replace specific guidance with a reference to the Containment Leakage Testing Program.
 - e. Other Surveillance Requirements: 4.6.1.1.d and 4.6.1.2.g-h are replaced by the reference to the Containment Leakage Testing Program.
4. Bases section 3/4.6.1.2 Containment Leakage is revised to reflect the above changes including a reference to the Containment Leakage Testing Program. In addition, the specific value of Pa is being deleted. Since Pa is a calculated value it is possible for the value of Pa to change should the loss of coolant accident be reanalyzed.
5. Administrative Controls: Section 6.19 is added to establish a Containment Leakage Testing Program, as specified in Regulatory Guide 1.163, dated September 1995.

Safety Assessment

The changes proposed in this license amendment request revise the existing specific guidance in the technical specifications with a reference to a Containment Leakage Testing Program. The Containment Leakage Testing Program will be established in accordance with the recommendations of Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program." This program will provide the acceptance criteria and testing schedule for containment penetrations in accordance with 10CFR50, Appendix J, Option B.

The use of 10CFR50, Appendix J, Option B has been determined to have a minimal impact on public health and safety. The option allows for reduced testing of those containment penetrations which have good performance histories.

The NRC Staff has reviewed the potential impacts on safety through the use of 10CFR50, Appendix J, Option B and documented the impact in NUREG-1493, "Performance-Based Containment Leakage-Test Program." The document summarizes the impact of reducing the Type A tests from the current three tests in ten years to one test in ten years as an imperceptible increase in risk. The Type B and C

testing frequency changes are expected to contribute less than 0.1 percent (0.001) of the overall accident risk. The overall impact of the combined rule changes were very small. The use of Option B will allow the test intervals to be extended without challenging the radiological release limits from the site since most of the penetrations are periodically tested with leakage rates well below the specified limits.

The testing history of containment penetrations at Millstone Unit No. 2 has shown that the use of Option B will provide an adequate level of assurance that the containment will perform the intended function and the radiological release limits will be maintained well below the limits set in 10CFR100.

The use of Option B will also reduce the exposure to workers within the site during performance of the required testing in accordance with the Containment Leakage Testing Program. NUREG-1493 determined that for Type B and C testing, although extending the testing intervals led to minor increases in potential off-site dose consequences, the actual decrease in on-site (worker) doses exceeded (by at least an order of magnitude) the potential off-site dose increases.

The use of a performance based testing program will continue to provide assurance that the accident analysis assumptions remain bounding.

Addition of the program requirements in the Administrative section has no adverse safety consequences.

Conclusion

Based on the above, the use of 10CFR50, Appendix J, Option B in accordance with Regulatory Guide 1.163 will provide adequate assurance that the containment will perform the design function, and have minimal impact on public health and safety or radiological release limits. Therefore, the proposed license amendment is considered safe.

Attachment 2

Millstone Nuclear Power Station, Unit No. 2

Proposed Revision to Technical Specifications
10CFR50 Appendix J, Primary Reactor Containment Leakage Testing
Requirements for Light-Water Cooled Power Reactors Option B
Performance-Based Requirements
Determination of No Significant Hazards

January 1996

**Millstone Nuclear Power Station, Unit No. 2
Proposed Revision to Technical Specifications
10CFR50 Appendix J, Primary Reactor Containment Leakage Testing
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Performance-Based Requirements
Determination of No Significant Hazards Consideration**

Pursuant to 10CFR50.92, NNECO has reviewed the proposed use of 10CFR50, Appendix J, Option B Containment Leak Rate Testing criteria for Millstone Unit No. 2. NNECO concludes that these changes do not involve a significant hazards consideration since the proposed change satisfies the criteria in 10CFR50.92(c). That is, the proposed changes do not:

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

The changes involved in this license amendment request revise the testing criteria for the containment penetrations. The revised criteria will be based on the guidance in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program." This guidance allows for the use of relaxed testing frequencies for containment penetrations that have performed satisfactorily on a historical basis. The Containment Leak Rate Testing Program considers the type of service, the design of the penetration, and the safety impact of the penetration in determining the testing interval of each penetration. The NRC Staff has reviewed the potential impact of performance-based testing frequencies for containment penetrations during the development of the Option B regulation. The NRC Staff review is documented in NUREG-1493 "Performance-Based Containment Leakage Test Program." The review concluded that reducing the frequency of Type A tests (Integrated Leak Rate Tests) from three per ten years to one per ten years leads to an imperceptible increase in risk. For Type B and C testing (Local Leak Rate Tests), the change in testing frequency should not have significant impact since this leakage contributes less than 0.1 percent of the overall risk based on the existing regulations. The use of Option B will allow the extension of testing intervals with a minimal impact on the radiological release rates since most penetration leakage is continually well below the specified limits. In the accident risk evaluation, the NRC Staff noted that the accident risk is relatively insensitive to the containment leakage rate because the accident risk is dominated by accident sequences that result in failure of or bypass of the containment. The use of a performance-based testing program will continue to provide assurance that the accident analysis assumptions remain bounding.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Changes to the Administrative section describe the containment testing program only and cannot increase 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 license amendment does not change the operation or equipment of the plant. The change in the test frequency is dependent on the establishment of a Containment Leak Test Program. This test program will ensure the performance history of each penetration is satisfactory prior to the changing of any test frequency. Since the performance history of the penetration will be known, there is no possibility of the implementation of the program creating a new or different kind of accident than previously analyzed. Since there is no change to the equipment or the operation of the plant, there is no possibility of creating a new or different kind of accident than previously analyzed. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously analyzed.

Changes to the Administrative section describe the containment testing program only and cannot create a different accident from any previously analyzed.

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

During the development of 10CFR50, Appendix J, Option B, the NRC Staff determined the reduction in safety associated with the implementation of the performance-based testing program. The results of this review are documented in NUREG-1493. The review concluded that reducing the frequency of Type A tests (Integrated Leak Rate Tests) from three per ten years to one per ten years leads to an imperceptible increase in risk. For Type B and C testing (Local Leak Rate Tests), the increase in testing frequency should not have significant impact since this leakage contributes less than 0.1 percent of the overall risk-based on the existing regulations. The use of Option B will allow the extension of testing intervals with a minimal impact on the radiological release rates since most penetration leakage is continually well below the specified limits. In the accident risk evaluation, the NRC Staff noted that the accident risk is relatively insensitive to the containment leakage rate because the accident risk is dominated by

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accident sequences that result in failure of or bypass of the containment. The use of a performance based testing program will continue to provide assurance that the accident analysis assumptions remain bounding. Therefore, this change does not involve a significant reduction in the margin of safety.

Changes to the Administrative section describe the containment testing program only and cannot reduce the margin of safety.