Northeast
Utilities System

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Northeast Utilities Service Company
P.O. Box 270
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(203) 665-5000

September 19, 1995

Docket No. 50-336
B15354

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
Surveillance of Safety Injection Tanks

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its Operating License DPR-65, by incorporating the attached change into the Technical Specifications of Millstone Unit No. 2. The proposed change affects Technical Specification Section 4.5.1.b. This section number, however, has been proposed to be changed to 4.5.1.d in a recent proposed license amendment to the NRC dated August 23, 1995,(1) which addressed changes that were part of a joint Combustion Engineering Owners Group (CEOG) effort. As such, the proposed change contained in this letter will be pending review and approval of the changes contained in the letter of August 23, 1995. If the proposed changes previously submitted are not approved, then NNECO will withdraw this request and resubmit it based on the unchanged section.

The proposed amendment will reduce the frequency of the surveillance interval for boron concentration of the Safety Injection Tanks (SITs) from once per 31 days to once per six (6) months.

The proposed change is justified in part on a historical review of the Millstone Unit No. 2 surveillance data of SIT boron concentrations from 1981 through 1992. Also, this proposed

(1) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Proposed Revision to Technical Specifications, Safety Injection Tanks Allowed Outage Time Extension," dated August 23, 1995.





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amendment is a followup to NRC Inspection Report 50-336/92-35,[2] Section 2.1.4, which refers to NNECO evaluating a Technical Specifications change to reduce the frequency of the SIT surveillance and the attendant number of containment entries.

Attachment 1 to this letter provides a safety assessment of the proposed change. Attachment 2 is the determination of no significant hazards considerations (SHC). Attachment 3 is a copy of the marked-up version of the current Technical Specifications, including both the proposed change of this letter as well as the proposed changes contained in the letter of August 23, 1995. Attachment 4 is the retyped Technical Specifications section.

NNECO has reviewed the proposed Technical Specifications change in accordance with 10CFR50.92 and concludes that the change does not involve an SHC. NNECO has also reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations and concludes that the change does 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.

The prior Millstone Unit No. 2 Nuclear Review Board has reviewed the proposed change and concurred 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.

This request is considered a Cost Beneficial Licensing Action (CBLA) by NNECO. The reduction of the surveillance frequency for the SIT is anticipated to save more than the $100,000 guideline identified by the Staff without negatively affecting public health and safety. In addition, the proposed change is estimated to reduce radiological exposure by 4 rem over the remaining current licensed period of Millstone Unit No. 2.

Since this proposed license amendment is not required to support continued safe operation, NNECO is requesting NRC to review and approve at your earliest convenience subsequent to an action on the proposed license amendment of August 23, 1995, with the amendment to be implemented within 60 days of issuance.

There are no commitments contained within this letter.

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(2) U.S. Nuclear Regulatory Commission letter to J. F. Opeka, "Millstone Combined Inspection 50-245/92-33; 50-336/92-35; 50-423/92-31," dated March 3, 1993.

If the NRC Staff should have any questions or comments regarding this submittal, please contact Mr. Mario Robles at (203) 440-2073.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

J. F. Opeka
Executive 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 19th day of September, 1995

Gerard P. van Noordenne

Date Commission Expires: 12/31/97

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2
Proposed Technical Specifications Revision
Surveillance of Safety Injection Tanks

Safety Assessment of Proposed Changes

September 1995

**Millstone Nuclear Power Station, Unit No. 2**
**Proposed Technical Specifications Revision**
**Surveillance of Safety Injection Tanks**
**Safety Assessment of Proposed Changes**

## Background

Millstone Unit No. 2 is equipped with four (4) Safety Injection Tanks (SITs). The SITs are passive pressure vessels which are partially filled with borated water and pressurized with a nitrogen cover gas designed to inject into the reactor vessel (via the cold legs) during the blowdown phase of a design basis large break Loss of Coolant Accident (LOCA). The injection of borated water from all SITs is needed to ensure adequate core cooling.

To demonstrate that each SIT is operable, the surveillance requirements for each SIT include a verification of the boron concentration of the SIT solution at least once per 31 days.

## Description of Proposed Change

The current surveillance requirement in Technical Specifications Section 4.5.1.b (proposed to be Section 4.5.1.d in the proposed Technical Specifications revision letter to the NRC dated August 23, 1995[1]) requires verification of the boron concentration of the SIT solution at least once per 31 days. The proposed amendment will reduce the frequency of the surveillance interval from once per 31 days to once per six (6) months. This change is proposed based on a historical review of the Millstone Unit No. 2 surveillance data of SIT boron concentrations from 1981 through 1992, which shows that during these 12 years, the boron concentration in the SITs has consistently been greater than the required 1720 ppm.

## Safety Assessment

The SITs are credited for event mitigation following a LOCA. The SITs are assumed to contain borated water with a minimum boron concentration of 1720 ppm. The plant surveillance data taken between 1981 and 1992 shows that the SIT boron concentrations have been greater than the required minimum of 1720 ppm. The average

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(1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Proposed Revision to Technical Specifications, Safety Injection Tanks Allowed Outage Time Extension," dated August 23, 1995.

S. Boron concentration over this time frame was 1968 ppm with a standard deviation of 74 ppm. The lowest value has been 1765 ppm. Based on the data collected, the increased surveillance interval that is proposed will not impact the design basis or function of the SITs.

The boron concentrations can be reduced by boron precipitation, however, the boron concentration in the SITs is well below the solubility limit of boric acid in water which is 2.52 wt% at 32°F. This corresponds to a boron concentration of approximately 4400 ppm. As such, there is no mechanism for boric acid concentration reduction in the SITs due to boron precipitation.

Another way boron concentrations can be reduced is by dilution of SITs due to an addition of water containing a lower boron concentration (including back leakage through the SIT check valves). However, a surveillance requirement to perform a boron concentration verification upon a solution volume increase ≥ 1% of the tank volume will ensure that correct boron concentration is maintained. The proposed amendment letter of August 23, 1995, included a change to this requirement so that performing the surveillance is waived if the makeup water is from the Refueling Water Storage Tank (RWST). The minimum required boron concentration in the RWST is also 1720 ppm which ensures that the minimum SIT boron concentration requirement will be maintained.

In summary, the proposed change is safe and will not impact the design basis, operation, or function of the SITs.

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Attachment 2

Millstone Nuclear Power Station, Unit No. 2
Proposed Technical Specifications Revision
Surveillance of Safety Injection Tanks

Determination of No Significant Hazards Considerations

September 1995

**Millstone Nuclear Power Station, Unit No. 2**
**Proposed Technical Specifications Revision**
**Surveillance of Safety Injection Tanks**
**Determination of No Significant Hazards Considerations**

Pursuant to 10CFR50.92, Northeast Nuclear Energy Company (NNECO) has reviewed the proposed change. NNECO concludes that the change does not involve a significant hazards consideration since the proposed change satisfies the criteria in 10CFR50.92(c). That is, the proposed change does not:

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

   The revised Safety Injection Tank (SIT) surveillance requirements meet all design and performance criteria. The change has no affect on the ability of the SIT to perform its design function of providing borated water to the core following a depressurization as a result of a Loss of Coolant Accident (LOCA). Therefore, the changes to SIT surveillance requirements will not increase the probability or consequences of an accident previously evaluated.

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

   The revised SIT surveillance requirements meet all design and performance criteria. The change has no affect on the ability of the SIT to perform its design function of providing borated water to the core following a depressurization as a result of a LOCA. The change to the SIT surveillance requirement will 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 boron concentration of the SIT will not be affected by the change to the surveillance requirement. The boron concentration within the SIT will continue to be monitored on a basis consistent with the historical performance. These changes will have no impact on the margin of safety.

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Attachment 3

Millstone Nuclear Power Station, Unit No. 2
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Marked-up Pages

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