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March 23, 1994

Docket No. 50-423
B14784

RE: 10CFR50.90

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

Millstone Nuclear Power Station - Unit No. 3
Proposed Revision to Technical Specification
Area Temperature Monitoring

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its operating License No. NPF-49 by incorporating the attached proposed change into the technical specifications of Millstone Unit No. 3.

Description of the Proposed Change

NNECO proposes to modify Technical Specification Table 3.7-6, "Area Temperature Monitoring," by creating two zones for the main steam valve building (MSVB) and increasing the maximum normal excursion (MNE) temperature limit for this area from 120°F to 140°F. Technical Specification Table 3.7-6 currently identifies the entire MSVB with a temperature limit of 120°F. Due to the high elevation of the main steam lines in this building, the heat from these lines concentrates near the roof and results, at times, in temperatures that exceed the 120°F limit. The proposed change creates two new zones, both with the MNE temperature limit of 140°F. This new limit is sufficient to meet the expected temperatures in this area and will not impact equipment operability. Two new zones are required since the normal maximum average (NMA) temperature will be different for these two zones. This change is justified based on the recently-completed engineering evaluation which will allow the MNE to increase up to 140°F in the MSVB.

Safety Assessment

The electrical equipment qualification (EEQ) program for Millstone Unit Nc. 3 utilizes NMA temperature values from Chapter 3, Appendix A, of the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) as input to the EEQ life. This NMA is defined as a weighted average temperature within the normal design temperature. The NMA temperature occurs 99 percent of the total time used when calculating qualified life.

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The technical specification limits are based on the MNE values also found in the FSAR Chapter 3, Appendix A. These values are automatically verified by the environmental conditions system (ECS) temperature monitoring computer system. The MNE values are defined as occurring during 1 percent of the total time calculated for qualified life. The MNE value of 140°F was evaluated for all EEQ equipment in the MSVB and was determined to have a negligible effect on the 40 year qualified life.

The two new zones are necessary since the ECS temperature monitoring program has shown values to be 104°F NMA above elevation 58 feet and 85°F NMA for everything below elevation 58 feet.

The establishment of a technical specification temperature limit of 140°F for the MNE temperature in the MSVB provides a more realistic temperature limit for this area. The building and the piping that go through area MS-01 have on occasion resulted in temperatures that have approached or exceeded the 120°F temperature limit. When this has occurred the appropriate action statement in Technical Specification 3.7.14 was followed. In order to limit future entry into the technical specification action statement, an evaluation was conducted to determine if the equipment in the area would be able to support a higher MNE temperature. The revised MNE temperature was evaluated against the transient temperature profile in the MSVB. This evaluation also identified any potential impact on the equipment qualification master list. The results of this evaluation determined that the current list is not impacted. The new excursion temperature and the ensuing failure modes are the same as the existing temperature limit. The proposed temperature change has been verified against the equipment's type tested temperature data and is bounded. The overall qualified life for the equipment has decreased slightly due to the exposure to these higher temperatures. The thermal life summary has been revised to ensure these components will be replaced when required. For example, a coil in an ASCO solenoid valve had a qualified life of 7.3 years. As a result of this MNE temperature increase, the qualified life has decreased slightly to 7.23 years. Therefore, this change is safe because the increase in the temperature limit will not impact normal operation and the equipment's qualification report is bounded by 140°F. Also, it has been shown that the equipment is qualified at the revised main steam line break (MSLB) profile for the MSVB.

Significant Hazards Consideration

In accordance with 10CFR50.92, NNECO has reviewed the attached proposed change and has concluded that it does 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 change does not involve an SHC because the change would not:

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

The increase of the MNE temperature from 120°F to 140°F for the main steam valve building has been evaluated. The equipment in the building has been shown to be qualified for continuous operation at 140°F. The effect of this temperature change has decreased slightly the qualified life of the components in the building. For those components with a qualified life of less than 40 years, they will be replaced as a scheduled maintenance item. An engineering review of the MSLB profile for this building was conducted and it was concluded that those components required to operate post accident, will continue to perform their safety function. Therefore, since the equipment will continue to operate as designed both during normal conditions and subsequent to a MSLB, the probability or consequences of an accident previously evaluated is not increased.

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

   The effect of increasing the MNE temperature to 140°F has been evaluated and judged acceptable. The possible failure of the equipment in this building due to the increase in temperature is no more likely than it was before, since the equipment has been shown to be qualified to 140 F. Failure of any equipment in this building at the new temperature will not create any new accidents or consequences that were not considered previously.

   Finally, since there are no changes in the way the plant is operated, there is no possibility of an accident of a new or different type than previously evaluated due to the proposed change.

3. Involve a significant reduction in margin of safety.

   The proposed change increases the MNE temperature within the MSVB. The equipment in the building has been reviewed to ensure operability. There is a slight decrease in the qualified life, but this was anticipated and scheduled previously and any such replacement of equipment will continue as a maintenance item. A review of the MSLB profile was performed for this area and it was shown that the required equipment will continue to operate as required.

Moreover, the Commission has provided guidance concerning the application of standards in 10CFR50.92 by providing certain examples (March 6, 1986, 51FR7751) of amendments that are considered not likely to involve an SHC. The proposed change is not specifically covered by the examples provided, but it has been shown that the change will not increase the probability or consequences of an accident previously evaluated. Nor will the change create the possibility of a new or different kind of accident nor significantly impact the margin of safety since all equipment will continue to operate as designed at this new temperature limit.

NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not involve a SHC, nor 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. 3 Nuclear Review Board has reviewed and approved the proposed license amendment and has concurred with the above determination.

Attachment 1 provides a markup of proposed changes, whereas Attachment 2 provides the retyped pages of the technical specifications. The retype of the proposed changes to technical specifications in Attachment 2 reflects the currently issued version of technical specifications. Technical specification changes previously submitted are not reflected in these pages. Therefore, the revised pages should be reviewed for continuity with the current technical specifications prior to issuance.

Regarding our proposed schedule for this amendment, we request issuance no later than July 1, 1994, with the amendment effective as of the date of issuance, to be implemented within 30 days of issuance. This timing is necessary so that this technical specification is in place prior to the time the main steam valve building may experience elevated temperatures. This request will avoid future anticipated entry into the technical specification action statement.

In accordance with 10CFR50.91(b), we are hereby providing the State of Connecticut with a copy of this proposed amendment.

If you should have any questions regarding this submittal, please contact us.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

J. F. Opeka
Executive Vice President

cc: See Page 5

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
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Mr. Kevin T. D. McCarthy, Director
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Subscribed to and sworn to before me

this 23rd day of March, 1994

Lorraine J. D'Amico

Date Commission Expires: 3/31/95