



May 6, 1994

Docket No. 50-336  
B14818

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  
Electrical Power Systems - DC Distribution

### Introduction

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend Operating License No. DPR-65 by incorporating the changes identified herein into the Technical Specifications of Millstone Unit No. 2. In this submittal, NNECO proposes to modify the Limiting Conditions for Operation (LCO) for Millstone Unit No. 2 Technical Specifications 3.8.2.3 and 3.8.2.4, and the surveillance requirement of Technical Specification 4.8.2.3.2.c.3. The intent of the proposed changes is to permit Millstone Unit No. 2 to take advantage of a recent reevaluation of the design of the 125 VDC system.

The proposed changes are discussed in detail below. Attachments 1 and 2 provide the marked-up and retyped pages of the Millstone Unit No. 2 Technical Specifications, respectively.

### Background

The original plant design determined that a DC bus battery charger capacity of 800 amperes was required. The design was based on an estimated continuous load of 346 amperes and a required charging current of 416 amperes for a total of 762 amperes. The charging current would have recharged the discharged battery in 5.5 hours. This evaluation was based on a strategy which utilized one charger/one battery per DC bus.

In 1973, a reevaluation of DC loads was conducted. It utilized actual loads (not nameplate data), and assumed the worst case condition by cross tying both DC buses and supplying both buses with one battery and one battery charger. The evaluation concluded that each DC bus would have a continuous load of 180 amperes each (360 amperes total), plus 170 amperes of charging capacity.

In support of the recent Millstone Unit No. 2 electrical distribution system functional inspection (EDSFI), the design of the 125 VDC systems was reevaluated. The battery and battery charger sizing calculations completed in 1993 determined that 400 amperes of battery charger capacity could supply the connected load and recharge a fully discharged battery within the 12-hour design basis as discussed in Section 8.5.3.1 of the Millstone Unit No. 2 Final Safety Analysis Report (FSAR).

#### Description of the Proposed Changes

NNECO is proposing to modify the LCOs for Millstone Unit No. 2 Technical Specifications 3.8.2.3 and 3.8.2.4, and the surveillance requirement of Technical Specification 4.8.2.3.2.c.3.

NNECO proposes to modify the LCO for Technical Specification 3.8.2.3 by replacing the phrase "and a full capacity charger" with the phrase "and at least 400 ampere charging capacity."

NNECO proposes to modify the LCO for Technical Specification 3.8.2.4 by replacing the phrase "and charger" with the phrase "and at least 400 ampere charging capacity."

NNECO proposes to modify Surveillance 4.8.2.3.2.c.3 by replacing the phrase "at least 800 amperes at a minimum of 130 volts for at least 8 hours" with the phrase "at least 400 amperes at a minimum of 130 volts for at least 12 hours."

#### Safety Assessment

In 1993, the battery and battery charger sizing calculations were revised to support the Millstone Unit No. 2 EDSFI. These calculations demonstrated that a charger capacity of 400 amperes is sufficient to provide the continuous DC loads, and is capable of recharging a fully discharged station battery in a timely manner consistent with the design basis as discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. The calculations determined that the largest continuous load for a DC bus was 154 amperes. Based on this result, 400 amperes of charging capacity could provide 246 amperes to recharge a battery. The calculation demonstrated that this charging capacity could recharge a battery in 10.37 hours; this recharging time is within the 12-hour recharging time discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. Additionally, this recharging time is more conservative than the 24-hour recharging

time stated in Section 8.3.2 of the original Safety Evaluation for Millstone Unit No. 2.<sup>(1)</sup>

These proposed changes are safe and do not impact public health and safety. The battery chargers are capable of recharging the batteries within the time specified in the Millstone Unit No. 2 FSAR. Also, the proposed changes do not alter the existing DC bus configuration. This bus configuration has been previously determined to be acceptable.

#### Significant Hazards Consideration

NNECO has reviewed the proposed changes in accordance with 10CFR50.92 and concluded that the changes 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:

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

In 1993, revised battery and battery charger sizing calculations demonstrated that a charger capacity of 400 amperes is sufficient to provide the continuous DC loads, and is capable of recharging a fully discharged station battery in a timely manner consistent with the design basis discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. The calculations determined that the largest continuous load was 154 amperes; therefore, 400 amperes of charging capacity could provide 246 amperes to recharge a battery. The calculations conservatively demonstrated that this charging capacity could recharge a battery in 10.37 hours. This recharging time is well within the 12-hour recharging time discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. Additionally, this recharging time is more conservative than the 24-hour recharging time stated in Section 8.3.2 of the original Safety Evaluation for Millstone Unit No. 2. Therefore, the proposed changes do not involve a significant increase in

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(1) O. D. Parr letter to D. C. Switzer, transmitting the "Safety Evaluation by the Directorate of Licensing, U. S. Atomic Energy Commission, in the matter of the Connecticut Light and Power Company, the Hartford Electric Light Company, Western Massachusetts Electric Company, Millstone Point Company, Millstone Nuclear Power Station, Unit 2, Docket No. 50-336," dated May 10, 1974.

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 LCO and surveillance changes do not alter the existing DC bus configuration, as described in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. This bus configuration has been previously analyzed, and was found acceptable. The proposed changes also meet the recharging time specified in the design basis. Therefore, 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.

In 1993, revised battery and battery charger sizing calculations demonstrated that a charger capacity of 400 amperes is sufficient to provide the continuous DC loads, and is capable of recharging a fully discharged station battery in a timely manner consistent with the design basis discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. The calculations determined that the largest continuous load was 154 amperes; therefore, 400 amperes of charging capacity could provide 246 amperes to recharge a battery. The calculations conservatively demonstrated that this charging capacity could recharge a battery in 10.37 hours. This recharging time is well within the 12-hour recharging time discussed in Section 8.5.3.1 of the Millstone Unit No. 2 FSAR. Additionally, this recharging time is more conservative than the 24-hour recharging time stated in Section 8.3.2 of the original Safety Evaluation for Millstone Unit No. 2. Therefore, the proposed changes do not involve a significant 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 an SHC. Although the changes proposed herein are not enveloped by a specific example, they do not involve an SHC. Analysis has demonstrated that 400 amperes of charging capacity is sufficient to supply the DC loads, and to recharge a battery within the design basis as discussed in the Millstone Unit No. 2 FSAR.

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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.

Nuclear Review Board Review

The Millstone Unit No. 2 Nuclear Review Board has reviewed and concurred with the above determinations.

Schedule for NRC Staff Review

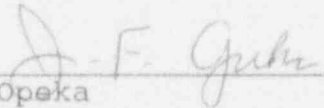
This request is not necessary for continued plant operation, as such, no specific schedule for approval and issuance is requested. However, we request that the changes be effective upon issuance, with implementation within 30 days.

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

If you have any questions concerning this submittal, please contact Mr. R. H. Young, Jr. at (203) 665-3717.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
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Executive Vice President

cc: T. T. Martin, Region I Administrator  
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Subscribed and sworn to before me

this 6 day of May, 1994

Lorraine J. O'Brien

Date Commission Expires: 3/31/98