

July 2, 1996

Mr. Ted C. Feigenbaum  
Executive Vice President and  
Chief Nuclear Officer  
Northeast Utilities Service Company  
c/o Mr. Terry L. Harpster  
Director - Nuclear Licensing Services  
P.O. Box 128  
Waterford, CT 06385

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M94466)

Dear Mr. Feigenbaum:

The Commission has issued the enclosed Amendment No.199 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Unit No. 2, in response to your application dated December 18, 1995.

The amendment changes the reactor coolant low flow trip allowable value for the reactor protective instrumentation trip setpoint in Technical Specification Table 2.2-1. The word flow was added for clarification.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by:

Daniel G. McDonald, Senior Project Manager  
Northeast Utilities Project Directorate  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 199 to DPR-65  
2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in cursive script that reads "Daniel G. McDonald Jr.".

Daniel G. McDonald, Senior Project Manager  
Northeast Utilities Project Directorate  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-336

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2. Safety Evaluation

cc w/encs: See next page

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Millstone Nuclear Power Station  
Unit 2

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

NORTHEAST NUCLEAR ENERGY COMPANY  
THE CONNECTICUT LIGHT AND POWER COMPANY  
THE WESTERN MASSACHUSETTS ELECTRIC COMPANY  
DOCKET NO. 50-336  
MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 199  
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Northeast Nuclear Energy Company, et al. (the licensee) dated December 18, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 199, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Phillip F. McKee, Director  
Northeast Utilities Project Directorate  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: July 2, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 199

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

Replace the following page of the Appendix A, Technical Specifications, with the attached page. The revised pages is identified by amendment number and contains vertical lines indicating the areas of change.

Remove

Page 2-4

Insert

Page 2-4

TABLE 2.2-1  
REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

	<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
1.	Manual Reactor Trip	Not Applicable	Not Applicable
2.	Power Level-High Four Reactor Coolant Pumps Operating	$\leq 9.6\%$ above THERMAL POWER, with a minimum setpoint of $\leq 14.6\%$ of RATED THERMAL POWER.	$\leq 9.7\%$ Above THERMAL POWER, with a minimum of $\leq 14.7\%$ of RATED THERMAL POWER, and a maximum of $\leq 106.7\%$ of RATED THERMAL POWER.
3.	Reactor Coolant Flow - Low (1)	$\geq 91.7\%$ of reactor coolant flow with 4 pumps operating*.	$\geq 90.9\%$ of reactor coolant flow with 4 pumps operating.
4.	Reactor Coolant Pump Speed - Low	$\geq 830$ rpm	$\geq 823$ rpm
5.	Pressurizer Pressure - High	$\leq 2400$ psia	$\leq 2408$ psia
6.	Containment Pressure - High	$\leq 4.75$ psig	$\leq 5.24$ psig
7.	Steam Generator Pressure - Low (2) (5)	$\geq 680$ psia	$\geq 672$ psia
8.	Steam Generator Water Level - Low (5)	$\geq 36.0\%$ Water Level - each steam generator	$\geq 35.2\%$ Water Level - each steam generator
9.	Local Power Density - High (3)	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-1 and 2.2-2 (4).	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-1 and 2.2-2 (4).

\*Design Reactor Coolant flow with 4 pumps operating is the lesser of either:  
a. The reactor coolant flow rate measured per Specification 4.2.6.1, or  
b. The minimum value specified in the CORE OPERATING LIMITS REPORT.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 199

TO FACILITY OPERATING LICENSE NO. DPR-65

NORTHEAST NUCLEAR ENERGY COMPANY

THE CONNECTICUT LIGHT AND POWER COMPANY

THE WESTERN MASSACHUSETTS ELECTRIC COMPANY

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By letter dated December 18, 1995, the Northeast Nuclear Energy Company, et al. (the licensee) submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 2 Technical Specifications (TS). The requested changes would change Reactor Coolant Flow - Low Flow in TS Table 2.2-1, "Reactor Instrumentation Protective Trip Setpoint Limits." The proposed change increases the allowable value from  $\geq 90.1\%$  to  $\geq 90.9\%$  of the reactor coolant flow with four pumps operating. As an editorial change for clarification, the word "flow" is proposed to be added after "reactor coolant" in the above sentence.

2.0 BACKGROUND

During the last refueling outage, the licensee implemented hardware changes that corrected deficiencies in the reactor coolant system flow loop instrumentation and the associated uncertainty in the allowable value calculation. These deficiencies previously resulted in errors which exceeded the Safety Analysis Report assumptions for design basis accidents. The new hardware configuration results in calculated uncertainties that are bounded by the Safety Analysis Report assumptions.

As a result of these changes, the licensee revised the reactor coolant system low flow trip setpoint analysis. The licensee referenced procedure NUSCO Document No. SP-EE-315, Rev. 1, "Millstone Unit 2 Guidelines for Calculating Setpoints for Safety Systems," for the calculation methodology used to determine the new allowable value and trip setpoint required.

### 3.0 EVALUATION

The analytical limit for reactor coolant system low flow is 89.7% flow. By taking into account an allowance for total loop uncertainty, the new calculation determined that the trip setpoint should be set at greater than or equal to 91.2% flow. The current TS trip setpoint is  $\geq 91.7\%$  flow; therefore, the new calculation results did not necessitate a change to the trip setpoint as it is more conservative and bounded by the existing setpoint. By factoring in an allowance for all uncertainty terms except the bistable term, which is observed during monthly surveillance tests, the new calculation determined that the allowable value should be set at greater than or equal to 90.9% flow. The current TS allowable value is  $\geq 90.1\%$ , which is not appropriate based on the new calculation.

The licensee indicated that the proposed new allowable value of  $\geq 90.9\%$  of reactor coolant flow will continue to assure adequate forewarning of any setpoint degradation in the instrumentation prior to violating the safety limit credited in the Safety Analysis Report. The licensee further indicated that the proposed changes do not affect the consequences of any accidents previously analyzed and there is no reduction in a margin of safety. Based on our review we agree with the findings.

The staff has determined that the new allowable value accounts for more uncertainty in the calculation resulting in a more conservative value than the previous TS value. In addition, the proposed change to add the word "flow" is editorial in nature and provides additional clarification.

### 4.0 SUMMARY

The staff has reviewed the licensee's proposed changes to establish a new allowable value for low reactor coolant system flow and to revise the wording under the allowable value column in TS Table 2.2-1. Based on its review, the staff concludes that the proposed new allowable value of  $\geq 90.9\%$  of reactor coolant flow accounts for revised calculational uncertainty terms and will assure adequate forewarning of any setpoint degradation in the instrumentation prior to violating the safety limit credited in the Safety Analysis Report. Therefore, this change is acceptable. The wording change to add the word "flow" reflects an editorial correction, and is, therefore, acceptable.

### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no

significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (61 FR 5815). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: S. Wittenberg  
H. Balukjian

Date: July 2, 1996