50-336

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

February 9, 1998

Mr. Martin L. Bowling
Recovery Officer-Millstone
Unit No. 2
Northeast Nuclear Energy Company
c/o Ms. Patricia A. Loftus
Director - Regulatory Affairs
P.O. Box 128
Waterford, CT 06385

SUBJECT: ISSUANCE OF AMENDMENT RELATING TO THE TECHNICAL SPECIFICATIONS FOR THE ULTIMATE HEAT SINK- MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2 (TAC NO. M98277)

Dear Mr. Bowling:

The Commission has issued the enclosed Amendment No. 213 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Unit 2, in response to your application dated March 27, 1997, as supplemented on September 25, 1997.

The amendment revises Technical Specifications (TSs) Limiting Condition for Operation (LCO) 3.7.11 and Surveillance Requirement (SR) 4.7.11 for the ultimate heat sink. TS LCO 3.7.11 is changed to indicate that the ultimate heat sink is operable at a water temperature of less than or equal to 75 °F instead of an average value. The use of average when verifying the water temperature and the reference to a specific monitoring location are deleted in TS SR 4.7.11.a and b. The TS Bases 3/4.7.11 is also modified to reflect the above changes.

A license condition was also included in Appendix B of the license, which is a list of additional license conditions. This license condition was discussed with your staff in a conference call on December 15, 1997, and your staff agreed to the inclusion of the license condition for approving the amendment.

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,

Daniel G. McDonald Jr., Sr. Project Manager
Special Projects Office - Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 213 to DPR-65
2. Safety Evaluation

cc w/encls: See next page

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 Jr., Sr. Project Manager
Special Projects Office - Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 213 to DPR-65
2. Safety Evaluation

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cc:

Lillian M. Cuoco, Esquire
Senior Nuclear Counsel
Northeast Utilities Service Company
P. O. Box 270
Hartford, CT 06141-0270

Mr. John Buckingham
Department of Public Utility Control
Electric Unit
10 Liberty Square
New Britain, CT 06051

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

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

First Selectmen
Town of Waterford
Hall of Records
200 Boston Post Road
Waterford, CT 06385

Mr. Wayne D. Lanning
Deputy Director of Inspections
Special Projects Office
475 Allendale Road
King of Prussia, PA 19406-1415

Charles Brinkman, Manager
Washington Nuclear Operations
ABB Combustion Engineering
12300 Twinbrook Pkwy, Suite 330
Rockville, MD 20852

Senior Resident Inspector
Millstone Nuclear Power Station
c/o U.S. Nuclear Regulatory Commission
P.O. Box 513
Niantic, CT 06357

Mr. F. C. Rothen
Vice President - Work Services
Northeast Utilities Service Company
P. O. Box 128
Waterford, CT 06385

Ernest C. Hadley, Esquire
1040 B Main Street
P.O. Box 549
West Wareham, MA 02576

Mr. D. M. Goebel
Vice President - Nuclear Oversight
Northeast Utilities Service Company
P. O. Box 128
Waterford, CT 06385

Mr. David Amerine
Vice President - Nuclear Engineering
and Support
Northeast Utilities Service Company
P. O. Box 128
Waterford, CT 06385

Mr. Allan Johanson, Assistant Director
Office of Policy and Management
Policy Development and Planning
Division
450 Capitol Avenue - MS# 52ERN
P. O. Box 341441
Hartford, CT 06134-1441

Mr. M. H. Brothers
Vice President - Operations
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385

Mr. J. A. Price
Unit Director - Millstone Unit 2
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385

cc:
Mr. B. D. Kenyon
Chief Nucler Officer - Millstone
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385

Citizens Regulatory Commission
ATTN: Ms. Susan Perry Luxton
180 Great Neck Road
Waterford, CT 06385

Deborah Katz, President
Citizens Awareness Network
P. O. Box 83
Shelburne Falls, MA 03170

The Honorable Terry Concannon
Co-Chair
Nuclear Energy Advisory Council
Room 4035
Legislative Office Building
Capitol Avenue
Hartford, CT 06106

Mr. Evan W. Woollacott
Co-Chair
Nuclear Energy Advisory Council
128 Terry's Plain Road
Simsbury, CT 06070

Little Harbor Consultants, Inc.
Millstone - ITPOP Project Office
P. O. Box 0630
Niantic, CT 06357-0630

Mr. Daniel L. Curry
Project Director
Parsons Power Group Inc.
2675 Morgantown Road
Reading, PA 19607

Mr. Don Schopfer
Verification Team Manager
Sargent & Lundy
55 E. Monroe Street
Chicago, IL 60603

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

NORTHEAST NUCLEAR ENERGY COMPANY

THE CONNECTICUT LIGHT AND POWER COMPANY

AND WESTERN MASSACHUSETTS ELECTRIC COMPANY

DOCKET NO. 50-336

MILLSTONE NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 213
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment filed by Northeast Nuclear Energy Company, et al. (the licensees) dated March 27, 1997, as supplemented on September 25, 1997, 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, Facility Operating License No. DPR-65 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. 213 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. Accordingly, the license is also amended to add an additional condition to Appendix B and Paragraph 2.C.(5) of Facility Operating License No. DPR-65 to is hereby amended to read as follows:

(5) Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 213 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the additional conditions.

4. The license amendment is effective as of its date of issuance to be implemented as follows. The Technical Specification changes shall be implemented within 30 days from the date of issuance of this amendment. The Additional Conditions shall be implemented as stated in Appendix B to the license.

FOR THE NUCLEAR REGULATORYCOMMISSION

Phillip F. McKee
Deputy Director for Licensing
Special Projects Office
Office of Nuclear Reactor Regulation

Attachments: 1. Changes to Technical Specifications
2. Appendix B - Additional Conditions

Date of Issuance: February 9, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 213

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

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

Remove	Insert
3/4 7-34	3/4 7-34
B 3/4 7-7	B 3/4 7-7
Appendix B	Appendix B

PLANT SYSTEMS

3/4.7.11 ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.11 The ultimate heat sink shall be OPERABLE with a water temperature of less than or equal to 75°F.

APPLICABILITY: MODES 1, 2, 3, AND 4

ACTION:

With the requirements of the above specification not satisfied, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.11 The ultimate heat sink shall be determined OPERABLE:

a. At least once per 24 hours by verifying the water temperature to be within limits.

b. At least once per 6 hours by verifying the water temperature to be within limits when the water temperature exceeds 70°F.

3/4.7.10 DELETED

3/4.7.11 ULTIMATE HEAT SINK

The limitations on the ultimate heat sink temperature ensure that sufficient cooling capacity is available to either,

1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on maximum temperature are based on a 30-day cooling water supply to safety related equipment without exceeding their design basis temperature.

Various indications are available to monitor the temperature of the ultimate heat sink (UHS). The following guidelines apply to ensure the UHS Technical Specification limit is not exceeded.

The control room indications are normally used to ensure compliance with this specification. Control room indications are acceptable because of the close correlation between control room indications and local Service Water System (SWS) header indications (historically within approximately 2°F). The highest reading valid temperature obtained from the Unit 2 intake structure and the inlets to the Circulating Water System water boxes shall be used to verify the UHS temperature limit of 75°F is not exceeded.

When the highest reading valid control room indication indicates the temperature of the UHS is > 70°F, local SWS header indications must be used. The highest reading valid local SWS header temperature shall be used to verify the UHS temperature limit of 75°F is not exceeded. Normally, local SWS header temperature will be taken at the inlet to the vital AC switchgear room cooling coils. If the local SWS header temperature cannot be taken at the inlet to the vital AC switchgear room cooling coils, the inlet to the Reactor Building Closed Cooling Water heater exchangers, or other acceptable instrumentation should be used to determine SWS header temperature.

APPENDIX B

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-65

Northeast Nuclear Energy Company shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Conditions	Implementation Date
212	This amendment authorizes the licensee to incorporate in the Updated Final Safety Analysis Report certain changes to the description of the facility. Implementation of this amendment is the incorporation of these changes as described in Attachment 3 of the licensee's application dated September 3, 1997, and evaluated in the staff's Safety Evaluation dated January 23, 1998.	30 days from the date of issuance
213	This amendment requires the licensee to incorporate in the Updated Final Safety Analysis Report (UFSAR) certain changes to the description of the facility. Implementation of this amendment is the incorporation of the changes described in the licensee's application dated March 27, 1997, supplemented on September 25, 1997, and evaluated in the staff's Safety Evaluation dated February 9, 1998. The description shall include details on selection of instruments and consideration of their accuracies for measuring ultimate heat sink temperatures greater than 70 °F.	Next update of the UFSAR

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 213

TO FACILITY OPERATING LICENSE NO. DPR-65

NORTHEAST NUCLEAR ENERGY COMPANY

THE CONNECTICUT LIGHT AND POWER COMPANY

AND WESTERN MASSACHUSETTS ELECTRIC COMPANY

MILLSTONE NUCLEAR POWER STATION, UNIT 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By letter dated March 27, 1997, as supplemented on September 25, 1997, the Northeast Nuclear Energy Company, et al. (the licensee) submitted a request for changes to the Millstone Nuclear Power Station, Unit 2, Technical Specifications (TSs). The proposed changes to the TSs would modify the limiting condition for operation (LCO) and surveillance requirement (SR) for the ultimate heat sink (UHS). The September 25, 1997, letter provided clarifying information that did not change the scope of the March 27, 1997, application and the initial proposed no significant hazards consideration determination.

Specifically, TS LCO 3.7.11 would be changed to indicate that the UHS is operable at a water temperature of less than or equal to 75 °F instead of an average value. TS SR 4.7.11.a and .b would also delete the use of average when verifying the water temperature and delete the reference to a specific monitoring location (the Unit 2 intake structure). These proposed changes do not change the current UHS temperature limit, which remains at a maximum of 75 °F, nor do they change the current surveillance intervals of once per 24 hours to verify the UHS temperature and every 6 hours if the UHS temperature exceeds 70 °F. TS Bases 3/4.7.11 would also be modified to reflect the above changes.

2.0 BACKGROUND

The UHS for Millstone Unit No. 2 is the Long Island Sound, which transfers heat from safety-related systems during normal and accident conditions.

The UHS provides cooling water necessary to ensure the adequate removal of heat for normal shutdown and to mitigate the consequences of design basis accidents. The service water system takes its suction from the UHS and provides the necessary cooling to several systems including the reactor building closed water cooling system and the emergency diesel generators.

Amendment No. 145 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Unit 2, was issued on June 12, 1990. The amendment added TS 3.7.11, which requires

that the UHS operability be determined by measuring the average temperature at the intake structure.

Licensee Event Report (LER) 50-336/96-037-00, dated December 31, 1996, identified a deficiency in the surveillance procedure used to verify the UHS temperature. The surveillance procedure used the higher reading of either the single temperature instrument located at the intake structure or the average inlet temperature of the circulating water system instruments until the temperature exceeds 70 °F. Above 70 °F, local indicators in the service water header are used. Thus, since there is only one instrument at the intake structure, the current TS requirement to use an average temperature measured at the intake structure cannot be met. However, as noted, instruments located at different locations are available to accurately measure the UHS temperature.

3.0 EVALUATION

The proposed changes would delete the reference to a monitoring location where the temperature of the UHS is measured, eliminate the use of an average UHS temperature, and would modify the TS Bases section to reflect these changes. Neither the current UHS temperature limit of 75 °F nor the specified surveillance intervals would be altered by the proposed changes.

The licensee proposes to utilize the highest valid indication from the control room temperature indicators, which receive inputs from the intake structure instrument or the circulating water system instruments located at the inlets to the water boxes. These temperature indicators have historically been within 2 °F of the local readings of the temperature instruments located in the service water system. These indications would be used for UHS temperatures up to 70 °F. When the UHS temperature exceeds 70 °F, the highest valid local temperature indication of the service water system will be used. This reading is normally taken at local instrumentation located in the inlet to the vital AC switchgear room cooling coils or, if not available, at the local instrumentation located in the inlet to the reactor building closed cooling water heat exchangers. The licensee indicated that the water temperature is expected to be slightly higher at the local locations due to the energy required to pump the water from the intake structure. It is further noted that other instrumentation in the service water system may be used to determine the temperature if instrumentation is not available at the two preferred local locations for temperatures above 70 °F.

The licensee did not address the impact of instrument accuracies in its initial submittal for instrumentation used to monitor temperatures above 70 °F. The September 25, 1997, submittal addressed this issue. The licensee indicated that instrument uncertainty will be accounted for in the associated surveillance procedures of the local service water header instrumentation previously discussed. If both preferred local indications are not available, an alternative would be required. Other installed instrumentation in the service water system, located at other locations, or the use of temporary instrumentation would be considered by the licensee under these circumstances. Any alternative considered would take into account instrument inaccuracies by lowering the acceptance criteria to less than the 75 °F TS limit. This commitment is included in Appendix B to the license.

Monitoring the highest valid remote location when the UHS temperature is below 70 °F and accounting for instrument error when using local indicators when the UHS temperature is above 70 °F is more conservative than the current TS requirement utilizing an average temperature measurement at the intake structure.

Thus, the instrumentation available to verify the UHS temperature, based on the preceding information, provides reasonable assurance that the plant will be operated within its design basis and TS UHS temperature limit of 75 °F. Therefore, the NRC staff has determined that the proposed changes to TS LCO 3.7.11, SR 4.7.11.a, SR 4.7.11.b, and the supporting TS Bases are acceptable.

4.0 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.

5.0 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 and changes surveillance requirements. 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 (62 FR 19831 dated April 23, 1997). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). 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.

6.0 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 Contributor: D. McDonald

Date: February 9, 1998