

October 21, 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 RELATING TO TESTING SEALED SOURCES FOR  
CONTAMINATION AND LEAKAGE - MILLSTONE NUCLEAR POWER STATION,  
UNIT NO. 2 (TAC NO. M94106)

Dear Mr. Feigenbaum:

The Commission has issued the enclosed Amendment No. 204 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Unit No. 2, in response to your application dated November 21, 1995.

The amendment changes Technical Specification Section 5.2.2, "Design Pressure and Temperature," to clarify that the reactor containment design temperature is an equilibrium liner temperature and not the air temperature. The supporting Technical Specification Bases is updated to reflect the change and to include the main steam line break accident, in addition to the loss-of-coolant accident, as the limiting events affecting the containment temperature and pressure.

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  
Northeast Utilities Project Directorate  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 204 to DPR-65  
2. Safety Evaluation

cc w/encls: 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. 204  
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 November 21, 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.

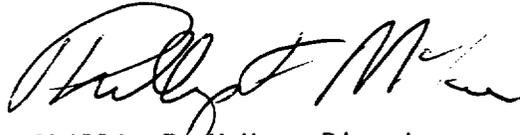
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 204, 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: October 21, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 204

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

Replace the following pages of the 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

5-4

B 3/4 6-2

Insert

5-4

B 3/4 6-2

## DESIGN FEATURES

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### DESIGN PRESSURE AND TEMPERATURE

5.2.2 The reactor containment building is designed and shall be maintained for a maximum internal pressure of 54 psig and an equilibrium liner temperature of 289°F.

### PENETRATIONS

5.2.3 Penetrations through the reactor containment building are designed and shall be maintained in accordance with the original design provisions contained in Section 5.2.8 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

### 5.3 REACTOR CORE

#### FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 217 fuel assemblies with each fuel assembly containing 176 rods. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.5 weight percent of U-235.

#### CONTROL ELEMENT ASSEMBLIES

5.3.2 The reactor core shall contain 73 full length and no part length control element assemblies. The control element assemblies shall be designed and maintained in accordance with the original design provisions contained in Section 3.0 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

### 5.4 REACTOR COOLANT SYSTEM

#### DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

- a. In accordance with the code requirements specified in Section 4.2.2 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2500 psia, and
- c. For a temperature of 650°F except for the pressurizer which is 700°F.

## CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that the containment peak pressure does not exceed the design pressure of 54 psig during MSLB or LOCA conditions.

The maximum peak pressure is obtained from a MSLB event. The limit of 2.1 psig for initial positive containment pressure will limit the total pressure to less than the design pressure and is consistent with the accident analyses.

#### 3/4.6.1.5 AIR TEMPERATURE

The limitation on containment air temperature ensures that the containment air temperature does not exceed the worst case combined LOCA/MSLB air temperature profile and the liner temperature of 289°F. The containment air and liner temperature limits are consistent with the accident analyses.

#### 3/4.6.1.6 CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment vessel will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to ensure that the vessel will withstand the design pressure of 54 psig in the event of a LOCA or MSLB. The measurement of containment tendon lift off force, the visual and metallurgical examination of tendons, anchorages and liner and the Type A leakage tests are sufficient to demonstrate this capability.

The surveillance requirements for demonstrating the containment's structural integrity are in compliance with the recommendations of Regulatory Guide 1.35 "Inservice Surveillance of Ungrouted Tendons in Prestressed Concrete Containment Structures."



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 204

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 November 21, 1995, the Northeast Nuclear Energy Company, et al. (the licensee) submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 2 (Millstone Unit 2), Technical Specifications (TSs). The requested changes would revise TS Section 5.2.2, "Design Pressure and Temperature," to clarify that the reactor containment temperature is an equilibrium liner temperature and not the air temperature. The supporting Bases Sections 3/4.6.1.4, "Internal Pressure," 3/4.6.1.5, "Air Temperature," and 3/4.6.1.6, "Containment Structural Integrity," are updated to reflect the changes and to include the main steam line break (MSLB) accident, in addition to the loss-of-coolant accident (LOCA), as the limiting events affecting the containment temperature and pressure.

2.0 EVALUATION

The licensee provided a revised response to Inspection and Enforcement Bulletin (IEB) 80-04, "Analysis of a PWR Main Steam Line Break with Continued Feedwater Addition," for the Millstone Unit 2, on January 13, 1993. The NRC staff approved the revised analysis and provided its Safety Evaluation (SE) to the licensee by letter dated January 24, 1994. The NRC staff indicated in its supporting SE that the peak pressure was 53.7 psig and the peak air temperature was found to be 426°F, which represented a short duration at super heated conditions. It was further noted that the surface temperature of safety-related equipment would not exceed the saturated temperature of the steam pressure in containment and, therefore, would not exceed the qualification (and design) temperature of 289°F. The staff concluded that the plant systems, structures and components in containment would not be exposed to unacceptable pressure or temperature conditions as the result of a design basis MSLB.

The proposed change to TS 5.2.2 indicates that the reactor containment building design temperature is an equilibrium liner temperature rather than an air temperature. This proposed change provides clarification and is consistent with the previous NRC staff's SE, as discussed above. The analysis demonstrated that containment integrity is maintained with the revised LOCA and MSLB air temperature profiles, including the short duration peak temperature. Therefore, the staff has determined that this change is acceptable. The staff has also determined that the updated Bases Sections reflect this change and includes the MSLB with the LOCA as limiting events affecting containment temperature and pressure, which is also consistent with the approved reanalysis for the MSLB.

### 3.0 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.

### 4.0 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 (60 FR 65684). 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.

### 5.0 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: October 21, 1996