

OCT 17 1975

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Amendment No. 5
Change No. 5
License No. DPR-65

Docket No. 50-336

Northeast Nuclear Energy Company
ATTN: Mr. Donald C. Switzer
President
P. O. Box 270
Hartford, Connecticut

Gentlemen:

TIC

In response to your request of October 3, 1975, the Commission has issued Amendment No. 5 to Facility Operating License DPR-65 to change certain of the Technical Specifications, Appendix A of License No. DPR-65. A signed copy of the amendment is enclosed. A copy of a related notice, which has been forwarded to the Office of the Federal Register for filing and publication, is also enclosed.

Amendment No. 5 to License No. DPR-65 consists of Change No. 5 to the Technical Specifications. The specifications that have been changed are listed in Change No. 5. A copy of the staff's safety evaluation is also enclosed.

Change No. 5 to the Technical Specifications (1) revises the specification governing reactor protective instrumentation to eliminate the potential for spurious reactor trips during low power physics testing, (2) permits the periodic verification of the actual versus the predicted core reactivity condition occurring as a result of fuel burnup or fuel cycling operations, and (3) corrects certain proofreading errors. The staff has concluded that Change No. 5 does not create a significant hazards consideration.

Sincerely,

Original Signed By
R. A. Birkel

for

Olan D. Parr, Chief
Light Water Reactors
Project Branch 1-3
Division of Reactor Licensing

Enclosures and ccs:
See next page

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| OFFICE ➤ | RL:LWR 1-3 | RL:LWR 1-3 | OELD <i>JH</i> | | | |
| SURNAME ➤ | PDO'Reilly <i>mjf</i> | ODParr <i>for</i> | J.S. COHEN | | | |
| DATE ➤ | 10/16/75 | 10/17/75 | 10/17/75 | | | |

Enclosures:

1. Amendment No. 5 to DPR-65
2. Staff Safety Evaluation
3. Federal Register Notice

cc: William H. Cuddy
Day, Berry & Howard
Counselors at Law
One Constitution Plaza
Hartford, Connecticut 06103

Mr. Anthony E. Wallace, President
The Connecticut Light & Power Company
P. O. Box 2010
Hartford, Connecticut 06101

Mr. J. R. McCormick, President
The Hartford Electric Light Company
P. O. Box 2370
Hartford, Connecticut 06101

Mr. Leon F. Maglathlin, Vice President
and Chief Administrative Officer
Western Massachusetts Electric Company
174 Brush Hill Avenue
West Springfield, Massachusetts 01089

Mr. Horace H. Brown
Director of Planning
Federal-State Relations
Department of Finance & Control
340 Capitol Avenue
Hartford, Connecticut 06115

Mr. Herbert J. Davis
First Selectman
Town of Waterford, Hall of Records
200 Boston Post Road
Waterford, Connecticut 06385

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| OFFICE ➤ | | | | | | |
| SURNAME ➤ | | | | | | |
| DATE ➤ | | | | | | |

Northeast Nuclear Energy
Company

- 3 -

cc: Mr. David Burack, Study Manager
Long Island Sound Regional Study
270 Orange Street
New Haven, Connecticut 06511

Mr. Wallace Stickney
Environmental Protection Agency
JFK Federal Building
Boston, Massachusetts 02203

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| OFFICE → | | | | | | |
| SURNAME → | | | | | | |
| DATE → | | | | | | |

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

THE CONNECTICUT LIGHT AND POWER COMPANY,
THE HARTFORD ELECTRIC LIGHT COMPANY,
WESTERN MASSACHUSETTS ELECTRIC COMPANY, AND
NORTHEAST NUCLEAR ENERGY COMPANY

DOCKET NO. 50-336

(Millstone Nuclear Power Station, Unit 2)

FACILITY OPERATING LICENSE

License No. DPR-65
Amendment No. 5

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for the amendment filed by The Connecticut Light and Power Company, The Hartford Electric Light Company, Western Massachusetts Electric Company, and Northeast Nuclear Energy Company (the licensees) dated October 3, 1975, 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 and all required notifications to other agencies or bodies have been duly made;
 - 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 amended operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

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

2.C(2) Technical Specifications

The Technical Specifications contained in Appendices A and B issued on August 1, 1975, as revised, are hereby incorporated in this amended license. The licensees shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 5. A copy of Change No. 5 is enclosed with this amendment.

3 This license amendment is effective as of the date of its issuance

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By
R. A. Birkel

Olan D. Parr, Chief
Light Water Reactors
Project Branch 1-3
Division of Reactor Licensing

Enclosure:
Change No. 5 to the
Technical Specifications Contained
in Appendix A to DPR-65

Date of Issuance: OCT 17 1975

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|---------|--------------|------------|----------|------------|
| OFFICE | RL:LWR 1-3 | RL:LWR 1-3 | OELD | RL:LWR 1-3 |
| SURNAME | VHWilson:mjf | PO Reilly | JCohen | ODParr |
| DATE | 10/16/75 | 10/16/75 | 10/17/75 | 10/17/75 |

OCT 17 1975

CHANGE NO. 5 TO TECHNICAL SPECIFICATIONS
CONTAINED IN APPENDIX A TO LICENSE NO. DPR-65

1. On page 3/4 3-2, Table 3.3-1, REACTOR PROTECTIVE INSTRUMENTATION, add notation (f) to item 2, Power Level-High under the heading CHANNELS TO TRIP. On page 3/4 3-4, TABLE NOTATION, add notation (f) to read, " ΔT Power input to trip may be bypassed below 5% of Rated Thermal Power; bypass shall be automatically removed when Thermal Power is $>5\%$ of Rated Thermal Power."
2. On page 3/4 10-1, Section 3.10.1, SHUTDOWN MARGIN, under APPLICABILITY, change "MODE 2" to MODES 2 and 3". Under ACTION, change to read

"a. With the reactor critical ($K_{eff} \geq 1.0$) and with less than the above reactivity equivalent available for trip insertion or the part length CEA's not within their withdrawal limits, immediately initiate and continue boratation at ≥ 44 gpm until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.

b. With the reactor subcritical ($K_{eff} < 1.0$) by less than the above reactivity equivalent, immediately initiate and continue boratation at ≥ 44 gpm until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.

On page B 3/4 10-1, Bases, Section 3/4.10.1, SHUTDOWN MARGIN, change to read, "This special test exception provides that a minimum amount of CEA worth is immediately available for reactivity control or that the reactor is sufficiently subcritical so as to provide safe operating conditions when tests are performed for CEA's worth measurement. This special test exception is required to permit the periodic verification of the actual versus predicted core reactivity condition occurring as a result of fuel burnup or fuel cycling operations."

3. Make the following changes to correct proofreading errors:

On page 3/4 10-5, paragraph 3.10.5.b, change "...in Specification 4.10.2 below." to "...in Specification 4.10.5 below."

On page 3/4 10-5, paragraph 4.10.5.2, change "...requirements of Specification 4.3.1.3..." to "...requirements of Specification 4.2.1.3..."

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|-----------|----------------|------------------------|---------------------|--|--|
| OFFICE → | RL:DWB01-3 | OELD <i>J.S. COHEN</i> | RL:LWR 143 | | |
| SURNAME → | PDO Reilly:mjf | <i>J.S. COHEN</i> | ODParrl <i>Parr</i> | | |
| DATE → | 10/16/75 | 10/17/75 | 10/17/75 | | |

OCT 17 1975

SAFETY EVALUATION BY OFFICE OF
NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 5 TO
LICENSE NO. DPR-65
CHANGE NO. 5 TO TECHNICAL SPECIFICATIONS
THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
THE NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR POWER STATION
UNIT 2
DOCKET NO. 50-336

INTRODUCTION

By letter dated October 3, 1975, the Licensee requested a change to the Technical Specifications for the Millstone Nuclear Power Station, Unit 2. The change, which applies to Appendix A to the license, would eliminate the potential for spurious reactor trips during low power physics testing, permit periodic verification of the actual versus the predicted core-reactivity condition occurring as a result of fuel burnup or fuel cycling operations, and correct proofreading errors.

The staff's evaluation of the change is discussed below. The staff's conclusions follow the discussion.

DISCUSSION

The Licensee has proposed a change in Specification 3.3.1.1, Table 3.3-1 regarding reactor protective instrumentation to allow the core delta-T power input to the power level-high reactor trip to be bypassed below 5% of rated thermal power. The requested change would eliminate spurious reactor trips that might occur during low power physics testing. The instrumentation used to determine the core delta-T power input to the reactor trip includes core inlet and core outlet temperature monitors. The lowest point in the range of the core outlet temperature monitor is greater than the corresponding point in the range of the core inlet temperature monitor. As a result, at low power levels (<5% rated thermal power), although the actual core delta-T is small, the instrumentation used to determine the delta-T power input to the reactor trip could indicate a delta-T which is of sufficient size to cause a reactor trip. Bypassing the delta-T power input to the reactor trip below 5% of rated thermal power would eliminate the potential for such a false indication and consequent unnecessary reactor trip. Although the delta-T power input to the reactor trip would be bypassed below 5% of rated power, reactor trip protection would still be provided by the high power (flux) and steam generator low pressure inputs to the reactor trip. As a result, the safety of the plant would not be compromised by the proposed change. This bypass would only be allowed below 5% of rated power and would be

automatically removed at power levels $\geq 5\%$ of rated power. Therefore, we conclude that the requested change to Specification 3.3.1.1, Table 3.3-1 should be authorized.

The Licensee has proposed changes in Specification 3.10.1, the special test exception regarding shutdown margin and the corresponding Bases B 3/4.10.1. The requested change provides that a minimum amount of control element assembly (CEA) reactivity worth be immediately available for reactivity control or that the reactor be sufficiently subcritical so as to provide safe operating conditions when tests are performed to measure CEA reactivity worth. This special test exception is required to permit the periodic verification of the actual versus the predicted core reactivity condition occurring as a result of fuel burnup or fuel cycling operations. The present special test exception does not allow measurement of the reactivity worth of Shutdown Group A of the CEA's and also a stuck CEA without additional boration, which defeats the original intent of the special test exception. The requested change would allow the reactivity worth of Shutdown Group A and also a stuck CEA to be measured without requiring additional boration. The requested change would not compromise the shutdown margin since the reactor core is shutdown by at least the reactivity worth of the most reactive CEA. Therefore, we conclude that the proposed changes to Specification 3.10.1 and Bases B 3/4.10.1 should be authorized.

In addition, the Licensee has proposed changes in the Technical Specifications to correct certain proofreading errors. The corrections are identified in Change No. 5. We conclude that the proposed changes to correct the proofreading errors should be authorized.

CONCLUSIONS

We have concluded, based on the considerations discussed above, (1) that Change No. 5 can be made without endangering the health and safety of the public, (2) that activities permitted by Change No. 5 will be conducted in compliance with the Commission's regulation, (3) that the issuance of this change will not be inimical to the common defense and security, and (4) that Change No. 5 involves no significant hazards consideration.

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|---------|------------|----------------|------------------|--|--|
| OFFICE | RL:LWR 1-3 | OELD <i>MC</i> | RL:LWR 1-3 | | |
| SURNAME | PDO'Reilly | J.S. COHEN | ODPart <i>PA</i> | | |
| DATE | 10/16/75 | 10/17/75 | 10/17/75 | | |

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-336

THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY, AND
NORTHEAST NUCLEAR ENERGY COMPANY
(Millstone Nuclear Power Station, Unit 2)

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

Notice is hereby given that the Nuclear Regulatory Commission (the Commission) has issued Amendment No. 5 to Facility Operating License No. DPR-65 issued to The Connecticut Light and Power Company, The Hartford Electric Light Company, Western Massachusetts Electric Company, and Northeast Nuclear Energy Company (licensees). This amendment is effective as of the date of issuance.

The amendment changes certain of the Technical Specifications to (1) eliminate the potential for spurious reactor trips during low power physics testing, (2) to permit periodic verification of the actual versus the predicted core reactivity condition occurring as a result of fuel burnup or fuel cycling operations, and (3) to correct certain proofreading errors.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

For further details with respect to this action, see (1) the application for amendment dated October 3, 1975, (2) Amendment No. 5 to License No. DPR-65, with any attachments, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room 1717 H Street, N. W., Washington, D. C. and at the Waterford Public Library, Rope Ferry Road, Waterford, Connecticut. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Licensing.

Dated at Bethesda, Maryland, this 17th day of October 1975.

FOR THE NUCLEAR REGULATORY COMMISSION



Ralph A. Birkel, Acting Chief
Light Water Reactors
Project Branch 1-3
Division of Reactor Licensing