

*Docket file*



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

50-336

January 18, 1996

Mr. Robert E. Busch  
President - Energy Resources Group  
Northeast Utilities Service Company  
c/o Mr. Richard M. Kacich  
P.O. Box 128  
Waterford, CT 06385

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M93794)

Dear Mr. Busch:

The Commission has issued the enclosed Amendment No. 195 to Facility Operating License No. DPR-65 for the Millstone Nuclear Power Station, Unit No. 2, in response to your application dated September 29, 1995, as supplemented November 9, 1995.

The amendment provides three changes to the Technical Specifications (TS) relating to the pressurizer safety valves (PSV) and the main steam safety valves (MSSV).

The first change is to TS 3.4.2.1 and 3.4.2.2 and involves relaxing the as-found setpoint tolerance for the pressurizer safety valves (PSVs) and the main steam safety valves (MSSVs) from the current value of  $\pm 1\%$  to  $\pm 3\%$ . Table 4.7-1 is also modified to correct the as-found tolerance for the MSSV from  $\pm 1\%$  to  $\pm 3\%$ . Notes are added to TS 3.4.2.2 and Table 4.7-1 which specify that the lift setting should be determined at nominal operating conditions and should be set at  $\pm 1\%$  of the lift setting.

For the second change, Surveillance Requirement 4.7.1.1 and Table 4.7-1 are modified to eliminate the need to verify the orifice size of each MSSV.

The third change modifies the statement for TS 3.7.1.1 so that if a MSSV is inoperable and compensating action cannot be taken, the plant must be brought to hot shutdown (Mode 4) within 12 hours instead of cold shutdown (Mode 5) in 30 hours.

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R. Busch

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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:

Guy S. Vissing, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 195 to DPR-65  
2. Safety Evaluation

cc w/encs: See next page

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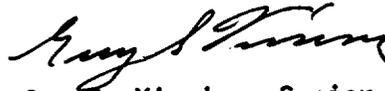
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R. Busch

- 2 -

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,



Guy S. Vissing, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosures: 1. Amendment No. 195 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

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. 195  
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 September 29, 1995, as supplemented November 9, 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. 195, 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  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: January 18, 1996

ATTACHMENT TO LICENSE AMENDMENT NO.195

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

3/4 4-2  
3/4 7-1  
3/4 7-3

Insert

3/4 4-2  
3/4 7-1  
3/4 7-3

## REACTOR COOLANT SYSTEM

### SAFETY VALVES

#### LIMITING CONDITION FOR OPERATION

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3.4.2.1 A minimum of one pressurizer code safety valve shall be OPERABLE with a lift setting\* of 2500 PSIA  $\pm$  3%.\*\*

APPLICABILITY: MODE 4 when the temperature of any RCS cold leg is greater than 275°F.

#### ACTION:

With no pressurizer code safety valve OPERABLE, immediately suspend all operations involving positive reactivity changes and place an OPERABLE shutdown cooling loop into operation.

3.4.2.2 All pressurizer code safety valves shall be OPERABLE with a lift setting\* of 2500 PSIA  $\pm$  3%.\*\*

APPLICABILITY: MODES 1, 2 and 3.

#### ACTION:

With one pressurizer code safety valve inoperable, either restore the inoperable valve to OPERABLE status within 15 minutes or be in HOT SHUTDOWN within 12 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.2 Each pressurizer code safety valve shall be demonstrated OPERABLE with a lift setting of 2500 PSIA  $\pm$  1%, in accordance with Specification 4.0.5.

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\* The lift setting pressure shall correspond to ambient conditions of the valve(s) at nominal operating temperature and pressure.

\*\* The lift setting shall be within  $\pm$  1% following pressurizer code safety valve testing.

### 3/4.7 PLANT SYSTEMS

#### 3.4.7.1 TURBINE CYCLE

##### SAFETY VALVES

##### LIMITING CONDITION FOR OPERATION

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3.7.1.1 All main steam line code safety valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With both reactor coolant loops and associated steam generators in operation and with one or more main steam line code safety valves inoperable, operation in MODES 1, 2, and 3 may proceed provided, that within 4 hours, either the inoperable valve is restored to OPERABLE status or the Power Level-High trip setpoint is reduced per Table 3.7-1; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.

##### SURVEILLANCE REQUIREMENTS

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4.7.1.1 Each main steam line code safety valve shall be demonstrated OPERABLE, with lift settings as shown in Table 4.7-1, in accordance with Specification 4.0.5.

**TABLE 4.7-1**  
**STEAM LINE SAFETY VALVES**

<u>VALVE NUMBERS</u>	<u>LIFT SETTING* (<math>\pm 3\%</math>)**</u>
a. 2-MS-246 & 2-MS-247	1000 psia
b. 2-MS-242 & 2-MS-254	1005 psia
c. 2-MS-245 & 2-MS-249	1015 psia
d. 2-MS-241 & 2-MS-252	1025 psia
e. 2-MS-244 & 2-MS-251	1035 psia
f. 2-MS-240 & 2-MS-250	1045 psia
g. 2-MS-239, 2-MS-243, 2-MS-248 & 2-MS-253	1050 psia

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\* The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.

\*\* The lift setting shall be within  $\pm 1\%$  following main steam line code safety valve testing.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 195

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 September 29, 1995, as supplemented November 9, 1995, the Northeast Nuclear Energy Company (NNECO/the licensee) submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 2 Technical Specifications (TS). The requested changes would provide three changes to the TS relating to the pressurizer safety valves (PSV) and the main steam safety valves (MSSV).

The first change is to TS 3.4.2.1 and 3.4.2.2 and involves relaxing the as-found setpoint tolerance for the PSVs and the MSSVs from the current value of  $\pm 1\%$  to  $\pm 3\%$ . Table 4.7-1 is also modified to correct the as-found tolerance for the MSSV from  $\pm 1\%$  to  $\pm 3\%$ . Notes are added to TS 3.4.2.2 and Table 4.7-1 which specify that the lift setting should be determined at nominal operating conditions and should be set at  $\pm 1\%$  of the lift setting.

For the second change, Surveillance Requirement 4.7.1.1 and Table 4.7-1 are modified to eliminate the need to verify the orifice size of each MSSV.

The third change modifies the statement for TS 3.7.1.1 so that if a MSSV is inoperable and compensating action cannot be taken, the plant must be brought to hot shutdown (Mode 4) within 12 hours instead of cold shutdown (Mode 5) in 30 hours.

The November 9, 1995, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

## 2.0 BACKGROUND

Overpressure protection for the reactor coolant system (RCS) and the main steam system is provided, in part, by the PSVs and the MSSVs located on the pressurizer and on the four main steam lines, respectively.

The PSVs are credited for mitigation of RCS overpressurization events. The limiting RCS overpressurization event is the loss of electrical load.

TS 3.7.1.1 requires all MSSVs to be operable in Modes 1, 2, and 3. If the MSSVs are not operable, the action statement specifies that operation in Modes 1, 2, and 3 may continue provided that either the inoperable valves are restored to operable status or the high power level trip setpoint be reduced per Table 3.7.1 (which allows up to three of the eight valves on any one steam generator to be inoperable). Otherwise, the plant is required to be in Mode 3 within the next 6 hours and in Mode 5, cold shutdown, within the following 30 hours. The proposed modification is to require that the plant be in hot shutdown (Mode 4) within the following 12 hours instead of cold shutdown (Mode 5) in 30 hours.

## 3.0 EVALUATION

In the telecon of November 1, 1995, the staff had informed NNECO that in similar proposals by licensees with plants designed by Combustion Engineering, the Feedwater Line Break Event was frequently determined to be the limiting pressurization event for the RCS. NNECO's letter of November 9, 1995 stated that the limiting RCS pressurization event for Millstone Unit 2 is the Loss of Load Event, as described in Section 14.2.1 of the FSAR. As stated in Section 14.2.8 of the FSAR, the Feedwater System Pipe Break Event is "not in the current licensing basis for Millstone Unit 2 and, therefore, is not analyzed."

The loss of electrical load was reanalyzed by NNECO with a +3 percent tolerance from the nominal setpoints for the pressurizer safety valves and the main steam safety valves. The analysis showed that RCS pressure remains below the ASME allowable of 110 percent of design. NNECO also stated that the RCS pressure used for accidents where minimum departure from nucleate boiling ratio (DNBR) is a concern bounds the -3 percent lower bound on the PSV nominal setpoint. Thus, the allowance of a  $\pm 3\%$  tolerance has no impact on the pressure limit or minimum DNBR for the limiting DNBR transients. The staff, therefore, finds the  $\pm 3\%$  tolerance limit to be acceptable for the PSVs.

NNECO reanalyzed the steam generator tube rupture (SGTR) event to take into account the  $\pm 3\%$  as-found tolerance and to extend the margin for operator action to 1 hour. The results indicated that the combined effect of extended releases and a  $\pm 3\%$  tolerance on the MSSV setpoint has only a small effect on the calculated offsite doses which were found to be a small fraction of the 10 CFR Part 100 acceptance criteria. The staff, therefore, finds the results for the reanalysis of the SGTR event to be acceptable.

By the letter of November 9, 1995, NNECO informed the staff that, with the exception of the SGTR event, the events analyzed in the Safety Analyses section (Chapter 14) of the Millstone Unit 2 FSAR already take into account a  $\pm 3$  percent tolerance for the PSVs and MSSVs. This is verified in Table 14.0.9-1 of the FSAR. As a result, the analysis provided with the proposed revision to the TS was limited to the change to the analysis of the SGTR event. Upon approval of the proposed TS change, NNECO stated that the new results of the SGTR event will be incorporated into the FSAR. The staff, therefore, finds that NNECO has provided acceptable reanalyses for the proposed changes and, therefore, the proposed changes are acceptable.

NNECO proposed to eliminate the orifice diameter of 4.515 square inches listed for the steam line safety valves in Table 4.7-1. NNECO stated that the MSSV orifice size represents the smallest inside diameter of the safety valve nozzle, an internal part of the valve. The orifice diameter is not adjustable and can only be changed by replacement of the nozzle. Replacement of the nozzle requires removal and disassembly of the safety valve. Further, only one size nozzle is available for these safety valves. Since there is no adjustment possible to the orifice size, and changes to the orifice requires a modification of the valve that would be covered under the design change process, the specification of the orifice size in the TS is unnecessary. The staff agrees with this since removing the specification will have no impact on the plant configuration or operation and the safety analysis is unaffected by the change.

The proposed modification to require that the plant be in hot shutdown (Mode 4) within the following 12 hours instead of cold shutdown (Mode 5) in 30 hours is on the following basis. The limiting condition for operation (LCO) does not require the MSSVs to be operable in Mode 4 (RCS average temperature less than 300 °F but greater than 200 °F). Therefore, the action statement is being changed to be consistent with the LCO. This change is also consistent with NUREG-1432, "Standard Technical Specifications - Combustion Engineering Plants." The staff, therefore, finds this modification to be 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 (60 FR 54723). 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.

#### 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: H. Balukjian

Date: January 18, 1996