

September 15, 2000

Mr. S. E. Scace - Director  
Nuclear Oversight and Regulatory Affairs  
c/o Mr. David A. Smith  
Northeast Nuclear Energy Company  
P. O. Box 128  
Waterford, CT 06385-0128

SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3 - ISSUANCE OF  
AMENDMENT RE: FSAR CHANGE FOR THE CONFIGURATION OF VALVES  
3CHS\*V61 AND 3CHS\*V62 (TAC NO. MA8386)

Dear Mr. Scace:

The Commission has issued the enclosed Amendment No. 183 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application of February 3, 2000. The amendment changes the Millstone Unit No. 3 Final Safety Analysis Report to show that the configuration of valves 3CHS\*V61 and 3CHS\*V62 takes exception to the American Society of Mechanical Engineers Section III code requirements for Class 2 components.

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,

*/RA/*

Victor Nerses, Sr. Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures: 1. Amendment No. 183 to NPF-49  
2. Safety Evaluation

cc w/encls: See next page

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Millstone Nuclear Power Station  
Unit 3

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NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 183  
License No. NPF-49

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 February 3, 2000, 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, changes to the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) to show that the configuration of valves 3CHS\*V61 and 3CHS\*V62 takes exception to the American Society of Mechanical Engineers Section III code requirements for class 2 components, as set forth in Northeast Nuclear Energy Company's (NNECO's) application of February 3, 2000, are authorized.
3. This license amendment is effective as of the date of issuance, and shall be implemented within 60 days of issuance. Implementation of the amendment is the incorporation into the FSAR of the changes to the description of the facility as described in the licensee's application dated February 3, 2000, and evaluated in the staff's Safety Evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

James W. Clifford, Chief, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Date of Issuance: September 15, 2000

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 183

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

Northeast Nuclear Energy Company's (NNECO's), et al., letter of February 3, 2000, requested changes to the Millstone Nuclear Power Station, Unit No. 3 (Millstone 3) Final Safety Analysis Report (FSAR) to change the licensing basis regarding the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (the Code), Section III, 1971 Edition, Summer 1973, Addenda provisions for the arrangement of a stop valve in line with a relief valve. The relief valve protects the regenerative heat exchanger and portions of the charging system from overpressure. The ASME Code states that a stop valve is not to be used to isolate a pressure relief device unless certain provisions exist. These provisions are that the stop valve is designed and constructed with positive controls and interlocks so that the required relieving capability exists under all conditions of system and stop valve operation. NNECO's request seeks to change the plant licensing basis to state that the present valve configuration is an acceptable exception to the ASME Code Section III requirements for Class 2 components. The proposed changes would revise Chapter 3 of the plant FSAR as shown in NNECO's submittal of February 3, 2000.

2.0 EVALUATION

The charging system at Millstone 3 was designed and constructed to meet the provisions of the ASME Code, Section III. However, NNECO has since determined that this system does not meet the Code with respect to the provision for stop valves being in line with relief valves for Class 2 components, as discussed above. Specifically, valve 3CHS\*V62 is a thermal relief device required when charging line valves 3CHS\*AV8146 and 3CHS\*AV8147 are inadvertently closed and reactor letdown flow continues. Stop valve 3CHS\*V61, which is upstream of thermal relief valve 3CHS\*V62, was installed to facilitate hydrostatic testing of the charging system. The stop valve is locked open to allow valve 3CHS\*V62 to perform its pressure relief function. However, ASME Interpretation III-1-80-67R and the 1989 Edition of the Code clarify that administrative controls of stop valves to maintain them in the open position does not meet the provision for positive controls and interlocks.

NNECO states that the identified deviation from the provisions of ASME Code Section III regarding the above discussed stop valve arrangement is considered to be an unreviewed safety question (USQ). NNECO proposes that the plant design basis be modified to address the USQ by adding a note to Table 3.2-1 of Section 3.2 of the Millstone 3 FSAR regarding the regenerative heat exchanger. The note states that the manual isolation valve (stop valve) is to remain locked open. NNECO states that ensuring (via administrative procedures) that the stop valve is locked open will allow the thermal relief valve in the charging system to perform its pressure relieving function.

The staff finds that locking open stop valve 3CHS\*V61, together with the plant administrative procedures, makes the possibility of overpressurization of the charging system unlikely. The staff has also reviewed the configuration of the stop valve in the charging system as documented in the current plant FSAR and has determined that, if the stop valve is inadvertently closed, the isolated portion of the charging system which would be overpressurized is inside containment. In the event of a rupture in this portion of the system, the consequences would be bounded by NNECO's small-break loss-of-coolant accident analysis. Also, in order for this event to occur, the overpressurized portion of the system would be isolated. This would result in no loss of fluid other than the contents of the isolated section. Further, the affected portion of the charging system is not required for the emergency core cooling system (ECCS) function.

In summary, the staff agrees with NNECO's finding that the Millstone 3 plant does not comply with the provisions of the ASME Code Section III, as stated above, regarding the charging system stop valve 3CHS\*V61 and relief valve 3CHS\*V62 arrangement. However, the staff finds that the stop valve and relief valve arrangement is acceptable because of the following:

1. NNECO implemented appropriate administrative provisions to lock open the stop valve to assure the thermal relief function of the relief valve.
2. Inadvertently closing the stop valve would not impair the ECCS function to safely shut down the plant.

Therefore, the staff finds that NNECO's proposed license amendment and proposed revisions to the plant licensing basis in the FSAR are acceptable.

### 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

(65 FR 39958). 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: G. Hammer

Date: September 15, 2000