Mr. Neil S. Carns
Senior Vice President
and Chief Nuclear Officer
Northeast Nuclear Energy Company
c/o Ms. Patricia A. Loftus
Director - Regulatory Affairs
P.O. Box 128
Waterford, CT 06385

October 2 997

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M99261)

Dear Mr. Carns:

The Commission has issued the enclosed Amendment No. 151 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application dated July 18, 1997.

The amendment adds a new Technical Specification and associated Bases to address the operability of the steam generator atmospheric relief bypass valves.

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:
James W. Andersen, Project Manager
Special Projects Office - Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures: 1. Amendment No. 151 to NPF-49
2. Safety Evaluation

DISTRIBUTION:
Docket File
PUBLIC
SPO-L Reading
SPO Reading
WTravers
PMcKee
JAndersen
LBerry
GHill (2)
THarris, (e-mail SE only)
WBeckner, TSB
ACRS
OGC
JDurr, RI

DFO1/1

DOCUMENT NAME: C:
To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	SPO-L:PM		SPO-L:LA		OGC		SPO-L:D		SRXB	
NAME	JAndersen		LBerry				PMcKee			
DATE	08/04/97		08/07/97		08/15/97		08/12/97		08/5/97	

OFFICIAL RECORD COPY

9710140178 971002
PDR ADOCK 05000423
P PDR

PDR FILE CENTER COPY

CP-1

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

October 2, 1997

Mr. Neil S. Carns
Senior Vice President
and Chief Nuclear Officer
Northeast Nuclear Energy Company
c/o Ms. Patricia A. Loftus
Director - Regulatory Affairs
P.O. Box 128
Waterford, CT 06385

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M99261)

Dear Mr. Carns:

The Commission has issued the enclosed Amendment No. 151 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application dated July 18, 1997.

The amendment adds a new Technical Specification and associated Bases to address the operability of the steam generator atmospheric relief bypass valves.

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,

James W. Andersen, Project Manager
Special Projects Office - Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures: 1. Amendment No. 151to NPF-49
2. Safety Evaluation

cc w/encls: See next page

cc:

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

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

Michael H. Brothers
Vice President - Millstone Unit 3
Northeast Nuclear Energy Company
P. O. Box 128
Waterford, CT 06385

Mr. M. R. Scully, Executive Director
Connecticut Municipal Electric
Energy Cooperative
30 Stott Avenue
Norwich, CT 06360

Mr. David Amerine
Recovery Officer - Nuclear Engineering
and Support
Northeast Nuclear Energy Company
P. O. Box 128
Waterford, Connecticut 06385

Mr. William D. Meinert
Nuclear Engineer
Massachusetts Municipal Wholesale
Electric Company
P. O. Box 426
Ludlow, MA 01056

Joseph R. Egan, Esquire
Egan & Associates, P.C.
2300 N Street, NW
Washington, D.C. 20037

Mr. F. C. Rothen
Vice President - Nuclear Work Services
Northeast Nuclear Energy 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. John Buckingham
Department of Public Utility Control
Electric Unit
10 Liberty Square
New Britain, CT 06051

Mr. James S. Robinson
Manager, Nuclear Investments and
Administration
New England Power Company
25 Research Drive
Westborough, MA 01582

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

cc:

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

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

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

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

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

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

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

Mr. B. D. Kenyon
President and Chief Executive Officer
Northeast Nuclear Energy Company
P. O. Box 128
Waterford, CT 06385

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

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

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

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 151
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 July 18, 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.

9710140179 971002
PDR ADOCK 05000423
P PDR

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. NPF-49 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 151 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 2, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 151

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

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	Insert
-	3/4 7-9a
B 3/4 7-7	B 3/4 7-7
-	B 3/4 7-7a*

* overflow page - no change

PLANT SYSTEMS

STEAM GENERATOR ATMOSPHERIC RELIEF BYPASS LINES

LIMITING CONDITION FOR OPERATION

3.7.1.6 Each steam generator atmospheric relief bypass valve (SGARBV) line shall be OPERABLE, with the associated main steam atmospheric relief isolation (block) valve in the open position.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

a. With one required SGARBV line inoperable, restore required SGARBV line to OPERABLE status within 7 days or be in at least MODE 3 within the next 6 hours and be in MODE 4 without reliance upon steam generator for heat removal within the next 18 hours. LCO 3.0.4 is not applicable.

b. With two or more required SGARBV lines inoperable, restore all but one required SGARBV line to OPERABLE status within 24 hours or be in at least MODE 3 within the next 6 hours and be in MODE 4 without reliance upon steam generator for heat removal within the next 18 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.6.1 Verify one complete cycle of each SGARBV every 18 months.

4.7.1.6.2 Verify one complete cycle of each main steam atmospheric relief isolation (block) valve every 18 months.

3/4.7.1.6 STEAM GENERATOR ATMOSPHERIC RELIEF BYPASS LINES

The OPERABILITY of the steam generator atmospheric relief bypass valve (SGARBV) lines provides a method to recover from a steam generator tube rupture (SGTR) event during which the operator is required to perform a limited cooldown to establish adequate subcooling as a necessary step to limit the primary to secondary break flow into the ruptured steam generator. The time required to limit the primary to secondary break flow for an SGTR event is more critical than the time required to cooldown to RHR entry conditions. Because of these time constraints, these valves and associated flow paths must be OPERABLE from the control room. The number of SGARBVs required to be OPERABLE from the control room to satisfy the SGTR accident analysis requires consideration of single failure criteria. Four SGARBV are required to be OPERABLE to ensure the credited steam release pathways available to conduct a unit cooldown following a SGTR.

For other design events, the SGARBVs provide a safety grade method for cooling the unit to residual heat removal (RHR) entry conditions should the preferred heat sink via the steam bypass system or the steam generator atmospheric relief valves be unavailable. Prior to operator action to cooldown, the main steam safety valves (MSSVs) are assumed to operate automatically to relieve steam and maintain the steam generator pressure below design limits.

Each SGARBV line consists of one SGARBV and an associated block valve (main steam atmospheric relief isolation valve, 3MSS*MOV18A/B/C/D). These block valves are used in the event a steam generator atmospheric relief valve (SGARV) or SGARBV fails to close. Because of the electrical power relationship between the SGARBV and the block valves, if a block valve is maintained closed, the SGARBV flow path is inoperable because of single failure consideration.

The bases for the required actions can be found in NUREG 1431, Rev. 1.

The LCO APPLICABILITY and ACTION statements uses the terms "MODE 4 when steam generator is relied upon for heat removal" and "in MODE 4 without reliance upon steam generator for heat removal." This means that those steam generators which are credited for decay heat removal to comply with LCO 3.4.1.3 (Reactor Coolant System, Hot Shutdown) shall have an OPERABLE SGARBV line. See Bases Section 3/4.4.1 for more detail.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure-induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200 psig are based on a steam generator RT_{NDT} of 60°F and are sufficient to prevent brittle fracture.

3/4.7.3 REACTOR PLANT COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the Reactor Plant Component Cooling Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

3/4.7.4 SERVICE WATER SYSTEM

The OPERABILITY of the Service Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 151

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

By letter dated July 18, 1997, the Northeast Nuclear Energy Company, et al. (the licensee), submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 3 Technical Specifications (TS). The proposed amendment adds a new TS and associated Bases to address the operability of the steam generator atmospheric relief bypass valves (SGARBVs).

2.0 EVALUATION

In its letter dated July 18, 1997, the licensee stated that the proposed revision to the Millstone Unit 3 TS provides a new TS 3/4.7.1.6 and its associated Bases Section 3/4.7.1.6 for the SGARBVs. The licensee stated that the operability of the SGARBV lines provides a method to recover from a steam generator tube rupture event during which the operator is required to perform a limited cooldown to establish adequate subcooling as a necessary step to limit the primary-to-secondary break flow into the ruptured steam generator. For other design events, the SGARBVs provide a safety grade method for cooling the unit to residual heat removal entry conditions should the preferred heat sink via the steam bypass system or the steam generator atmospheric relief valves be unavailable.

FSAR Section 10.3.3 states that four main steam pressure relieving bypass valves (SGARBVs) are provided to ensure a secure path around the main steam pressure relieving valves in the event that the primary path is no longer available due to tornado missile or seismic damage to the discharge silencers, or loss of power or air to the main steam pressure relieving valves. These valves provide the capability to dump steam to the atmosphere remotely from the control room following a safe shutdown earthquake coincident with loss of power. Thus, a cold shutdown can be achieved with dependence upon only safety grade components.

The NRC staff has reviewed the licensee's proposed changes and has determined that the addition of the TS for the SGARBVs is acceptable since the SGARBVs are part of a primary success path that functions to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a

9710140181 971002
PDR ADOCK 05000423
P PDR

challenge to the integrity of a fission product barrier. This is consistent with criterion 3 of 10 CFR 50.36. Therefore, since the proposed TS regarding the SGARBVs satisfies one of the criteria in 10 CFR 50.36, the operability requirements must be included in the TS.

The NRC staff has reviewed the TS action statements and surveillance requirements for the SGARBVs and has determined that they are consistent with the Standard Technical Specifications for Westinghouse Plants (NUREG-1431). In addition, the licensee stated that a review of the work orders for the SGARBVs was completed and showed there were no functional failures associated with the valves. Therefore, the licensee concluded that the proposed surveillance frequency is acceptable. Based on the above, the staff has determined that the TS action statements and surveillance requirements for the SGARBVs are acceptable.

In addition, the staff has reviewed the proposed Bases section and has no objection to the wording.

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 requirements 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 43370 dated August 13, 1997). 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: J. Andersen

Date: October 2, 1997