

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

July 28, 1997

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M98630)

Dear Mr. Carns:

The Commission has issued the enclosed Amendment No. 144 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application dated April 28, 1997.

Technical Specification (TS) 3.7.6 requires that flood protection be provided for the service water pump cubicles and components when the water level exceeds a specific value. The amendment (1) adds the closing of the service water pump cubicle sump drain valves to the TS, (2) revises the wording of the action statement to be consistent with the limiting condition for operation, and (3) revises the associated Bases section.

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. 144 to NPF-49  
 2. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 28, 1997

Mr. Neil S. Carns  
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Northeast Nuclear Energy Company  
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Sincerely,

A handwritten signature in black ink, appearing to be "JW Andersen", written over a horizontal line.

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

Docket No. 50-423

Enclosures: 1. Amendment No. 144 to NPF-49  
2. Safety Evaluation

cc w/encls: See next page

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Unit 3

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Northeast Nuclear Energy Company

Millstone Nuclear Power Station  
Unit 3

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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. 144  
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 April 28, 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.

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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. 144, 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: July 28, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 144

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

3/4 7-14

B 3/4 7-10

Insert

3/4 7-14

B 3/4 7-10

## PLANT SYSTEMS

### 3/4.7.6 FLOOD PROTECTION

#### LIMITING CONDITION FOR OPERATION

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3.7.6 Flood protection shall be provided for the service water pump cubicles and components when the water level exceeds 13 feet Mean Sea Level, USGS datum, at the Unit 3 intake structure.

APPLICABILITY: At all times.

#### ACTION:

With the water level at greater than 13 feet above Mean Sea Level, USGS datum, at the Unit 3 intake structure, shut the watertight doors of both service water pump cubicles and close the pump cubicle sump drain valves within 15 minutes. |

#### SURVEILLANCE REQUIREMENTS

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4.7.6 The water level at the Unit 3 intake structure shall be determined to be within the limits by:

- a. Measurement at least once per 24 hours when the water level is below elevation 8 feet above Mean Sea Level, USGS datum, and
- b. Measurement at least once per 2 hours when the water level is equal to or above elevation 8 feet above Mean Sea Level, USGS datum.



# PLANT SYSTEMS

## BASES

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### SURVEILLANCE REQUIREMENTS

For the surveillance requirements, the UHS temperature is measured at the locations described in the LCO write-up provided in this section.

Surveillance Requirement 4.7.5.a verifies that the UHS is capable of providing a 30-day cooling water supply to safety-related equipment without exceeding its design basis temperature. The 24-hour frequency is based on operating experience related to trending of the parameter variations during the applicable modes. This surveillance requirement verifies that the average water temperature of the UHS is less than or equal to 75°F.

Surveillance Requirement 4.7.5.b requires that the UHS temperature be monitored on an increased frequency whenever the UHS temperature is greater than 70°F during the applicable modes. The intent of this Surveillance Requirement is to increase the awareness of plant personnel regarding UHS temperature trends above 70°F. The frequency is based on operating experience related to trending of the parameter variations during the applicable modes.

### 3/4.7.6 FLOOD PROTECTION

The limitation on flood protection ensures that the service water pump cubicle watertight doors will be closed and the pump cubicle sump drain valves will be closed before the water level reaches the critical elevation of 14.5 feet Mean Sea Level. Elevation 14.5 feet MSL is the floor elevation of the service water pump cubicle.

### 3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

#### BACKGROUND

The control room emergency ventilation system provides a protected environment from which operators can control the unit following an uncontrolled release of radioactivity. Additionally, the system provides temperature control for the control room during normal and post-accident operations.

The control room emergency ventilation system is comprised of the control room emergency air filtration system and a temperature control system.

The control room emergency air filtration system consists of two redundant systems that recirculate and filter the control room air. Each control room emergency air filtration system consists of a moisture separator, electric heater, prefilter, upstream high efficiency particulate air (HEPA) filter, charcoal adsorber, downstream HEPA filter, and fan. Additionally, ductwork, valves or dampers, and instrumentation form part of the system.

#### Normal Operation

A portion of the control room emergency ventilation system is required to operate during normal operations to ensure the temperature of the control room is maintained at or below 95°F.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 144

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 April 28, 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). TS 3.7.6 requires that flood protection be provided for the service water pump cubicles and components when the water level exceeds a specific value. The proposed amendment would (1) add the closing of the service water pump cubicle sump drain valves to the TS, (2) revise the wording of the action statement to be consistent with the limiting condition for operation, and (3) revise the associated Bases section.

2.0 EVALUATION

In its letter dated April 28, 1997, the licensee stated that a modification was made to Millstone Unit 3 to install a drain line from the sump of each service water pump cubicle to the intake bay in order to provide a passive means of removing internal leakage from the cubicle and to improve internal flood protection for the cubicles. These valves are normally maintained in the open position and closure of the valves is required to provide protection to the pump cubicles from external flooding when sea level exceeds 13 feet mean sea level (MSL).

The licensee stated that the drain valves are category 1 valves that are periodically stroked under the plant maintenance program. The proposed change incorporates additional manual actions to provide external flood protection for the service water pump cubicles in the event water level exceeds 13 feet MSL by requiring that the cubicle sump drain valves be closed prior to the introduction of water from an external source.

The licensee further stated that the drain valves, which were installed as part of a plant modification, meet the intent of Regulatory Guide (RG) 1.59, "Design Basis Floods for Nuclear Power Plants," and RG 1.102, "Flood Protection for Nuclear Power Plants" in a manner similar to that of the service water pump cubicle watertight doors. In response to questions the NRC had regarding the Millstone Unit 3 Final Safety Analysis Report (FSAR), the

licensee, in a letter dated July 22, 1983, stated that the service water cubicle watertight doors would normally be left open. The licensee further stated that when they are notified by CONVEX of an impending storm, high winds, and/or high water levels, the doors would be closed by operating procedures (i.e., administratively controlled). The NRC staff, in the Safety Evaluation Report dated July 1984, stated that the licensee would be required to ensure that the watertight doors into the service water cubicles are closed and secured during any hydrologic event that will result in water levels in excess of 14.5 feet MSL. The staff further stated that a TS or Emergency Operating Plan will be required to ensure that the watertight doors are closed and secured well in advance of a hydrologic event that is predicted to produce water levels in excess of 14.5 feet MSL. The staff concluded that based on its analyses, the plant design for probable maximum hurricane storm surge flooding and associated wave overtopping and runup meets the guidelines of RGs 1.59 and 1.102 and the requirements of General Design Criterion 2, "Design Bases for Protection Against Natural Phenomena."

RG 1.59 requires that the conditions resulting from the worst site-related flood probable at a nuclear power plant with attendant wind-generated wave activity constitute the design basis flood conditions that safety-related structures, systems, and components must be designed to withstand and retain capability for cold shutdown and maintenance. The RG further states that each component of the flood protection must be passive and in place, as it is to be used for flood protection, during normal plant operation. RG 1.102 describes the types of flood protection acceptable to the NRC staff for the safety-related structures, systems, and components.

The staff has reviewed the licensee's proposed change to add the manual action of shutting the service water pump cubicle sump drain valves to the existing required action to shut the watertight doors of both service water pump cubicles and determined that it is consistent with the Millstone Unit 3 design basis and is safe. The staff's determination is based on that (1) the drain valves will be shut by procedure when the sea level reaches 13 feet MSL, (2) the Millstone Unit 3 TS already require manual action to be taken when the sea level reaches 13 feet MSL, and (3) the Millstone Unit 3 design and the licensee's manual actions meet the intent of RGs 1.52 and 1.102 in that flood protection will be provided for the service water cubicles prior to the sea level reaching 13 feet MSL.

Therefore, the staff has determined, based on the above, that the proposed changes 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 (62 FR 30636 dated June 4, 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: July 28, 1997