

December 27, 1989

Docket No. 50-423

Mr. Edward J. Mrocza  
Senior Vice President  
Nuclear Engineering and Operations  
Connecticut Yankee Atomic Power Company  
Northeast Nuclear Energy Company  
Post Office Box 270  
Hartford, Connecticut 06141-0270

Dear Mr. Mrocza:

SUBJECT: MILLSTONE UNIT 3 - ISSUANCE OF AMENDMENT (TAC NO. 74552)

The Commission has issued the enclosed Amendment No.44 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your application dated August 22, 1989.

The amendment modifies Technical Specification (TS) 3/4.3.3.7, "Fire Detection Instrumentation" as follows: (1) An incorrect reference to containment air temperature monitoring requirements is corrected, (2) A definition of "not accessible during plant operation" is incorporated in the TS as a footnote and (3) Changes are made to the list of fire detectors contained in TS Table 3.3-11, "Fire Detection Instruments."

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,  
/s/

David H. Jaffe, Project Manager  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 44 to NPF-49
- 2. Safety Evaluation

cc w/enclosures:  
See next page

OFC	:LA:PDI-4	:PM:PDI-4	:PD:PDI-4	:OGC	:	:	:
NAME	:SNorris	:DJaffe:lm	:JStolz	:	:	:	:
DATE	:11/20/89	:11/21/89	:11/22/89	:11/28/89	:	:	:

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

December 27, 1989

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Sincerely,

A handwritten signature in dark ink, appearing to read "D. H. Jaffe".

David H. Jaffe, Project Manager  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

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2. Safety Evaluation

cc w/enclosures:  
See next page

DATED: December 27, 1989

AMENDMENT NO.44 TO FACILITY OPERATING LICENSE NO. NPF-49

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Mr. E. J. Mrocza  
Northeast Nuclear Energy Company

Millstone Nuclear Power Station  
Unit No. 3

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

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 44  
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 August 22, 1989, 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. 44, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
John F. Stolz, Director  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 27, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 44

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are provided to maintain document completeness.

Remove

3/4 3-64

3/4 3-65

3/4 3-66

3/4 3-67

Insert

3/4 3-64

3/4 3-65

3/4 3-66

3/4 3-67

TABLE 4.3-7 (Continued)

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
16. Containment Area - High Range Radiation Monitor	M	R*
17. Reactor Vessel Water Level	M	R
18. Containment Hydrogen Monitor	M	R
19. Neutron Flux	M	R

\*CHANNEL CALIBRATION may consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/h and a one point calibration check of the detector below 10 R/h with an installed or portable gamma source.

## INSTRUMENTATION

### FIRE DETECTION INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.7 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the fire detection instrument is required to be OPERABLE.

#### ACTION:

- a. With any, but not more than one-half the total in any fire zone, Function A fire detection instruments shown in Table 3.3-11 inoperable, restore the inoperable instrument(s) to OPERABLE status within 14 days or within the next 1 hour establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect that containment zone at least once per 8 hours (or monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.6).
- b. With more than one-half of the Function A fire detection instruments in any fire zone shown in Table 3.3-11 inoperable, or with any Function B fire detection instruments shown in Table 3.3-11 inoperable, or with any two or more adjacent fire detection instruments shown in Table 3.3-11 inoperable, within 1 hour establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect that containment zone at least once per 8 hours (or monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.5).
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

---

4.3.3.7.1 Each of the above required fire detection instruments which are accessible during plant operation shall be demonstrated OPERABLE at least once per 6 months by performance of a FIRE DETECTOR OPERATIONAL TEST. Fire detectors which are not accessible during plant operation(\*) shall be demonstrated OPERABLE by the performance of a FIRE DETECTOR OPERATIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.3.7.2 The NFPA Standard 72D supervised circuits supervision associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

\*Includes detectors in the Reactor Containment, HIGH Radiation Areas, and areas contaminated in excess of 100,000 dpm per 100 cm<sup>2</sup>.

TABLE 3.3-11

FIRE DETECTION INSTRUMENTS

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS*</u>		
	<u>HEAT</u> (x/y)	<u>FLAME</u> (x/y)	<u>SMOKE</u> (x/y)
<b>1. <u>Containment**</u></b>			
a. Elevation -24'6"	8/0		
b. RCP Cubicle D	4/0		
c. RCP Cubicle A	4/0		
d. RCP Cubicle C	4/0		
e. RCP Cubicle B	4/0		
f. Electrical Penetration Area, El. 24'6"			16/0
g. Outer Annulus, El. 3'8" and 24'6"			17/0
<b>2. <u>Auxiliary Building</u></b>			
a. East MCC/Rod Area, X-Zone 1			0/16
b. West MCC/Rod Area, X-Zone 1			0/16
c. North Floor Area, El. 4'6"			19/0
d. RPCCW Pump Area, El. 24'6"			19/0
e. Charging Pump Area			3/0
f. General Area, El. 43'6"			26/0
g. General Area, El. 66'6"			23/0
h. East MCC/Rod Area, X-Zone 2			0/12
i. West MCC/Rod Area, X-Zone 2			0/12
j. General Area, El. 4'6"			8/0
<b>3. <u>ESF Building</u></b>			
a. RSS Pump 1 Area			4/0
b. RSS Pump 2 Area			4/0
c. RHR HX Area North			8/0
d. RHR HX Area South			4/0
e. General Area, El. 4'6"			2/0
f. FWA Pump Area 1A Area			2/0
g. QSS Pump Area			4/0
h. FWA Pump 1B Area			4/0
i. FWA Pump 2 Area			5/0
j. North HVAC Area			2/0
k. South HVAC Area			2/0
l. H <sub>2</sub> Recombiner Bldg.			7/0

\*(x/y): x is number of Function A (early warning fire detection and notification only) instruments.  
y is number of Function B (actuation of Fire Suppression Systems and early warning and notification) instruments.

\*\*The fire detection instruments located within the containment Electrical Penetration Area, El. 24' 6", are required to be OPERABLE during the performance of Type A containment leakage rate tests. All other fire detection instruments located within the containment are not required to be OPERABLE during the performance of Type A containment leakage rate tests.

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS*</u>		
	<u>HEAT</u> (x/y)	<u>FLAME</u> (x/y)	<u>SMOKE</u> (x/y)
<b>4. <u>Control Building</u></b>			
a. Switchgear A, X-Zone 1			0/19
b. Cable Tray A, El. 4'6", X-Zone 1			0/19
c. A Battery Rooms			8/0
d. Switchgear B, X-Zone 1			0/20
e. Cable Tray B, El. 4'6", X-Zone 1			0/16
f. B Battery Rooms			6/0
g. Cable Spreading Room, NE X-Zone 1			0/8
h. Cable Spreading Room, SE X-Zone 1			0/11
i. Cable Spreading Room, NW X-Zone 1			0/8
j. Cable Spreading Room, SW X-Zone 1			0/11
k. Computer Room Floor			2/0
l. Instrument Rack Room East Floor			3/0
m. Instrument Rack Room West Floor			5/0
n. Computer Room			4/0
o. Instrument Rack Room East			7/0
p. Instrument Rack Room West			12/0
q. Computer Room HALON	0/4		
r. Instrument Rack HALON	0/17		
s. Control Room	1/0		28/0
t. HVAC Room			9/0
u. Chiller Room			3/0
v. Switchgear A, X-Zone 2			0/21
w. Switchgear B, X-Zone 2			0/26
x. Cable Spreading Room South, X-Zone 2			0/23
y. Cable Spreading Room South, X-Zone 2			0/16
<b>5. <u>Emergency Diesel Building</u></b>			
a. Diesel Generator A Area	14/0	4/0	1/0
b. Diesel Generator B Area	14/0	4/0	1/0
c. Fuel Oil Vault A	0/3		2/0
d. Fuel Oil Vault B	0/3		2/0
<b>6. <u>Intake Structure</u></b>			
a. Service Water Pump A			4/0
b. Service Water Pump B			4/0
c. Screen Wash Area			6/0
<b>7. <u>Service Building</u></b>			
a. Cable Tunnel North, X-Zone 1			0/6
b. Cable Tunnel South, X-Zone 1			0/7
c. Cable Tunnel North, X-Zone 2			0/5
d. Cable Tunnel South, X-Zone 2			0/6

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS*</u>		
	<u>HEAT</u> (x/y)	<u>FLAME</u> (x/y)	<u>SMOKE</u> (x/y)
8. <u>Fuel Building</u>			
a. General Area			17/0
b. Fuel Pool Cooling Pump Area			4/0
c. RSST A	0/10		
d. RSST B	0/10		

## INSTRUMENTATION

### LOOSE-PART DETECTION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.3.3.8 The Loose-Part Detection System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With one or more Loose-Part Detection System channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.8 Each channel of the Loose-Part Detection Systems shall be demonstrated OPERABLE by performance of:

- a. A CHANNEL CHECK at least once per 24 hours,
- b. An ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days, and
- c. A CHANNEL CALIBRATION at least once per 18 months.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 44

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

INTRODUCTION

By application for license amendment dated August 22, 1989, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS).

The proposed amendment would modify TS 3/4.3.3.7, "Fire Detection Instrumentation" as follows: (1) An incorrect reference to containment air temperature monitoring requirements would be corrected, (2) A definition of "not accessible during plant operation" would be incorporated in the TS as a footnote and (3) Changes would be made to list of fire detectors contained in TS Table 3.3-11, "Fire Detection Instruments."

DISCUSSION AND EVALUATION

At the present time, TS 3.3.3.7, Action b, references TS 4.6.1.6 regarding remedial action to be taken when required fire detectors inside containment become inoperable. The correct reference in TS 3.3.3.7 should be TS 4.6.1.5 rather than TS 4.6.1.6. The purpose of TS 4.6.1.5 is to allow containment temperature to be monitored in the event of a malfunction of the fire detection system. Section 4.6.1.6 deals with structural integrity and is incorrectly referenced under the existing TS 3.3.3.7.

Since the proposed change to TS 3.3.7 would correct an error, and does not otherwise change the requirements in the TS or the safety analyses, the proposed change to the TS is acceptable.

The licensee has also proposed a change to TS 4.3.3.7.1. At the present time, TS 4.3.3.7.1 allows the licensee to delay the operational test for fire detectors, which are not accessible during plant operation, until the next cold shutdown exceeding 24 hours. The licensee has proposed that TS 4.3.3.7.1 be clarified by the addition of a footnote which identifies inaccessible fire detectors to include, "...detectors in the Reactor Containment, HIGH Radiation Areas, and areas contaminated in excess of 100,000 dpm per 100 cm<sup>2</sup>."

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In addition the licensee has proposed a change to TS Table 3.3-11. The proposed changes would correct inconsistencies between the TS and the actual location and numbers of fire detectors at Millstone Unit 3.

With regard to the proposed changes to TS 4.3.3.7.1 and TS Table 3.3-11, these changes provide only clarifications and corrections to the TS and do not otherwise change the requirements in the TS or the fire hazards analysis. Accordingly, the proposed changes to the TS are acceptable.

#### ENVIRONMENTAL CONSIDERATION

This 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. We have 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 staff has previously published a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding. 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.

#### CONCLUSION

We have 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, and (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.

Dated: December 27, 1989

Principal Contributor: D. Jaffe