

July 07, 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: EXEMPTION FROM THE REQUIREMENTS OF 10 CFR PART 50,  
APPENDIX R, MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2  
(TAC NO. MA8245)

Dear Mr. Scace:

By letter dated February 14, 2000, as supplemented by letters dated April 5 and May 31, 2000, you requested an exemption from the requirements of Title 10 of the Code of Federal Regulations Part 50, Appendix R, Section III.J to the extent that it requires emergency lighting units with at least 8-hour battery power supply to light all areas needed for operation of safe shutdown equipment and in access and egress routes thereto. In addition, the May 31, 2000, letter documented your plans to implement the design modification which prompted the need for the exemption request.

We find that granting the exemption is authorized by law, will not present an undue risk to public health and safety, and is consistent with the common defense and security, and that special circumstances as described in 10 CFR 50.12(a)(2)(ii) are present. Accordingly, your exemption request has been granted.

A copy of the exemption is enclosed. The exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

*/RA/*

Jacob I. Zimmerman, Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosure: Exemption

cc w/encl: See next page

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\*\*See previous concurrence

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
NORTHEAST NUCLEAR ENERGY	)	Docket No. 50-336
COMPANY, et al.	)	
	)	
(Millstone Nuclear Power Station, Unit 2)	)	

EXEMPTION

I.

Northeast Nuclear Energy Company, et al., is the holder of Facility Operating License No. DPR-65 which authorizes operation of Millstone Nuclear Power Station, Unit 2. Millstone Nuclear Power Station, Unit 2 is a pressurized water reactor located in Waterford, Connecticut. The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect.

II.

Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," to Title 10 of the Code of Federal Regulations (10 CFR) Part 50, establishes fire protection features required to satisfy General Design Criterion 3, "Fire protection," of Appendix A to 10 CFR Part 50, with respect to certain generic issues for nuclear power plants licensed to operate prior to January 1, 1979. By letter dated February 14, 2000, as supplemented by letters dated April 5 and May 31, 2000, Northeast Nuclear Energy Company, (NNECO), the

licensee for Millstone Nuclear Power Station, Unit No. 2, requested an exemption from the technical requirements of 10 CFR Part 50, Appendix R, Section III.J to the extent that it requires emergency lighting units with at least an 8-hour battery power supply to light all areas needed for operation of safe shutdown equipment and in access and egress routes thereto. NNECO proposed to credit the security lighting system currently installed at the plant for access and egress route emergency lighting in lieu of providing separate emergency lighting units with an 8-hour battery supply in the Unit 3 yard area.

### III.

As a result of the decommissioning of Unit 1, the existing tie to Unit 1 Vital Electrical Bus 14H will be disconnected. The licensee will credit a new 4160-volt electrical tie to the Unit 3 Alternate AC diesel generator as the alternate AC power source for Unit 2 to comply with Appendix R. Access to the Unit 3 Alternate AC diesel generator and associated switchgear enclosures so that Unit 3 operators could start the diesel generator and make the necessary electrical ties to the Unit 2 bus requires travel through the Unit 3 yard area.

The outdoor access and egress route to the Unit 3 Alternate AC diesel generator and switchgear enclosures extends from the west entrance of Millstone Unit 3 Building 323 (grade elevation), north through a paved area to a service road, following the road generally to the east and then south to the enclosures.

The licensee proposes to credit the security lighting system for access and egress route emergency lighting in lieu of an 8-hour battery supply in the yard area. The basis for this is as follows:

1. The security lighting system illuminates the required access and egress routes;
2. The security lighting power supply is backed by a security diesel generator with fuel storage capacity to ensure operation greater than or equal to 8 hours;
3. The security generator, components, and circuits are independent from the postulated fire areas which require access to the 4160-volt Bus 14H enclosure, Intake Structure, or RWST pipe chase.

These actions will ensure that the Appendix R, Section III.J requirement to the extent that emergency lighting units with at least an 8-hour supply are met.

There are also portable lighting units dedicated for operations department use that would provide additional defense-in-depth for ensuring adequate lighting is available. The equipment is administratively controlled and located inside the Millstone Unit 3 Control Room Complex.

#### IV.

The underlying purpose of Section III.J of Appendix R is to ensure that fixed lighting of sufficient duration and reliability is provided to allow operation of equipment required for post-fire, safe shutdown of the reactor. Lighting for access/egress associated with the equipment is also required.

Large area applications will typically impose electrical load requirements which are beyond the normal limits of battery units. The security lighting system illuminates the required access and egress routes. The power supply is backed by a security diesel generator with fuel storage capacity to ensure operation with at least an 8-hour supply. The security generator, components and circuits are independent from the postulated fire areas which require access to the Unit 3 Alternate AC diesel generator and consistent with the defense-in-depth approach to fire protection.

Based on the availability and reliability of the security lighting of sufficient duration and the availability of portable lighting, there is reasonable assurance that the access/egress routes through the yard area that are relied on for safe shutdown of the facility can be accessed in the event of a fire.

On the basis of its evaluation, the NRC staff has concluded that the application of the regulation, pursuant to 10 CFR 50.12(a)(2)(ii), in this special circumstance is not necessary to achieve the underlying purpose of the rule.

V.

The Commission has determined that, pursuant to 10 CFR 50.12(a), an exemption to allow use of security lighting is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Further, special circumstances are present, as set forth in 10 CFR 50.12(a)(2)(ii). Therefore, the Commission hereby grants an exemption from the requirements of 10 CFR, Part 50, Appendix R, Section III.J.

Pursuant to 10 CFR 51.32, the Commission has determined that this exemption will not have a significant effect on the quality of the human environment (65 FR 41738).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 7<sup>th</sup> day of July 2000.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

***/RA/***

John A. Zwolinski, Director  
Division of Licensing Project Management  
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Millstone Nuclear Power Station  
Unit 2

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