

January 15, 1987

Docket No. 50-336

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Mr. Edward J. Mrocza, Senior Vice President  
Nuclear Engineering and Operations  
Northeast Nuclear Energy Company  
P. O. Box 270  
Hartford, Connecticut 06141-0270

Dear Mr. Mrocza:

SUBJECT: APPENDIX R EXEMPTION FOR MILLSTONE UNIT 2

By letter dated October 8, 1986, you requested an exemption from the provisions of Section III.J of Appendix R to 10 CFR Part 50, as these provisions apply to emergency lighting for operation of electrical Bus 24F and access/egress associated with this equipment.

Based upon information contained in your October 8, 1986 letter, we conclude that your proposed alternate emergency lighting, to be provided by portable equipment, provides a level of reliable illumination equivalent to that required by Section III.J of Appendix R. Therefore, your request for exemption is granted.

A notice of Environmental Assessment and Finding of No Significant Impact was published for this action in the Federal Register on January 14, 1987.

A copy of the exemption is being forward to the Office of the Federal Register for publication.

Sincerely,

/s/

Ashok C. Thadani, Director  
PWR Project Directorate #8  
Division of PWR Licensing-B

Enclosure:  
Exemption

cc w/enclosure:  
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Mr. Edward J. Mroczka  
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Millstone Nuclear Power Station  
Unit No. 2

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.  
Millstone Nuclear Power Station,  
Unit No. 2

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}  
}  
Docket No. 50-336

EXEMPTION

I.

The Northeast Nuclear Energy Company, et al. (the licensee), is the holder of Facility Operating License No. DPR-65 which authorizes operation of the Millstone Nuclear Power Station, Unit No. 2, at a steady state power level not in excess of 2700 megawatts thermal. The facility is a pressurized water reactor located at the licensee's site in the Town of Waterford, Connecticut. The license provides, among other things, that it is subject to all rules, regulations and orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II.

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section III of Appendix R contains 15 subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. One of these 15 subsections, III.J, is the subject of this exemption request. Specifically, Subsection III.J requires emergency

lighting units with at least an 8-hour battery power supply in all areas needed for the operation of safe shutdown equipment and in access and egress routes thereto.

### III.

By letter dated October 8, 1986, the licensee requested exemption from the requirements of Section III.J of Appendix R, as these requirements apply to vital electrical Bus 24F which is required for operation of safe shutdown equipment. The acceptability of the exemption request is addressed below.

### IV.

The purpose of Section III.J to Appendix R is to ensure that fixed lighting of sufficient duration and reliability are 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. The licensee has proposed that the use of portable illumination be substituted for fixed battery units associated with electrical Bus 24F.

In the event of a fire in certain plant areas, the licensee must gain access to Bus 24F in the switchyard to compensate for fire damage and to safely shut down the plant. This necessitates travel across the yard area, which is not provided with 8-hour battery powered emergency lighting units.

The licensee states that it is not feasible to install battery powered lighting units in these outdoor locations which would provide an adequate level of illumination throughout the path of travel. Instead, the licensee

proposes to use flashlights for the path of travel outdoors. The licensee also will use flashlights in the locations in which a fire occurs in conjunction with fire fighting and post-fire recovery activities.

The technical requirements of Section III.J are not met in the general yard area because 8-hour battery powered lighting units have not been provided in the access routes to Bus 24F.

The staff had three concerns with the licensee's proposal. The first was that the flashlights would not be maintained in an operable condition for use in the emergency. However, the licensee committed to control access to and to maintain the flashlights so as to be assured of their availability and operability when needed.

The staff was also concerned that there might be obstructions or tripping hazards in the route of travel that might not be adequately revealed with the beam of a flashlight. Based on past staff observations of the proposed route, however, no such conditions exist.

Finally, the staff was concerned that in proceeding from the power block to the Bus 24F, the plant operator would be required to use both hands which would effectively prevent him from using the flashlight. However, the licensee has identified no such actions. On this bases the staff considers the licensee's use of flashlights in lieu of fixed lighting units to be acceptable.

In conclusion, special circumstance exist in this case in that fixed 8-hour battery powered lighting units, required by Section III.J, do not

represent the best technical solution to providing reliable illumination in the vicinity of Bus 24F. The use of flashlights, in this case, provides a better alternative than fixed units.

Based on the above evaluation, the staff considers the licensee's alternative fire protection configuration to be equivalent to that achieved by conformance with Appendix R to 10 CFR Part 50. Therefore, the licensee's request for exemption from Section III.J in the outside yard area is granted.

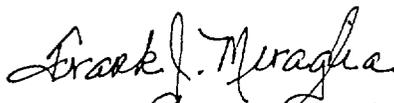
V.

Accordingly, the Commission has determined pursuant to 10 CFR 50.12(a), that (1) this exemption as described in Section IV 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, and (2) special circumstances are present for this exemption in that application of the regulation in this particular circumstance is not necessary to achieve the underlying purposes of Appendix R to 10 CFR Part 50. Therefore, the Commission hereby grants the exemption request identified in Section IV above.

Pursuant to 10 CFR 51.32 the Commission has determined that the granting of this Exemption will not result in any significant impact on the environment (52 FR 1566).

Dated at Bethesda, Maryland, this 14th day of January 1987.

FOR THE NUCLEAR REGULATORY COMMISSION



Frank J. Miraglia, Director  
Division of PWR Licensing-B  
Office of Nuclear Reactor Regulation