

March 5, 1999

Mr. Martin L. Bowling, Jr.
Recovery Officer - Technical Services
Northeast Nuclear Energy Company
c/o Ms. Patricia A. Loftus
Director - Regulatory Affairs
P. O. Box 128
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SUBJECT: ISSUANCE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT REGARDING EXEMPTION TO THE REQUIREMENTS OF 10 CFR PART 50 APPENDIX R - MILLSTONE NUCLEAR POWER STATION, UNIT 2 (TAC NO. MA2416)

Dear Mr. Bowling:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your request for exemption dated July 31, 1998, as supplemented September 24 and November 13, 1998. The proposal requests exemption from the requirements of Title 10 of the Code of Federal Regulations Part 50 (10 CFR Part 50), Appendix R, Section III.G to the extent that it requires automatic suppression, for three fire areas at Millstone Unit No. 2 that do not fully meet the criteria of 10 CFR Part 50, Appendix R, Section III.G. These three areas are the Intake Structure (Appendix R Fire Area R-16), the East 480 Volt Switchgear Room (Appendix R Fire Area R-11), and the Charging Pump Room (Appendix R Fire Area R-4). You also requested a fourth exemption from the 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.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,
/s/

Stephen Dembek, Project Manager
Project Directorate I-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosure: Environmental Assessment

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001
March 5, 1999

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Sincerely,

A handwritten signature in cursive script, appearing to read "Stephen Dembek".

Stephen Dembek, Project Manager
Project Directorate I-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosure: Environmental Assessment

cc w/encl: See next page

Millstone Nuclear Power Station
Unit 2

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Millstone Nuclear Power Station
Unit 2

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UNITED STATES NUCLEAR REGULATORY COMMISSIONNORTHEAST NUCLEAR ENERGY COMPANYTHE CONNECTICUT LIGHT AND POWER COMPANYTHE WESTERN MASSACHUSETTS ELECTRIC COMPANYDOCKET NO. 50-336MILLSTONE NUCLEAR POWER STATION, UNIT 2ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of Title 10 of the Code of Federal Regulations, Part 50 (10 CFR Part 50), Appendix R, Sections III.G and III.J to Facility Operating License No. DPR-65, issued to the Northeast Nuclear Energy Company, et al., (NNECO or the licensee), for operation of the Millstone Nuclear Power Station, Unit 2, located in Waterford, Connecticut.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

Three fire areas at Millstone Nuclear Power Station, Unit 2 do not fully meet the requirements of 10 CFR Part 50, Appendix R, Section III.G. These three areas are the Intake Structure (Appendix R Fire Area R-16), the East 480 Volt Switchgear Room (Appendix R Fire Area R-11), and the Charging Pump Room (Appendix R Fire Area R-4).

The Intake Structure and East 480 Volt Switchgear Room are classified as alternate shutdown areas and are required to meet 10 CFR Part 50, Appendix R, Section III.G.3. The last paragraph of Section III.G.3 requires that a fire detection and a fixed fire suppression system be installed in the area, room, or zone under consideration. The Intake Structure and East 480 Volt Switchgear Rooms do not have fixed fire suppression systems. NNECO has requested

exemptions to these requirements because the configuration of the intake structure and East 480 Volt Switch gear rooms, the combustibles loading, the administrative procedures that limit and control transient combustibles, the in-place fire detection systems, the fire brigade and availability of manual fire suppression equipment, and the ability to provide AC power from Millstone, Unit 1 allow the licensee to meet the underlying purpose of the rule. The underlying purpose of the requirement to install a fixed fire suppression system in these areas, as required by Section III.G.3 of Appendix R, is to limit fire damage to the dedicated or alternate shutdown capability.

The Charging Pump Room is required to meet 10 CFR Part 50, Appendix R, Section III.G.2 requirements. Section III.G.2 requires separation of cables and equipment and associated non-safety circuits of redundant trains by one of three means (Section III.G.2a, b, or c). NNECO requests an exemption from this requirement because the Charging Pump Area does not fully meet any of the three options. NNECO's basis for the exemption request is that the configuration of the charging pump room, the combustibles loading, the cable separation modifications, the in-place fire detection systems, the fire brigade and availability of manual fire suppression equipment, and preplanned fire fighting strategies allow the licensee to meet the underlying purpose of the rule. The underlying purpose of the three applicable options under Section III.G.2, is to provide reasonable assurance that at least one train of equipment relied on to achieve and maintain safe shutdown is free of fire damage.

The licensee also requested a fourth exemption from the 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 yard area access and egress routes for operation of safe shutdown equipment. The licensee based this exemption request primarily on in-place security lighting allowing the licensee to meet the underlying purpose of the rule. The underlying

purpose of the rule is to ensure that lighting of sufficient duration and reliability is provided to allow operation of equipment required for post-fire, safe shutdown of the reactor.

The proposed action is in accordance with the licensee's application for exemption dated July 31, 1998, as supplemented by letters dated September 24 and November 13, 1998.

The Need for the Proposed Action:

The proposed action is needed for the licensee to avoid the burden of full compliance with the regulations. Full compliance with the regulations would require the licensee to install fire suppression systems in the case of the Intake Structure and East 480 Volt Switchgear Rooms; and, a cable separation, fire suppression and/or fire barrier modification in the case of the Charging Pump Room. In the case of the yard area, full compliance would require battery powered lights to illuminate a large outdoor area for an 8-hour period. It is not considered practical to illuminate large outdoor areas with battery powered lighting for an 8-hour period. The licensee already has diesel powered security lighting in the same area and portable lighting equipment is also available. As noted above, the underlying purpose of the rule can be met without the burden of installing this equipment.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action. The underlying purpose of the rules the licensee is requesting to be exempted from is to ensure that the plant can be safely shut down in the event of a fire.

For the Intake Structure, based on the amount of combustible loading and combustible loading configuration, the licensee's administrative procedures that limit and control transient combustibles, the existing fire detection system, and the expected fire brigade response and subsequent extinguishment using manual equipment, the possibility of a fire developing to involve all three of the service water pumps is not considered likely. However, if this were to

occur, the loss of all three of the service water pumps would not adversely impact the safe shutdown capability of the plant, based on the ability to provide power via a backfeed from Millstone Unit 1, and the ability of the plant to make necessary repairs to a service water pump, strainer, and power cable to achieve cold shutdown. The licensee stated that the Appendix R safe shutdown strategy for a fire in the Intake Structure accounts for the loss of all three service water pumps. In addition, the configuration for alternate shutdown in the Intake Structure had been previously found acceptable in the NRC SE dated July 17, 1990. The configuration has not changed since this approval.

For the East 480V Switchgear Room, based on the amount of combustible loading and combustible loading configuration, the licensee's administrative procedures that limit and control transient combustibles, the existing fire detection system, the expected fire brigade response and subsequent fire extinguishment using manual fire suppression equipment, and the close proximity to the Control Room, there is reasonable assurance that a fire would not involve the entire area or spread beyond the area. The loss of the equipment in the east 480V switchgear room does not adversely impact the safe shutdown capability of the plant based on the ability to provide power via a backfeed from Millstone Unit 1. In addition, the configuration for alternate shutdown in the east 480V switchgear room has previously been found acceptable in the NRC SE, dated July 17, 1990. The configuration has not changed since this approval.

For the Charging Pump Room, based on the configuration of the Charging Pump Room, the combustibles loading, the in-place fire detection systems, the expected fire brigade response and subsequent fire extinguishment using manual fire suppression equipment, and preplanned fire fighting strategies there is reasonable assurance that a fire would not cause the loss of all charging pumps.

Based on the availability and reliability of the security lighting and the availability of portable lighting, there is reasonable assurance that the access and 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 review, the staff concludes that the licensee will still have the capability to safely shut down the plant, in the event of a fire, after these exemptions have been granted.

The proposed action will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not involve any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Millstone Nuclear Power Station, Unit 2.

Agencies and Persons Consulted:

In accordance with its stated policy, on February 19, 1999, the staff consulted with the Connecticut State official, Dwayne Gardner of the Division of Radiation, Department of Environmental Protection, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated July 31, 1998, as supplemented by letters dated September 24 and November 13, 1998, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at

the Learning Resources Center, Three Rivers Community-Technical College, 574 New London Turnpike, Norwich, CT 06360 and Waterford Public Library, 49 Rope Ferry Road, Waterford, CT 06385.

Dated at Rockville, Maryland, this 5th day of March 1999.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Director
Project Directorate I-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation