

# NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY  
WESTERN NEW BEDFORDS ELECTRIC COMPANY  
MILLSTONE WATER POWER COMPANY  
NORTHEAST UTILITIES SERVICE COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 685-5000

December 23, 1992

Docket No. 50-245  
814307

Re: Bulletin 92-01  
Supplement 1

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1  
Bulletin 92-01, Supplement 1  
Thermo-Lag

On August 28, 1992,<sup>(1)</sup> the NRC Staff issued Bulletin 92-01, Supplement 1, "Failure of Thermo-Lag 330 Fire Barrier System to Perform its Specified Fire Endurance Function," which requested licensees to identify the locations where this fire protection product is used in the plant and to take appropriate compensatory measures consistent with the action that would be taken per technical specifications for an inoperable fire barrier.

Northeast Nuclear Energy Company (NNECO) has identified that this material is utilized in four areas at Millstone Unit No. 1. As previously identified in letters dated July 27, 1992,<sup>(2)</sup> and October 1, 1992,<sup>(3)</sup> Thermo-Lag 330 is installed in the auxiliary boiler room (fire zone T-6), turbine building service area (fire zone T-3C), turbine building duct bank (below fire zone T-3B), and turbine building auxiliary ventilation room (fire zone T-12B).

- (1) Charles E. Rossi letter to All Operating Licensees, "NRC Bulletin No. 92-01, Supplement 1," dated August 28, 1992.
- (2) J. F. Opeka letter to U.S. Regulatory Commission, "Haddam Neck Plant, Millstone Nuclear Power Station, Units 1, 2, and 3, Bulletin 92-01," dated July 27, 1992.
- (3) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Haddam Neck Plant, Millstone Nuclear Power Station, Units 1, 2, and 3, Bulletin 92-01, Supplement 1," dated October 1, 1992.

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Continuous fire watches are in place covering all these areas in conformance with the requested actions of Bulletin 92-01,<sup>(4)</sup> "Failure of Thermo-Lag 330 Fire System to Maintain Cabling in Wide Cable Trays and Small Conduits Free From Fire Damage," and Bulletin 92-01, Supplement 1.<sup>(1)</sup> NNECO is requesting Staff approval to provide alternative compensatory action in lieu of the continuous fire watches presently in place. NNECO proposes to install a remote camera monitoring system covering these areas. This remote camera system will be monitored continuously.

NNECO proposes to install cameras in the areas directed in such a way as to detect the presence of fire in the vicinity of Thermo-Lag 330 fire barrier installations. The video displays will be monitored remotely. This will reduce the fire watch personnel required while still meeting the requirements to maintain a continuous fire watch presence for these areas.

The use of remote monitoring systems to meet the requirements of fire watches has been accepted for numerous applications, including three at Northeast Utilities' units; two at the Haddam Neck Plant; and one at Millstone Unit No. 3. The purpose of a fire watch is to detect the presence of a fire in a timely manner to ensure that appropriate and timely actions are taken to extinguish the fire. Properly placed and monitored video displays meet the purpose and intent of a fire watch.

Final resolution of the concerns related to Thermo-Lag 330 fire barrier systems are anticipated to take many months. NNECO believes that maintaining continuous fire watches in these areas places an undue burden on company resources. Maintaining continuous fire watches in these areas is estimated to cost approximately \$750,000 per year. A continuous fire watch requires that a person be dedicated to this single task. Coverage is required 24 hours a day, seven days a week. By utilizing cameras, one person can effectively monitor four areas, greatly reducing this resource burden.

In addition to the costs involved, three of the four areas have high levels of industrial noise. Noise levels are very high in the auxiliary boiler area (when a boiler is running), the turbine building duct bank (which is in the vicinity of the reactor feed pump), and the turbine building service area. It is NNECO's policy to minimize exposure to conditions detrimental to health, including industrial noise, where possible. Given the cost considerations and NNECO's policies on health and safety, it is in the best interest of NNECO to replace the fire watch personnel with a remote monitoring system if there is sufficient technical justification. We believe that sufficient justification exists for these areas.

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(4) Charles E. Rossi letter to All Operating Licensees, "NRC Bulletin No. 92-01," dated June 24, 1992.

The justification for each area is discussed separately below.

The justification for a remote monitoring system in the auxiliary boiler room (fire zone T-6) is provided as follows:

1. There is low fire loading in this area. (Maximum credible fire loading for this area is 47 minutes.)
2. There is a wet piped sprinkler system protecting this area.
3. Hose stations are available in the adjacent area.
4. Water curtain sprinkler protection is installed at the roll-up door between this area and the adjacent machine shop, and at the vent openings and the personnel door to the adjacent diesel room.
5. There are portable fire extinguishers in this area.
6. There is a rate-of-rise heat detection system in this area.
7. The junction boxes and supports are protected by a three-hour rated prefabricated installation of Thermo-Lag 330.
8. Compensatory action of an installed camera system, monitored continuously, is proposed.

The justification for a remote monitoring system in the turbine building service area (fire zone T-3C) is provided as follows:

1. There is low fire loading for this area. (Maximum credible fire loading for this area is 39 minutes.)
2. The four conduits are protected by a three-hour rated prefabricated installation of Thermo-Lag 330.
3. There are portable fire extinguishers in this zone.
4. There are three hose stations in this zone.
5. Additional hose stations and portable fire extinguishers are available in adjacent areas.
6. Compensatory action of an installed camera system, maintained continuously, is proposed.
7. The Thermo-Lag 330 installation has no direct flame exposure from combustibles.

The justification for a remote monitoring system for the turbine building duct bank (below fire zone T-3B) is provided as follows:

1. The fire loading in this duct bank is negligible.
2. The cables in the duct bank are protected by a three-hour rated prefabricated installation of Thermo-Lag 330.
3. Access to this area is limited in that a steel hatch must be removed for personnel entry.
4. Compensatory action of an installed camera system, monitored continuously, is proposed.

The justification for a remote monitoring system for the turbine building auxiliary ventilation room (fire zone T-12B) is provided as follows:

1. There is low fire loading in this area. (Maximum credible fire loading for this area is 23 minutes.)
2. There is a hose station in this area.
3. Additional hose stations and portable fire extinguishers are available in an adjacent area.
4. The two conduits are protected by a three-hour rated prefabricated installation of Thermo-Lag 330.
5. The Thermo-Lag 330 installation has no direct flame exposure from combustibles.
6. Compensatory action of an installed camera system, monitored continuously, is proposed.

Due to the justification provided above, NNECO believes that remote monitoring of the aforementioned areas via television cameras is acceptable in lieu of having fire watch personnel stationed in these areas continuously. NNECO requests Staff concurrence with the proposed compensatory measures at your earliest possible convenience.

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If you have any questions, please contact my staff directly.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka  
Executive Vice President

BY: *E. A. DeBarba*  
E. A. DeBarba  
Vice President

cc: T. T. Martin, Region I Administrator  
J. W. Andersen, NRC Acting Project Manager, Millstone Unit No. 1  
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2,  
and 3

Subscribed and sworn to before me

this 23rd day of December, 1992

*Ruth J. Dietrich*  
Notary Public

Date Commission Expires: 3/21/95