

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
MILSTONE 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) 665-5000

July 31, 1992

Docket No. 50-423

B14211

Re: 10CFR50.36

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Temporary Waiver of Compliance
Technical Specification 3.7.13

Northeast Nuclear Energy Company (NNECO) hereby requests a temporary waiver of compliance for Millstone Nuclear Power Station, Unit No. 3, Technical Specification 3.7.13, "Fire Rated Assemblies"; specifically, Action Item 'a.' A temporary waiver of compliance is necessary to allow Millstone Unit No. 3 to continue to operate while the concerns of Bulletin 92-01, "Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free From Fire," are addressed inside the Millstone Unit No. 3 containment.

Background

In NRC Bulletin 92-01 dated June 24, 1992, the NRC identified concerns with Thermo-Lag 330 when used in certain applications. In our July 17, 1992,⁽¹⁾ letter, we stated that Millstone Unit No. 3 had identified that this material is utilized in one application inside containment. As a compensatory measure, we stated that containment temperature is being monitored for sudden temperature increases. The NRC on July 28, 1992, verbally notified NNECO that the positions contained in our July 17, 1992, letter were not acceptable. As a result, NNECO now will be required to post a fire watch. However, the Thermo-Lag in question is located inside containment. Therefore, Millstone Unit No. 3 is in the process of installing a closed-circuit television camera which will monitor the affected areas inside containment. This camera will be monitored on an hourly basis in accordance with Technical Specification 3.7.13. The work necessary to design, procure, install, and test this modification will be completed by August 7, 1992. Therefore, this temporary

(1) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Bulletin 92-01," dated July 17, 1992.

9208120009 920731
PDR ADOCK 05000423
G PDR

JEHA 1/0

waiver of compliance is requested until such time as the television camera is installed inside containment.

Discussion

- Requirements for Which a Waiver is Requested

NNECO is requesting a temporary waiver of compliance from Technical Specification 3.7.13, "Fire Rated Assemblies," until Millstone Unit No. 3 is able to design, procure, install, and test a closed-circuit television system which will provide a fire watch for the cables associated with the fire water supply containment isolation valves which utilize the Thermo-Lag 330 material inside containment. This temporary waiver is requested until August 7, 1992.

- Discussion of Circumstances Surrounding the Situation/Need for Prompt Action Why the Situation Could Not Be Avoided

On June 24, 1992, the NRC issued Bulletin 92-01 which described failures of Thermo-Lag 330 in certain applications. Millstone Unit No. 3 has identified that it uses Thermo-Lag 330 in the applications discussed in Bulletin 92-01. The only area which meets the criteria in Bulletin 92-01 for Millstone Unit No. 3 is inside containment. In this instance, Millstone Unit No. 3 developed a position, which was reviewed verbally with the NRC Staff, and appeared to address the concerns stipulated in the bulletin. This position was formally transmitted to the NRC in our July 17, 1992, letter, and we believed this item was closed. On July 28, 1992, we were verbally informed that the compensatory measures identified in our July 17, 1992, letter were not acceptable. Millstone Unit No. 3 now is required to design a system to monitor the affected area. The design and installation of this system will be predicated on the results of containment entries that have and will continue to be made, engineering calculations, and drawings that need to be developed.

- Discussion of Compensatory Actions

The compensatory actions we propose are the continuance of those items contained in our July 17, 1992, letter. We understand the Staff found our positions unacceptable for the long term. We believe that for a short period, these actions, combined with the limited use of Thermo-Lag 330 inside containment, the small probability of a fire, and the installed detection and suppression systems are acceptable.

- Safety Significance and Potential Consequences of Request

Technical Specification 3.7.13, entitled "Fire Rated Assemblies," requires hourly fire watch patrols be established when a fire-rated assembly (walls, floor/ceiling, cable tray enclosures, and other fire barriers) becomes inoperable. NRC Bulletin 92-01 directed utilities to

implement, in accordance with plant procedures, the appropriate compensatory measures, such as fire watches, consistent with those which would be implemented by either plant technical specifications or the operating license for an inoperable fire barrier.

Millstone Unit No. 3 has TSI Thermo-Lag Fire Barrier material installed on one conduit run inside containment. The material provides protection (one-hour protection required) for Conduit 3CC900PB, which contains control cabling for Fire Water Valve 3FPW*CTV49.

The wrap material begins at the Containment Penetration 3RCP*G3V and terminates at Junction Box 3FPW*J849. The length of the run is approximately 40 feet and transverses the (-)24', 3'-8", and 24' elevations of containment. The purpose of this wrap is to provide barrier protection to the control cable for the inside containment isolation valve for the containment fire water system. If the valve fails closed, a flow path for the containment penetration wet-piped sprinkler system and area hose stations would not be available without manually realigning a bypass valve. The protected cable (Conduit 3CC900PB) runs in the same general area as the safety-related cabling the fire water system protects. The wrap material assured that a single fire would not disable the fire water system.

With the barrier considered inoperable (per NRC Bulletin 92-01), the proper response would have been to establish an hourly fire watch patrol within the area, since suppression and detection also exist within the area. Because of the fact that this material is inside containment, it is impractical to comply with the Technical Specification Action requirements. In lieu of a fire watch patrol, Millstone Unit No. 3 will install a camera system, such that the area containing the wrap will be monitored from outside containment.

NNECO concludes that the fire protection system has not been degraded to an unsafe level for the period of time beginning when the material was determined to be degraded and concluding when the camera system is installed and tested. The conclusion is based upon the following:

- Fire hazards within the area of the wrap are considered negligible. Very little, if any, combustibles exist in the area that would expose the wrap material to heat or flames.
- Ignition sources are nonexistent in the area.
- Although the material is potentially degraded per NRC Bulletin 92-01, it will still provide some (limited) fire protection to the conduit.
- The area is monitored by smoke detectors. These detectors would alarm in the control room if a smoke condition is present.

- The area is protected by a wet-piped sprinkler system which also alarms in the control room. A fire in the area would trigger the flow of fire protection water and extinguish the flames well before damage to the wrap material/conduit could occur.
- Access to this area is limited/restricted. This precludes the introduction of any additional combustibles.
- Containment air temperature is monitored continuously by a personal computer and alarms in the control room if the temperature exceeds the electrical equipment environmental qualification limit.
- Plant awareness on this issue is very high, assuring enhanced reaction times and higher levels of operational scrutiny.
- The probability of a fire occurring during the time before the camera system is installed (no later than August 7, 1992) is very low.

• Discussion Justifying the Duration of the Request

On July 17, 1992, NNECO considered this item resolved. However, on July 28, 1992, the NRC verbally notified NNECO that the compensatory actions discussed in the July 17, 1992, letter were not acceptable.

Millstone Unit No. 3 is currently at power. Proper design and installation of this closed-circuit television system to monitor the Thermo-Lag 330 requires careful planning to ensure that all NRC criteria and NNECO procedures are met. Evaluations must be performed to verify seismic adequacy, hydrogen generation, electrical rating, and coverage areas. Also, procurement of the required components may be required. These items necessitate that NNECO proceed quickly, yet prudently, to ensure all criteria are met.

• Basis for the No SHC Determination

NNECO has reviewed the proposed temporary waiver of compliance in accordance with 10CFR50.92 and has concluded it does not involve a significant hazards consideration. The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed waiver would not involve a significant hazards consideration because it would not:

- Involve a significant increase in the probability of occurrence or consequences of an accident previously analyzed.

The issuance of a temporary waiver of compliance does not involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated. This is based on

the numerous items that are available to monitor and/or mitigate the potential fire. These items include the closed wet head sprinkler, the hose racks, the heat detection system, the smoke detector, and containment temperature monitoring. These items will assure that the consequences of an accident previously analyzed are not significantly increased.

- Create the possibility of a new or different kind of accident from any previously evaluated.

The possibility of an accident or malfunction of a different type than any evaluated previously in the Final Safety Analysis Report is not created. There are no changes in the way the plant is being operated, nor are we introducing any new items that would create a fire. The Thermo-Lag 330 is used to mitigate an event that has already occurred. Although the Thermo-Lag 330 material is not fully qualified for a three hour rating, it will afford some protection to the plant. This limited protection, combined with the existing features (i.e., detectors, sprinkler system) will ensure no new or different kind of accidents occur during this limited time period.

- Involve a significant reduction in a margin of safety.

The temporary waiver of compliance will not result in a significant reduction in the margin of safety afforded by the technical specifications. The use of Thermo-Lag inside containment is limited. The Thermo-Lag, while not fully qualified (per NRC Bulletin 92-01), will provide some protection to the cabling associated with the containment isolation valve for the fire protection water system. There also exists inside containment fire detection and mitigation features. These items, combined with the extremely low probability of a fire occurring during this time period, provide justification that a significant reduction in the margin of safety will not occur.

- Basis for No Irreversible Environmental Consequences

The proposed temporary waiver of compliance has no environmental impact since the waiver simply allows Millstone Unit No. 3 to continue at full power while the closed-circuit television system is installed by NNECO.

In summary, the proposed temporary waiver of compliance would allow Millstone Unit No. 3 to continue at power until such time that the closed-circuit television is installed. This request is safe, could not be avoided, and does not constitute a significant hazards consideration.

The camera system that will be installed will be of a high quality. In the unlikely event that the camera system becomes inoperable in the future, NNECO will have replacement parts available and will restore the camera system to an

U.S. Nuclear Regulatory Commission
B14211/Page 6
July 31, 1992

operable status as soon as possible, but no later than five days after the camera becomes inoperable.

The Millstone Unit No. 3 Plant Operations Review Committee and Nuclear Review Board have reviewed and approved the proposed temporary waiver and have concurred with the above determinations.

We believe the above information provides a complete basis for approval of the requested temporary waiver of compliance. We remain available to discuss this with you at your convenience.


The State of Connecticut will be provided a copy of this request by telecopy.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka
Executive Vice President

BY:


E. A. DeBarba
Vice President

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2,
and 3

Mr. Kevin McCarthy, Director
Radiation Control Unit
Department of Environmental Protection
Hartford, CT 06106