

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
RULYON 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 27, 1992

Docket No. 50-423
B13747

Re: 10CFR50.90

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Proposed Revision to Technical Specifications
Accident Monitoring Instrumentation--Reactor Vessel Monitoring

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend Operating License NPF-49 by incorporating the changes identified in Attachment 1 into the technical specifications of Millstone Unit No. 3.

Background

For Millstone Unit No. 3, the subcooled margin monitor, core exit thermocouples (CETs), and a reactor vessel coolant inventory tracking system comprise the inadequate core cooling (ICC) instrumentation required by Item II.F.2 of NUREG-0737, the Post-TMI-2 Action Plan. The function of the ICC instrumentation is to enhance the ability of the plant operator to diagnose the approach to, existence of, and recovery from ICC. Additionally, they aid in tracking reactor coolant inventory. These instruments are included in the Millstone Unit No. 3 technical specifications (Section 3.3.3.6).

The heated junction thermocouple (HJTC) system designed by Combustion Engineering (CE) is used at Millstone Unit No. 3 to monitor coolant inventory in the reactor vessel region above the core. Redundant strings of HJTCs are arranged in the reactor vessel head area to provide indication of conditions at eight distinct levels. The system is a two-channel system, each consisting of a string of eight sensors. The HJTC system is described in the Millstone Unit No. 3 Final Safety Analysis Report Section 4.4.6.5.1. In a letter dated February 19, 1985,⁽¹⁾ the CE Owners Group (CEOG) proposed standard accident monitoring instrumentation

(1) R. W. Wells, Chairman, Combustion Engineering Owners Group, letter to H. L. Thompson, U.S. Nuclear Regulatory Commission, "Technical Specification for the Reactor Vessel Level Monitoring System," dated February 19, 1985.

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technical specifications for the CE-designed reactor vessel monitoring system (RVLMS) using an HJTC concept. In a letter dated October 28, 1986,⁽²⁾ the NRC concluded that the CEOG proposed technical specifications for the RVLMS are acceptable as proposed for application to System 80 and non-System 80 CE-designed reactors (e.g., Westinghouse reactors). For other reactor designs using the CE HJTC, these technical specifications are also applicable provided that the channel operability of the HJTC probe is defined as follows: "A channel is operable if four or more sensors, half or more in the upper head region, and half or more in the upper plenum region, are operable."

Description of Proposed Changes

The proposed changes will revise Technical Specification Section 3.3.3.6 for reactor vessel water level by incorporating generic requirements for the RVLMS proposed by the CEOG and accepted by the NRC.⁽³⁾ Specifically, the proposed changes will accomplish the following:

- Provides in Section 3.3.3.6 separate actions when either one or two channels of reactor vessel water level monitoring are not operable.
- Adds a definition to Table 3.3-10 of an operable channel.
- Clarifies Table 4.3-7 that an electronic calibration from the ICC cabinets is the appropriate surveillance for the reactor vessel water level instrumentation.
- Revises the Bases in support of these changes.

Currently, inoperability of one or both channels of reactor vessel level instrumentation would require a shutdown if operability is not restored within a specified time frame. The changes proposed herein provide flexibility to use alternate methods of monitoring reactor vessel level, thereby precluding an unnecessary plant shutdown. The CETs will be used as an alternate means of monitoring the reactor vessel inventory.

Technical Specification Section 3.3.3.6 is being revised to provide new separate actions (i.e., ACTIONS 'e' and 'f') to be taken when either one or both channels of reactor vessel water level monitoring are declared inoperable. With the number of operable channels for the reactor vessel water level monitor less than the total number of channels shown in Table 3.3-10, actions include restoring the

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- (2) D. M. Crutchfield letter to R. W. Wells, "Safety Evaluation of Generic Technical Specification Proposed by Combustion Engineering Owners' Group for the Reactor Vessel Level Monitoring System," dated October 28, 1986.
 - (3) D. M. Crutchfield letter to R. W. Wells, "Safety Evaluation of Generic Technical Specification Proposed by Combustion Engineering Owners' Group for the Reactor Vessel Level Monitoring System," dated October 28, 1986.

inoperable channel to operable status within 7 days if repairs are feasible without shutting down or preparing and submitting a special report to the Commission within 30 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the channel to operable status. With the number of operable channels for the reactor vessel water level monitor less than the minimum channels operable requirement of Table 3.3-10, actions include restoring the inoperable channel(s) to operable status within 48 hours if repairs are feasible without shutting down or initiating an alternate method of monitoring the reactor vessel inventory, preparing and submitting a special report to the Commission within 30 days following the event, and restoring the inoperable channel(s) to operable status at the next scheduled refueling. In addition, ACTIONS 'a' and 'b' of Technical Specification 3.3.3.6 are clarified to reflect the new ACTIONS 'e' and 'f'. Due to the addition of two new ACTION statements, existing ACTION 'e' now becomes ACTION 'g'.

For purposes of clarification, a definition of an operable reactor vessel water level channel is being added to Table 3.3-10 which defines a channel as operable if four or more sensors, half or more in the upper head region and half or more in the upper plenum region, are operable. This definition is consistent with that proposed by the CEOG and accepted by the NRC.

A footnote is being added to Table 4.3-7 that indicates that the surveillance required for the reactor vessel water level accident monitoring instrumentation is by means of electronic calibration from the ICC cabinets only. This is required since authentic simulation of the reactor vessel coolant level monitoring system cannot be conducted due to their physical location and range. This proposed change was identified in NNECO's response to Generic Letter 83-37, "Proposed Technical Specification Changes,"⁽⁴⁾ and was accepted by the NRC.

Additional changes are being made to the Bases in support of the changes identified above.

Safety Assessment

All design basis accidents were reviewed for any potential impact due to these changes. Since these monitors provide no control functions, none of the proposed changes would adversely impact the consequences of any postulated accident. These changes provide flexibility to utilize an alternate method of monitoring the reactor vessel level inventory if the operable channel(s) cannot be restored in 48 hours. In addition, these changes are consistent with that proposed by the CEOG and accepted by the NRC.

(4) E. J. Mroczka letter to the U.S. Nuclear Regulatory Commission, "Millstone Unit No. 2, Proposed Changes to Technical Specifications Generic Letter 83-37--NUREG 0737," dated July 21, 1987.

Significant Hazards Consideration

NNECO has reviewed the proposed changes in accordance with 10CFR50.92 and has concluded that the changes do 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 changes do not involve a significant hazards consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed. The proposed changes will revise the surveillance and operability requirements of the reactor vessel water level monitoring instrumentation, by incorporating generic requirements proposed by the CEOG and accepted by the NRC Staff. These changes provide flexibility to utilize an alternate method of monitoring the reactor vessel inventory if the inoperable channel(s) cannot be restored to operable status within 48 hours, thereby precluding an unnecessary plant shutdown. The changes also allow for the restoration of the inoperable channel(s) to be accomplished during the next scheduled refueling. The proposed changes are bounded by the design basis analysis and will have no negative impact on the probability of occurrence of any design basis accident.
2. Create the possibility of a new or different kind of accident from any previously analyzed. There are no physical design changes associated with the proposed technical specification changes. Therefore, there can be no impact on plant response to the point where a different accident is created.
3. Involve a significant reduction in a margin of safety. Since the proposed changes to Technical Specification 3.3.3.6, Table 3.3-10, and Table 4.3-7 do not affect the consequences of any accident previously analyzed or on any of the protective boundaries, there is no reduction in the margin of safety.

In summary, for the reasons identified above, NNECO has concluded that continued operation of the facility in accordance with the proposed amendment would not involve a significant hazards consideration.

Moreover, the Commission has provided guidance concerning the application of standards in 10CFR50.92 by providing certain examples (March 6, 1986, 51FR7751) of amendments that are considered not likely to involve a significant hazards consideration. Although the proposed changes are not enveloped by a specific example, the proposed changes would not involve a significant increase in the probability or consequences of an accident previously analyzed. The changes to Section 3.3.3.6 separate the actions to be taken with either one or both channels of RVLMS inoperable. The changes to Table 3.3-10 add a definition of an operable reactor vessel level water level channel, and the changes to Table 4.3-7 clarify the type of surveillance for the reactor vessel water level accident monitoring instrumentation. These proposed changes are consistent with those proposed by the CEOG and accepted by the NRC Staff.

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NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not involve a significant hazards consideration, nor increase the types and amounts of effluents that may be released off-site, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, NNECO concludes that the proposed changes meet the criteria delineated in 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an environmental impact statement.

The Millstone Unit No. 3 Nuclear Review Board has reviewed and approved the proposed changes and has concurred with the above determination.

The attached retype of the proposed changes to the technical specifications reflects the currently issued version of the technical specifications. Pending technical specification changes or technical specification changes issued subsequent to this submittal are not reflected in the enclosed retype. The enclosed retype should be checked for continuity with technical specifications prior to issuance. Revision bars are provided in the right-hand margin to indicate a revision to the text.

Regarding our schedule for this amendment, we request issuance at your earliest convenience with the amendment effective within 30 days of issuance.

In accordance with 10CFR50.91(b), we are providing the State of Connecticut with a copy of this proposed amendment.

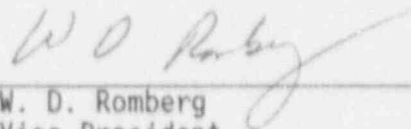
Should you have any questions, please contact my staff.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka
Executive Vice President

BY:


W. D. Romberg
Vice President

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

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

