

Northeast
Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(203) 665-5000

June 8, 1995

Docket No. 50-423
B15228

Re: 10CFR50.90

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

Millstone Nuclear Power Station, Unit No. 3
Proposed Revision to Technical Specifications
Accumulators

Introduction

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its Operating License, NPF-49, by incorporating the changes identified in Attachments 1 and 2 into the Millstone Unit No. 3 Technical Specifications. Surveillance Requirement 4.5.1.c is being revised to clarify the requirements for securing the safety injection accumulator isolation valve (3SIL*MV8808A, B, C and D) breakers in the off (tripped) position for the applicable modes. Technical Specification 3/4.8.4.3, "AC Circuits Inside Containment," is being deleted since Technical Specification 3/4.8.4.1, "Containment Penetration Conductor Overcurrent Protective Devices," will provide assurance that two breakers in series protect the electrical penetrations and penetration conductors against an overcurrent condition and single failure of a circuit breaker.

Description of the Proposed Changes

The Millstone Unit No. 3 Technical Specification Section 3/4.8.4.3 requires removal of electrical power to the safety injection accumulator isolation valves in Modes 1, 2, 3, and 4 in order to protect the containment electrical penetrations and penetration conductors. Bases Section 3/4.8.4 states that containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during normal plant operation (Modes 1 through 4) or by demonstrating the operability of primary and backup overcurrent protection circuit breakers during performance of periodic surveillances. It is proposed that Section 3/4.8.4.3 will be deleted since the containment electrical penetration and penetration conductors for these circuits are protected by primary and backup penetration circuit breakers which are demonstrated to be operable by periodic surveillance testing.

9506130080 950608
PDR ADOCK 05000423
P PDR

ADD

Technical Specifications Section 3.5.1 requires that electrical power to the safety injection accumulator isolation valves (3SIL*MV8808A, B, C, D) be removed for the accumulators to be operable. This requirement prevents the inadvertent closure of these isolation valves which would block the safety function of the accumulators. Section 4.5.1.c requires demonstrating accumulator operability by "At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is disconnected by removal of the breaker from the circuit." The surveillance requirements for verifying removal of power to the accumulator isolation valves for Section 4.5.1.c will be changed to "At least once per 31 days when the RCS pressure is above 1000 psig by verifying that the associated circuit breakers are locked in a deenergized position or removed."

The proposed change will clarify requirements for securing these breakers in the off (tripped) position in the applicable modes. In addition, index page xi has been revised to reflect the deletion of Section 3/4.8.4.3. Attachments 1 and 2 provide the mark-up and retyped pages of the Millstone Unit No. 3 Technical Specifications, respectively and reflect the currently issued version of the pages.

Safety Assessment

Section 3/4.8.4.3 (A.C. Circuits Inside Containment)

Technical Specifications Section 3/4.8.4.3 requires removal of electrical power to the Safety Injection Accumulator Isolation Valves (3SIL*MV8808A, B, C, D) in modes 1, 2, 3, 4 in order to protect the containment electrical penetrations and penetration conductors. Section 3/4.8.4 (Bases) states that containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the operability of primary and backup overcurrent protection circuit breakers during periodic surveillances. Section 3/4.8.4.3 will be deleted since the containment electrical penetration and penetration conductors for these circuits are protected by primary and backup penetration circuit breakers which are demonstrated to be operable by periodic surveillance testing.

A design change has been made to add secondary electrical penetration breakers to a number of circuits including 3SIL*MV8808A, B, C, and D. Both the primary and secondary breakers for these motor operated valves (MOVs) will trip before the penetration thermal capability is exceeded. The addition of secondary breakers meets the single failure criterion recommended by Regulatory Guide 1.63. The two breakers for each MOV are periodically tested for operability. Therefore, the addition of a

second series connected circuit breaker to power circuits for MOVs 3SIL*MV8808A, B, C, and D meets the Technical Specification Bases for maintaining power to these MOVs during reactor operation.

The Millstone Unit No. 3 Safety Evaluation Report (SER)⁽¹⁾ Section 8.3.3.1.1 addresses the issue of submerged electrical equipment as a result of a LOCA. These MOVs are not qualified for submergence and therefore may introduce a fault onto the Class 1E buses when submerged. At the time the SER was written, 3SIL*MV8808A, B, C, and D were not protected by a second breaker. Therefore, NNECO was required to periodically verify that these valves were deenergized during normal plant operation. NNECO also identified other electrical equipment which may be submerged due to a LOCA but was protected by two series connected interrupting devices. The NRC responded that while this approach does not meet Regulatory Guide 1.75 recommendation for an isolation device, "the Staff concludes that there is reasonable assurance that the power supplies will not fail as a result of submergence of equipment. The design is, therefore acceptable." The NRC acceptance of this design supports the removal of Technical Specifications Section 3/4.8.4.3.

Removal of the electrical penetration protection requirements of Section 3/4.8.4.3 is justified since Section 3/4.8.4.1 (Containment Penetration Conductor Overcurrent Protective Devices) will provide assurance that two breakers in series protect the electrical penetrations and penetration conductors against an overcurrent condition and the single failure of a circuit breaker. The two breakers in series also protect the Class 1E buses against a variety of overcurrent conditions including electrical faults which may be introduced due to the possible submergence of the accumulator isolation valves during a LOCA.

Section 3/4.5.1 (Accumulators)

Technical Specifications Section 3.5.1 requires that electrical power to the safety injection accumulator isolation valves (3SIL*MV8808A, B, C, D) be removed for the accumulators to be operable. This requirement prevents the inadvertent closure of these isolation valves which would block the safety function of the accumulators. Section 4.5.1.c requires demonstrating accumulator operability "at least once per 31 days when the reactor coolant system (RCS) pressure is above 1000 psig by verifying that power to the isolation valve operator is disconnected by removal of the breaker from the circuit." The surveillance requirements for verifying removal of power to the accumulator isolation valves for

(1) Safety Evaluation Report Related to the Operation of Millstone Nuclear Power Station, Unit No. 3, (NUREG-1031), July 1984.

Section 4.5.1.c will be changed to "at least once per 31 days when the RCS pressure is above 1000 psig by verifying that the associated circuit breakers are locked in a deenergized position or removed." The proposed change will clarify requirements for securing these breakers in the off (tripped) position in the applicable modes. Therefore the proposed changes will not impact public health and safety.

Significant Hazards Consideration

In accordance with 10CFR50.92, WNECO has reviewed the proposed changes and has concluded that they do not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed changes do not involve an SHC because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The revised Technical Specification Section 3.5.1 requirements will provide guidance to ensure that power to the accumulator isolation valves is removed when the accumulators are required to be operable and will clarify these requirements.

Removal of the electrical penetration protection requirements of Section 3/4.8.4.3 is justified since Section 3/4.8.4.1 (Containment Penetration Conductor Overcurrent Protective Devices) will provide guidance to ensure that two breakers in series protect the electrical penetrations and penetration conductors against an overcurrent condition and the single failure of a circuit breaker. The two breakers in series also protect the Class 1E buses against a variety of overcurrent conditions including electrical faults which may be introduced due to the possible submergence of the accumulator isolation valves during a LOCA.

Therefore, the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The amended Technical Specification Section 3.5.1 requirements will provide guidance to ensure that the accumulator isolation valves are deenergized when the accumulators are required to be operable. Deletion of the

Millstone Unit No. 3 Technical Specifications Section 3/4.8.4.3 will not create the possibility of a new or different kind of accident from any accident previously evaluated since two breakers in series protect against an overcurrent condition and a single failure of a circuit breaker. The proposed amendment will not result in physical plant changes and there are no new credible failure modes. Therefore, the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The revised Technical Specification Section 3.5.1 will require that the accumulator isolation valves have their power deenergized when the accumulators are required to be operable. This requirement will maintain accumulator operability by assuring the accumulator isolation valves remain open.

The removal of the Millstone Unit No. 3 Technical Specification Section 3/4.8.4.3 is safe since redundant circuit breakers in series for the accumulator isolation valves will provide assurance that the electrical penetration and penetration conductors are protected against overcurrent conditions. This will provide assurance that the containment boundary is intact.

The proposed amendment will not adversely impact the physical protective boundaries (fuel matrix/cladding, RCS pressure boundary and containment) and therefore will not involve a significant reduction in a margin of safety.

The Commission has provided guidance concerning the application of the standards of 10CFR50.92 by providing certain examples (51 FR 7751, March 6, 1986) of amendments that are not considered likely to involve an SHC. While the proposed changes are not enveloped by any of the examples, they do not involve an SHC.

Environmental Considerations

NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not increase the types and amounts of effluents that may be released offsite, 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.

U.S. Nuclear Regulatory Commission
B15228/Page 6
June 8, 1995

Nuclear Safety Assessment Board

The Nuclear Safety Assessment Board has reviewed and concurred with the above determinations.

State of Connecticut

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

Schedule Required for NRC Approval


Regarding our proposed schedule for this amendment, we request issuance at your earliest convenience with the amendment effective as of the date of issuance and to be implemented within 60 days.

If the NRC Staff should have any questions or comments regarding this submittal, please contact Mr. R. G. Joshi at (203) 440-2080. We will promptly provide any additional information the NRC Staff may need to respond to this request. We appreciate your efforts in support of this request.

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 T.A. McCarthy, Director
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
P.O. Box 5066
Hartford, CT 06102-5066

U.S. Nuclear Regulatory Commission
B15228/Page 7
June 8, 1995

Subscribed and sworn to before me

this 8TH day of June, 1995

Sherry Q Sherman

Date Commission Expires: 8/31/98