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The Northeast Utilities System

OCT 16 2000

Docket No. 50-423
B18238

RE: 10 CFR 50.90

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

Millstone Nuclear Power Station, Unit No. 3
Technical Specifications Change Request 3-6-00
Fuel Handling Accidents and Ventilation Systems
Revised Significant Hazards Consideration

Introduction

In a letter dated June 29, 2000,[1] Northeast Nuclear Energy Company (NNECO) requested a change to the Millstone Unit No. 3 Technical Specifications. The proposed changes were associated with the revised containment and spent fuel pool fuel handling accident analyses, integrity of the Control Room and Fuel Building boundaries, and enhancements to the current requirements. The format of the original Significant Hazards Consideration (SHC) has been revised to reflect current industry standards. The revised SHC is contained in Attachment 1.

The proposed changes to the Millstone Unit No. 3 Technical Specifications requested in the letter dated June 29, 2000, have not been modified. As a result, there are no technical changes to the revised SHC, and the conclusions contained in the original Safety Summary and SHC remain the same.

There are no regulatory commitments contained within this letter.

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(1) R. P. Necci letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Technical Specifications Change Request 3-6-00, Fuel Handling Accidents and Ventilation Systems," dated June 29, 2000.

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If you should have any questions on the above, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Raymond P. Necci
Vice President - Nuclear Technical Services

Sworn to and subscribed before me

this 16th day of October, 2000

Notary Public

My Commission expires SANDRA J. ANTON NOTARY PUBLIC COMMISSION EXPIRES MAY 31, 2005

Attachment (1)

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3

Director
Bureau of Air Management
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Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Technical Specifications Change Request 3-6-00
Fuel Handling Accidents and Ventilation Systems
Revised Significant Hazards Consideration

Technical Specifications Change Request 3-6-00
Fuel Handling Accidents and Ventilation Systems
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Description of License Amendment Request

In a letter dated June 29, 2000,[1] Northeast Nuclear Energy Company (NNECO) requested a change to the Millstone Unit No. 3 Technical Specifications. The proposed changes were associated with the revised containment and spent fuel pool fuel handling accident analyses, integrity of the Control Room and Fuel Building boundaries, and enhancements to the current requirements. The format of the original Significant Hazards Consideration (SHC) has been revised to reflect current industry standards. The revised SHC and a brief summary of the proposed changes are presented below. Refer to Attachment 1 of the June 29, 2000, submittal for a detailed discussion of the proposed changes.

Technical Specification 3.3.2

- Modify the applicability (manual actuation and inlet ventilation radiation) to address fuel movement inside containment or the spent fuel pool when the plant is defueled.

- Modify the applicability (automatic actuation logic and actuation relays) to reflect how a Control Building Isolation (CBI) signal is processed, and for consistency with the associated surveillance requirements and other functional units covered by this specification.

- Change the action requirement to provide a 7 day allowed outage time if one of the two CBI inlet ventilation radiation channels is inoperable. After 7 days, or if both channels are inoperable, immediate suspension of core alterations and fuel movement and a plant shut down, if applicable, will be required.

Technical Specifications 3.7.7 and 3.7.8

- Modify the applicability to address fuel movement inside containment or the spent fuel pool when the plant is defueled.

- Add a footnote that the Control Room boundary can be opened intermittently under administrative control, and add a new Modes 1 through 4 action requirement that will allow 24 hours to restore Control Room boundary integrity.

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[1] R. P. Necci letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Technical Specifications Change Request 3-6-00, Fuel Handling Accidents and Ventilation Systems," dated June 29, 2000.

- Add an action requirement to address two inoperable Control Room Emergency Air Filtration Systems in Modes 1 through 4, except due to an inoperable Control Room boundary.

- Modify the action requirement for one inoperable Control Room Emergency Air Filtration System in Modes 5 and 6, and during fuel movement, such that after 7 days the remaining operable Control Room Emergency Air Filtration System does not have to be placed in the recirculation mode unless core alterations or fuel movement will occur.

- Modify the action requirement for one inoperable Control Room Envelope Pressurization System in Modes 5 and 6, and during fuel movement, such that after 7 days, core alterations and fuel movement must be suspended immediately.

- Remove the current Control Room Envelope Pressurization System action requirements to place an operable Control Room Emergency Air Filtration System in the recirculation mode.

- Add a new action requirement to address two inoperable Control Room Envelope Pressurization Systems in Modes 1 through 4 during performance of Surveillance Requirement (SR) 4.7.8.c.

- Expand the action requirements, consistent with proposed applicability changes, to include the suspension of fuel assembly movement, where appropriate. Add the word "immediately" to the required actions for the suspension of fuel movement and core alterations.

- Remove the current Modes 5 and 6 action requirements to suspend positive reactivity additions.

- Modify the wording of SR 4.7.7.e.2 and SR 4.7.8.c.2 to provide consistency between the two SRs.

- Make various non-technical changes (e.g., action requirement format and letter designations).

Technical Specification 3.7.9

- Relocate information contained in the Limiting Condition for Operation (LCO) to the associated Bases.

Technical Specification 3.9.1.1

- Use Millstone Unit No. 3 specific terminology for refueling cavity.
- Remove the phrase "uniform and" from the LCO.

Technical Specification 3.9.1.2

- Remove the phrase "maintained uniform and sufficient to ensure that the boron concentration is" from the LCO.

Technical Specification 3.9.2

- Remove the phrase "or not operating" from the current action requirements.
- Require the initial determination of Reactor Coolant System (RCS) boron concentration to be done within 4 hours if both source range monitors are inoperable.
- Revise the wording of SR 4.9.2.a to eliminate any confusion that the channel check includes audio count rate indication.
- Replace the requirement to perform an analog channel operational test with a requirement to perform a channel calibration.

Technical Specification 3.9.4

- Use Millstone Unit No. 3 specific terminology for the personnel access hatch doors.
- Modify the personnel access hatch door requirement to allow both access hatch doors to be open, with one door under administrative control.
- Separate SR 4.9.4 into two separate SRs.
- Modify SR 4.9.4.a to verify each penetration is in the required status instead of isolated condition.
- Modify the frequency for SR 4.9.4.a from within 100 hours and once per 7 days, to just once per 7 days.
- Modify the wording of SR 4.9.4.b to be a stand alone SR.

Technical Specification 3.9.9

- Modify the frequency of SR 4.9.9 from within 100 hours and once per 7 days, to just once per 7 days.

Technical Specification 3.9.10

- Modify the frequency of SR 4.9.10 from within 2 hours and once per 24 hours, to just once per 24 hours.

Technical Specification 3.9.12

- Add a footnote that will allow the Fuel Building boundary to be opened intermittently under administrative control.

- Modify the frequency of SR 4.9.12.2 from within 2 hours and once per 12 hours, to just once per 12 hours.

Basis for No Significant Hazards Consideration

In accordance with 10 CFR 50.92, NNECO 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 10 CFR 50.92(c) are not compromised. The proposed changes do not involve an SHC because the changes do not:

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

   Technical Specification Changes Associated with Analyses Changes

   The proposed Technical Specification changes associated with the revised fuel handling accident analyses will not cause an accident to occur and will not result in any change in the operation of the associated accident mitigation equipment. The design basis accidents remain the same postulated events described in the Millstone Unit No. 3 FSAR. Therefore, the proposed changes will not increase the probability of an accident previously evaluated.

   The proposed Technical Specification changes associated with the revised fuel handling accidents analyses will increase the associated consequences. The increased consequences are the result of a revised plant configuration and revised calculation assumptions, not the result of the addition of any new plant equipment. The current Fuel Handling Accident Inside Containment (FHAIC) analysis assumes the containment is isolated, or will be isolated, prior to any release. The revised FHAIC analysis will allow both containment personnel

access hatch doors to remain open, under administrative control, during core alterations and irradiated fuel movement inside containment. This may result in a radioactive release if a fuel handling accident were to occur. The revised FHAIC analysis demonstrates that the magnitude of the potential release is small and bounded by the consequences of the Design Basis Loss of Coolant Accident. The increase in the consequences of the revised Fuel Handling Accident Inside the Spent Fuel Pool (FHAISFP) analysis due to the revised calculation assumptions is small. The revised fuel handling accident analyses demonstrate that the radiological consequences are still well within the limits of 10 CFR 100, and within the 10 CFR 50, Appendix A, General Design Criteria (GDC) 19 limit. Therefore, the proposed changes will not result in a significant increase in the consequences of an accident previously evaluated.

Other Technical Specification Changes

The proposed Technical Specification changes not associated with the revised fuel handling accidents analyses affect the limiting conditions for operation (LCOs), applicability, action requirements, and surveillance requirements of numerous specifications associated with plant operating restrictions, accident mitigation functions, and accident mitigation equipment. The affected operating restrictions, accident mitigation functions, and accident mitigation equipment are not accident initiators. The proposed changes will not cause an accident to occur and will not result in any change in the operation of the associated accident mitigation equipment. The design basis accidents remain the same postulated events described in the Millstone Unit No. 3 FSAR. Therefore, the proposed changes will not increase the probability of an accident previously evaluated.

The proposed LCO and applicability changes are consistent with the design basis accident analyses, including the revised fuel handling accident analyses. (The proposed change to the LCO for containment penetrations, which will allow both personnel access hatch doors to remain open during core alterations and irradiated fuel movement inside containment will result in an increase in the consequences of a FHAIC as previously discussed.) This will ensure that the accident mitigation functions and associated equipment are available for accident mitigation as assumed in the associated analyses. The proposed action requirement changes provide appropriate actions to take, and reasonable times to restore equipment to operable status, before requiring a plant shutdown. If equipment operability is not restored, the proposed shut down times will allow an orderly shutdown, as applicable, to be performed. In addition, they are reasonable based on the low probability of a design basis accident occurring during this time. The proposed surveillance requirement changes will continue to provide reasonable assurance of equipment operability. As a result, the accident analysis assumptions and mitigation methods will not be adversely affected by these changes. Therefore, the proposed changes will not result in a

significant increase in the consequences of an accident previously evaluated.

The additional proposed changes to the Technical Specifications that will standardize terminology, relocate information to the Bases, remove extraneous information, and make minor format changes will not result in any technical changes to the current requirements. Therefore, these additional proposed changes will not result in 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 proposed changes to the Technical Specifications do not impact any system or component that could cause an accident. The proposed changes will not alter the plant configuration (no new or different type of equipment will be installed) or require any unusual operator actions. The proposed changes will not alter the way any structure, system, or component functions, and will not significantly alter the manner in which the plant is operated. There will be no adverse effect on plant operation or accident mitigation equipment. The response of the plant and the operators following an accident will not be significantly different. In addition, the proposed changes do not introduce any new failure modes. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously analyzed.

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

10 CFR 100 establishes the accident exposure limits (300 rem thyroid and 25 rem whole body) for the Exclusion Area Boundary and Low Population Zone. The radiological consequences resulting from the Technical Specification changes associated with the revised fuel handling accident analyses are well within these limits. (Well within is defined by Standard Review Plan 15.7.4, "Radiological Consequences of Fuel Handling Accidents," as 25% or less of the 10 CFR 100 limits.) 10 CFR 50, Appendix A, GDC 19 establishes the accident limit of 5 rem whole body or its equivalent (30 rem thyroid and 30 rem to the skin, as defined by Standard Review Plan 6.4, "Control Room Habitability System.") for Control Room Operators. The radiological consequences to the Control Room Operators resulting from the Technical Specification changes associated with the revised fuel handling accident analyses are also within the GDC 19 limit. Since these limits will not be exceeded, the proposed changes will not result in a significant reduction in a margin of safety.

The proposed Technical Specification LCO, applicability, action requirement, and surveillance requirement changes not associated with the revised fuel handling accidents analyses do not adversely affect equipment design or operation, and there are no changes being made to the Technical Specification

required safety limits or safety system settings that would adversely affect plant safety. The proposed Technical Specification changes, in conjunction with administrative controls, will provide adequate control measures to ensure the accident mitigation functions will be maintained. In addition, the proposed allowed outage times and shutdown times are consistent with times already contained in the Millstone Unit No. 3 Technical Specifications and with generic industry guidance (NUREG-1431, "Standard Technical Specifications Westinghouse Plants, Revision 1, April 1995"), where applicable. Therefore, these changes will not result in a significant reduction in a margin of safety.

The additional proposed changes to the Technical Specifications that will standardize terminology, relocate information to the Bases, remove extraneous information, and make minor format changes will not result in any technical changes to the current requirements. Therefore, these additional changes will not result in a significant reduction in a margin of safety.