

Maine Yankee

RELIABLE ELECTRICITY FOR MAINE SINCE 1972

Charles D. Frizzle
President

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November 5, 1990
MN-90-91

CDF-90-81
Proposed Change No. 151

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20555

References: (a) License No. DPR-36 (Docket No. 50-309).
(b) Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications", October 4, 1988.
(c) Letter, USNRC to Maine Yankee, Cycle 12 Technical Specifications, dated May 17, 1990.

Subject: Proposed Change No. 151: Elimination of Cycle-Specific Limits from the Maine Yankee Technical Specifications

Gentlemen:

With this submittal, Maine Yankee Atomic Power Company requests the removal of cycle-specific parameters and limits from the Technical Specifications.

Maine Yankee is proposing to change its Technical Specifications by eliminating the cycle-specific operating limits and incorporating the Core Operating Limits Report, which will contain the cycle-specific limits. These changes are proposed in response to the NRC generic letter (Reference (b)) which encourages all licensees and applicants to eliminate the cycle-specific limits from the Technical Specifications. The guidance outlined in Reference (b) was used in the generation of this submittal.

In support of plant operation with these changes, the following documentation is being submitted for your review and approval.

- Attachment A: Transient-Specific Safety Limits
- Attachment B: Significant Hazards Evaluation
- Attachment C: Summary Description of Technical Specification Changes
- Attachment D: Proposed Technical Specification Changes
- Attachment E: Representative Cycle 12 Core Operating Limits Report

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Maine Yankee presently generates the cycle-specific limits for each cycle using NRC-approved methods. For each cycle, Maine Yankee generates and the NRC reviews a proposed Technical Specification change to the cycle-specific limits. This is an administrative burden on both the NRC staff and Maine Yankee because the limits are similar and the methods are the same for each cycle. The NRC recognizes this burden and has recommended that all licensees eliminate the cycle-specific limits from their Technical Specifications (Reference (b)).

The cycle-specific operating limits will still be calculated for each cycle using NRC-approved methods. The cycle specific operating limits will be documented and provided to the NRC in the Core Operating Limits Report. Attachment E provides an example of this report as appropriate to Cycle 12. The Technical Specifications will still require the plant to operate within these limits and to take the appropriate action should the limits be exceeded.

Attachment A provides a listing of the safety limits for each of the accidents considered on a cycle-specific basis. These safety limits are the same as those accepted by the NRC in previous cycles.

Limiting Conditions for Operations (LCO) and Limiting Safety System Settings (LSSS) are developed to maintain acceptable margins to those limits. For Maine Yankee these limiting conditions are presented in Sections 2 and 3 of the Technical Specifications. Two key elements of the LSSS, designed specifically to protect against violation of the safety limits on the DNBR and the fuel center line melt, as defined in section 2 of the Technical Specifications, are the Thermal Margin/Low Pressure (TM/LP) and Symmetric Offset (S/O) trips. The approved methodology used to define these trips utilizes cycle dependent power distributions as opposed to the cycle independent bounding power distributions used at some other plants. For this reason, these trip functions have historically varied slightly from cycle to cycle. If the TM/LP and S/O trips were not determined in this manner, a conservative set of trip functions would be required to preclude separate Technical Specification submittals each cycle. Operation with these highly conservative setpoints would increase the probability of unnecessary reactor trips resulting in a situation which may decrease the overall safety of the plant.

All other criteria in Section 2 of the Maine Yankee Technical Specifications are developed and implemented to assure that plant conditions during off normal situations will not exceed the defined safety limits. These criteria include both cycle-specific reactor protection system setpoints and acceptable fuel design limits. In no cases do the cycle-specific parameters contained in section 2 conflict with or exceed the defined safety limits. By operating within the limiting conditions and thus maintaining the safety limits in Attachment A, Maine Yankee is assured that limits in the Core Operating Limits Report (Attachment E) remain within the safety analysis envelope.

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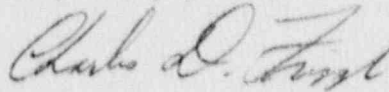
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This proposed change is considered to be administrative in nature. Maine Yankee has evaluated the proposed changes and has determined that they do not involve a significant increase in the probability or consequences of an accident previously evaluated; increase the possibility of a new or different kind of accident from any accident previously evaluated; or involve a significant reduction in a margin of safety. Therefore, these proposed changes do not involve a significant hazards consideration as defined in 10 CFR 50.92. This evaluation is included in Attachment B.

The proposed change has been reviewed by the Plant Operations and Review Committee and the Nuclear Safety Audit and Review Committee. The Plant Operations Review Committee has concluded that the proposed Technical Specification changes do not constitute an unreviewed safety question.

A State of Maine representative is being notified of this proposed change by a copy of this letter.

Very truly yours,



Charles D. Frizzle
President

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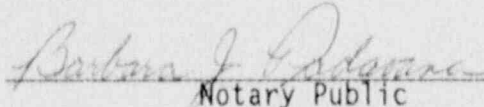
Enclosure

Attachment A: Operating Limits Acceptance Criteria
Attachment B: Significant Hazards Evaluation
Attachment C: Summary Description of Technical
Specification Changes
Attachment D: Proposed Technical Specification Changes
Attachment E: Cycle 12 Core Operating Limits Report

c: Mr. Thomas T. Martin
Mr. Charles S. Marschall
Mr. E. H. Trottier
Mr. Clough Toppan

STATE OF MAINE

Then personally appeared before me, Charles D. Frizzle, who being duly sworn did state that he is President of Maine Yankee Atomic Power Company, that he is duly authorized to execute and file the foregoing request in the name and on behalf of Maine Yankee Atomic Power Company, and that the statements therein are true to the best of his knowledge and belief.


Notary Public

BARBARA J. PADAVANA
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES JUNE 20, 1996

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ATTACHMENT A

Transient-Specific Safety Limits

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Anticipated Operational Occurrences

Transient	Safety Limit*
1. CEA Withdrawal	MDNBR \geq 1.20 RCS pressure \leq 2750 psia
2. Boron Dilution	MDNBR \geq 1.20
3. Excess Load	MDNBR \geq 1.20
4. Loss of Load	MDNBR \geq 1.20 RCS pressure \leq 2750 psia
5. Loss of Feedwater	MDNBR \geq 1.20 RCS pressure \leq 2750 psia
6. Loss of Flow	MDNBR \geq 1.20
7. CEA Drop	MDNBR \geq 1.20

*All anticipated operational occurrences have the safety limits of:

1. MDNBR
2. No fuel pellet center line melting allowed.

Postulated Accidents

Transient	Safety Limit
1. CEA Ejection	10 CFR 100
2. Steam Line Rupture	10 CFR 100
3. SGTR	10 CFR 100
4. Seized Rotor	10 CFR 100
5. LOCA	10 CFR 100

ATTACHMENT B

Significant Hazards Evaluation

Description of Proposed Change

The proposed changes provided in Attachment D modify the Technical Specifications to reflect the removal of cycle-specific operating limits and the institution of the Core Operating Limits Report.

Significant Hazards Evaluation

These proposed changes to the Technical Specifications for the removal of cycle-specific operating limits have been evaluated against the standards of 10 CFR 50.92 and have been determined not to involve a significant hazards consideration. These proposed changes do not:

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

The institution of a cycle-specific operating limits report will not modify the methodology used in generating the limits nor the manner in which they are implemented. These limits have been determined by analyzing the same postulated events previously analyzed. The plant will continue to operate within the limits specified in the Core Operating Limits Report and will take the same corrective actions when or if these limits are exceeded as required by current Technical Specifications. Therefore, the proposed Technical Specification changes incorporating the Core Operating Limits Report are administrative in nature and have been concluded not to increase the probability or consequences of an accident previously evaluated.

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

There are no physical alterations to the plant configuration, changes to setpoint values, or changes to the implementation of setpoints and limits associated with this proposed change. The existing accident basis, therefore, will remain as it is currently to conservatively bound plant operation with this proposed change. We have concluded that operation using the Core Operating Limits Report does not create the possibility of a new or different kind of accident from any previously evaluated.

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

As indicated above, the inclusion of the Core Operating Limits Report makes use of the existing safety analysis methodologies and the resulting limits and setpoints for plant operation. Additionally, the safety analysis acceptance criteria for operations with this Proposed Change has not changed from that used in the latest reload analysis. We have, therefore, concluded that Cycle 12 operations with the Core Operating Limits Report does not involve any reduction in a margin of safety.

Maine Yankee has concluded that these proposed changes to the Technical Specifications are administrative in nature and do not involve a significant hazard consideration as defined by 10 CFR 50.92.