Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

AUG 7 2002

Docket No. 50-336
B18691

Re: 10 CFR 50.90

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

Millstone Nuclear Power Station, Unit No. 2
Changes to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in
Technical Specification 6.9.1.8b (LBDCR 2-11-02)

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) hereby proposes to amend Operating License DPR-65 by incorporating the attached proposed changes into the Millstone Unit No. 2 Technical Specifications. The proposed changes will update the list of documents, describing the analytical methods used to determine the core operating limits, specified in Technical Specification 6.9.1.8b. The reason for these changes is to incorporate the Nuclear Regulatory Commission (NRC) approved, methodology documents in Millstone Unit No. 2 Technical Specifications. These changes will update the documents describing Steam Line Break (SLB) methodology, and Departure from Nucleate Boiling (DNB) correlation for High Performance Fuel (HPF).

Attachment 1 provides a discussion of the proposed changes and the Safety Summary. Attachment 2 provides the Significant Hazards Consideration. Attachment 3 provides the marked-up version of the appropriate pages of the current Technical Specifications. Attachment 4 provides the retyped pages of the Technical Specifications.

Environmental Considerations

DNC has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.22. DNC has determined that the proposed changes meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that the changes are being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to use of a facility component located within the restricted area, as defined by

A001

10 CFR 20, or that changes a surveillance requirement, and that the amendment request meets the following specific criteria.

(i) The proposed changes involve no Significant Hazards Consideration.

As demonstrated in Attachment 2, the proposed changes do not involve a Significant Hazards Consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released off-site.

The proposed amendment will update the list of documents, describing the analytical methods used to determine the core operating limits, specified in Technical Specification 6.9.1.8b. However, the operability requirements for equipment associated with these Technical Specifications will remain the same. The proposed changes are consistent with the design basis of the plant. The proposed changes will not result in an increase in power level, will not increase the production of radioactive waste and by-products, and will not alter the flowpath or method of disposal of radioactive waste or by-products. Therefore, the proposed changes will not increase the type and amounts of effluents that may be released off-site.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed amendment will update the list of documents, describing the analytical methods used to determine the core operating limits, specified in Technical Specification 6.9.1.8b. However, the operability requirements for equipment associated with these Technical Specifications will remain the same. The proposed changes will not result in changes in the configuration of the facility. There will be no change in the level of controls or methodology used for processing radioactive effluents or the handling of solid radioactive waste. There will be no change to the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from the proposed changes.

Conclusions

The proposed changes were evaluated and we have concluded that they are safe. The proposed changes do not involve an impact on public health and safety (see the Safety Summary provided in Attachment 1) and do not involve a Significant Hazards Consideration pursuant to the provisions of 10 CFR 50.92 (see the Significant Hazards Consideration provided in Attachment 2).

Site Operations Review Committee and Nuclear Safety Assessment Board

The Site Operations Review Committee and Nuclear Safety Assessment Board have reviewed and concurred with the determinations.

Schedule

We request issuance of this amendment prior to restart from refueling outage 15, which is currently scheduled for the Fall of 2003, with the amendment to be implemented prior to Mode 4 operation of Cycle 16.

State Notification

In accordance with 10 CFR 50.91(b), a copy of this License Amendment Request is being provided to the State of Connecticut.

There are no regulatory commitments contained in this letter.

If you should have any questions regarding this submittal, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price
Site Vice President - Millstone

Sworn to and subscribed before me

this 7 day of August 2002

Notary Public

WM. E. BROWN
NOTARY PUBLIC
MY COMMISSION EXPIRES MAR. 31, 2006

My Commission expires

Attachments

cc: Next Page

cc: H. J. Miller, Region I Administrator
R. B. Ennis, NRC Project Manager, Millstone Unit No. 2
NRC Senior Resident Inspector, Millstone Unit No. 2

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Docket No. 50-336
B18691

Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in
Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Discussion of Changes and Safety Summary

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Discussion of Changes and Safety Summary

Introduction

Dominion Nuclear Connecticut, Inc. (DNC) hereby proposes to amend Operating License DPR-65 by incorporating the attached proposed changes into the Millstone Unit No. 2 Technical Specifications. The proposed changes will update the list of documents, describing the analytical methods used to determine the core operating limits, specified in Technical Specification 6.9.1.8b.

Description of Proposed Change

The proposed changes will update the documents describing the Nuclear Fuel and Safety Analysis vendor's methodology given in Technical Specification 6.9.1.8b. The following are the proposed changes:

1. The document contained in section 6.9.1.8b.4, describing Steam Line Break methodology for PWRs, is deleted and documents 6.9.1.8b.5 through 6.9.1.8b.15 are renumbered. This document is deleted since it has been superceded by the most recent methodology as described in the document contained in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14).

2. A new document is added as 6.9.1.8b.15. This change is required to identify the most recent methodology description for the HTP: Departure from Nucleate Boiling Correlation for High Performance Fuel.[1] This document is referenced in the document currently in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14). This document has been reviewed and approved by the Nuclear Regulatory Commission (NRC) and the associated Safety Evaluation Report (SER) is contained in a letter dated December 28, 1993.[2]

Safety Summary

The proposed changes will update the list of documents, describing the analytical methods used to determine the core operating limits, specified in Technical Specification 6.9.1.8b.

---

(1) EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation, March 1994.

(2) Acceptance For Referencing of Siemens Power Corporation Topical Report EMF-92-153(P), "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," dated December 28, 1993.

Deleting the document contained in section 6.9.1.8b.4 is required since it has been superceded by the most recent methodology as described in the document contained in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14). The use of the most recent methodology constitutes an improvement over the previous methodology and is in accordance with the NRC's SER. Therefore, this proposed change will have no adverse effect on plant safety.

Adding the new document associated with the new section 6.9.1.8b.15 to the list of references is required for completeness. This document is referenced in the document currently in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14) and describes the HTP: Departure from Nucleate Boiling Correlation for High Performance Fuel. Since this new document complements the document currently in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14) and provides completeness and clarity, this proposed change will have no adverse effect on plant safety.

Docket No. 50-336
B18691

Attachment 2

Millstone Nuclear Power Station, Unit No. 2

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in
Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Significant Hazards Consideration

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Significant Hazards Consideration

Significant Hazards Consideration

In accordance with 10 CFR 50.92, Dominion Nuclear Connecticut, Inc. (DNC) 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 a SHC because the changes would not:

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

   The proposed change to delete the document contained in section 6.9.1.8b.4 is required since it has been superceded by the most recent methodology as described in the document contained in section 6.9.1.8b.15 (renumbered 6.9.1.8b.14). Adding the new document associated with the new section 6.9.1.8b.15 to the list of references is required for completeness. This change has no impact on plant equipment operation. Since the changes only affect description of the safety analysis methodology and do not revise any setpoints assumed in the accident analyses, they cannot affect the likelihood or consequences of accidents. Therefore, this change will not increase 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 will not alter the plant configuration (no new or different type of equipment will be installed) or require any new or unusual operator actions. They do not alter the way any structure, system, or component functions and do not alter the manner in which the plant is operated. These 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 evaluated.

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

   The proposed changes have no impact on plant equipment operation. The proposed changes do not revise any setpoints assumed in the analyses and do not affect the acceptance criteria for the Steam Line Break accident. Therefore, the proposed changes will not result in a reduction in a margin of safety.

Docket No. 50-336
B18691

Attachment 3

Millstone Nuclear Power Station, Unit No. 2

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in
Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Marked-Up Pages

List of Affected Pages

Technical Specification Section Number	Title of Section	Affected Page with Amendment Number
6 9.1.8b	List of References used to determine core operating limits	6-18a, Amend. No. 260 6-19, Amend. No. 260

MONTHLY OPERATING REPORT (Con't)

Administrator, Region I, and one copy to the NRC Resident Inspector, no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.9.1.8 a. Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle.

3/4.1.1.1	SHUTDOWN MARGIN - $T_{avg} > 200°F$
3/4.1.1.2	SHUTDOWN MARGIN - $T_{avg} \leq 200°F$
3/4.1.1.4	Moderator Temperature Coefficient
3/4.1.3.6	Regulating CEA Insertion Limits
3/4.2.1	Linear Heat Rate
3/4.2.3	Total Integrated Radial Peaking Factor - F_r^T
3/4.2.6	DNB Margin

b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

1) EMF-96-029(P)(A) Volumes 1 and 2, "Reactor Analysis System for PWRs Volume 1 - Methodology Description, Volume 2 - Benchmarking Results," Siemens Power Corporation.

2) ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels.

3) XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company.

~~4) EMF-84-093(P)(A), "Steamline Break Methodology for PWRs," Siemens Power Corporation.~~

4) XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company.

5) EMF-2328(P)(A), "PWR Small Break LOCA Evaluation Model S-RELAP5 Based," Framatome ANP.

6) EMF-2087(P)(A), "SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications," Siemens Power Corporation.

CORE OPERATING LIMITS REPORT (CONT.)

7 ~~8~~) XN-NF-78-44(NP)(A), "A Generic Analysis of the Control rod Ejection Transient for Pressurized water reactors," Exxon Nuclear Company.

8 ~~9~~) XN-NF-621(P)(A), "Exxon Nuclear DNB Correlation for PWR Fuel Designs," Exxon Nuclear Company.

9 ~~10~~) XN-NF-82-06(P)(A) and Supplements 2, 4, and 5, "Qualification of Exxon Nuclear Fuel for Extended Burnup," Exxon Nuclear Company.

10 ~~11~~) ANF-88-133(P)(A) and Supplement 1, "Qualification of Advanced Nuclear Fuels PWR Design Methodology for Rod Burnups of 62 GWd/MTU," Advanced Nuclear Fuels Corporation.

11 ~~12~~) XN-NF-85-92(P)(A), "Exxon Nuclear Uranium Dioxide/Gadolinia Irradiation Examination and Thermal Conductivity Results," Exxon Nuclear Company.

12 ~~13~~) ANF-89-151(P)(A), "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation.

13 ~~14~~) EMF-1961(P)(A), "Statistical Setpoint/Transient Methodology for Combustion Engineering Type Reactors," Siemens Power Corporation.

14 ~~15~~) EMF-2310(P)(A), "SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors," Framatome ANP.

INSERT A →

c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555, one copy to the Regional Administrator, Region I, and one copy to the NRC Resident Inspector within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Deleted

Page 6-19, Insert A

15) EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation.

Docket No. 50-336
B18691

Attachment 4

Millstone Nuclear Power Station, Unit No. 2

Change to Technical Specifications
Updating List of Documents Describing the Analytical Methods Specified in
Technical Specification 6.9.1.8b (LBDCR 2-11-02)
Retyped Pages

MONTHLY OPERATING REPORT (Con't)

Administrator, Region I, and one copy to the NRC Resident Inspector, no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.9.1.8 a. Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle.

3/4.1.1.1	SHUTDOWN MARGIN - $T_{avg} > 200°F$
3/4.1.1.2	SHUTDOWN MARGIN - $T_{avg} \leq 200°F$
3/4.1.1.4	Moderator Temperature Coefficient
3/4.1.3.6	Regulating CEA Insertion Limits
3/4.2.1	Linear Heat Rate
3/4.2.3	Total Integrated Radial Peaking Factor - F_r^T
3/4.2.6	DNB Margin

b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

1) EMF-96-029(P)(A) Volumes 1 and 2, "Reactor Analysis System for PWRs Volume 1 - Methodology Description, Volume 2 - Benchmarking Results," Siemens Power Corporation.

2) ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels.

3) XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company.

4) XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company. |

5) EMF-2328(P)(A), "PWR Small Break LOCA Evaluation Model S-RELAP5 Based," Framatome ANP. |

6) EMF-2087(P)(A), "SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications," Siemens Power Corporation. |

7) XN-NF-78-44(NP)(A), "A Generic Analysis of the Control rod Ejection Transient for Pressurized water reactors," Exxon Nuclear Company. |

CORE OPERATING LIMITS REPORT (CONT.)

8) XN-NF-621(P)(A), "Exxon Nuclear DNB Correlation for PWR Fuel Designs," Exxon Nuclear Company.

9) XN-NF-82-06(P)(A) and Supplements 2, 4, and 5, "Qualification of Exxon Nuclear Fuel for Extended Burnup," Exxon Nuclear Company.

10) ANF-88-133(P)(A) and Supplement 1, "Qualification of Advanced Nuclear Fuels PWR Design Methodology for Rod Burnups of 62 GWd/MTU," Advanced Nuclear Fuels Corporation.

11) XN-NF-85-92(P)(A), "Exxon Nuclear Uranium Dioxide/Gadolinia Irradiation Examination and Thermal Conductivity Results," Exxon Nuclear Company.

12) ANF-89-151(P)(A), "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation.

13) EMF-1961(P)(A), "Statistical Setpoint/Transient Methodology for Combustion Engineering Type Reactors," Siemens Power Corporation.

14) EMF-2310(P)(A), "SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors," Framatome ANP.

15) EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation.

c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555, one copy to the Regional Administrator, Region I, and one copy to the NRC Resident Inspector within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Deleted