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

Dominion

MAR 11 2003

Docket No. 50-336
B18835

RE: 10 CFR 50.90

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

Millstone Power Station, Unit No. 2
Technical Specifications Change Request 2-15-02
Changes In Technical Specifications Related To Reactivity Control Systems,
Power Distribution Limits, And Special Test Exceptions
Response To Request For Additional Information

By letter dated August 14, 2002,[1] Dominion Nuclear Connecticut, Inc. (DNC) proposed to amend Operating License DPR-65 by incorporating changes into the Millstone Unit No. 2 Technical Specifications. The proposed amendment would revise Technical Specifications related to Reactivity Control Systems, Power Distribution Limits, and Special Test Exceptions.

By letter dated January 28, 2003,[2] a Request For Additional Information (RAI) was received from the Nuclear Regulatory Commission (NRC) staff, which contained nine questions related to the aforementioned license amendment request.

Attachment 1 provides the DNC response to the January 28, 2003, RAI.

Additionally, a subsequent review of the Administrative Controls Section 6.9.1.8a indicated that Technical Specification changes proposed in the August 14, 2002, letter would also impact this section. This section lists the Technical Specifications containing cycle dependent parameters, which are documented in the CORE OPERATING LIMITS REPORT (COLR). The required changes to this section are

(1) J A. Price letter to the Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Technical Specifications Change Request 2-15-02, Changes In Technical Specifications Related To Reactivity Control Systems, Power Distribution Limits, And Special Test Exceptions," dated August 14, 2002.

(2) R Ennis (NRC) letter to J. A Price, "Request For Additional Information, Reactivity Control Systems, Power Distribution Limits, and Special Test Exceptions, Millstone Power Station, Unit No 2 (TAC No. MB6108)," dated January 28, 2003

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non-technical in nature and include changing the title of Specification 3/4.1.1.1 from "SHUTDOWN MARGIN – T_{avg} > 200°F" to "SHUTDOWN MARGIN (SDM)" and deleting Specification 3/4.1.1.2 from the list. The change in the title of Specification 3/4.1.1.1 is required to make it consistent with the proposed changes in the August 14, 2002, letter. The deletion of Specification 3/4.1.1.2 from the list is required since the proposed revision to Specification 3/4.1.1.2, contained in the August 14, 2002, letter, does not address a core operating limit that is required to be documented in the COLR. Attachment 2 provides the marked-up version of page 6-18a of the current Technical Specifications. Attachment 3 provides the retyped page of the Technical Specifications.

The additional information provided in this letter will not affect the conclusions of the Safety Summary and Significant Hazards Consideration discussion in the DNC August 14, 2002, letter.

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 11 day of March 2003

Notary Public

My Commission expires 3/31/2006

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

Attachments (3)

cc: See next page

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

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

Attachment 1

Millstone Power Station, Unit No. 2

Technical Specifications Change Request 2-15-02
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Response To Request For Additional Information

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Question 1:

The factors to be considered in the Shutdown Margin (SDM) determination as currently specified in Surveillance Requirement (SR) 4.1.1.1.1.d is proposed for deletion and the wording relocated to the corresponding TS Bases section. Provide justification for this change.

Response:

The proposed removal of the factors to be considered in the Shutdown Margin (SDM) determination as currently specified in Surveillance Requirement (SR) 4.1.1.1.1.d was classified as a deletion since this information would no longer appear in the proposed SR 4.1.1.1 as indicated in the letter dated August 14, 2002.[1] However, following the guidance contained in NEI 96-06, this type of change is classified as "Removed Detail." This is a subset of the Less Restrictive (L) change category in which certain details and information from otherwise retained specifications are removed from the specification and placed in the Bases, FSAR, or other Licensee controlled documents. Removed detail changes are designated as "LA." These changes include details of system design and function, procedural details or methods of conducting surveillances, or alarm or indication-only instrumentation.

The proposed change is acceptable because it will not affect the SR requirements which verify the SDM is within the limit specified in the Core Operating Limits Report (COLR) once per 24 hours, when in MODES 3, 4 and 5. These factors can be adequately addressed in the Bases, which require change control in accordance with 10 CFR 50.59. In addition, changes to the Technical Specification Bases are now controlled by the Bases Control Program, Technical Specification 6.23, which was recently approved for Millstone Unit No. 2 by License Amendment No. 270.[2] This approach provides an effective level of regulatory control and provides for a more effective change control process. The level of safety of facility operation is unaffected by the proposed change because there is no change in the requirement to verify SDM.

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(1) J. A. Price letter to the Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Technical Specifications Change Request 2-15-02, Changes In Technical Specifications Related To Reactivity Control Systems, Power Distribution Limits, And Special Test Exceptions," dated August 14, 2002.

(2) R. B. Ennis (NRC) letter to Dominion Nuclear Connecticut, Inc., "Millstone Power Station, Unit Nos. 1, 2, and 3 - Issuance of Amendments RE: Administrative and Editorial Changes (TAC No. MB3394, MB3395, and MB3396)," dated September 17, 2002.

Furthermore, U.S. Nuclear Regulatory Commission (NRC) and Dominion Nuclear Connecticut, Inc. (DNC) resources associated with processing license amendments to these requirements will be reduced. This change is also consistent with NUREG-1432 (Bases for SR 3.1.1.1).

Question 2:

In Attachment 1, Page 3 of your submittal, you state that Conditions D and Required Action D.1 in the proposed revision to TS 3/4.1.3.1 cover the deletion of current SR 4.1.1.1.1.a. However, SR 4.1.1.1.1.a applies when rods are immovable or untrippable. What is the difference between immovable and untrippable? How do you account for immovable rods? Furthermore, your current SR 4.1.1.1.1.a requires that you increase SDM by an amount equal to the withdrawn worth of the inoperable rod, but your proposed TSs do not contain this requirement. Provide justification for this change.

Response:

The difference between immovable and untrippable is as follows:

1. An untrippable control rod cannot be inserted upon de-energization of its drive mechanism due to excessive friction or mechanical interference. This condition adversely affects shutdown margin since the affected rod is not available for insertion following a reactor trip signal.

2. An immovable control rod cannot be moved upon demand due to a control system malfunction but can be inserted upon de-energization of its drive mechanism. This condition has no impact on shutdown margin since the affected rod is available for insertion following a reactor trip signal.

There is a conflict in the current TS between the requirements of SR 4.1.1.1.1.a and TS Action Statement 3.1.3.1.c for immovable Control Element Assemblies (CEAs). As currently written, SR 4.1.1.1.1.a requires that the Shutdown Margin be increased by an amount equal to the withdrawn worth of the immovable or untrippable CEA. Per current Millstone Unit No. 2 procedures, this action is accomplished by increasing the reactor coolant system (RCS) boron concentration by the boron equivalent of the most reactive CEA (currently 350 ppm). TS Action Statement 3.1.3.1.c currently allows that with one full length CEA inoperable (unless immovable as a result of excessive friction or mechanical interference or known to be untrippable), but within its specified alignment requirements, operation in MODES 1 and 2 may continue for up to 7 days per occurrence with a total accumulated time of $\leq$ 14 days per calendar year.

As can be seen from the preceding information, the increase in RCS boron concentration required by SR 4.1.1.1.1.a for an immovable CEA will effectively cause a reactor shutdown and thus prevent the continued operation in MODES 1 and 2 allowed by TSAS 3.1.3.1.c. Furthermore, an immovable CEA that is available for trip insertion upon de-energization of its drive mechanism will insert its negative reactivity into the core. Therefore, it is concluded that no increase in the required shutdown margin is necessary for an immovable but trippable CEA.

Question 3:

For proposed SR 4.1.1.2, Note 2, you state that the SR will only be required after 60 Effective Full Power Days. However, your current SR 4.1.1.1.2 does not allow for this 60-day period. Provide justification for this change.

Response:

According to the current SR 4.1.1.1.2, the predicted reactivity values may be adjusted (normalized) to correspond to the actual core condition prior to exceeding a fuel burnup of 60 Effective Full Power Days (EFPD) after each refueling. Note 1 carries over this normalization to the proposed SR 4.1.1.2. The justification for Note 2 of proposed SR 4.1.1.2 is that the 31 EFPD frequency after the initial 60 EFPD following each refueling allows for a valid comparison to the normalized predicted reactivity values. The initial 60 EFPD following refueling allows sufficient time for core conditions to reach steady state, but prevents operation for a large fraction of the fuel cycle without establishing a benchmark for the design calculations. This change essentially increases the due date for the second performance of the SR by 29 EFPD. This allows time for core conditions to reach steady state, which will produce more accurate results for the final benchmarking of the design calculations. This extension is acceptable because the initial reactivity balance prior to entering MODE 1 provides assurance that the core reactivity is within the limits prior to the final benchmarking. This change is also consistent with NUREG-1432 (SR 3.1.2.1 and associated bases).

Question 4:

It is our understanding that you perform SR 4.1.1.1.1.c to confirm that you meet the Core Operating Limits Report requirements for SDM when you are at your Transient Insertion Limits. Attachment 1, Page 3 of your submittal states that deleting this requirement is acceptable because the SDM is met when the control element assemblies (CEAs) are within or at the insertion limits specified by TSs 3/4.1.3.5 and 3/4.1.3.6. Provide further justification for removal of this requirement, given that it appears its intent is to verify your Transient Insertion Limits. Furthermore, provide justification given that other factors affect SDM, including boron concentration, fuel burnup, xenon, samarium, etc.

Response:

The core design process for each fuel cycle calculates the available shutdown margin with the control rods at the Transient Insertion Limits at different power levels and periods at beginning and end of cycle. The requirements of SR 4.1.1.1.1.c are satisfied when the calculated available shutdown margin values are demonstrated to be greater than the required shutdown margin limits specified in the Core Operating Limits Report.

The calculated available shutdown margin values described above assume that the shutdown and regulating CEAs are at or above their respective insertion limits per TS 3/4.1.3.5 and TS 3/4.1.3.6. Additionally, the available shutdown margin calculations assume positive reactivity insertion due to the changes in reactor power that will occur (e.g., power defect, axial flux redistribution, void defect). Thus, removal of SR 4.1.1.1.1.c is justified based on the approved core design and analytic methods. Further, given the current TS definition of shutdown margin it is not necessary (nor even appropriate) to consider the other factors (e.g., boron concentration, fuel burnup, xenon, samarium, etc.) in this shutdown margin verification:

> "Shutdown Margin shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all full length control element assemblies (shutdown and regulating) are fully inserted except for the single assembly of highest reactivity worth which is assumed to be fully withdrawn."

Question 5:

Your current Limiting Condition for Operation (LCO) 3.1.3.1 states that each CEA shall be within 10 steps of all other CEAs in its group. Your proposed LCO 3.1.3.1 states that each CEA shall be within 10 steps of its group. Provide justification for this change.

Response:

The proposed LCO 3.1.3.1 alignment requirements are the same as the current LCO 3.1.3.1 requirements although a difference in the LCO wording exists. This can be explained as follows:

The CEA alignment requirements of the current and proposed LCO 3.1.3.1 are verified by performing (and meeting) SR 4.1.3.1.1 in each case. Current SR 4.1.3.1.1 states that:

> "The position of each full length CEA shall be determined to be within 10 steps (indicated position) of all other CEAs in its group at least once per 12 hours except during time intervals when the Deviation Circuit and/or CEA Motion Inhibit are inoperable, then verify the individual CEA positions at least once per 4 hours."

Proposed SR 4.1.3.1.1 states that:

> "Verify the indicated position of each CEA to within 10 steps of all other CEAs in its group at least once per 12 hours AND within 1 hour following any CEA movement larger than 10 steps."

Comparison of the current and proposed SR 4.1.3.1.1 shows:

1. The SRs are identical as far as requiring the position of each CEA to be within 10 steps of all other CEAs in its group.

2. In current SR 4.1.3.1.1, the requirement to verify the individual CEA positions "at least once per 4 hours" when the Deviation Circuit and/or CEA Motion Inhibit are inoperable is covered by Action items 3.1.3.1B and 3.1.3.1C in the proposed TS 3.1.3.1, as explained in the August 14, 2002, letter.

3. In proposed SR 4.1.3.1.1, an additional requirement (more restrictive) is added to verify the indicated position of each CEA to be within 10 steps of all other CEAs in its group within 1 hour following any CEA movement larger than 10 steps. This is a more conservative change.

Based on this comparison it can be concluded:

1. The alignment requirements of current and proposed LCOs are verified using the same criterion, which is: "position of each CEA shall be within 10 steps of all other CEAs in its group." Therefore, the alignment requirements of current and proposed LCOs 3.1.3.1 are the same although a difference in the LCO wording exists. The wording of proposed LCO 3.1.3.1 is also consistent with NUREG-1432.

2. Proposed SR 4.1.3.1.1 has an additional requirement to verify the indicated position of each CEA to within 10 steps of all other CEAs in its group within 1 hour following any CEA movement larger than 10 steps. Therefore, the proposed SR 4.1.3.1.1 is more conservative as far as verification of the alignment requirement of LCO 3.1.3.1.

<u>Question 6:</u>

The proposed TS 3/4.1.3.1 Action B allows you to have six more hours until you are in MODE 3 than your current TS 3/4.1.3.1 Action b. Provide justification for this change. Furthermore, justify why 6 hours to achieve MODE 3 is acceptable for all the action statements of TS 3/4.1.3.1.

<u>Response:</u>

Current TS 3/4.1.3.1 Action b allows 6 hours to either:

1. Restore CEA Motion inhibit to OPERABLE status, or

2. Place and maintain the CEA drive system mode switch in either the "Manual" or "off" position and fully withdraw all CEAs in group 7 to less than 5% insertion, or

3. Be in at least HOT STANDBY.

The operator has to make the call as to which action would be achievable within the allowed 6 hours.

The proposed TS 3/4.1.3.1 Action B reads as follows:

1. Verify the indicated position of each CEA to be within 10 steps of all other CEAs in its group within 1 hour and every 4 hours thereafter, and restore CEA Motion Inhibit to OPERABLE status within 6 hours or otherwise be in MODE 3 within the next 6 hours.

   or

2. Place and maintain the CEA drive system mode switch in either the "off" or "manual" position, and withdraw all CEAs in group 7 to ≥172 steps within 6 hours or otherwise be in MODE 3 within the next 6 hours.

Comparison of the current Action b and proposed Actions B.1 and B.2 shows:

1. Action B.1 gives the operators 6 hours to restore CEA motion inhibit to OPERABLE and 6 hours to achieve MODE 3. Action B.1 also imposes an additional requirement to verify that CEA deviations are within allowed limits within 1 hour and every 4 hours thereafter, while operators are restoring CEA motion inhibit to OPERABLE.

2. Action B.2 gives the operators 6 hours to withdraw all CEAs in group 7 to ≥ 172 steps and 6 hours to achieve MODE 3.

Based on this comparison it can be concluded that:

1. Current TS Action b gives the operators 6 hours to perform two actions concurrently. Namely to attempt to restore CEA motion inhibit to OPERABLE and, if not successful, be in at least HOT STANDBY. This is an undesirable circumstance in that the probability of human error is increased when more than one task must be managed under time critical circumstances. The proposed TS Action B.1 gives the operators 6 hours to restore CEA motion inhibit to OPERABLE and another 6 hours to achieve MODE 3 if CEA motion inhibit cannot be restored to OPERABLE. During the 6 hours allowed to restore CEA motion inhibit to OPERABLE, an additional requirement is performed to verify CEA deviations are within allowed limits within 1 hour and every 4 hours thereafter. The additional requirement ensures that the accident analyses assumptions are not exceeded during this period of 6 hours, and therefore is acceptable. The proposed Action B.1 is also consistent with NUREG-1432.

2. Withdrawal of the CEAs to the positions required in Action B.2 over a period of 6 hours ensures that core perturbations in local burnup, peaking factors, and SDM will not be more adverse than the conditions assumed in the safety analyses. The additional period of 6 hours allowed in this case is acceptable since positioning the mode switch in either the "off" or "manual" position ensures the CEAs will not be moved without operator action and will give the operator sufficient time to withdraw the CEAs without exceeding accident analyses assumptions. The proposed Action B.2 is also consistent with NUREG-1432.

In both cases, the 6 hours allowed to achieve MODE 3 permits the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies. The 6 hours is also consistent with the provisions of TS 3.0.3 (as discussed in response to Question No. 7) and NUREG-1432 (Actions for TS 3.1.4).

<u>Question 7:</u>

Current LCO 3.1.3.6, Action c.2, requires the plant to be in HOT STANDBY (i.e., MODE 3) within 4 hours. Proposed LCO 3.1.3.6, Action C.1, would extend the time to achieve MODE 3 from 4 to 6 hours. Attachment 1, Page 27 of your submittal stated that this is consistent with TS 3.0.3. Provide justification for this change from a safety standpoint.

<u>Response:</u>

Both current LCO 3.1.3.6, Action c.2 and proposed LCO 3.1.3.6, Action C.1 require restoring regulating CEA groups to within the Long Term Steady State Insertion Limit specified in the COLR within 2 hours. The limit of 2 hours ensures the specified acceptable fuel design limits are not exceeded during steady state and anticipated operational occurrences. This time limit is based on many factors including: restricting the effects of potential xenon redistribution, the low probability of an accident and the steps required to complete the action. However, the time required to place the plant in MODE 3, if the required action cannot be completed, is not based on accident analyses but rather on reasonable estimate from operating experience, for reaching MODE 3 from full power conditions in an orderly manner and without challenging plant systems. TS 3.0.3 specifies the time limits to reach lower MODES of operation as follows:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

These specified times permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. Shutting down the unit in accordance with the above specified times reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

Therefore, the 6 hours required by proposed LCO 3.1.3.6, Action C.1, is justified because it ensures the same rate of orderly plant shutdown as achieved by TS 3.0.3 for reaching HOT STANDBY (MODE 3). The 6 hours is also consistent with NUREG-1432 (Actions for TS 3.1.6).

Question 8:

Current LCO 3.2.4 Action b allows plant operation for up to 2 hours with the AZIMUTHAL POWER TILT (T_q) > 0.10, provided that the TOTAL UNRODDED RADIAL PEAKING FACTOR (F^T_r) is within the limits of TS 3.2.3. However, your proposed changes (Action b.1) allow you to operate for 2 hours in this condition prior to checking F^T_r. Attachment 1, Page 28 of your submittal states that 2 hours is sufficient time for the operator to evaluate that this factor is within limit. Please provide justification for this change from a safety standpoint.

Response:

In the proposed LCO, operation could continue for up to 2 hours before F^T_r is checked. However, the addition of Action b.2 requires THERMAL POWER to be reduced to $\leq$ 50% of RATED THERMAL POWER within 2 hours. During, or at the end of, the 2-hour time period, F^T_r would be checked. At this time, with THERMAL POWER $\leq$ 50%, if F^T_r did not meet the requirements of LCO 3.2.3 then additional power reduction would take place within a 6 hour time period.

In the current LCO, F^T_r would be checked 2 hours sooner than in the proposed LCO. However, the guidance of the current LCOs only requires that power be reduced and F^T_r be within the limits of TS 3.2.3 within a 6 hour time period. Therefore, applying the current LCOs could allow 100% power operation for as much as 6 hours with the F^T_r outside its limit.

It is judged that the proposed LCO 3.2.4 in combination with LCO 3.2.3 provides more conservative guidance in the event that AZIMUTHAL POWER TILT (T_q) exceeds 0.10 since a power reduction is initiated sooner with THERMAL POWER $\leq$ 50% within 2 hours.

Question 9:

When performing SDM calculations, how do you account for Doppler Reactivity? Consider addressing this consideration in TS Bases 3/4.1.1.1.

Response:

The proposed changes to TS 3/4.1.1.1 are only applicable in MODES 3, 4 and 5. In these Operating MODES the reactor is subcritical and the fuel temperature will be changing at the same rate as the reactor coolant temperature. Thus, it is appropriate to consider the Isothermal Temperature Coefficient (ITC) to account for Doppler Reactivity in the Shutdown Margin calculations. As part of implementation of this amendment, TS Bases 3/4.1.1.1 will be changed to explain how to account for Doppler Reactivity in SDM calculations. The following wording will be added:

"The SHUTDOWN MARGIN is verified by performing a reactivity balance calculation, considering the listed reactivity effects:

a. RCS boron concentration;
b. CEA positions;
c. RCS average temperature;
d. Fuel burnup based on gross thermal energy generation;
e. Xenon concentration;
f. Samarium concentration; and
g. Isothermal temperature coefficient (ITC).

Using the ITC accounts for Doppler reactivity in this calculation because the reactor is subcritical and the fuel temperature will be changing at the same rate as the RCS temperature."

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Attachment 2

Millstone Power Station, Unit No. 2

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Marked Up Page

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.

(SDM)

3/4.1.1.1	SHUTDOWN MARGIN ~~- T_{avg} > 200°F~~
~~3/4.1.1.2~~	~~SHUTDOWN MARGIN - T_{avg} ≤ 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.

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

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

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

Attachment 3

Millstone Power Station, Unit No. 2

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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 (SDM)
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.

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