



Northern States Power Company

Monticello Nuclear Generating Plant  
2807 West County Road 75  
Monticello, MN 55362

December 16, 1999

10 CFR Part 50  
Section 50.90

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

MONTICELLO NUCLEAR GENERATING PLANT  
Docket No. 50-263 License No. DPR-22

License Amendment Request for Monticello Cycle 20  
Safety Limit Minimum Critical Power Ratio

Attached is a request for a change in the Technical Specifications, Appendix A of the Operating License for the Monticello Nuclear Generating Plant. This request is submitted in accordance with the provisions of 10 CFR Part 50, Section 50.90.

Changes are proposed to Section 2.1.A to revise the Safety Limit Minimum Critical Power Ratio (SLMCP) values from 1.10 to 1.11 for two recirculation pump operation, and from 1.11 to 1.12 for single loop operation. Footnotes stating SLMCP values are cycle specific are being removed, single loop operation Average Planar Linear Heat Generation Rate (APLHGR) limiting values are being updated, a reference to Siemens fuel is being removed, and a typographical error is being corrected.

Exhibit A contains a description of the proposed changes, the reasons for requesting the changes, Safety Evaluation, a Determination of No Significant Hazards Consideration, and an Environmental Assessment. Exhibit B contains the current Technical Specification pages marked up with the proposed changes. Exhibit C contains revised Monticello Technical Specification pages.

Exhibit D is a General Electric Nuclear Energy document containing proprietary information and is therefore requested to be withheld from public disclosure in accordance with 10 CFR 2.790(b)(1)(ii), and Exhibit E is the associated affidavit. Exhibit F is a General Electric Nuclear Energy document providing the updated MAPLHGR values.

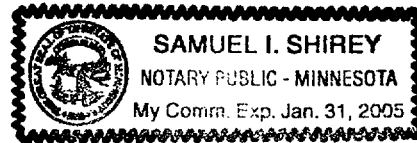
Startup for Monticello cycle 20 is scheduled for February 13, 2000. Implementation of the new SLMCP values should be effective upon startup from the refueling outage.

APCI  
etc. encl  
1 1w/oprop

By Byron D. Day  
Byron D. Day  
Plant Manager  
Monticello Nuclear Generating Plant

On this 16<sup>th</sup> day of December 1999 before me a notary public in and for said County, personally appeared Byron D. Day, Plant Manager, Monticello Nuclear Generating Plant, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.

Samuel I. Shirey  
Samuel I. Shirey  
Notary Public - Minnesota  
Sherburne County  
My Commission Expires January 31, 2005



C: Regional Administrator-III, NRC  
NRR Project Manager, NRC  
Resident Inspector, NRC  
State of Minnesota  
Attn: Steve Minn

Attachments:

- Exhibit A – Evaluation of Proposed Changes to the Technical Specifications
- Exhibit B – Current Technical Specification Pages Marked Up with Proposed Changes
- Exhibit C – Revised Technical Specification Pages
- Exhibit D – September 22, 1999 letter from Tammy G. Reason of GE Nuclear Energy to T. J. Asmus of Northern States Power titled, "Additional Information Regarding the Cycle Specific SLMCPR for Monticello Cycle 20."
- Exhibit E – October 14, 1999 letter from Tammy G. Orr of GE Nuclear Energy to T. J. Asmus of Northern States Power titled, "Monticello Cycle 20 SLMCPR Affidavit."
- Exhibit F – October 4, 1999 letter from Tammy G. Orr of GE Nuclear Energy to T. J. Asmus of Northern States Power titled, "ECCS-LOCA Evaluation for Monticello Cycle 20."

## EXHIBIT A

### Evaluation of Proposed Changes to the Technical Specifications

#### License Amendment Request Dated December 16, 1999 Safety Limit Minimum Critical Power Ratio

Pursuant to 10 CFR Part 50, Section 50.90, Northern States Power Company hereby proposes the following changes to Appendix A, of facility operating license DPR-22, Technical Specifications and Bases for Monticello Nuclear Generating Plant.

#### **Proposed Changes**

##### Change 1 – Revise SLMCPR Values

Section 2.1.A on page 6 Safety Limit Minimum Critical Power Ratio (SLMCPR) change values from "1.10" to "1.11" for two recirculation loop operation, and from "1.11" to "1.12" for single loop operation.

##### Change 2 – Delete Cycle Specific Footnotes

On pages 6 and 249b, delete cycle specific footnotes.

##### Change 3 – Update APLHGR Values

On page 211, section 3.11.A.a, change "0.85" to "0.78 for GE10 fuel and 0.80 for GE11 and GE12 fuel"

##### Change 4 – Correct Typographical Error and Delete Obsolete Reference

On page 211 change "Generating Ratio" to "Generation Rate."

On page 249b, delete reference to ANF-91048(P)(A).

#### **Reason for Changes**

##### Changes 1 and 2

Calculations for Monticello by General Electric Nuclear Energy (GENE), summarized in Exhibit D, have determined that the current SLMCPR values for dual and single loop operation (1.10 and 1.11) are not applicable for the upcoming fuel cycle due to core loading design and fuel bundle design changes. This change revises the SLMCPR values to (1.11 and 1.12) for the upcoming fuel cycle. Additionally, by specifying a cycle number for this parameter in current Technical Specifications, Monticello is required to submit a change even if the SLMCPR numbers remain conservative for the next operating cycle. Thus, this change will remove reference to a specific cycle number and will only require submittal of a future change if cycle specific SLMCPR analysis determines these values are not bounding.

Exhibit A  
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Safety Limit Minimum Critical Power Ratio

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Change 3

Exhibit F provides information from GE, which concludes that previous single loop operation (SLO) analysis did not meet a newly added requirement for single loop analysis. Therefore, the SLO analysis for GE10, GE11, and GE12 was updated. The SLO MAPLHGR multipliers consistent with the new SLO analysis methodology are 0.78 for GE10 and 0.80 for both GE11 and GE12 fuel in the Monticello cycle 20 core. Inserting this wording necessitates moving some text to page 212. Therefore, this change affects page 212 also.

Change 4

Typographical errors should be corrected. In addition, reference to Siemens fuel will be removed.

**Safety Evaluation**

Changes 1 and 2

The purpose of the SLMCPR is to provide high statistical probability (greater than 99.9%) that fuel rods in the operating core would not experience transition boiling (clad dryout) during the most limiting Abnormal Operational Transient (AOT). The criteria of transition boiling for determination of the SLMCPR is a conservative approach since this phenomena by itself does not signal the onset of fuel cladding failure. The revised SLMCPR for Monticello was determined using plant and cycle-specific fuel and core parameters, and NRC approved methods and uncertainties as discussed in Exhibit D. Analysis of the limiting AOT provides the allowed operating conditions, in terms of MCPR, of the core during the fuel cycle such that if the event were to occur, the transient MCPR would not be less than the SLMCPR. No plant hardware or operational changes are required with this proposed change.

Change 3

Per Exhibit F, GE recently reviewed the Monticello single loop operation analysis. A recently added GE requirement for the SLO analysis is that the SLO multiplier must be determined such that the nominal peak clad temperature (PCT) of the SLO case is bounded by the nominal PCT for the two-loop case. This review revealed that the previous SLO analysis did not meet this new requirement for single loop analysis. Therefore, the SLO analysis for GE10, GE11, and GE12 was updated. Since Monticello has not operated in single loop mode, not meeting the new analysis requirement had no practical effect on Monticello's core.

Inserting the above wording necessitates relocating some text to page 212. Consequently, this change also affects page 212.

Exhibit A  
License Amendment Request Dated December 16, 1999  
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Change 4

Correction of typographical errors is an administrative function. Monticello is removing all Siemens qualification fuel assemblies (QFA) during the upcoming refueling outage. Since there is no plan to use Siemens fuel in the Monticello core after the current cycle (19), reference to the evaluation model is obsolete and deleting the reference is administrative. Since these two items are administrative, they do not impact safety.

**Determination of No Significant Hazards Considerations**

The proposed changes to the Operating License have been evaluated to determine whether they constitute a significant hazards consideration as required by 10 CFR Part 50, Section 50.91 using standards provided in Section 50.92. This analysis is provided below:

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

GE has recently revised their single loop operation (SLO) analysis review procedures to add an additional requirement that the peak cladding temperature (PCT) during a LOCA initiated while in SLO should be bounded by the PCT for a LOCA initiated while in dual loop operation. This desired result is enforced by revising the SLO MAPLHGR "multipliers" found in Technical Specification 3.11.A from the current value of 0.85 for all fuel to values of 0.78 for GE10 fuel and 0.80 for GE11 and GE12 fuel. This change ensures that the condition that the Upper Bound PCT does not exceed 1600°F (as required by the NRC-approved SAFER methodology for performing ECCS LOCA calculations) is satisfied even if a LOCA were to occur while operating in SLO. This change does not alter the method of operating the plant and does not increase the probability of an accident initiating event or transient. These limits are established to preserve required margins.

Therefore, the proposed TS changes do not involve an increase in the probability or consequences of an accident previously evaluated.

The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

SLMCPR is a TS numerical value designed to ensure that transition boiling does not occur in greater than 99.9% of all fuel rods in the core during the limiting postulated transient. A change in SLMCPR cannot create the possibility of any new type of

Exhibit A  
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accident. SLMCPR values for the new fuel cycle are calculated using previously transmitted methodology. Similarly, changes to the SLO MAPLHGR multiplier values are designed to ensure that the PCT resulting from a LOCA while operating in SLO are bounded by the PCT from a LOCA while operating in dual loop operation. Thus, a change in these multipliers cannot create the possibility of any new type of accident. This multiplier update results from application of GE's current standard methodology for this analysis.

The proposed changes result only from a specific analysis for the Monticello core reload design and deletion of a cycle specific reference for the values. These changes do not involve any new or different method for operating the facility and do not involve any facility modifications. No new initiating events or transients result from these changes.

Therefore, the proposed TS changes do not create the possibility of a new or different kind of accident, from any accident previously evaluated.

The proposed amendment will not involve a significant reduction in the margin of safety.

SLMCPR calculations are based on ensuring that greater than 99.9% of all fuel rods in the core avoid transition boiling if the limit is not violated. Proposed SLMCPRs preserve required margin to transition boiling and fuel damage in the event of a postulated transient. Fuel licensing acceptance criteria for SLMCPR calculations apply to Monticello Cycle 20 in the same manner as applied in previous cycles. The revised SLMCPR values do not change the method of operating the plant and have no effect on the probability of an accident-initiating event or transient because these limits are established to preserve required margin.

Fuel licensing acceptance criteria for SLMCPR calculations apply to Monticello Cycle 20 in the same manner as previously applied. SLMCPRs prepared by GE using methodology previously transmitted to the NRC ensure that greater than 99.9% of all fuel rods in the core will avoid transition boiling if the limit is not violated, thereby preserving fuel cladding integrity. The operating M CPR limit is set appropriately above the safety limit value to ensure adequate margin when the cycle specific transients are evaluated. Application of new SLO MAPLHGR multiplier values ensures that SLO LOCA results are bounded by those for dual loop operation and thus maintain or improve the margin of safety for LOCA analyses.

Therefore, the proposed TS changes do not involve a reduction in a margin of safety.

Exhibit A  
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**Environmental Assessment**

Northern States Power has evaluated the proposed changes and determined that the changes:

1. Do not involve a significant hazards consideration.
2. Do not involve a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, and
3. Do not involve a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR Part 51, Section 51.22(b), and an environmental assessment of the proposed changes is not required.

Exhibit B

MONTICELLO NUCLEAR GENERATING PLANT

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Current Technical Specification Pages Marked Up with Proposed Changes

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Page

6  
211  
212  
249b



## 2.0 SAFETY LIMITS

### 2.1 FUEL CLADDING INTEGRITY

Applicability:

Applies to the interrelated variables associated with fuel thermal behavior.

Objective:

To establish limits below which the integrity of the fuel cladding is preserved.

Specification:

- A. Core Thermal Power Limit (Reactor Pressure >800 psia and Core Flow is >10% of Rated)

When the reactor pressure is >800 psia and core flow is >10% of rated, the existence of a minimum critical power ratio (MCPR) less than ~~1.10~~, for two recirculation loop operation, or less than ~~1.11~~ for single loop operation, shall constitute violation of the fuel cladding integrity safety limit.

1.11      1.12 Change 1

~~\* MCPR values for cycle 19 only.~~

Change 2

2.1/2.3

## LIMITING SAFETY SYSTEM SETTINGS

### 2.3 FUEL CLADDING INTEGRITY

Applicability:

Applies to trip settings of the instruments and devices which are provided to prevent the reactor system safety limits from being exceeded.

Objective:

To define the level of the process variables at which automatic protective action is initiated to prevent the safety limits from being exceeded.

Specification:

The Limiting safety system settings shall be as specified below:

A. Neutron Flux Scram

1. APRM - The APRM flux scram trip setting shall be:

- a. For two recirculation loop operation (TLO):

$$S \leq 0.66W + 65.6\%$$

where

S = Setting in percent of rated thermal power, rated power being 1775 MWt

W = Percent of recirculation drive flow required to produce a core flow of  $57.6 \times 10^6$  lb/hr

- b. For single recirculation loop operation (SLO):

$$S \leq 0.66(W - 5.4) + 65.6\%$$

- c. No greater than 120%.

6

~~9/16/98~~

Amendment No. 29, 47, 84, 99, 100, 102

3.0 LIMITING CONDITIONS FOR OPERATION

4.0 SURVEILLANCE REQUIREMENTS

3.11 REACTOR FUEL ASSEMBLIES

4.11 REACTOR FUEL ASSEMBLIES

Applicability:

The Limiting Conditions for Operation associated with the fuel rods apply to those parameters which monitor the fuel rod operating conditions.

Objective:

The objective of the Limiting Conditions for Operation is to assure the performance of the fuel rods.

Specifications:

Generation Rate

Change 4

A. Average Planar Linear Heat Generating Ratio (APLHGR)

During two recirculation loop power operation, the APLHGR for each type of fuel as a function of average planar exposure shall not exceed the applicable limiting values specified in the Core Operating Limits Report. When hand calculations are required, the APLHGR for each type of fuel as a function of average planar exposure shall not exceed the limiting value for the most limiting lattice (excluding natural uranium) provided in the Core Operating Limits Report.

During one recirculation loop power operation, the APLHGR limiting condition for operation for each type of fuel shall not exceed the most limiting of:

- a. The above values multiplied by 0.25, or
- b. The above values multiplied by the appropriate flow and power dependent correction factors provided in the Core Operating Limits Report.

If at any time during power operation, it is determined that the APLHGR limiting condition for operation is being exceeded, action shall be initiated within 15 minutes to restore operation to within the prescribed limits. Surveillance and corresponding action shall continue until reactor operation is within the prescribed limits. If the APLHGR is not returned to within the prescribed limits within two hours, reduce thermal power to less than 25% within the next four hours.

Applicability:

The Surveillance Requirements apply to the parameters which monitor the fuel rod operating conditions.

Objective:

The objective of the Surveillance Requirements is to specify the type and frequency of surveillance to be applied to the fuel rods.

Specifications:

A. Average Planar Linear Heat Generation Rate (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall be determined daily during reactor operation at  $\geq 25\%$  rated thermal power.

0.78 for GE10 fuel and 0.80 for GE11 and GE12 fuel,

Change 3

Move to next page (212).

### 3.0 LIMITING CONDITIONS FOR OPERATION

#### B. Linear Heat Generation Rate (LHGR)

During power operation, the LHGR shall be less than or equal to the limits specified in the Core Operating Limits Report.

If at any time during operation it is determined that the limiting value for LHGR is being exceeded, action shall be initiated within 15 minutes to restore operation to within the prescribed limits. Surveillance and corresponding action shall continue until reactor operation is within the prescribed limits. If the LHGR is not returned to within the prescribed limits within 2 hours, reduce thermal power to less than 25% within the next 4 hours.

(Insert words moved from  
page 211.

### 4.0 SURVEILLANCE REQUIREMENTS

#### B. Linear Heat Generation Rate (LHGR)

The LHGR shall be checked daily during reactor operation at  $\geq 25\%$  of rated thermal power.

7. Core Operating Limits Report

- 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 for the following:

Rod Block Monitor Operability Requirements (Specification 3.2.C.2a)  
Rod Block Monitor Upscale Trip Settings (Table 3.2.3, Item 4.a)  
Recirculation System Power to Flow Map Stability Regions (Specification 3.5.F)  
Maximum Average Planar Linear Heat Generation Rate Limits (Specification 3.11.A)  
Linear Heat Generation Rate Limits (Specification 3.11.B)  
Minimum Critical Power Ratio Limits (Specification 3.11.C)  
Power to Flow Map (Bases 2.3.A)

- 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:

NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel" (the approved version at the time the reload analyses are performed)

NSPNAD-8608-A, "Reload Safety Evaluation Methods for Application to the Monticello Nuclear Generating Plant" (the approved version at the time the reload analyses are performed)

NSPNAD-8609-A, "Qualification of Reactor Physics Methods for Application to Monticello" (the approved version at the time the reload analyses are performed)

~~ANF 91-048(P)(A), "Advanced Nuclear Fuels Corporation Methodology for Boiling Water Reactors EXEM BWR Evaluation Model," Siemens Power Corporation (the approved version at the time the reload analyses are performed)~~

NEDO-31960, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," June 1991 (the approved version at the time the reload analyses are performed)

NEDO-31960, Supplement 1, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," March 1992 (the approved version at the time the reload analyses are performed)

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

- d. The Core Operating Limits Report, including any mid-cycle revisions or supplements, shall be supplied upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

~~\* For cycle 19 only as approved in SE dated April 20, 1998.~~

Change 2

Change 4

Change 2

Exhibit C

MONTICELLO NUCLEAR GENERATING PLANT

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Safety Limit Minimum Critical Power Ratio

Revised Technical Specification Pages

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211  
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## 2.0 SAFETY LIMITS

### 2.1 FUEL CLADDING INTEGRITY

Applicability:

Applies to the interrelated variables associated with fuel thermal behavior.

Objective:

To establish limits below which the integrity of the fuel cladding is preserved.

Specification:

- A. Core Thermal Power Limit (Reactor Pressure >800 psia and Core Flow is >10% of Rated)

When the reactor pressure is >800 psia and core flow is >10% of rated, the existence of a minimum critical power ratio (MCPR) less than 1.11, for two recirculation loop operation, or less than 1.12 for single loop operation, shall constitute violation of the fuel cladding integrity safety limit.

## LIMITING SAFETY SYSTEM SETTINGS

### 2.3 FUEL CLADDING INTEGRITY

Applicability:

Applies to trip settings of the instruments and devices which are provided to prevent the reactor system safety limits from being exceeded.

Objective:

To define the level of the process variables at which automatic protective action is initiated to prevent the safety limits from being exceeded.

Specification:

The Limiting safety system settings shall be as specified below:

A. Neutron Flux Scram

1. APRM - The APRM flux scram trip setting shall be:

- a. For two recirculation loop operation (TLO):

$$S \leq 0.66W + 65.6\%$$

where

S = Setting in percent of rated thermal power, rated power being 1775 MWt

W = Percent of recirculation drive flow required to produce a core flow of  $57.6 \times 10^6$  lb/hr

- b. For single recirculation loop operation (SLO):

$$S \leq 0.66(W - 5.4) + 65.6\%$$

- c. No greater than 120%.

### 3.0 LIMITING CONDITIONS FOR OPERATION

#### 3.11 REACTOR FUEL ASSEMBLIES

Applicability:

The Limiting Conditions for Operation associated with the fuel rods apply to those parameters which monitor the fuel rod operating conditions.

Objective:

The objective of the Limiting Conditions for Operation is to assure the performance of the fuel rods.

Specifications:

A. Average Planar Linear Heat Generation Rate (APLHGR)

During two recirculation loop power operation, the APLHGR for each type of fuel as a function of average planar exposure shall not exceed the applicable limiting values specified in the Core Operating Limits Report. When hand calculations are required, the APLHGR for each type of fuel as a function of average planar exposure shall not exceed the limiting value for the most limiting lattice (excluding natural uranium) provided in the Core Operating Limits Report.

During one recirculation loop power operation, the APLHGR limiting condition for operation for each type of fuel shall not exceed the most limiting of:

- a. The above values multiplied by 0.78 for GE10 fuel and 0.80 for GE11 and GE12 fuel, or
- b. The above values multiplied by the appropriate flow and power dependent correction factors provided in the Core Operating Limits Report.

### 4.0 SURVEILLANCE REQUIREMENTS

#### 4.11 REACTOR FUEL ASSEMBLIES

Applicability:

The Surveillance Requirements apply to the parameters which monitor the fuel rod operating conditions.

Objective:

The objective of the Surveillance Requirements is to specify the type and frequency of surveillance to be applied to the fuel rods.

Specifications:

A. Average Planar Linear Heat Generation Rate (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall be determined daily during reactor operation at  $\geq 25\%$  rated thermal power.

### 3.0 LIMITING CONDITIONS FOR OPERATION

If at any time during power operation, it is determined that the APLHGR limiting condition for operation is being exceeded, action shall be initiated within 15 minutes to restore operation to within the prescribed limits.

Surveillance and corresponding action shall continue until reactor operation is within the prescribed limits. If the APLHGR is not returned to within the prescribed limits within two hours, reduce thermal power to less than 25% within the next four hours.

#### B. Linear Heat Generation Rate (LHGR)

During power operation, the LHGR shall be less than or equal to the limits specified in the Core Operating Limits Report.

If at any time during operation it is determined that the limiting value for LHGR is being exceeded, action shall be initiated within 15 minutes to restore operation to within the prescribed limits. Surveillance and corresponding action shall continue until reactor operation is within the prescribed limits. If the LHGR is not returned to within the prescribed limits within 2 hours, reduce thermal power to less than 25% within the next 4 hours.

### 4.0 SURVEILLANCE REQUIREMENTS

#### B. Linear Heat Generation Rate (LHGR)

The LHGR shall be checked daily during reactor operation at  $\geq 25\%$  of rated thermal power.



7. Core Operating Limits Report

- 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 for the following:
- Rod Block Monitor Operability Requirements (Specification 3.2.C.2a)
  - Rod Block Monitor Upscale Trip Settings (Table 3.2.3, Item 4.a)
  - Recirculation System Power to Flow Map Stability Regions (Specification 3.5.F)
  - Maximum Average Planar Linear Heat Generation Rate Limits (Specification 3.11.A)
  - Linear Heat Generation Rate Limits (Specification 3.11.B)
  - Minimum Critical Power Ratio Limits (Specification 3.11.C)
  - Power to Flow Map (Bases 2.3.A)
- 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:
- NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel" (the approved version at the time the reload analyses are performed)
  - NSPNAD-8608-A, "Reload Safety Evaluation Methods for Application to the Monticello Nuclear Generating Plant" (the approved version at the time the reload analyses are performed)
  - NSPNAD-8609-A, "Qualification of Reactor Physics Methods for Application to Monticello" (the approved version at the time the reload analyses are performed)
  - NEDO-31960, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," June 1991 (the approved version at the time the reload analyses are performed)
  - NEDO-31960, Supplement 1, "BWR Owners' Group Long-Term Stability Solutions Licensing Methodology," March 1992 (the approved version at the time the reload analyses are performed)
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, transient analysis limits and accident analysis limits) of the safety analysis are met.
- d. The Core Operating Limits Report, including any mid-cycle revisions or supplements, shall be supplied upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

Exhibit D

MONTICELLO NUCLEAR GENERATING PLANT

License Amendment Request Dated December 16, 1999

GE Nuclear Energy letter dated September 22, 1999

Titled:

**“Additional Information Regarding the  
Cycle Specific SLMCPR for Monticello Cycle 20”**



**Tammy G. Reason**  
Fuel Project Manager

*Nuclear Fuel Product Management  
General Electric Company  
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Edlington, NC 27401-0780  
Tel: 615-5752, EC: 8-292-5752, Fax: 615-5064  
Pager: 868-225-7874, Tammy.Reason@ge.com*

September 22, 1999  
TGR:99-063

cc: C. A. Bonneau  
J. E. Fawks  
H. H. Paustian  
R. A. Rossi  
D. G. Wegener

Mr. T. J. Asmus  
Senior Engineer, Fuel Resources  
Northern States Power Company  
414 Nicollet Mall - Ren Sq 10  
Minneapolis, MN 55401-1927

**Subject: Additional Information Regarding the Cycle Specific SLMCPR for Monticello Cycle 20**

Dear Tom:

We are pleased to provide the following additional information for the Cycle Specific SLMCPR for Monticello Cycle 20. This is being delivered in advance of the requested October 1 delivery date.

If you have any questions regarding this or other items, please call me.

Best regards,

T. G. Reason