

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

REQUEST FOR AMENDMENT TO
OPERATING LICENSE DPR-22

LICENSE AMENDMENT REQUEST DATED December 31, 1992

Northern States Power Company, a Minnesota corporation, requests authorization for changes to Appendix A of the Monticello Operating License as shown on the attachments labeled Exhibits A, B, and C. Exhibit A describes the proposed changes, describes the reasons for the changes, and contains a Safety Evaluation, a Determination of Significant Hazards Consideration and an Environmental Assessment. Exhibit B contains current Technical Specification pages marked up with the proposed changes. Exhibit C is a copy of the Monticello Technical Specifications incorporating the proposed changes.

This letter contains no restricted or other defense information.

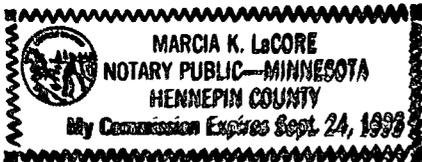
NORTHERN STATES POWER COMPANY

By


Thomas M Parker
Director
Nuclear Licensing

On this 31st day of December 1992 before me a notary public in and for said County, personally appeared Thomas M Parker, Director, Nuclear Licensing, 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.





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Exhibit A

MONTICELLO NUCLEAR GENERATING PLANT

License Amendment Request Dated December 31, 1992

Evaluation of proposed changes to the Technical Specifications
for Operating License DPR-22

Pursuant to 10 CFR Part 50, Section 50.59 and 50.90, the holders of Operating License DPR-22 hereby propose the following changes to the Monticello Technical Specifications:

Page Section Current Specification

77 3.3.A.2 The specification currently reads as follows:

" Reactivity margin - stuck control rods.

Control rod drives which cannot be moved with control rod drive pressure shall be considered inoperable. The directional control valves for inoperable control rods shall be disarmed electrically and the rods shall be in such positions that Specification 3.3.A.1 is met. If more than six non-fully inserted rods are inoperable during power operation the reactor shall be placed in a shutdown condition. If a partially or fully withdrawn control rod drive cannot be moved with drive or scram pressure the reactor shall be brought to a shutdown condition within 48 hours unless investigation demonstrates that the cause of the failure is not due to a failed control rod drive mechanism collet housing."

4.3.A.2 The specification currently reads as follows:

" Reactivity margin - stuck control rods.

Each partially or fully withdrawn operable control rod shall be exercised one notch at least once each week, with the exception that one rod in any two by two array need not be exercised more than one notch at least once each month. (This exception applies to cycle 5 but may be extended to subsequent cycles unless inspection of representative monthly exercised drives at end of each cycle shows abnormal piston tube or index tube degradation. Choice of monthly-

exercised rods during each cycle shall be such that failure of all the monthly-tested rods to insert will not impair shutdown capability using the remaining rods). This test shall be performed at least once per 24 hours in the event power operation is continuing with two or more inoperable control rods or in the event power operation is continuing with two or more inoperable control rods or in the event power operation is continuing with one fully or partially withdrawn rod which cannot be moved and for which control rod drive mechanism damage has not been ruled out. The surveillance need not be completed within 24 hours if the number of inoperable rods has been reduced to less than two and if it has been demonstrated that control rod drive mechanism collet housing failure is not the cause of an immovable control rod."

Proposed Change

We propose to revise the above specifications as follows:

3.3.A.2

"Reactivity margin - stuck control rods.

- (a) Control rod drives which cannot be moved with control rod drive pressure shall be considered inoperable. The directional control valves for inoperable control rods shall be disarmed electrically and the rods shall be in such positions that Specification 3.3.A.1 is met.
- (b) If a partially or fully withdrawn control rod is stuck (i.e., cannot be moved with control rod drive or scram pressure) the reactor shall be brought to a hot shutdown condition within 48 hours. Shutdown is not required if it is confirmed that control rod drive collet housing failure is not the cause of the immovable control rod.
- (c) If more than six non-fully inserted control rods are inoperable during power operation, the reactor shall be brought to a hot shutdown condition within 48 hours."

4.3.A.2

"Reactivity margin - stuck control rods.

- (a) Each fully or partially withdrawn operable control rod shall be exercised at least one notch each week.

- (b) If power operation is continuing with one fully or partially withdrawn control rod that is inoperable because it is stuck (i.e., cannot be moved by drive or scram pressure), each fully or partially withdrawn operable control rod shall be exercised at least one notch every 24 hour period. This surveillance is not required if it has been confirmed that control rod drive collet housing failure is not the cause of the immovable control rod.
- (c) If power operation is continuing with two or more non-fully inserted control rods that are inoperable, each operable fully or partially withdrawn control rod shall be exercised at least one notch every 24 hour period."

Reason for Change:

Technical Specification 4.3.A.2 currently allows notch testing of 25% of the control rods (one control rod in each two by two array) on a monthly instead of weekly basis provided certain conditions are satisfied for each operating cycle. The wording of the specification is somewhat confusing, and failure to adequately confirm the satisfaction of these conditions resulted in a Technical Specification violation and reportable event (Licensee Event Report 92-005-00, dated March 24, 1992) earlier this year. Deletion of this option was identified as a corrective action to prevent future similar events.

In conjunction with the above change, we are proposing to rewrite specification 3.3.A.2 and the remaining portions of 4.2.A.2, which are also worded in a somewhat confusing manner. The changes we are proposing are intended to clarify the intent of the specifications and reduce the possibility of misinterpretation.

Safety Evaluation:

The option to exercise one control rod in each 2 X 2 array on a monthly instead of weekly basis was incorporated into the plant Technical Specifications on October 15, 1976 as Amendment 24 to the Provisional Operating License. This option, which was more restrictive than had been proposed in our License Amendment Request dated January 26, 1976 and supplemental letter dated July 2, 1976, represented a compromise between NSP and the NRC Staff. Limitations on the number of rods that could be tested monthly, and conditions that needed to be met to utilize the option, were imposed due to Staff concerns over cracks found in collet retainer tubes at other utilities.

During the 1976 time frame, our primary reason for wanting to extend control rod drive notch testing frequency from weekly to monthly was that analysis had shown that notch testing at high power levels contributed to early fuel

failure. It was therefore necessary to undergo a temporary power reduction each week to perform the test. Since that time, the introduction of new barrier fuel designs has eliminated this concern and it is no longer necessary to reduce power to perform control rod drive rod notch testing.

We have concluded that the operational benefit derived from testing 25% of the rods monthly is marginal and does not justify the level of effort necessary to ensure all conditions are satisfied to maintain this option. As noted in Licensee Event Report 92-005-00, we have returned to performing notch testing of all operable fully or partially withdrawn control rods on a weekly basis in accordance with the basic specification. As a follow-up action, we consider it prudent to remove the monthly test option from the plant Technical Specifications to preclude future violations caused by misinterpretation of the special conditions currently contained in specification 4.3.A.2.

The other changes to specifications 3.3.A.2 and 4.3.A.2 clarify, but do not alter, current Technical Specification requirements. By reducing the potential for misinterpretation, these changes serve to improve compliance with the specifications, thereby enhancing safety.

Determination of Significant Hazards Consideration:

This proposed change to the Operating License has been evaluated to determine if it constitutes a significant hazards consideration as required by 10 CFR Part 50, Section 50.91 using the standards provided in Section 50.92. This analysis is provided below:

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

The proposed amendment is administrative in nature and has no adverse impact on control rod drive operability or reliability, fuel reliability, or the ability to maintain adequate shutdown margin. Elimination of the option to perform monthly notch testing represents a return to a more conservative and restrictive requirement for control rod drive testing. Therefore, the proposed amendment will not increase the probability or consequences of any accident previously analyzed.

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

As indicated in Licensee Event Report 92-005-00, we have already discontinued performing control rod drive notch testing on a monthly basis and have returned to performing this test weekly as permitted under the current specification. No safety-related equipment, safety function, or plant operations will be altered as a result of the proposed amendment. Therefore, the proposed amendment does not in any way create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The proposed changes are administrative in nature and do not adversely affect safety. The intent of the specification, which is to assure that the core can be shutdown at all times with the remaining control rods assuming the strongest control rod does not insert, is unchanged. Elimination of the option to perform monthly notch testing represents a return to a more conservative and restrictive requirement for control rod drive testing. The other changes clarify, but do not alter, current Technical Specification requirements. By reducing the potential for misinterpretation, these changes serve to improve compliance with the specifications, thereby enhancing safety.

Based on the evaluation described above, and pursuant to 10 CFR Part 50, Section 50.91, Northern States Power Company has determined that operation of the Monticello Nuclear Generating Plant in accordance with the proposed license amendment request does not involve any significant hazards considerations as defined by NRC regulations in 10 CFR Part 50, Section 50.92.

Environmental Assessment:

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

1. The changes do not involve a significant hazards consideration,
2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or
3. The changes 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(c)(9). Therefore, pursuant to 10 CFR Part 51 Section 51.22(b), an environmental assessment of the proposed changes is not required.