

July 12, 1993

Docket No. 50-263

Mr. Roger O. Anderson, Director
Licensing and Management Issues
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Anderson:

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT - ISSUANCE OF AMENDMENT RE:
CONTROL ROD DRIVE TESTING REQUIREMENTS (TAC NO. M85015)

The Commission has issued the enclosed Amendment No. 86 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated December 31, 1992.

The amendment changes Limiting Condition for Operation 3.3.A.2, "Reactivity margin - stuck control rods," and corresponding Surveillance Requirement 4.3.A.2, "Reactivity margin - stuck control rods" by eliminating an optional alternative to control rod drive testing requirements. The amendment also totally rewrites the technical specification to clarify its intent.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
Original Signed By:

Robert B. Samworth, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 86 to DPR-22
2. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:PD31	PM:PD31	D:SRXB	OGC NCO	D:PD31
NAME	CJamerson	RSamworth:	RJones	M2019/11/93	WDean
DATE	6/12/93	6/12/93	6/21/93	6/30/93	7/12/93

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FILENAME: G:\WP\WPCOCS\MONTICEL\MON85015.AMD

Subject to
two corrections,
do not issue
before 7/9/93

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PDR



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in cursive script that reads "Robert B. Samworth".

Robert B. Samworth, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 86 to DPR-22
2. Safety Evaluation

cc w/enclosures:
See next page

DATED: July 12, 1993

AMENDMENT NO. 86 TO FACILITY OPERATING LICENSE NO. DPR-22-MONTICELLO

Docket File
NRC & Local PDRs
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OGC-WF
D. Hagan, 3302 MNBB
G. Hill (2), P-137
Wanda Jones, MNBB-7103
C. Grimes, 11/F/23
R. Jones, SRXB
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OPA
OC/LFDCB
W. Shafer, R-III

cc: Plant Service list

Mr. Roger O. Anderson, Director
Northern States Power Company

Monticello Nuclear Generating Plant

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 86
License No. DPR-22

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Northern States Power Company (the licensee) dated December 31, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2 of Facility Operating License No. DPR-22 is hereby amended to read as follows:

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PDR ADDCK 05000263
P PDR

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 86, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Wm William M. Dean, Acting Director
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 12, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 86

FACILITY OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

REMOVE

77

INSERT

77

3.0 LIMITING CONDITIONS FOR OPERATION

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.

B. Control Rod Withdrawal

- 1. Each control rod shall be coupled to its drive or completely inserted and the directional control valves disarmed electrically. This requirement does not apply when removing a control rod drive for inspection as long as the reactor is in the refueling mode.

4.0 SURVEILLANCE REQUIREMENTS

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.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 86 TO FACILITY OPERATING LICENSE NO. DPR-22

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

1.0 INTRODUCTION

By letter dated December 31, 1992, the Northern States Power Company (NSP, the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The proposed amendment would revise the surveillance requirements associated with Technical Specification 3.3.A.2, "Reactivity Margin - Stuck Control Rods." The current technical specification requires that "...each partially or fully withdrawn operable control rod shall be exercised one notch at least once each week..." The specification then provides an exception to weekly testing which states that "...one rod in any two by two array need not be exercised more than one notch at least once each month..." The specification continues by providing guidance for applying this exception.

The licensee has found that this exception is subject to misinterpretation and is therefore proposing to delete the exception by this amendment.

The licensee has also proposed to reorganize the remainder of the existing specification to achieve additional clarity.

2.0 EVALUATION

The part of the technical specification to be deleted by the proposed amendment is an option to exercise one control rod in each 2 X 2 array on a monthly instead of weekly basis. The option 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 by the licensee in its License Amendment Request dated January 26, 1976 and its supplemental letter dated July 2, 1976, resulted from discussion 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.

The licensee's primary reason for proposing in 1976 that control rod drive notch testing frequency be extended 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.

The licensee has now found 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, the licensee has 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, the licensee considers it prudent to remove the monthly test option from the plant Technical Specifications to preclude 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.

The standard technical specification for BWRs (See SR 3.1.3.1, page 3.1-10, et seq.) essentially requires that each fully withdrawn control rod be tested by insertion of at least one notch every 7 days. Partially withdrawn control rods are to be tested by insertion of at least one notch every 31 days. The standard technical specification does not contain the exception proposed for deletion from the Monticello technical specifications. The test frequency at Monticello exceeds the frequency in the standard technical specification.

Since the frequency for testing the control rods at Monticello exceeds the test frequency recommended in the standard technical specifications, and since the proposed amendment would eliminate an exception which would reduce test frequency, this aspect of the proposed amendment is acceptable,

The remaining aspect of the proposed amendment is to reorganize the test requirements for clarity. No change in test requirements is intended or achieved by this reorganization. Therefore, there is no safety significance to the reorganization. This proposed change is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State Official was notified of the proposed issuance of the amendment. The State Official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative

occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (58 FR 32388). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Robert B. Samworth

Date: July 12, 1993