

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 FEBRUARY 18, 1987

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, reasons for the changes, and a significant hazards evaluation. Exhibits B and C are copies copy of the Monticello Technical Specifications incorporating the proposed changes.

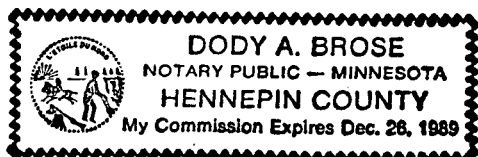
This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By *David Musolf*  
David Musolf  
Manager-Nuclear Support Services

On this 18<sup>th</sup> day of February, 1987 before me a notary public in and for said County, personally appeared David Musolf, Manager-Nuclear Support Services, 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 is is not interposed for delay.

*Dody A. Brose*



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Exhibit A

Monticello Nuclear Generating Plant

License Amendment Request Dated February 18, 1987

Proposed changes to the Technical Specifications  
Appendix A of Operating License DPR-22.

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

1. APRM AND IRM Scram Requirements

Proposed Change

On page 17 add the words "and the associated APRM is not downscale."

Change Table 3.1.1 by eliminating IRM operability in the Run mode and deleting the APRM downscale scram (page 28). Change Note 2 (page 29) to read:

For an IRM channel to be considered operable, its detector shall be fully inserted.

Delete Note c on Table 3.1.1 (page 30)

Delete the first paragraph on page 39 on the Section 3.1 Bases and replace it with:

The IRMs are calibrated by the heat balance method such that 120/125 of full scale on the highest IRM range is below 20% of rated neutron flux (See Specification 2.3.A.2). The requirement that the IRM detectors be inserted in the core assures that the heat balance calibration is not invalidated by the withdrawal of the detector.

## Reason For Change

Two problems exist with the Technical Specifications in Table 3.1.1, Reactor Protection System (Scram) Instrument Requirements for the IRMs and the APRMs.

The first problem involves the requirement for an APRM downscale scram. The APRM downscale scram is actually not a scram but a bypass of the IRM scram trips when in the Run Mode. The circuitry involved is shown in Figure 1. In the Run Mode at power, the IRM HI HI contacts are closed (since the detectors are withdrawn from the core) as are the IRM INOP contacts. Therefore, if the associated APRM channel goes downscale (less than 3/125 of full scale) no scram would occur. The purpose of the APRM downscale contact is to bypass the IRM scram trips when in the Run Mode and the APRM is reading above 3/125 of full scale. The wording of the current Technical Specifications implies an APRM downscale should cause a half scram. The circuitry and the Technical Specification wording has not changed since the initial plant startup.

The second problem involves the bypassing of the APRMs. Note c of Table 3.1.1 reads:

"It is permissible to bypass:

- c. The scram function of an IRM instrument channel when the reactor is in the Run mode and the associated APRM is operable and indicating at least 3/125 full scale."

When an APRM is bypassed the associated IRM is also bypassed (See Figure 1). This note requires the associated APRM to be operable in order to bypass an IRM. Since a bypassed APRM cannot be considered operable, one could consider an IRM to be inoperable when the associated APRM is bypassed. Since the minimum number of IRM channels is 3 of 4 per trip system, no problem exists except when APRM #3 or #4 is bypassed. APRM #3 or #4 each have two IRMs associated with them (See Figure 2). Bypassing APRM #3 bypasses IRMs #13 and #14. Bypassing APRM #4 bypasses IRMs #15 and #18. Using the same logic mentioned above, the minimum number of Operable channels could not be met whenever APRM #3 or #4 are bypassed. This note could be used to require operability of the IRMs when any APRM is bypassed. This is clearly not the intent of this specification, since there is no need for the IRMs to be operable in the Run Mode when 2 of the 3 APRM channels are operable. Therefore, we propose to delete Note c of Table 3.1.1 and clarify the associated bases. This change is proposed only to clarify the Technical Specification. No change has been made to the associated electrical circuitry since initial plant startup.

Changes on Page 17 and 29 are related clarifications.

Safety Evaluation and Determination of Significant Hazards Considerations

The proposed change to the Operating License has been evaluated to determine whether 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:

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

The proposed changes clarify the intent of the original specification by clearly defining the scram functions needed to be operable in each mode of operation. The allowable bypasses assure that the single failure criteria is satisfied for the required scram function of the IRMs and APRMs. These changes do not involve modifications of the reactor protection system wiring or circuitry thus, by design, overlap between the IRMs and APRMs is assured. Therefore, the requested changes will not involve a significant increase in the probability or consequence if any accident previously evaluated.

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

For the reasons mentioned above, the proposed change will not create the possibility of a new or different kind of accident.

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

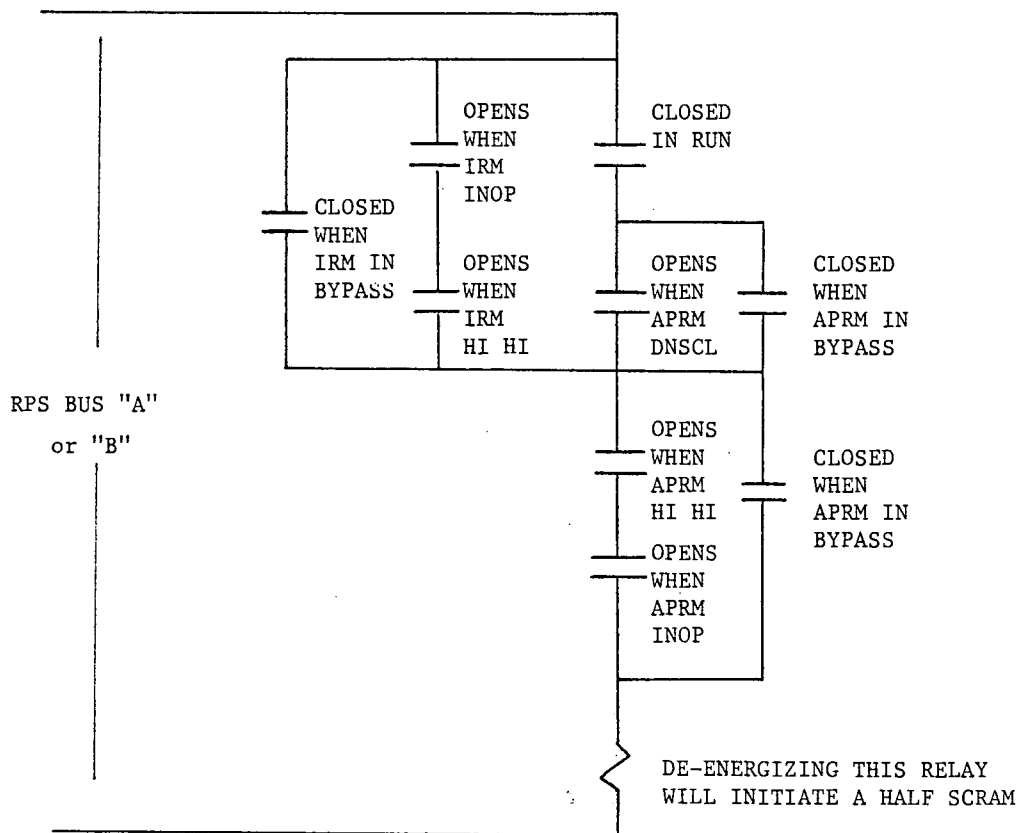
Since no changes to the plant or associated analyses, this change will not involve a significant reduction in the margin of safety.

For the reasons discussed above, we have concluded that the proposed change does not involve a significant hazards consideration.

The Commission has provided guidance concerning the application of the Standards for determining whether a significant hazards consideration exists by providing certain examples of amendments that are considered not likely to involve significant hazards considerations. These examples were published in the Federal Register on March 6, 1986.

Changes proposed here are representative of example (i), purely administrative changes to the Technical Specifications.

FIGURE 1 Electrical Contacts for the IRM/APRM Scram Circuitry



IRM = Intermediate Range Monitor  
 APRM = Average Power Range Monitor  
 INOP = Channel not Operable  
 DNSCL = Channel Downscale  
 HI HI = 120/125 for the IRM,  
 Flow Referenced Scram for  
 the APRM  
 RPS = Reactor Protection System

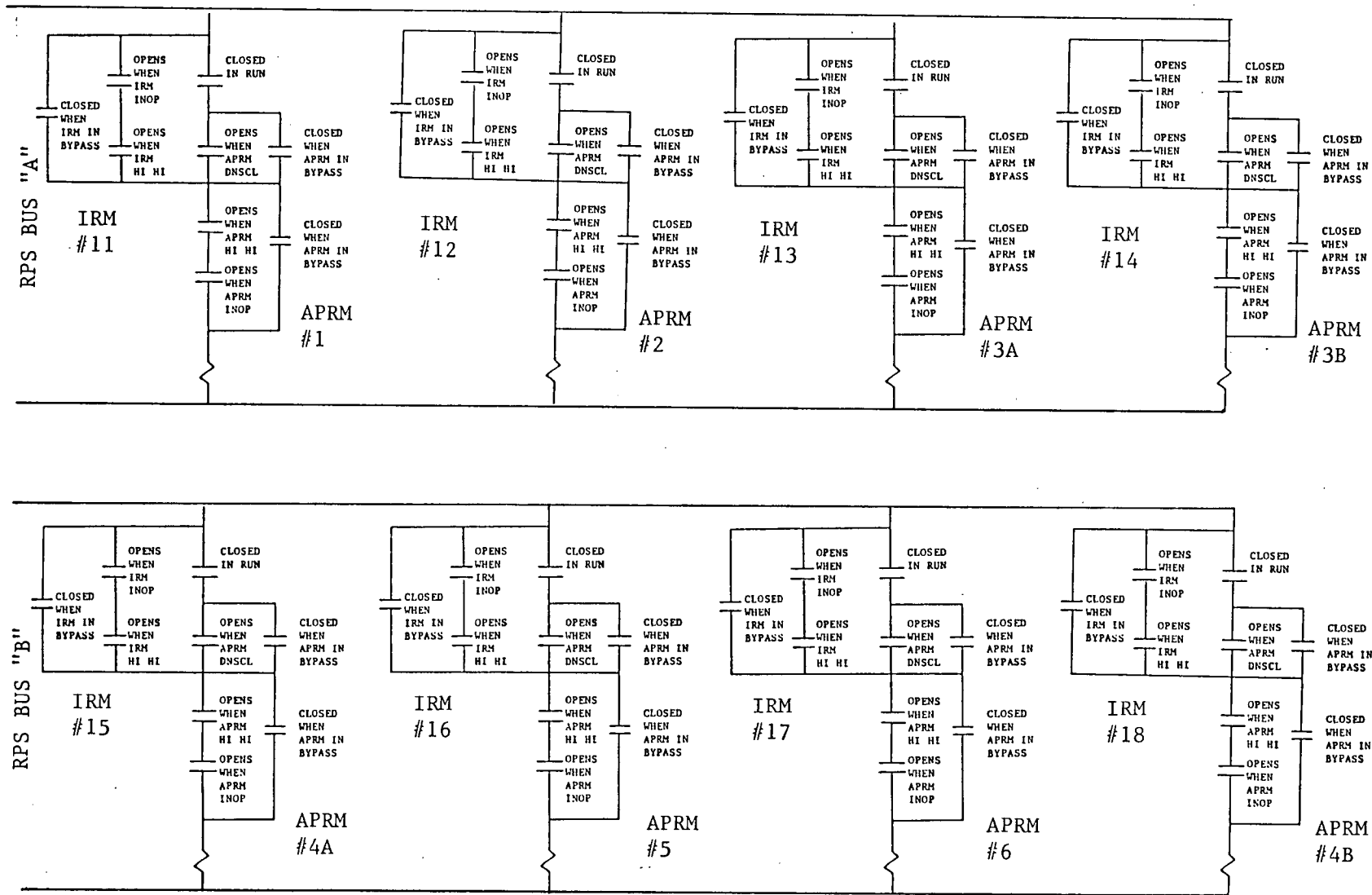


FIGURE 2 Relationship Between APRMs 1,2,3,4,5 and 6 and IRMs 11,12,13,14,15,16,17 and 18

Exhibit B

License Amendment Request dated February 18, 1987

Docket No. 50-263  
License No. DPR-22

Exhibit B consists of marked up pages for the Monticello Nuclear Generating Plant Technical Specifications showing the proposed changes as listed below:

Page

17  
28  
29  
30  
39