

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

Docket No. 50-282  
50-306

REQUEST FOR AMENDMENT TO  
OPERATING LICENSE NOS. DPR-42 & DPR-60

(License Amendment Request Dated June 24, 1983)

Northern States Power Company, a Minnesota corporation, request authorization for changes to the Technical Specifications as shown on the attachments labeled Exhibit A and Exhibit B. Exhibit A describes the proposed changes along with reasons for the change. Exhibit B is a set of Technical Specification pages incorporating the proposed changes. Exhibit C is the Exxon Nuclear Corporation technical report.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By David Musolf  
David Musolf  
Manager - Nuclear Support Services

On this 24th day of June, 1983 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 it is not interposed for delay.

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## EXHIBIT A

### Prairie Island Nuclear Generating Plant

#### License Amendment Request - Dated June 24, 1983

#### Proposed Changes to the Technical Specifications Appendix A of Operating License DPR-42 and 60

Pursuant to 10 CFR 50.59 and 50.90, the holders of Operating License DPR-42 and 60 hereby propose the following changes to Appendix A, Technical Specification:

1. BU(E<sub>j</sub>) curve and F<sub>Q</sub> (TS-1y, TS.3.10-1, TS.3.10-2, TS.3.10-9, TS.3.10-11; Figures: TS.3.10-5 and TS.3.10-7)

#### Proposed Change

Change the F<sub>Q</sub> limit by changing "2.21" to "2.32". Change the BU(E<sub>j</sub>) curve to be "1.0" for all values of peak pellet exposure from 0 to 55,000 GWD/MTU.

#### Reason for Change

This change will allow the plant to operate with higher F<sub>Q</sub>'s and peak pellet burnups. Current cycle designs have very little margin to current F<sub>Q</sub> and burnup limitations. To prevent periodic derates and to provide more margin to limits, a new LOCA analysis was performed using new methodology to justify the higher limits.

#### Significant Hazards Evaluation

Attachment C provides the results of the analysis done by Exxon Nuclear Corporation to support this change. This change will not result in an increase to the consequences of a previously-analyzed accident since more margin to 2200°F peak clad temperature limit is shown. Operation of the plant in accordance with the proposed change therefore will not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) involve a significant reduction in a margin of safety.

## 2. Definition of $F_Q^N$ (Page TS.3.10-9)

### Proposed Change

Change the definition of  $F_Q^N$  from a "neutron flux" comparison to a "heat flux comparison."

### Reason for Change

This change will make the definition of  $F_Q^N$  consistent with the definition of  $F_Q(z)$ .

### Significant Hazards Evaluation

Since the concern during an accident is the clad temperature, it is more appropriate to derive and limit heat flux rather than neutron flux.

This change is purely an administrative change to the Technical Specifications. Operation of the plant in accordance with this proposed change will not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) involve a significant reduction in a margin of safety.