



Northern States Power Company

414 Nicollet Mall  
Minneapolis, Minnesota 55401  
Telephone (612) 330-5500

November 4, 1985

Director  
Office of Nuclear Reactor Regulation  
U S Nuclear Regulatory Commission  
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
Docket Nos. 50-282 License Nos. DPR-42  
50-306 DPR-60

Demonstration of the Conformance  
with the K(z) Curve Existing  
in the Prairie Island Technical Specifications  
with the Requirements of 10 CFR 50.46 and Appendix K

- References
1. Letter dated May 6, 1985, H L Thompson, NRR, to D M Musolf, NSP, "Exxon Code Error."
  2. Letter dated April 4, 1985, D M Musolf, NSP, to the Director of NRR, "Withdrawal of Exemption Request Concerning 10 CFR Part 50, Section 50.46 and Implementation of a Voluntary Peaking Factor Penalty."

Westinghouse Electric Corporation has demonstrated that the Exxon Nuclear Fuel used in the Prairie Island plants complies with the requirements of 10 CFR Part 50.46 and Appendix K concerning the K(z) curve. Attachment A, a summary of the LOCA analysis performed to demonstrate compliance, is being submitted for your information in response to your request dated May 6, 1985 (Reference 1).

In March of the is year, the NRC requested that we demonstrate compliance with 10 CFR Part 50.46 and Appendix K for our fuel manufactured by Exxon Nuclear Corporation. The Staff requested that we complete this analysis before November 6, 1985 (Reference 1). The analysis is attached and demonstrates conformance to 10 CFR Part 50.46 and Appendix K using the present K(z) curve in the Prairie Island Technical Specifications. Due to the Staff's concerns with this issue, NSP imposed a 0.05 penalty on F<sub>0</sub> (Reference 2). Since conformance has now shown, we plan to remove this penalty on December 15, 1985.

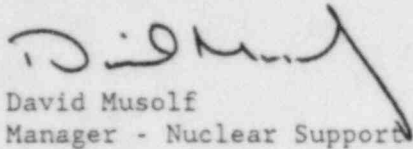
8511110201 851104  
PDR ADOCK 05000282  
P PDR

Acc  
11

Dir of NRR  
November 4, 1985  
Page 2

If you have concerns with our schedule for removal of this penalty or the analysis please notify us.

It should be noted that the attached analysis used a larger value of  $F_{\Delta H}$  than presently exists in the Prairie Island Technical Specifications (1.60 instead of 1.55). This value was used since we will be requesting an increase to 1.60 for  $F_{\Delta H}$  in the near future. The use of 1.60 makes the present analysis conservative for the existing Prairie Island Technical Specifications.



David Musolf  
Manager - Nuclear Support Services

DMM/TMP/tp

c: Regional Administrator-III, NRC  
NRR Project Manager, NRC  
Resident Inspector, NRC  
G Charnoff

Attachments: Affidavit of David Musolf  
Attachment A, Demonstration of the Conformance of the Exxon  
Nuclear Fuel to the Westinghouse K(Z) Operating Envelope  
for the Prairie Island Nuclear Power Plant

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

Docket No. 50-282  
50-306

LETTER DATED NOVEMBER 4, 1985  
INFORMATION RELATED TO DEMONSTRATION OF THE CONFORMANCE  
WITH THE K(z) CURVE EXISTING IN THE PRAIRIE ISLAND  
TECHNICAL SPECIFICATIONS WITH THE REQUIREMENTS OF  
10 CFR 50.46 AND APPENDIX K

Northern States Power Company, a Minnesota corporation, by this letter dated November 4, 1985 hereby submits information related to Demonstration of the Conformance with the K(z) Curve Existing in the Prairie Island Technical Specifications with the Requirements of 10 CFR 50.46 and Appendix K in response to a letter dated May 6, 1985.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By David Musolf  
David Musolf  
Manager - Nuclear Support Services

On this 4th day of November, 1985 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.

Judy L. Klapperick

