

MAY 30 1986

Mr. D. M. Musolf, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall
Midland Square, 4th Floor
Minneapolis, Minnesota 55401

Dear Mr. Musolf:

SUBJECT: TOPICAL REPORT RELOAD SAFETY EVALUATION METHODS, NSPNAD-8102P,
Rev. 3, (VIPRE-01) PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT
NOS. 1 AND 2

We have completed our review of Northern States Power Company's Reload Safety Evaluation Methods, NSPNAD-8102P, Rev. 3, dealing with the thermal margin analysis for the fuel assemblies at the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2. By letter dated April 19, 1985 and additional information provided by letters dated November 19, and December 5, 1985, you submitted Revision 3 to NSPNAD-8102P describing the applications of the VIPRE-01 Code in place of COBRA-IIIC/MIT and the WRB-1 Critical Heat Flux correlation in place of W-3 for analyzing the thermal margin for fuel reloads at Prairie Island.

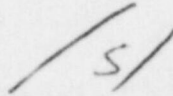
We find that the use of the VIPRE-01 thermal hydraulic code and WRB-1 Critical Heat Flux (CHF) correlation with a minimum departure from nucleate boiling ratio (DNBR) limit of 1.17 for the Prairie Island Units is acceptable. We will require that you follow the EPRI quality assurance procedure regarding the VIPRE-01 modifications. In addition, the acceptance criterion for the condition IV events appearing in revision 3 of NSPNAD-8102P are to be replaced with the original criterion that would include the DNBR limit of 1.17 for the WRB-1 correlation. Five copies of revision 4 of

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NSPNAD-8102P containing the original criterion should be forwarded to the Commission within 30 days from receipt date of this letter. We consider our review of the VIPRE-01 Code and the WRB-1 (CHF) complete.

A copy of our Safety Evaluation is enclosed.

Sincerely,



Dominic C. DiIanni, Project Manager
Project Directorate #1
Division of PWR Licensing-A

Enclosure:
Safety Evaluation

cc's: See Next Page

Office: LA/PAD#1
Surname: PShuttleworth *mca*
Date: 05/28/86

PM/PAD#1 *dcw* PD/PAD#1
DDiIanni/tg GLear *6*
Date: 05/20/86 05/27/86

Mr. D. M. Musolf
Northern States Power Company

Prairie Island Nuclear Generating
Plant

cc:
Gerald Charnoff, Esq.
Shaw, Pittman, Potts and Trowbridge
1800 M Street, NW
Washington, DC 20036

Executive Director
Minnesota Pollution Control Agency
1935 W. County Road, B2
Roseville, Minnesota 55113

Mr. E. L. Watzl, Plant Manager
Prairie Island Nuclear Generating Plant
Northern States Power Company
Route 2
Welch, Minnesota 55089

Jocelyn F. Olson, Esq.
Special Assistant Attorney General
Minnesota Pollution Control Agency
1935 W. County Road, B2
Roseville, Minnesota 55113

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
Route #2, Box 500A
Welch, Minnesota 55089

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
Office of Executive Director for
Operations
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. William Miller, Auditor
Goodhue County Courthouse
Red Wing, Minnesota 55066