Docket Nos. 50-306

JUN 23 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: PROJECTED VALUES OF MATERIAL PROPERTIES FOR FRACTURE TOUGHNESS REQUIREMENTS FOR PROTECTION AGAINST PRESSURIZED THERMAL SHOCK EVENTS PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 2

We have reviewed your letter dated January 10, 1986 which were submitted in response to the Pressurized Thermal Shock (PTS) Rule, 10 CFR 50.61 for the Prairie Island Nuclear Generating Plant, Unit No. 2. We have found the material properties of reactor vessel beltline materials, the projected fluence at the inner surface of the reactor vessel at the expiration date of the license and the calculated $RT_{PTS}$ at the expiration date of the license, June 25, 2008, to be acceptable. The calculated $RT_{PTS}$ is below the screening criterion of 300 °F for circumferential weld material at the expiration date of the license. This meets the requirements of the PTS rule.

We note that you have applied for an amendment to extend your license for Prairie Island Nuclear Generating Plant Unit No. 2 and you have provided information to support operation of your plant to the proposed expiration date of the license without exceeding the PTS screening criteria. We did not deal with this issue in our evaluation since this issue will be addressed in the evaluation of your proposed amendment to extend the expiration date of your license.

The PTS Rule requires that the projected assessment of the $RT_{PTS}$ must be updated whenever changes in core loadings, surveillance measurements or other information (including changes in capacity factor) indicated a significant change in the project values. This ensures that the licensees will track the fluence at the limiting beltline materials throughout the life of the plant to verify their assumptions. In this regard we request you to submit a

re-evaluation of the $RT_{PTS}$ and comparison of the predicted value with future Pressure-Temperature submittals which are required by 10 CFR 50, Appendix G. This completes our review of the PTS issue for your plant. Our associated Safety Evaluation is enclosed.

/S/
George E. Lear, Director
PWR Project Directorate #1
Division of PWR Licensing-A

Enclosure:
As stated

cc: w/enclosure
See next page

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Mr. D. M. Musolf
Northern States Power Company

Prairie Island Nuclear Generating Plant

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