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 VARGA, S.A. Operating Reactors Branch 1

SUBJECT: Notifies that util. currently evaluating alternative courses of action in order to resolve all questions re. EQ methodology. Reviews expected to be complete & decision made by 811101. Monthly status repts will be provided.

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WISCONSIN PUBLIC SERVICE CORPORATION



P.O. Box 1200, Green Bay, Wisconsin 54305

September 2, 1981

Mr. S. A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
FQ Calculation Methodology

Reference: Letter from E. R. Mathews to S. A. Varga dated August 21, 1981

Our proposed technical specification amendment 46 included a change in the FQ limits. In their review of this proposed amendment, the NRC staff raised questions (verbally) concerning our FQ Calculation Methodology. On August 18, 1981, three members of my staff met with yours in Washington, D. C., to discuss our FQ calculation methodology and answer your questions.

Based on an agreement reached in that meeting, in our letter of August 21, 1981, we provided to you the results of several flux maps to which we applied the "V(Z)" function developed by Exxon. The V(Z) function is part of the PDC-II method developed by Exxon and approved by the NRC to demonstrate that a given core design is conservative with respect to FZ limits. The results of those calculations demonstrated that the Cycle 7 design is indeed conservative in this regard.

We are currently evaluating alternative courses of action in order to resolve all questions regarding our FQ methodology. These alternatives include a report demonstrating the conservatisms in our current approach, or using a method which has already been approved by the NRC staff (such as PDC-II). Our evaluation must include the effects on reload safety evaluation procedures, plant surveillance requirements and technical specifications. We expect these reviews to be complete and a decision made by November 1, 1981.

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Mr. S. A. Varga
September 2, 1981
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While we are confident that our current methodology is conservative, we understand that the NRC staff needs additional assurance that the operation of the Kewaunee Nuclear Power Plant Cycle 7 core is conservative with respect to FQ limits, in light of the questions that have been raised in this regard. During the telephone conversation held between our staffs on September 1, 1981, we have agreed to report on a monthly basis the results of a V(Z) calculation performed on a measured flux map in order to provide you with the continued assurance that the Cycle 7 core operation is conservative with respect to the FQ limits. We will report the results within one week of the monthly flux map surveillance required by our technical specifications.

In the event that the results of the V(Z) calculation applied to a measured flux map indicate a potential violation of the technical specification FQ limits, reactor power will be reduced a sufficient amount to assure that the limit will not be reached, or corrective measures will be taken to place the reactor in an equilibrium condition that does not indicate the potential to violate the FQ limit.

Very truly yours,

E. R. Mathews

E. R. Mathews, Senior Vice President
Power Supply and Engineering

snf

cc - Mr. Robert Nelson, NRC Resident Inspector

Subscribed and Sworn to
Before Me This 2nd Day
of September, 1981

Susan A. Fok

Notary Public, State of Wisconsin

My Commission Expires

March 24, 1985
