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TO: Mr Schwencer	FROM: Wisconsin Public Service Corp Green Bay, Wis E W James	DATE OF DOCUMENT: 9-22-76 DATE RECEIVED: 9-24-76
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DESCRIPTION

Ltr re our 8-18-76 ltr....furnishing info concerning secondary water chemistry.....

PLANT NAME: Kewaunee

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ACKNOWLEDGED

FOR ACTION/INFORMATION ENVIRO 9-29-76 ehf

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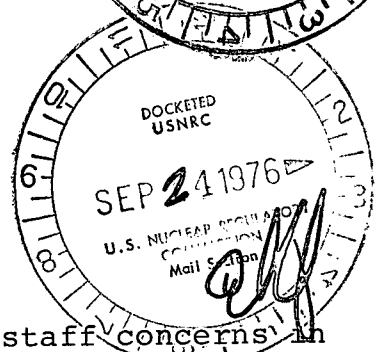
WISCONSIN PUBLIC SERVICE CORPORATION

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

September 22, 1976



Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTN: Mr. A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Gentlemen:

REF: Docket 50-305
Operating License DPR-43
Letter to Wisconsin Public Service Corporation from Mr. A. Schwencer dated August 18, 1976

The referenced letter addressed NRC staff concerns in regard to secondary water chemistry effects upon the integrity of the steam generator tubing and the need to monitor secondary water chemistry. This letter also transmitted proposed model technical specification which included limiting conditions for operations and surveillance requirements. In addition, we have recently received a request from NRC Division of Operating Reactors dated September 14, 1976, to revise our Technical Specification in regard to steam generator eddy current inspection, tube plugging and allowed tube leakage limits.

We have reviewed these requests and discussed with the Kewaunee steam generator manufacturer the technical aspects of each request. As a result of these discussions and reviews, we are convinced that the present steam generator monitoring program employed at the Kewaunee Plant provides assurances of safety which are adequate and sufficient. The present steam generator monitoring program is two-phased. The first phase includes the eddy current inspections similar to the program presented in the September 14, 1976, NRC letter. (Details of the Kewaunee eddy current inspection program are presented in Proposed Amendment 4 to the Technical Specification transmitted by letter of September 30, 1974, and the Kewaunee Nuclear Power Plant Semi-Annual Operating Report July 1 thru December 31, 1974.) This inspection program will be updated in the near future by Technical Specification

amendment. The second phase consists of generator water chemistry monitoring which provides indication of a need to adjust chemical treatment of the steam generators to conform to our policy of secondary water chemistry control to improve durability of the steam generators.

Although there is a relationship between water chemistry control and steam generator degradation rate, there does not appear that evidence exists to define that relationship adequately to justify limiting conditions for operations in regard to secondary water chemistry as suggested in the referenced letter. The steam generator degradation due to deficient chemistry control is not a rapid process which would require continuous chemistry monitoring and unit shutdown as implied by the proposed model specification. Selection and enforcement of capricious limits for chemical impurities within secondary water and operational periods when in excess of such chemical impurity limits would not necessarily increase safety. While we agree that steam generator water chemistry requires monitoring to indicate need for action in the case of a condenser leak or unit startup, we do not agree that such action points can be clearly defined as to where a safety impact occurs and technical specifications would be appropriate.

The eddy current inspections, along with the leakage limits, provide the assurances of steam generator tube integrity. These limits and criteria were selected to require plugging prior to the development of a condition where the accident assumptions were invalidated. Since the staff has accepted the generic tube plugging criteria, which incorporates an assumed conservative tube degradation rate, limiting conditions on operation associated with secondary water chemistry are unwarranted.

To provide more data in regard to the correlation between steam generator water chemistry and tube degradation rate as measured by eddy current inspections, we believe specifications to require monitoring at a weekly interval to be justified. In the future, this monitoring could yield justification and bases for secondary water chemistry specification in lieu of eddy current testing inspections. Due to the high personnel exposure incurred during eddy current testing, a change to validated water chemistry control methodology to assure steam generator integrity rather than eddy current listing would be advantageous to ALARA objectives. We intend to include such a monitoring specification on the steam generator water chemistry in our submittal of revised proposed eddy current testing specifications required by your letter of September 14, 1976, but for the present we

can see no valid technical or safety reason for including limiting conditions for operation on secondary water chemistry in the technical specifications as proposed by the staff.

Very truly yours,

E. W. James
Senior Vice President
Power Supply & Engineering

EWJ:sna