NRC FORM 195 (2-76)

U.S. NUCLEAR REGULATORY COMMISSION

DOCKET NUMBER 50-305

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TO: Mr. A, Schwencer

FROM: Wisconsin Public Service Corp.
Green Bay, Wisconsin 54305
E. W. James

DATE OF DOCUMENT 03-21-77

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DESCRIPTION

Ltr. Ref. our 03-17-77 ltr...Trans The Following:

(1 page)

DO NOT REMOVE

PLANT NAME: KEWAUNEE

jcm

ACKNOWLEDGED

ENCLOSURE

Consists of requested information regarding, Steam Generators and Secondary System water chemistry...

(2 pages)

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NRC FORM 195 (2-76)

WISCONSIN PUBLIC SERVICE CORPORATION

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

March 21, 1977

REGULATORY DOCKET FILE COPY

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

ATTN: Mr. A. Schwencer, Chief
Operating Reactors Branch No. 1

Gentlemen:

REF: Docket 50-305
Operating License DPR-43

On March 17, 1977, we were requested by Mr. Neighbors of your staff to supply information pertaining to our Steam Generators and Secondary System water chemistry. On March 21, 1977, we telecopied the requested completed questionnaire to your office. Please find attached a copy of that completed questionnaire.

Very truly yours,

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

EWJ:sna
Attach.

7708702 03

Steam Generator Information Request, NRC March 17, 1977

Utility: Wisconsin Public Service Corporation
Plant Name: Kewaunee Nuclear Power Plant
Docket: DPR-43

a. Significant Operating History

1. O L date — December 21, 1973
2. Full power operation — Mid June 1974
3. Major periods of down time (non-refueling)
   September 19, 1974 to October 18, 1974 - Steam Generator Preservice inspection and change to AVT chemistry

b. Materials of construction for major secondary system components

1. S.G. Tubes:	Inconel ASME-SB-163
2. S.G. Tube Sheet:	Steel ASME-SA-508 clad on primary side with Inconel
3. S.G. Tube Support Plates:	Steel ASTM-A285
4. Condenser Tubes:	Admiralty or 304 Stainless Steel
5. Secondary Piping:	Carbon steel
Feedwater Heaters:	Copper nickel annealed
Condensate Heaters:	Admiralty or copper nickel annealed

c. Operational history of secondary water treatment

1. Period of use of phosphates: During August of 1973, hot functional tests were performed which included 20 days of hot operation followed by five months of wet layup. Hot operations were performed from February 1974 to September 1974 during unit startup and four months of full power operation.

2. Period of use of AVT: October 1974 to present

3. Period of condensate demineralization: None

4. Other: None

d. Condenser cooling water - Typical chemical composition: Lake Michigan is the water source data of water quality presented in the "Environmental Report Operating License Stage" Tables 2.3-4 and 2.3-5. The following presents typical water quality data from these tables:

% O_2 saturation	-	85%
pH	-	8.0
Specific conductance μmhos/cm	-	268
Total alkalinity as $CaCO_3$	-	120 mg/l
Total dissolved solids	-	170 mg/l
Mg	-	12 mg/l
Ca	-	35 mg/l
Na	-	4.0 mg/l

e. History ofsignificant condenser tube leakage:

1. Date discovered: December 1974 and January 1975 through remainder of first cycle to February 1976

2. How discovered: Water chemistry monitoring Na, Ca, Mg

3. Leakage associated: 10 gal/day

f. Denting history:

1. Date discovered: None

g. Steam Generator tube plugging history

1. Dates: None
2. Number of tubes: Zero

h. Operating restrictions imposed on the plant due to degraded S.G. conditions: None