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(TEMPORARY FORM)**

CONTROL NO: 13150

FILE: INCIDENT REPORT FILE

FROM: Wisconsin Public Svc. Corp Green Bay, Wisconsin E.W. James		DATE OF DOC 11-14-75	DATE REC'D 11-18-75	LTR XXX	TWX	RPT	OTHER
TO: Mr. Bernard Rusche		ORIG 1 Signed	CC 0	OTHER	SENT AEC PDR <u>XXX</u> SENT LOCAL PDR <u>XXX</u>		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-305		

DESCRIPTION:

Letter trans the following.....

ENCLOSURES:

Abnormal Occurrence # 75-20, on 11-5-75,
Concerning clogged auxiliary feedwater
pumps.....

(1 Copy Received)

PLANT NAME: Kewaunee

FOR ACTION/INFORMATION

SAB 11-20-75

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**DO NOT REMOVE
ACKNOWLEDGED**

INTERNAL DISTRIBUTION

REG FILE NRC PDR OGC, ROOM P-506A GOSSICK/STAFF CASE	TECH REVIEW SCHROEDER MACCARY KNIGHT PAWLICKI SHAO	DENTON **GRIMES GAMMILL KASTNER BALLARD SPANGLER	LIC ASST R. DIGGS (L) H. GEARIN (L) E. GOULBOURNE (L) P. KREUTZER (E) J. LEE (L) M. RUSHBROOK (L) S. REED (E) M. SERVICE (L) S. SHEPPARD (L) M. SLATER (E) H. SMITH (L) S. TEETS (L) G. WILLIAMS (E) V. WILSON (L) R. INGRAM (L) M. DUNCAN (E)	A/T IND BRAITMAN SALTZMAN MELTZ PLANS MCDONALD CHAPMAN DUBE (Ltr) E. COUPE PETERSON HARTFIELD (2) KLECKER EISENHUT WIGGINTON F. WILLIAMS HANAUER
BOYD MOORE (L) DEYOUNG (L) SKOVHOLT (L) GOLLER (L) (Ltr) P. COLLINS DENISE REG OPR FILE & REGION (2) MIPC/PE (3) STEELE	**STELLO **HOUSTON **NOVAK ROSS IPPOLITO TEDESCO J. COLLINS LAINAS BENAROYA VOLLMER	ENVIRO MULLER DICKER KNIGHTON YOUNGBLOOD REGAN PROJECT LDR HARLESS		

EXTERNAL DISTRIBUTION

1 - LOCAL PDR Kewaunee, Wisconsin	1 - NATIONAL LABS	1 - PDR-SAN/LA/NY
1 - TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGBABIAN	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson		1 - J. D. RUNKLES, Rm E-201 GT
5 - ACRS SENT TO LIC ASST S. Sheppard		
** SEND ONLY TEN DAY REPORTS		

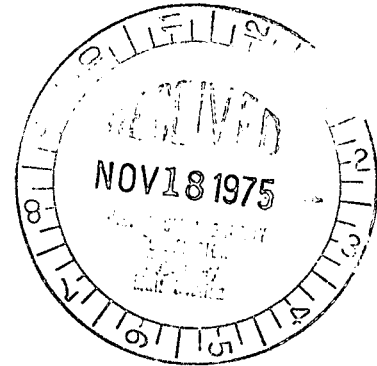
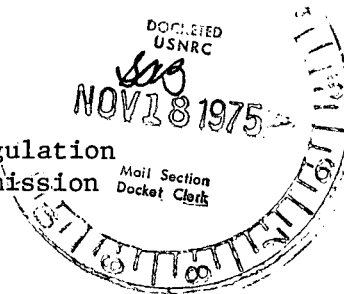
WISCONSIN PUBLIC SERVICE CORPORATION



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

November 14, 1975

Mr. Benard Rusche, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Dear Mr. Rusche:

Subject: Docket 50-305
Operating License DPR-43
Abnormal Occurrence Report AO 75-20

In accordance with the requirements of the Technical Specifications, paragraph 6.6.2, we submit the attached Licensee Event Report form for the Abnormal Occurrence AO 75-20. The following information is also provided.

As described on the attachment, the auxiliary feedwater pumps were disabled by clogged strainers located in the suction of each pump. The strainers were clogged with resin beads which have been determined to have originated from the makeup system mixed bed demineralizer. (See figure 9.2-5 of the FSAR.)

The investigation to determine the source of the resin beads determined that, during normal operation of the makeup demineralizer system a small leakage of resin from the mixed bed units was occurring. An inspection of the mixed bed demineralizer was performed by removal of the resin followed by a visual inspection of the lateral screens. Defects which could have caused significant leakage were not noted.

The normal flow path for make-up water is to the condensate storage tanks. These storage tanks then supply condensate make-up water to the condenser to compensate for the steam generator blowdown flow. The condensate storage tanks also serve as the normal operating source for the auxiliary feedwater pumps.

The immediate problem of clogged suction strainers for the auxiliary feedwater pumps was corrected by cleaning the strainers. The steam generators were supplied by a main feedwater pump during the period of strainer cleaning. Following plant startup, the 1A auxiliary feedwater pump was operated continuously for in excess of 12 hours supplying the steam generators with water to compensate for normal steam generator blowdown. The supplying of secondary plant make-up water by auxiliary feedwater pump, provided a means to check the quantity of resins in the normal auxiliary feedwater pump supply. Following this extended run of the 1A auxiliary feedwater pump, its suction strainer was removed for inspection. Less than 5 cc of resin was found in the strainer, indicating that additional clogging due to the resins was not imminent. The 1B condensate tank

which is the normally aligned condensate tank for condensate makeup and auxiliary feedwater supply was then drained. The inspection of the 1B condensate tank revealed approximately .5 cu ft of resin on the bottom of the tank. The tank was cleaned and returned to service. The long term solution to the resin leakage problem will be the installation of a filter assembly on the makeup demineralizer system outlet header. A design change has been initiated and the filters will be installed promptly.

The review of this occurrence prompted additional investigation into the design of the auxiliary feedwater system water supply. The safeguard water supply to the auxiliary feedwater pumps is the service water system. The service water system design includes automatic strainers which employ a cone assembly with 1/8" perforations as the straining media. The strainers installed in the suction of each auxiliary feedwater pump were constructed of a backing material with 1/8" perforations and a #40 mesh screen liner. These suction strainers would then remove additional particulate from the service water supply to the auxiliary feedwater pumps whenever the service water supply was used. The installation of the #40 mesh screen strainers in the auxiliary feedwater pump suction presents the possibility of common mode failure.

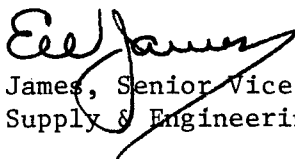
The particulate concentration in the service water system is mainly dependent upon the intensity of recent lake wave action. This particulate concentration and size distribution will determine if the auxiliary feedwater system as designed would be capable of performing in accordance with the performance assumptions presented in the safety analysis.

The conclusions of the reviews performed by our staff and supplemented by assistance from our Architect-Engineer are as follows:

1. The potential for common mode failure existed due to the installation of #40 mesh screens on a service water supply which is strained to only exclude all particles greater than 1/8" in diameter.
2. The auxiliary feedwater pumps are protected in accordance with pump vender specification by the service water strainers (1/8" perforated strainers).
3. The #40 mesh screen liners in the auxiliary feedwater pump suction strainers should be removed and the 1/8" perforated backing retained for pump protection.

The #40 mesh screens will be removed on November 17, 1975.

Very truly yours,


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

EWJ:sna

Attach.

cc - Mr. James G. Keppler, US NRC

Mr. Dwane Boyd, US NRC

ENSEE EVENT REPORT

CONTROL BLOCK:

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1 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME: 01 W I K N P 1
 LICENSE NUMBER: 00-0000-00
 LICENSE TYPE: 41111
 EVENT TYPE: 01
 CATEGORY: 01 CONT'D D I
 REPORT TYPE: T
 REPORT SOURCE: L
 DOCKET NUMBER: 050-0305
 EVENT DATE: 110575
 REPORT DATE: 111575

EVENT DESCRIPTION

02	During unit startup operations reduced aux. feedwater flow was noted with pumps 1A	80
03	and 1B in operation. Pump 1C was started. Flow from pump 1C was also reduced. The	80
04	main feedwater pumps were available and were employed to provide feedwater to the	80
05	steam generators. This was the first event of this type. This event is AO 75-20.	80
06	The fine mesh strainers will be removed from the aux. feed pumps.	80

PRIME

SYSTEM CODE		CAUSE CODE		COMPONENT CODE					COMPONENT SUPPLIER	COMPONENT MANUFACTURER				VIOLATION						
0	7	C	H	P	I	P	E	X	X	A	P	2	4	0	Y					
7	8	9	10	11					12	13	14	15	16	17	43	44	45	46	47	48

CAUSE DESCRIPTION

08 Suction strainers were installed in the suction of the pumps per the reviewed design
09 of the auxiliary feedwater system. The demineralizer mix bed units lost approximately
10 1 ft³ of resin to the condensate storage tanks which is the normal supply of aux.

<div style="border: 1px solid black; padding: 2px; width: fit-content;">11</div> 7 8	FACILITY STATUS <div style="border: 1px solid black; padding: 2px; width: fit-content;">C</div> 9	% POWER <div style="border: 1px solid black; padding: 2px; width: fit-content;">000</div> 10 12	OTHER STATUS <div style="border: 1px solid black; padding: 2px; width: fit-content;">NA</div> 13 44	METHOD OF DISCOVERY <div style="border: 1px solid black; padding: 2px; width: fit-content;">a</div> 45	DISCOVERY DESCRIPTION <div style="border: 1px solid black; padding: 2px; width: fit-content;">Operator observation</div> 46 80
<div style="border: 1px solid black; padding: 2px; width: fit-content;">12</div> 7 8	FORM OF ACTIVITY RELEASED <div style="border: 1px solid black; padding: 2px; width: fit-content;">Z</div> 9	CONTENT OF RELEASE <div style="border: 1px solid black; padding: 2px; width: fit-content;">Z</div> 10	AMOUNT OF ACTIVITY <div style="border: 1px solid black; padding: 2px; width: fit-content;">NA</div> 11 44	LOCATION OF RELEASE <div style="border: 1px solid black; padding: 2px; width: fit-content;">NA</div> 45 60	

PERSONNEL EXPOSURES

NUMBER				TYPE	DESCRIPTION
1	3	0	0	0	Z NA

PERSONNEL INJURIES

NUMBER				DESCRIPTION	
1	4	0	0	0	NA

OFFSITE CONSEQUENCES

1	5	NA	
7	8	9	50

LOSS OR DAMAGE TO FACILITY

TYPE			DESCRIPTION
16	Z		NA

PUBLICITY

17	NA
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ADDITIONAL FACTORS (Cause Description - con't)

1 S feedwater. The resin beads plugged the strainer to all the aux. feed pumps.

[illegible]

NAME: M. E. Stern

PHONE: **414/432-3311**