

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

A0/4

ACCESSION NBR: 8004150532 DOC. DATE: 80/04/09 NOTARIZED: NO DOCKET #  
 FACIL: 50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305  
 AUTH. NAME: SAUER, D.W. AUTHOR AFFILIATION: Wisconsin Public Service Corp.  
 RECIP. NAME: REGION 3, Chicago, Office of the Director

SUBJECT: LER-79-028/03X-2: on 791207, during insp, three horizontal pipe restraints discovered missing on 16-inch svc water header, Caused by oversight between seismic analysis & hanger design teams. Missing hangers designed & installed.

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REPORT SOURCE L 6 0 5 0 0 0 3 0 5 7 1 2 0 7 7 9 8 9  
60 61 68 69 74 75 80  
DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (8)

0 2 While inspecting safety related lines for seismic qualification as required by IE Bul-

0 3 letin 79-14 three horizontal pipe restraints were discovered missing on a 16" service

0 4 water header. Seismic reanalysis revealed a movement great enough to increase the

0 5 probability of failure of two, four inch branch lines. Failure of these branch lines

0 6 could result in the inoperability of two auxiliary feedwater pumps. The function

0 7 of a third auxiliary feedwater pump would be maintained. One pump is sufficient to

0 8 cope with transients described in the Kewaunee FSAR.

7 8 9

5048 VALVE

88

7 8 9		SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE				COMP. SUBCODE		VALVE SUBCODE										
0	9	X	X	B		A		S	U	P	O	R	T	X	Z									
7	8	9	10	11	12	12	13	13	14	14	14	15	15	16										
LER/RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.														
17		7	9			0	2	8	/	0	3	X		2										
21	22	23	24	25	26	27	28	29	30	31	32													
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER								
F	Z	Z		Z		Z		0	0	0	0	Y	N	Z		2	9	9	9					
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Original seismic analysis required the installation of these three restraints. Due

1 1 to an apparent oversight between the seismic analysis and hanger design teams, the

1 2 restraints were never designed or installed. A design for these hangers was performed,

1 3 approved and the hangers were installed. No further action is necessary on this

1 4 concern. Evaluations are continuing under IE Bulletin 79-14.

7 8 9  
FACILITY STATUS  
1 5 E 28  
% POWER  
1 0 0 29  
OTHER STATUS 30 N/A  
METHOD OF DISCOVERY  
C 31  
DISCOVERY DESCRIPTION 32 IE Bulletin 79-14  
80

ACTIVITY CONTENT  
RELEASED OF RELEASE AMOUNT OF ACTIVITY (35)

1 6 Z (33) Z (34) N/A

LOCATION OF RELEASE (36)

N/A

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	(37) Z (38) N/A (39)				

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	3	0	0	0	N/A

TYPE		DESCRIPTION	LOSS OF OR DAMAGE TO FACILITY
1	9	Z	(42) N/A

8004150532

PUBLICITY  
 ISSUED DESCRIPTION (45)  
 2 0 N (44) N/A  
 1 8 9 10 68 69 80  
 (414) 433 1315

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NRC USE ONLY

000:7-325

Docket 50-305  
Operating License DPR-43

#### Event Description

In the course of the inspection conducted to satisfy the requirements of IE Bulletin 79-14, it was revealed that three horizontal pipe restraints were not installed on a 16" diameter service water header. An immediate engineering evaluation as well as a seismic analysis were performed to verify integrity of the system. The results of this analysis indicated that the integrity of the 16" diameter service water line would be maintained. However, the integrity of two 4"Ø branch lines supplying a secondary water source to two auxiliary feedwater pumps could not be assured.

Further analysis by the Kewaunee Plant Architect Engineer concluded that it was necessary to install only one of the restraints. In order to take the most conservative approach in this matter, WPS elected to install all three restraints and did so within 48 hours.

In the unlikely event of a seismic occurrence of the magnitude depicted in the Kewaunee FSAR, there would have been an increase in the probability of rupturing the lines supplying the secondary water source to two of the auxiliary feedwater pumps. Had a rupture occurred, service water supply to the LB and the turbine driven auxiliary feedwater pumps could have been lost. The one remaining auxiliary feedwater pump is sufficient to supply the mass flow needed in any transient in the Kewaunee FSAR; therefore, no danger to the health and safety of the general public resulted from this occurrence.

A second omission was discovered on 1/31/80 while performing an inspection to satisfy the requirements of IE Bulletin 79-14. It was revealed that a thermal restraint was omitted from the RHR System. The effect on the system has been reviewed. There is no noticeable degradation of the piping involved. Plant operation and health and safety of the public were unaffected.

#### Cause Description and Corrective Action

The cause is apparently due to an omission in the design process. From tracing of records we have found that the seismic analysis was performed and resulted in a qualified system when these restraints are in place. However, the restraints themselves were apparently never designed.

The corrective action consisted of installing the three restraints that were called for in original design. We believe this to be a singular occurrence as no other unresolved seismic discrepancies have been identified to date in our investigations related to Bulletin 79-14.

The cause of the omission of the thermal restraint was an error in transferring the piping design to construction drawings. The restraint has been installed.

No further action is necessary for these events.