

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 1032

FILE: INCIDENT REPORT

FROM: Wisconsin Public Svc. Corp. Green Bay, Wis. 54305 Mr. E.W. James		DATE OF DOC <u>1-27-75</u>	DATE REC'D <u>1-30-75</u>	LTR <u>X</u>	TWX	RPT	OTHER
TO: E.G. Case		ORIG <u>1 signed</u>	CC	OTHER	SENT AEC PDR <u>XXX</u> SENT LOCAL PDR <u>XXX</u>		
CLASS	UNCLASS <u>XXX</u>	PROP INFO	INPUT	NO CYS REC'D <u>1</u>	DOCKET NO: <u>50-305</u>		

DESCRIPTION:

Ltr reporting abnormal occurrence No. 50-305/75-3.....concerning...Through wall leak in charging line vent piping adjacent to valve CVC-33....

ENCLOSURES:

PLANT NAME: Kewaunee

FOR ACTION/INFORMATION

1-30-75 JB

BUTLER (S)	SCHWENCER (S)	ZIEMANN (S)	REGAN (E)
W/ Copies	W/ Copies	W/ Copies	W/ Copies
CLARK (S)	STOLZ (S)	DICKER (E)	LEAR (S)
W/ Copies	W/ Copies	W/ Copies	W/ Copies
PARR (S)	VASSALLO (S)	KNIGHTON (E)	SPEIS (S)
W/ Copies	W/ Copies	W/ Copies	W/ Copies
KNIEL (S)	✓ PURPLE (S)	YOUNGBLOOD (E)	
W/ Copies	W/4 Copies	W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

<u>REG FILE</u>	<u>TECH REVIEW</u>	<u>DENTON</u>	<u>LIC. ASST.</u>	<u>A/T IND</u>
✓ AEC PDR	✓ SCHROEDER	GRIMES	DIGGS (S)	BRAITMAN
✓ CGC, ROOM P-506-A	✓ MACCARRY	GAMMILL	GEARIN (S)	SALTZMAN
✓ GOSSICK /STAFF	✓ KNIGHT	✓ KASTNER	GOULBOURNE (S)	B. HURT
✓ CASE	✓ PAWLICKI	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓ SHAO	SPANGLER	LEE (S)	<u>PLANS</u>
BOYD	✓ STELLO		MAIGRET (S)	MCDONALD
MOORE (S) (BWR)	✓ HOUSTON	<u>ENVIRO</u>	REED (E)	CHAPMAN
DEYOUNG (S) (PWR)	✓ NOVAK	MULLER	SERVICE (S)	DUBE w/input
SKOVHOLT (S)	✓ ROSS	DICKER	✓ SHEPPARD (S)	E. COUPE
GOLLER (S)	✓ PIPPOLITO	KNIGHTON	SLATER (E)	✓ R. Hartfield (2)
P. COLLINS	✓ TEDESCO	YOUNGBLOOD	SMITH (S)	✓ KLECKER
DENISE	✓ LONG	REGAN	TEETS (S)	✓ F. WILLIAMS
<u>REG OPR</u>	✓ LAINAS	PROJECT LDR	WILLIAMS (E)	
✓ FILE & REGION	✓ BENAROYA		WILSON (S)	
✓ T.R. WILSON	✓ STEELE	<u>HARLESS</u>	INGRAM (S)	
	✓ VOLIMER			

EXTERNAL DISTRIBUTION

1-LOCAL PDR <u>Kewaunee, Wis.</u>	(1) (2) (10) -NATIONAL LABS	1-PDR SAN/LA/NY
1-TIC (ABERNATHY)	1-W. PENNINGTON, RM E-201 G.T.	1-BROOKHAVEN NAT LAB
1-NSIC (BUCHANAN)	1-CONSULTANTS	1-G. ULRIKSON, ORNL
1-ASLB	NEWMARK/BLUME/AGBABIAN	1-AGMED (RUTH GUSSMAN)
1-NEWTON ANDERSON		RM B-127 G.T.
✓ 5-ACRS SENT TO LIC. ASST.		1-J. RUNKLES, RM E-201
		G.T.

WISCONSIN PUBLIC SERVICE CORPORATION

Public Service

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

January 27, 1975

Mr. Edson Case, Acting Director
Directorate of Licensing
Office of Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20545

Dear Mr. Case:

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

In accordance with the requirements of Technical Specifications, Paragraph 6.9.1 (Amendment 7) and 1.0.a.1.(e), we submit the following:

Report Number: 50-305/75-3

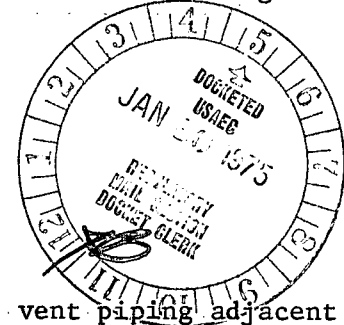
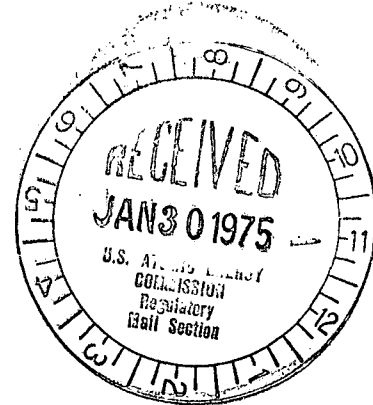
Occurrence Date: January 17, 1975

Facility: Kewaunee Nuclear Power Plant
Kewaunee, Wisconsin

Identification of Occurrence: Through wall leak in charging line vent piping adjacent to valve CVC-33.

Conditions Prior to Occurrence: Reactor Critical - 75% power
Normal Operating Temperature - 556°F Tavg
Normal Operating Pressure - 2235 psig

Description of Occurrence: A crack developed in the 3/4" pipe to vent valve CVC-33 adjacent to the connecting tee in the 2" charging line. The crack was approximately 1/4" long at the pipe's exterior surface. The leak was sufficiently small so as to not restrict operation. The leak was discovered by two I & C men while exiting containment. At the time of discovery, there existed a small pool of water which, within one hour, grew to sufficient size to begin flowing to drains.



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The small pool size at time of discovery indicated that the leak developed within hours of discovery.

Analysis of
Occurrence:

The gross primary coolant activity at the time of the leak was 6.7×10^{-2} uc/cc. The gross containment air activity at the time of the leak was 5.5×10^{-5} uc/cc. The local air activity adjacent to the leak one hour after discovery was 9.1×10^{-5} uc/cc. The containment air activity monitor did not respond to the leak, due to the large containment volume, small leak size, and low primary coolant gross activity.

No danger to the health and safety of the public existed because of the location of the leak within containment, its small magnitude and low primary coolant activity.

This particular section of piping developed a leak on March 13, 1974, which was reported as an abnormal occurrence, Report No. 50-305/74-2.

Corrective action taken as a result of the first leak consisted of reducing the pipe stub length from approximately 12 inches to approximately 3 inches since fatigue was assumed to be the cause of failure. The charging system employs positive displacement pumps which create pulsations within and along the charging line. These pulsations force oscillations of the associated piping in certain locations due to piping configuration. The mechanism for long term fatigue failure does exist at certain locations within charging system and apparently resulted in the failure of the pipe adjacent to CVC-33.

Corrective
Action:

The pipe stub was reduced to the minimum length which would allow proper welding techniques, approximately 3/4" between the tee and the valve body. Employing approved welding procedures, the piping wall along this 3/4" section was increased greater than 1/2" such that the valve body appears to be directly welded to the tee on the charging line.

An evaluation of the charging system is in progress to provide a means to dampen the pulsations associated with the positive displacement charging pumps. Specifications

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for pulsation dampeners are currently being evaluated for anticipated installation within six months to preclude similar fatigue failure of appendage piping within the charging system which has constituted four abnormal occurrence reports.

Failure Data: See Abnormal Occurrence Report No. 50-305/74-2.

Very truly yours,



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

EWJ:sna

cc - Mr. James G. Keppler, US NRC
Mr. Dwane Boyd, US NRC - Resident Inspector

LICENSEE EVENT REPORT

CONTROL BLOCK:

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1 6

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME					LICENSE NUMBER								LICENSE TYPE					EVENT TYPE					
01	W	I	K	N P 1	0	0	-	0	0	0	0	0	-	0	0	4	1	1	1	1	0	1	
7	8	9		14	15										25	26					30	31	32

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER						EVENT DATE					REPORT DATE								
01	CON'T P O	T	L	0	5	0	-	0	3	0	5	0	1	1	7	7	5	0	1	2	7	7	5
7	8	57	58	59	60	61					68	69					74	75					80

EVENT DESCRIPTION

02	A crack developed in the 0.75 inch pipe to vent valve CVC-33 in the charging	80
03	line. The same section of pipe failed on March 13, 1974. Pipe stub was made	80
04	as small as possible and its wall thickness increased to more than .5 inch.	80
05	No danger to health and safety of the public, failure was within containment.	80
06	50-305/75-3	80

PRIME

SYSTEM CODE		CAUSE CODE		COMPONENT CODE						PRIME COMPONENT SUPPLIER		COMPONENT MANUFACTURER				VIOLATION	
0	7	C	G	F	P	I	P	E	X	X	A	X	9	9	9	N	
7	8	9	10	11	12					17	43	44			47	48	

CAUSE DESCRIPTION

08	Fatigue failure of pipe	80
09		80
10		80

FACILITY STATUS		% POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
11	E	0	75	NA		a	I & C personnel observed leak		

FORM OF ACTIVITY RELEASED CONTENT OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE

1 2 Z NA NA

7 8 9 10 11 44 45 80

PERSONNEL EXPOSURES

NUMBER				TYPE	DESCRIPTION
13	0	0	0	2	NA

PERSONNEL INJURIES

NUMBER				DESCRIPTION	
1	4	0	0	0	NA

OFFSITE CONSEQUENCES

1	5	NA
7	8	9

LOSS OR DAMAGE TO FACILITY

TYPE			DESCRIPTION
1	6	Z	NA

PUBLCITY

17	NA
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ADDITIONAL FACTORS

15 Gross primary activity 6.7×10^{-2} uc/cc, no change in containment activity noted

19 | _____

NAME: M. E. Stern

PHONE: (414) 432-3311