ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9002230047 DOC.DATE: 90/02/07 NOTARIZED: NO DOCKET #
FACIL:50-334 Beaver Valley Power Station, Unit 1, Duquesne Light C 05000334
AUTH.NAME AUTHOR AFFILIATION
NOONAN,T.P. Duquesne Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-001-00:on 900108,reactor coolant leakage in excess of Tech Specs.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: W/8 ltr.
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-4 LA	1	1	PD1-4 PD	1	1
	TAM,P	1	1			
INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	ACRS WYLIE	1	1	AEOD/DOA	1	1
	AEOD/DSP/TPAB	1	1	AEOD/ROAB/DSP	2	2
	DEDRO	1	1	NRR/DET/ECMB 9H	1	1
	NRR/DET/EMEB9H3	1	1	NRR/DET/ESGB 8D	1	1
	NRR/DLPQ/LHFB11	1	1	NRR/DLPQ/LPEB10	1	1
	NRR/DOEA/OEAB11	1	1	NRR/DREP/PRPB11	2	2
	NRR/DST/SELB 8D	1	1	NRR/DST/SICB 7E	1	1
	NRR/DST/SPLB8D1	1	1	NRR/DST/SRXB 8E	1	1
	REG FILE 02	1	1	RES/DSIR/EIB	1	1
	RGN1 FILE 01	1	1			
EXTERNAL:	EG&G WILLIAMS,S	4	4	L ST LOBBY WARD	1	1
	LPDR	1	1	NRC PDR	1	1
	NSIC MAYS,G	1	1	NSIC MURPHY,G.A	1	1
	NUDOCS FULL TXT	1	1			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
TOTAL NUMBER OF COPIES REQUIRED: LTTR 37 ENCL 37

RIDS/ADDS RIDS/ADDS RIDS/ADDS

Duquesne Light

Nuclear Group
P.O. Box 4
Shippingport, PA 15077-0004

Telephone (412) 393-6000

February 7, 1990
ND3MNO:2021

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
LER 90-001-00

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

In accordance with Appendix A, Beaver Valley Technical Specifications, the following Licensee Event Report is submitted:

LER 90-001-00, 10 CFR 50.73.a.2.ii, "Reactor Coolant Leakage in Excess of Technical Specifications".

Very truly yours,

T. P. Noonan
General Manager
Nuclear Operations

cj

Attachment

cc: Mr. William T. Russell
Regional Administrator
United States Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

C. A. Roteck, Ohio Edison

Mr. Peter Tam, BVPS Licensing Project Manager
United States Nuclear Regulatory Commission
Washington, DC 20555
J. Beall, Nuclear Regulatory Commission,
BVPS Senior Resident Inspector

Dave Amerine
Centerior Energy
6200 Oak Tree Blvd.
Independence, Ohio 44101

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, GA 30339

G. E. Muckle, Factory Mutual Engineering, Pittsburgh

Mr. J. N. Steinmetz, Operating Plant Projects Manager
Mid Atlantic Area
Westinghouse Electric Corporation
Energy Systems Service Division
Box 355
Pittsburgh, PA 15230

American Nuclear Insurers
c/o Dottie Sherman, ANI Library
The Exchange Suite 245
270 Farmington Avenue
Farmington, CT 06032

Mr. Richard Janati
Department of Environmental Resources
P. O. Box 2063
16th Floor, Fulton Building
Harrisburg, PA 17120

Director, Safety Evaluation & Control
Virginia Electric & Power Co.
P.O. Box 26666
One James River Plaza
Richmond, VA 23261

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	1 OF 0 3

TITLE (4)

Reactor Coolant Leakage in Excess of Technical Specifications

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
									N/A	0 5 0 0 0
0 1	0 8	9 0	9 0	0 0 1	0 0	0 2	0 7	9 0	N/A	0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Thomas P. Noonan, General Manager of Operations	4 1 2 6 4 3 - 1 2 5 8

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
X	C B	R T V	R 3 4 0	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On 1/8/90, operators, performing regularly scheduled Reactor Coolant System (RCS) leak rate testing, determined there was an unidentified RCS leakage of 0.927 gallons per minute (gpm). A second leak rate test was immediately initiated to confirm this result. The second test found an unidentified leak rate of 1.45 gpm. This was in excess of the Technical Specification limit of 1.0 gpm unidentified leakage. Operators performed a containment entry and discovered a leak on the seal injection line in the "A" Reactor Coolant Pump (RCP) cubicle. Operations personnel simultaneously initiated a controlled shutdown and dispatched a second crew with special equipment (splash deflectors and plastic anti-contamination clothing) to attempt to isolate the leak. This second crew determined that the leak was a weld leak on the "A" RCP No. 1 seal delta pressure transmitter instrument line. The operators stopped the leak by manually isolating the pressure transmitter. Reactor power had been reduced from 100 percent (%) to 68% power. A subsequent RCS leak rate test verified that leak had been isolated. The plant returned to full power operation. There were no safety implications due to this event. This event is bounded by Beaver Valley's UFSAR Analysis section 14.3 - Loss of Coolant Accident.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	9 0	— 0 0 1	— 0 0	0 2 OF 0 3

TEXT *(If more space is required, use additional NRC Form 366A's)* (17)

Description of Event

On midnight shift 1/8/90, during 100 percent (%) power operation, operators performed the regularly scheduled Reactor Coolant System (RCS) Leak Rate Operational Surveillance Test (OST 1.6.2). This test was completed at 0530 Hours and indicated an unidentified RCS leak rate of 0.927 gallons per minute (gpm). The recent previous leak rate tests had shown no detectable unidentified leakage. Since the Technical Specification limit on unidentified RCS leakage is 1.0 gpm, a second OST 1.6.2 was immediately initiated. This test requires one to two hours for data collection. While the second leak rate test was in progress, other plant parameters were monitored in an attempt to identify the source of the leakage. No indications of leakage into the Primary Auxiliary Building were identified. The Containment Dew Point was verified to be increasing, indicating a potential leak in the Containment Building.

At 0605 Hours, the second leak rate test determined the unidentified RCS leak rate to be 1.45 gpm. At this time, the station entered the ACTION STATEMENT for Technical Specification 3.4.6.2, "Reactor Coolant System Operational Leakage." This allowed the station 4 hours to stop the leak before requiring a shutdown within the following 6 hours.

A crew of operators was sent into Containment to attempt to identify and isolate the leak. At 0830 Hours, they reported the leak was in the "A" Reactor Coolant Pump (RCP) cubicle. Although they could not isolate the leak due to the spray from the leak, they did identify it as being on the "A" RCP seal injection piping, near manual valve [CH-343]. They also stated that the leak appeared to be high pressure, low temperature water (not steam). This was consistent with the leak being in the 2500 psig, 100 degree Fahrenheit seal injection piping. Based on their observations, the operators determined that the leak could be isolated by closing [CH-343]. The operators then exited containment.

Preparations were initiated for sending a second crew of operators into containment with special equipment to enable them to isolate the leak. Plastic splash deflectors were to be used to deflect the spray from the operators. The operators were also to be wearing plastic anti-contamination clothing for protection in the event that they were exposed to the leakage. At 1004 Hours, a controlled plant shutdown was initiated.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	9 0	— 0 0 1	— 0 0	0 3 OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

At 1040 Hours, the second crew entered containment. At 1154 Hours, the crew reported the leak was isolated by closing [CH-343]. The shutdown was terminated at this time. The plant was stabilized at 68% power. A third leak rate test was initiated. This third leak rate test verified that the leak had been isolated.

Cause of Event

The leak occurred due to a weld crack where the instrument sensing line for "A" RCP Number 1 Seal Differential Pressure Transmitter [PT-CH-156] was joined to transmitter isolation valve [CH-343]. A review of the "A" Reactor Coolant Pump once-per-shift vibration logs for 1989 showed no incidents of high vibrations associated with this pump. A review of station records showed no previous failures of this weld, of this pressure transmitter or of its isolation valve. No physical examination of the weld has been performed at this time.

Previous Similar Events

There have been no previous events associated with Differential Pressure Transmitter [PT-CH-156], its associated isolation valve [CH-343] or the welds on this transmitter's sensing lines. There have been three previous events (LERs 76-041, 81-014 and 88-016) involving RCS Pressure Boundary Leakage due to failures of other instrument lines.

Corrective Action

Operators isolated the leaking weld. A 10CFR50.59 analysis was performed to verify that operation could continue while the differential pressure transmitter was isolated. The weld will be repaired during a future plant outage.

Safety Analysis

There were no safety implications due to this event. The leakage associated with this event was bounded by analysis in Beaver Valley Unit 1 UFSAR section 14.3, "Loss of Coolant Accident". A 10CFR50.59 analysis was performed to verify that there are no safety implications associated with operating with Differential Pressure Transmitter [PT-CH-156] isolated and removed from service. This transmitter has no safety functions. Redundant instrumentation exists for determining the differential pressure across the Number 1 Seal.