

## LICENSEE EVENT REPORT (LER)

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

TITLE (4)

Reactor Trip to Low-Low Steam Generator Levels

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)														
0	7	0	6	8	5	8	5	0	1	3	0	0	0	8	0	2	8	5	N/A	0	5	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9)	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
1			X	
POWER LEVEL (10)	20.405(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)
0	20.405(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vi)	
0	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
9	20.405(a)(1)(iv)	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)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Robert J. Druga, Manager of Technical Services TELEPHONE NUMBER 4 1 2 6 4 3 - 5 3 0 8

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	JIT	CINIV	HIO	15	N				

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (15)

On July 6, 1985, Beaver Valley Power Station began a controlled shutdown due to Secondary Chemistry concerns. After reducing reactor power to 9%, the turbine was removed from service and the steam dumps were placed in the Steam Pressure mode as per procedure. The steam generator levels were stable and within their target bands. At this time, a fault in the steam dump control circuitry caused the steam dump valves to open to a 20% steam flow position. The operators were able to maintain steam generator levels temporarily with the 11% power mismatch. Reactor coolant temperature dropped until at 2237 hours, a low-low Tavg signal (543F) blocked the steam dumps and caused the valves to close. The rapid closing of the valves then resulted in a steam pressure increase. This spike caused a rapid shrink in the steam generator levels to the Low-Low Level/Reactor Trip setpoints. This resulted in an immediate reactor trip.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Beaver Valley Power Station Unit 1	0500033485	—	013	—	00	02	OF 02

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

On July 6, 1985, at 2030 hours, Beaver Valley Unit 1 Chemists reported increasing secondary conductivity. Due to the high conductivity levels at 2047 hours, a controlled shutdown was initiated. As per the Station Shutdown procedure, reactor power was reduced to 9%, the main turbine was removed from service and the steam dump controller was switched from the Tavg mode to the Steam Pressure mode. At this time, 2237 hours, a fault occurred in the steam dump control circuitry. A Hagen V-to-I converter used in the Steam Pressure mode went into a continuous re-set mode of operation. This generated an open signal to the steam dumps that disregarded the steam pressure setpoint. Steam generator levels were temporarily maintained manually within their target bands under the increased steam flow (approximately 20% of full power steam flow). The open steam dumps caused reactor coolant temperature to rapidly decrease until at 2237 hours, a Low-Low Tavg signal was generated and removed the steam dump permissive. This blocked the steam dumps and caused the steam dump valves to immediately close. The rapid closing of the valves resulted in a rapid steam pressure increase. This spike caused a rapid and temporary shrink in the steam generator levels. The "A" Steam Generator reached 12%, the Low-Low Level/Reactor Trip setpoint. This resulted in an immediate reactor trip. Post-trip, the operators responded by taking manual control of the steam dumps, and the reactor trip response procedure was then used to make a normal recovery.



**Duquesne Light**

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August 2, 1985  
ND1SS1:2508

Beaver Valley Power Station, Unit 1  
Docket No. 50-334, License No. DPR-66  
LER 85-013-00

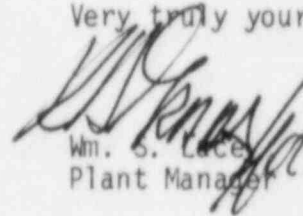
Dr. Thomas E. Murley  
Regional Administrator  
United States Nuclear Regulatory Commission  
Region I  
Park Avenue  
King of Prussia, PA 19046

Gentlemen:

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

LER 85-013-00, 10 CFR 50.73.a.2.iv, "Reactor Trip due to Low-Low Steam  
Generator Levels".

Very truly yours,

  
Wm. S. Luce  
Plant Manager

md

Attachment

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T. E. Murley  
August 2, 1985  
NDISS1:2508  
Page two

cc: Director of Management & Program Analysis  
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