

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Beaver Valley Power Station, Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 3 4 1 OF 0 2

PAGE (3)

TITLE (4)

Reactor Trip Due To Lo-Lo Steam Generator Level

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	5	0	6	8	5	8	5	0	1	0	0	5	0	0	0		
										N/A	0 5 0 0 0						
										N/A	0 5 0 0 0						

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)															
POWER LEVEL (10)	0 1 3 1 6	20.402(b)		20.405(c)		X	50.73(a)(2)(iv)		73.71(b)								
		20.405(a)(1)(i)		50.38(c)(1)			50.73(a)(2)(v)		73.71(c)								
		20.405(a)(1)(ii)		50.38(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)		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
Robert J. Druga, Manager of Technical Services	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 NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs
A	X	X	X	X	X	X	X	X	B

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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

A plant startup was in progress following maintenance on the pressurizer manway, with synchronization to the power grid at 1141 hours. Power ascent was in progress and preparation to control steam generator level via the main feedwater regulating valves was underway. At this time, steam generator level control was performed by manual operation of the feedwater regulating bypass valves. When transferring level control for the "B" steam generator, a level decrease occurred which the operator was unable to respond to quickly enough, resulting in a reactor trip due to Lo-Lo level in "B" steam generator at 1150 hours. The apparent cause of the trip was a combination of inadequate communication between the reactor and turbine operators, and inadequate response of the bypass feedwater regulating valves. The Operations Supervisor is meeting with each shift to discuss the event, and provide additional details concerning steam generator level controls during plant startup.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Beaver Valley Power Station, Unit 1	0 5 0 0 0 3 3 4	8 5	— 0 1 0	— 0 0	0 2	OF 0 2

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Following repairs on a leaking pressurizer manway, a unit startup was in progress with main unit synchronization occurring at 1141 hours. The condenser steam dump valves were in manual control due to a faulty auto-manual station on the bench-board. During the startup, a Special Operating Order was in effect due to LER 85-006. The Special Operation Order stated that operation of the feedwater control system was to be directly supervised by the Shift Foreman or Shift Supervisor unless extenuating circumstances dictated that his attention be directed elsewhere. This direct supervision was required when the turbine was rolled off the turning gear to when the main feedwater regulating valves were placed in auto on all three steam generators. Additionally, the main feedwater regulating valves were required to be opened initially in manual. Transfer to automatic control of the main feedwater regulating valves was prohibited until the bypass feedwater regulating valves were set in manual between 5% and 10% open and steam generator level was $44\% \pm 4\%$ in the narrow range.

After synchronization, steam generator level control was maintained by manual control of the bypass feedwater regulating valves. Automatic control of the bypass valves was not able to maintain steam generator level because of its slow response to level changes. The main feedwater regulating valves were opened, per the Special Operating Order, in preparation of putting them in service. Upon transferring level control to the main feedwater regulating valve on the "B" steam generator, a level decrease occurred which the operator was unable to respond to quickly enough. Level in the "B" steam generator began to shrink, resulting in a reactor/turbine trip due to Lo-Lo steam generator level (setpoint 12% narrow range) in "B". Emergency Procedure E-5, Reactor Trip was immediately implemented by plant operators and all steps were carried out successfully. All automatic actions performed successfully, and no other ESF functions were activated.

The reactor trip was attributed to inadequate communication between the operators on the reactor, turbine, and feedwater controls. As a result, the average reactor coolant system temperature was 1°F below no-load T_{avg} at time of synchronization and the turbine loading rate was in excess of what the bypass feedwater regulating valves could respond to. To prevent recurrence, which includes holding T_{avg} steady at approximately 550°F prior to synchronization, limiting the loading rate of the turbine until the main feedwater regulating valves are functioning satisfactorily in auto, and to perform transfer from bypass to main feedwater regulating valve control with stable reactor and temperature control at 20%. The Operations Supervisor is meeting with each shift to discuss the event and provide additional details during plant startup.



Duquesne Light

Nuclear Group
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May 21, 1985
ND1SS1:2441

Beaver Valley Power Station, Unit 1
Docket No. 50-334, License No. DPR-66
LER 85-010


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 85-010, 10 CFR 50.73.a.2.iv, "Reactor Trip Due to Lo-Lo Steam Generator Level".

Very truly yours,


Wm. S. Lacey
Plant Manager

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Attachment

T. E. Murley
May 21, 1985
ND1SS1:2442
Page three

cc: Director of Management & Program Analysis
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Washington, D.C. 20555

C. A. Roteck, Ohio Edison

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