NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Calvert Cliffs, Unit 1	0 5 0 0 0 3 1 7	1 OF 0 2

TITLE (4)
Reactor Trip on Low Steam Generator Water Level, Low Power and Feed System in Manual

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 0 0
0 8	0 6	8 5	8 5	— 0 0 9	— 0 0	0 8	2 9	8 5		0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 1 9	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)	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
Charles Walker, Procedural Development Coordinator	AREA CODE 3 0 1 2 6 0 - 4 7 0 6

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	

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)

At 2146 on August 6, 1985 Calvert Cliffs Unit One Reactor tripped on low steam generator water level. Power level was 19% and load was being increased. An operator was controlling feedwater control valves (FCVs) and the operating steam generator feed pump (SGFP #11) in manual. Load on the main generator was increased and the operator opened the FCVs to increase feed rate, but feed pump speed was not sufficient to provide adequate feed flow. Feed pump speed was then increased, but not fast enough to prevent a Reactor (RX) Trip on low steam generator water level.

IE 22
1/1

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

At 2146 on August 6, 1985 Calvert Cliffs Unit One was in MODE 1 at 19% power, following a refueling outage and turbine control valve testing had just been completed. Feedwater controls (EIIS-JB) were in manual and an operator was at the feed station. As load was increased on the main generator (EIIS-TB) Unit One Reactor (EIIS-AC) tripped on low steam generator water level. The low steam generator water level was a result of the operating steam generator feed pump (EIIS SJ-P) speed not being increased fast enough by the operator, to compensate for the increased feed demand.

As the Reactor Operator (RO) increased main generator load, the operator at the feedwater controls opened the feedwater control valves (EIIS SJ-FCV) to increase feed rate. The operator saw that steam generator levels were not recovering and then realized that steam generator feed pump speed was not sufficient to increase feed flow. The operator then increased steam generator feed pump speed in an attempt to match feed flow with steam flow. The response by the operator was insufficient to provide adequate feed flow and as a result the reactor tripped on low steam generator water level.

Following the trip the plant was placed in hot standby in accordance with plant emergency operating procedures without further incident.

During reactor startup and until 15% to 20% power feedwater controls are in manual and control is a demanding task. During this startup it was more demanding due to the strong positive moderator temperature co-efficient and the performance of turbine control valve testing.

To minimize recurrence of this type of event:

1. Operating with a positive temperature co-efficient while having feedwater controls in manual is a very infrequent evolution. This evolution will be performed frequently on the plant simulator to improve operator response in this mode of operation.

2. This event will be reviewed with all licensed operators.

A review of reportable events at Calvert Cliffs revealed no similar events.

The contact for this event is C. A. Walker, Jr., 301-260-4706.

BALTIMORE GAS AND ELECTRIC COMPANY

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NUCLEAR POWER DEPARTMENT
CALVERT CLIFFS NUCLEAR POWER PLANT
LUSBY, MARYLAND 20657

August 29, 1985

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Docket No. 50-317
License No. DPR 53

Dear Sirs:

The attached LER 85-09 is being sent to you as required by 10 CFR 50.73.

Should you have any questions regarding this report, we would be pleased to discuss them with you.

Very truly yours,

L B Russell

L. B. Russell
Plant Superintendent

LBR:CAW:pah

cc: Dr. Thomas E. Murley
Director, Office of Management Information
and Program Control
Messrs: A. E. Lundvall, Jr.
J. A. Tiernan

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