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 One	0 5 0 0 0 3 1 7	1 OF 0 2

TITLE (4)
Battery Inoperable

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 8	0 8	8 4	8 4	- 0 0 8	- 0 0	0 9	0 4	8 4	N/A	0 5 0 0 0
										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)			
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
J. A. Crunkleton	AREA CODE 3 0 1 — 2 6 0 - 4 9 3 3

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	
D	E J	B T R Y	E 3 5 5	Y							

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)

During weekly surveillance testing on 21 battery, which supplies 125 VDC control power to the "B" train of both units, the pilot cell electrolyte level was found above the high-level mark. Further investigation revealed over 50% of the cells in the battery had electrolyte levels above the high-level mark. This condition was caused by apparent expansion of the electrolyte during the equalize charge following the 18 month "In-Service Surveillance Test" which was completed three days prior to this event. None of the cells were in an overflow condition.

A review of the In-Service Surveillance Test Procedure indicated that electrolyte levels are not verified before returning the battery to service. The procedure has been changed to ensure battery parameters are within technical specifications prior to returning the battery to service.

IE22
1/1

NRC Form 366 (9-83)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Calvert Cliffs, Unit One	0 5 0 0 0 3 1 7	8 4	— 0 0 8	— 0 0	0 2 OF 0 2

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

At 0540, August 8, 1984, at 100% steady state power, Number 11 ("A" Train) saltwater header was removed from service for preventive maintenance. This causes ECCS "A" Train (BQ) to be inoperable due to loss of the pump room cooler. Number 11 service water subsystem (BI) and #11 component cooling heat exchangers (CC) were also inoperable as there was no cooling to their respective heat exchangers.

At 1130, August 8, 1984, during performance of the seven day surveillance requirement of Technical Specification (TS) 4.8.2.3.2 #21 Battery (EJ) ("B" Train on Unit 1 and 2) was discovered to be out of technical specification limits. (The electrolyte level was above the high-level mark.) Further investigation revealed that over 50% of the cells had electrolyte levels above the high-level mark. None of the cells were overflowing and no evidence was found to indicate overflowing had occurred. (The battery was manufactured by Exide Power Systems, Type FHC-19.)

Number 21 Battery was declared inoperable causing "B" Train ECCS to be inoperable since 125 volt control power comes from this source. Technical Specification 3.0.3 was entered which required shut down within one hour. The Nuclear Regulatory Commission (NRC) was notified of the event at 1230.

At 1235 the operable reserve battery was placed on 21 D.C. Bus terminating the event. Investigation into the cause of the high electrolyte level in 21 Battery indicates the condition had probably existed about three days. At 0330, August 5, 1984, the battery was returned to service after completion of the 18 month In-Service Surveillance Test. During this test the reserve battery is placed on the bus of the battery to be tested. The test was satisfactory and the battery was placed on equalize charge before returning to service.

The equalize charge causes an apparent expansion of the electrolyte due to gas generated during the process. IEEE 450-1980 states "If the electrolyte is at or near the high-level mark at float voltage, it may rise above that mark on charge. This condition is not objectionable. It does dictate, however, that electrolyte level readings should be made only after the battery has been at float voltage for at least 72 hours." Based on this information, the battery was not degraded during this period, and would have performed its function as a reliable source of power.

A review of the In-Service Surveillance Test Procedure indicated that electrolyte levels are not verified before returning the battery to service. The procedure has been changed to ensure battery parameters are within Technical Specification limits prior to returning the battery to service.

A Technical Specification change will be investigated to seek relief of the electrolyte high-levels associated with equalize charge.

BALTIMORE GAS AND ELECTRIC COMPANY

P.O. BOX 1475

BALTIMORE, MARYLAND 21203

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

September 4, 1984

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

Docket No. 50-318
License No. DPR 69

Dear Sirs:

The attached LER 84-08 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
Plant Superintendent

LBR:JAC:srm
Attachment

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

IE22
1/1