NRC FORM 366
(12-81)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

APPROVED BY OMB
3150-0011
EXPIRES 4-30-82

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | M D C C N 1 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | | (5)
LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

CON'T

0 1 REPORT SOURCE | L (6) | 0 5 0 0 0 3 1 7 (7) | 0 8 0 3 8 3 (8) | 0 8 1 7 8 3 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 1905 during normal operation, the ECCS pump room exhaust ventilation
0 3 system charcoal filter inlet damper would not open when the filters by-
0 4 pass damper was shut (T.S. 3.7.7.1). The inlet damper was secured in the
0 5 open position restoring the system to operable status. Subsequent in-
0 6 vestigation revealed the charcoal filters passed the required amount of
0 7 air when the inlet damper was shut.
0 8 Similar events: 50-318/83-37.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	A A (11)	B (12)	C (13)	V A L V O P (14)	D (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 3	—	0 4 1	/	0 1	T	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER (26)
F (18)	F (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	A (25)	T 2 6 5

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Damper operators were incorrectly mounted during performance of facility
1 1 change request (FCR), causing dampers to operate incorrectly. Dampers
1 2 have been failed open and operators are mechanically gagged open. Dam-
1 3 per operators will be remounted to provide correct damper operation.
1 4

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	E (28)	1 0 0 (29)	N/A	A (31)	Operator Observation

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	N/A

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LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	N/A

8309060003 830817
PDR ADOCK 05000317
S PDR

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	N/A	

NAME OF PREPARER M. A. Junge/G. S. Pavis PHONE: 301-269-4969/4850

LER NO. 83-37/1T
DOCKET NO. 50-318
LICENSE NO. DPR 69
EVENT DATE 08-03-83
REPORT DATE 08-17-83
ATTACHMENT

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (CONT'D)

At 1730 on August 3, 1983, during surveillance testing of the Emergency Core Cooling System (ECCS) pump room exhaust charcoal filters, it was discovered that both of the charcoal filter inlet damper position operators were installed such that the charcoal filter inlet damper would: (a) close when the appropriate handswitch was placed in the "Filter" position, (b) open when that handswitch was placed in the "Bypass" position and (c) fail close on loss of air or loss of electrical power. The operation of the damper was contrary to the description presented in the FSAR. As the damper to the charcoal filter was closed in the "Filter" mode, the system was declared inoperable (T.S. 3.7.7.1). By bypassing the solenoid valve controlling the damper's position operators, a continuous flow of air was provided to the position operators, thus failing them open. The system was thereby restored to operable status at 0030 on August 4, 1983, terminating the event. Similar events: 50-317/83-41.

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (CONT'D)

The ECCS charcoal filter inlet damper position operators were mounted incorrectly during the performance of a facility change request (FCR) in May, 1977. The exact installation error involved mounting the inlet damper position operators such that when air was applied to the operators to move the piston, the connecting rod opened, instead of shutting the damper. When air was removed, as in the case of a loss of instrument air, the springs in the position operators caused the damper to close. The design package from the architect-engineer and the controlled work packages prepared by the contractor performing the work did not contain explicit mounting instructions for the position operators. Equipment functional testing other than system performance testing was written and performed by the contractor. Documented post-maintenance testing consisted of a surveillance test to determine if adequate flow (2700-3300 cfm) passed through the filters in addition to air tests and scheme checks. The surveillance test was completed satisfactorily then and has been completed on thirteen occasions with required flows observed. Therefore, based on these results, the charcoal filter remained functionally operable since the modification was installed.

The immediate corrective action was to assure a continuous flow of air to the charcoal filter inlet damper position operators (thus maintaining the damper open) by bypassing the solenoid valve. Subsequently, the damper was also held open by installing a mechanical stop on the position operators' piston rod with the damper open and the rod fully extended.

LER NO. 83-41/1T
DOCKET NO. 50-317
LICENSE NO. DPR 53
EVENT DATE 08-03-83
REPORT DATE 08-17-83
ATTACHMENT

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (CONT'D)

Subsequent action involved an evaluation of the ECCS pump room exhaust system which was undertaken to determine the severity of this event. This system was designed to minimize release of any gaseous radioactive material originating in the ECCS pump room to the environment. The evaluation, conducted by the Responsible Design Organization, concluded that the charcoal filter is not required to ensure that the gaseous radioactive release will not exceed the limits of Title 10 CFR, Part 100. In addition, the evaluation concludes that the charcoal filter was not taken credit for in mitigation of accidents which are described in Chapter 14 of the FSAR.

Additional subsequent action involved testing the charcoal filter train to determine how the surveillance test procedure results showed adequate flow with the inlet filter dampers shut. The tests revealed that there was sufficient leakage through the inlet dampers to pass adequate flow. With the charcoal filter inlet and bypass dampers open, flow through the charcoal filter was minimal. During plant operation, periodic charcoal sampling tests by the STPs show that the charcoal has retained its efficiency in removing iodine despite the additional minimal flow.

Controls on facility change requests (FCR) and post-maintenance testing have considerably changed since the incorporation of this FCR. Testing is developed and performed solely by BG&E personnel using procedures requiring review and approval by both the Plant Operations and Safety Review Committee and individual plant staff members for operational post-modification testing of FCRs. These measures were not in force at the time of the original installation. Thus, no revision to the current program is considered necessary.

A maintenance request has been initiated to rectify the mounting of the position operators such that the filter inlet dampers they control will fail open on a loss of instrument air or electrical power and operate consistent with their operating switch.

BALTIMORE GAS AND ELECTRIC COMPANY

P.O. BOX 1475

BALTIMORE, MARYLAND 21203

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

August 17, 1983

Dr. Thomas E. Murley
Regional Administrator
U. S. Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

Docket No. 50-317
License No. DPR 53

Dear Dr. Murley:

Attached is LER 83-41/1T, as required by Technical Specification 6.9.

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

Very truly yours,

J B Russell

L. B. Russell
Plant Superintendent

LBR:GSP:bsb

cc: Director, Office Of Management Information
and Program Control
Messrs: A. E. Lundvall, Jr.
J. A. Tiernan

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