

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

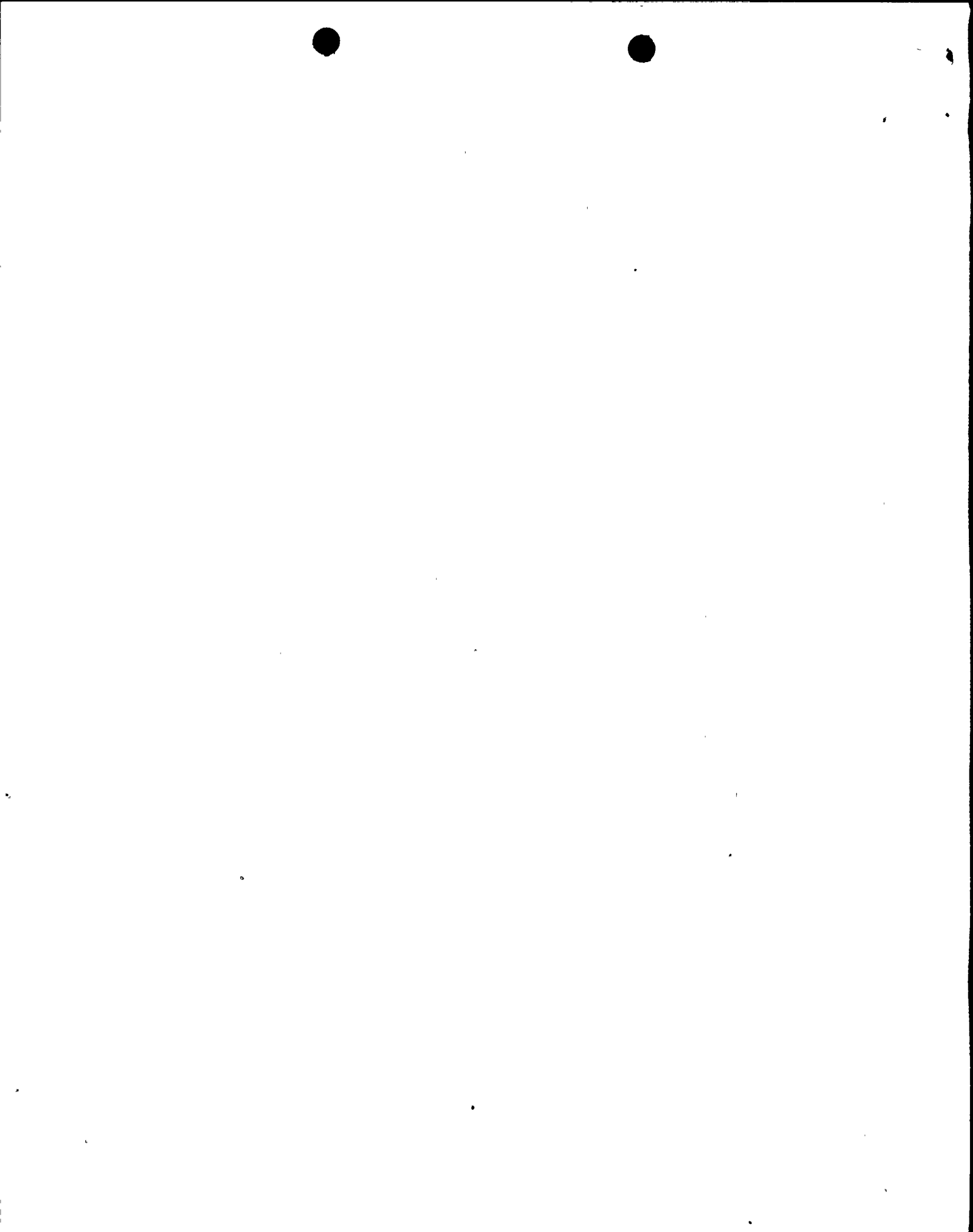
ACCESSION NBR: 8709020145 DOC. DATE: 87/08/28 NOTARIZED: NO DOCKET #
 FACIL: 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga 05000323
 AUTH. NAME AUTHOR AFFILIATION
 NELSON, T. A. Pacific Gas & Electric Co.
 SHIFFER, J. D. Pacific Gas & Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-018-00: on 870801, both trains of auxiliary bldg ventilastion sys unavailable to start on autostart signal resulting in violation of Tech Specs. Caused by thermal overload trip of auxiliary bldg exhaust fanW/870828 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL		RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	
	PD5 LA	1	1	PD5 PD	1	1
	TRAMMELL, C	1	1			
INTERNAL:	ACRS MICHELSON	1	1	ACRS MOELLER	2	2
	AEOD/DOA	1	1	AEOD/DSP/NAS	1	1
	AEOD/DSP/ROAB	2	2	AEOD/DSP/TPAB	1	1
	DEDRO	1	1	NRR/DEST/ADS	1	0
	NRR/DEST/CEB	1	1	NRR/DEST/ELB	1	1
	NRR/DEST/ICSB	1	1	NRR/DEST/MEB	1	1
	NRR/DEST/MTB	1	1	NRR/DEST/PSB	1	1
	NRR/DEST/RSB	1	1	NRR/DEST/SGB	1	1
	NRR/DLPQ/HFB	1	1	NRR/DLPQ/QAB	1	1
	NRR/DOEA/EAB	1	1	NRR/DREP/RAB	1	1
	NRR/DREP/RPB	2	2	NRR/PMAS/ILRB	1	1
	REG FILE 02	1	1	RES DEPY GI	1	1
	RES TELFORD, J	1	1	RES/DE/EIB	1	1
	RGN5 FILE 01	1	1			
EXTERNAL:	EG&G GROH, M	5	5	H ST LOBBY WARD	1	1
	LPDR	2	2	NRC PDR	1	1
	NSIC HARRIS, J	1	1	NSIC MAYS, G	1	1



LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **DIABLO CANYON UNIT 2** DOCKET NUMBER (2) **05000323** PAGE (3) **1** OF **04**

TITLE (4) **ENTRY INTO TECHNICAL SPECIFICATION 3.0.3 DUE TO BOTH TRAINS OF AUXILIARY BUILDING VENTILATION BEING UNAVAILABLE TO START ON AN AUTOSTART SIGNAL**

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)
08	01	87	87	0118	00	08	28	87				050001
												050001

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (11)

OPERATING MODE (9) **1**

POWER LEVEL (10) **100**

50.73(a)(2)(i)(B)
10 CFR _____

OTHER (Specify in Abstract below and in Text, NRC Form 305A)

LICENSEE CONTACT FOR THIS LER (12)

THOMAS A. NELSON, REGULATORY COMPLIANCE ENGINEER

TELEPHONE NUMBER

AREA CODE **805** **595-7351**

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

ABSTRACT (16)

On August 1, 1987, at 0400 PDT, with the unit in Mode 1 (Power Operation) at 100 percent power, both trains of the auxiliary building ventilation system were unavailable to start on an auto-start signal resulting in violation of Technical Specification (TS) 3.7.6.1 and entry into TS 3.0.3. During performance of surveillance test procedure (STP) M-4, "Routine Surveillance Test of the Auxiliary Building Safeguards Air Filtration System," with exhaust fan E-2 in a standby condition, exhaust fan E-1 was secured in accordance with the procedure. Exhaust fan E-2 should have started automatically when E-1 was secured but tripped on thermal overload. Exhaust fan E-1 could not auto-start because, as required by STP M-4, the control switch was in the OFF position. This rendered both trains unavailable to auto-start on a safety injection signal.

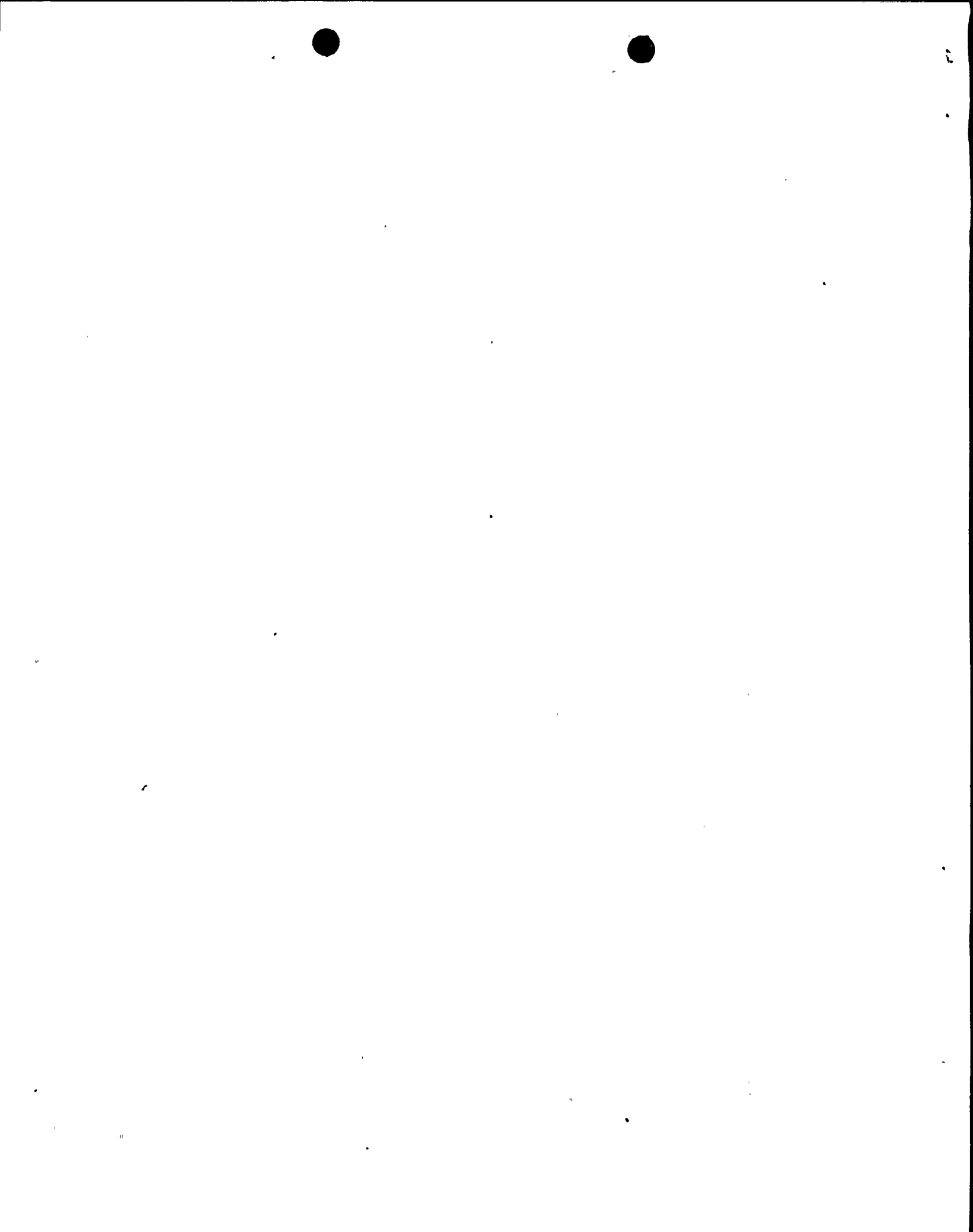
On August 1, 1987, at 0412 PDT, TS 3.0.3 was exited with one train fully operable when the exhaust fan E-1 control switch was taken to the AUTO position, which restored the auto start feature.

The root cause of the thermal overload trip of auxiliary building exhaust fan E-2 is attributed to STP M-4 not containing a precaution to account for design characteristics of thermal overload trip devices for large motor driven fans. STP M-4 will be revised to require a 15 minute cooling period prior to restarting an auxiliary building ventilation fan to allow sufficient cooling for the thermal overload trip device.

1624S/0051K

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) DIABLO CANYON UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 2 3	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	0 1 8	0 0	0 2	OF	0 4

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

I. Initial Conditions

Unit 2 was in Mode 1 (Power Operation) at 100 percent power.

II. Description of Event

A. Event:

On August 1, 1987, at 0400 PDT, with the unit in Mode 1 (Power Operation) at 100 percent power, both trains of the auxiliary building ventilation system were unavailable to start on an auto-start signal resulting in violation of Technical Specification (TS) 3.7.6.1 and entry into TS 3.0.3. During performance of surveillance test procedure (STP) M-4, "Routine Surveillance Test of the Auxiliary Building Safeguards Air Filtration System," with exhaust fan E-2 in a standby condition, exhaust fan E-1 was secured in accordance with the procedure. Exhaust fan E-2 should have started automatically when E-1 was secured but tripped on thermal overload. Exhaust fan E-1 could not auto-start because, as required by STP M-4, the control switch was in the OFF position. This rendered both trains unavailable to auto-start on a safety injection signal.

On August 1, 1987, at 0412 PDT, TS 3.0.3 was exited with one train fully operable when the exhaust fan E-1 control switch was taken to the AUTO position, which restored the auto-start feature.

B. Inoperable structures, components or systems that contributed to the event:

None

C. Dates and approximate times for major occurrences:

1. August 1, 1987, 0400 PDT: TS 3.0.3 was entered when both trains of auxiliary building exhaust ventilation were unavailable for auto-start.
2. August 1, 1987, 0412 PDT: TS 3.0.3 was exited when one train of auxiliary building exhaust ventilation was restored.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) DIABLO CANYON UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 2 3	LER NUMBER (6)			PAGE (3)	
		YEAR 8 7	SEQUENTIAL NUMBER — 0 1 8	REVISION NUMBER — 0 0	0 3	OF 0 4

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

D. Other systems or secondary functions affected:

None

E. Method of discovery:

The event was immediately apparent to the control room operators due to alarms and indications.

F. Operator actions:

The control switch for fan E-1 was placed in the AUTO position and TS 3.0.3 was exited.

G. Safety system responses:

None

III. Cause of Event:

A. Immediate cause:

Auxiliary building exhaust fan E-2 tripped on thermal overload when exhaust fan E-1 was secured, resulting in violation of TS 3.7.6.1 and entry into TS 3.0.3.

B. Root cause:

The root cause of the auxiliary building exhaust fan E-2 trip on thermal overload is attributed to STP M-4 not containing a precaution to account for design characteristics of thermal overload trip devices for large motor driven fans. The thermal overload trip device was already warm from previous fan operation. The thermal overload trip is possible when an already warm overload device is subjected to the high current experienced when starting a fan motor.

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FACILITY NAME (1) DIABLO CANYON UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 2 3	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 7	0 1 8	0 0	0 4	OF 0 4

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

IV. Analysis of Event:

The safeguards mode of operation requires that only one exhaust fan be in operation. The control logic for the auxiliary building ventilation system allows for automatic switching to the alternate exhaust fan in the event of an exhaust fan failure for any reason. The conditions which require restart of a recently secured exhaust fan usually exist only during surveillance testing when this design feature is challenged. For this reason, the potential that an exhaust fan may fail to start due to thermal overload is not considered detrimental to the operability of the system.

The auxiliary building ventilation systems primary function is to maintain the temperature of Engineered Safeguard Feature (ESF) motors within acceptable limits (FSAR Section 9.4.2). The equipment was unavailable for 12 minutes and one train could have been returned to service within a short time. Therefore, there were no significant adverse safety consequences or implications resulting from this event.

V. Corrective Actions:

1. STP M-4, "Routine Surveillance Test of the Auxiliary Building Safeguards Air Filtration System," will be revised to require a 15 minute cooling period prior to restarting an auxiliary building ventilation fan to allow sufficient cooling for the thermal overload trip device.
2. PGandE is presently evaluating the thermal overload feature of the auxiliary building ventilation motors to improve its performance during motor starts.

IV. Additional Information:

A. Failed components:

None

B. Previous LERs on similar events:

None

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PACIFIC GAS AND ELECTRIC COMPANY

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JAMES D. SHIFFER
VICE PRESIDENT
NUCLEAR POWER GENERATION

August 28, 1987

PGandE Letter No.: DCL-87-214

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

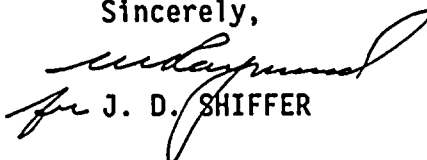
Re: Docket No. 50-323, OL-DPR-82
Diablo Canyon Unit 2
Licensee Event Report 2-87-018-00
Entry into Technical Specification 3.0.3 due to Both Trains of Auxiliary
Building Ventilation Being Unavailable to Start on an Autostart Signal

Gentlemen:

Pursuant to 10 CFR 50.73(a)(2)(i)(B), PGandE is submitting the enclosed Licensee Event Report concerning the entry into Technical Specification 3.0.3. This event has in no way affected the public's health and safety.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,


for J. D. SHIFFER

Enclosure

cc: L. J. Chandler
J. B. Martin
M. M. Mendonca
P. P. Narbut
B. Norton
CPUC
Diablo Distribution
INPO

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