; /				<u> </u>					•		
· · · · · · · · · · · · · · · · · · ·			LICENSEE E	VENT	REPOR	T (LER)					
FACILID'I ABLO' CAN	YON UNIT	1				·		DOCKET	NUMBER (2)		PAGE (3)
SPURIOUS CO	NTAINMENT	VENTILA	TION ISOLA	TIONS			e e e e e e e e e e e e e e e e e e e		10101 2-	715	<u>11 1 % 101</u>
EVENT DATA (5)	LER MMBER	(6) R	EPORT DATE (7)				OTHER FACI	LITIES IM	VOLVED (8)		
NONTH DAY YEAR YEA	R SEQUENTIAL NUMBER	REVISION NUMBER	ONTH DAY YEAR			FACILITY	NAMES		000	KET NUH	BER (S)
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OPERATING TH	IS REPORT IS	SUBMITTED PURS	LIANT TO THE REQ	UIRENENT	S OF 10	CFR : (11	)				
POWER LEVEL 79 (10)		x	50.73 10 CFR	(a)(2	)(iv)						
			OTHER (Specify below and in to 366A)	in Abst ext, NRC	ract Form			۹.			
			LICENSE	CONTAC	I FOR TH	IS LER (12)					
TERENCE L. G	REBEL, RE	GULATORY	COMPLIANC	E SUP	ERVIS	OR			8*6 5°5	<u>ерноне</u> 95	HUMBER - 4 7 2
		COMPLETE ONE I	INE FAILURE DES	SCRIBED	IN THIS I	& PORT (13)		·····			
	TURER	TO NPRDS			SYSTEM	COMPONENT	NANUFAC TUERER	REPORTA TO NPR	BLE DS		
	,,,				1						
		SUPPLEMENTAL	REPORT EXPECTED	) (14)			· · · · ·		EXPECTED	HONT	H DAY YEAR
YES (if yes, complet	e EXPECTED SU	BHISSION DATE)	x	NO					SUBRISSSION DATE (15)		
At 1220 PD 1452 PDT, G isolation of isolation of designed. when the event Significant 1986, and a The CVS ison power supple no increase isolation in July 10, 19 1986. This event studied by corrective follows: in on potentia will be add	F, July 1 July 30, of the co valves fo All othe vents occ t Event R t 1017 a olations ly lines ed radiat initiatio 286; 1647 and the the Nois actions time dela cl causes led on Un	O, 1986; 1986, with intainment or gaseous or CVS val- urred. A eports we nd 1515 F were attr as indica- ion monit of cruit of cvIs; it 2.	1645 PDT, th the unit ventilat radiatio ves that s require re made a PDT, July ributed to ted by th tor indica try to noi y 15, 198 urious con on Task F t recurre try has be bypass c	July t in ion s n mon recei d by t 131 30, 1 spur e abs tion se. an tainm orce nce. en in ontro	15, Mode ystem itors ve is 10 CF 0 PDT 986. ious ence ( and t The C d at ( ent vo in an Thes stall( 1 swi	1986; an (Power (CVS) o (RM) RM plation R 50.72 , July 1 noise si of a val he susce VS isola D914, 14 entilati effort e correc ed; DCPP tches ha	d again Operati ccurred. 11 and F signals (b)(2)(1 0, 1986; gnals or id initi ptibilit tion was 02 and 1 on actua to deter tive act personr ve been	at 09 ion), a M12 cl were a i), 4- i 1837 ation y of f ation y of f ations ations ations ations a che l ations a che l ations	12, 1357 an autom sample losed as already -hour PDT, Ju Instrume signal the CVS t at 123 DT, July have be effectiv are as ve been on Unit	and atic line close ly 19 nt AC and b l PD1 30, en e trair l ar	ed 5, Coy r, ned
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LICENSEE EVENT REPO	RT (LER) TEXT CONTINU	U.S. HUCLEAR REC APPROVED O EXPIRES 8/31	U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO 3150-0104 EXPIRES: 8/31/86			
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (S)	PAGE (3)			
,		YEAR SEQUENTIAL WEVEN				
DIABLO CANYON UNIT 1	0 15 10 10 10 1 2 7 5	8 6 0 0 7 0 1	Q 2 OF 0 15			
TEXT (X more space is required, use additional NRC Form 305A's/117)						

# I. <u>Initial Conditions</u>

The unit was in Mode 1 (Power Operation) at 79 percent power on July 10, 1986, 73 percent power on July 15, 1986; and 63 percent power on July 30, 1986.

### II. <u>Description Of Events</u>

## A. Events:

At 1220 PDT, July 10, 1986; at 1645 PDT, July 15, 1986; and again at 0912, 1357 and 1452 PDT, July 30, 1986, with the unit in Mode 1 (Power Operation), an automatic isolation of the containment ventilation system (CVS)(TM) occurred. The sample line isolation valves for gaseous radiation monitors (IL)(MON) RM11 and RM12 closed as designed. All other CVS valves that receive isolation signals were already closed when the event occurred. As required by 10 CFR 50.72(b)(2)(ii), 4-hour Significant Event Reports were made at 1310 PDT, July 10, 1986; 1837 PDT on July 15, 1986; and at 1017 and 1515 PDT, July 30, 1986.

The CVS isolations were attributed to spurious noise signals on the Instrument AC power supply lines as indicated by the absence of a valid initiation signal and no increased radiation monitor indication. The CVS isolation was reset at 1231 PDT, July 10, 1986; 1647 PDT, July 15, 1986; and at 0914, 1402 and 1456 PDT, July 30, 1986, and then RM11 and RM12 sample line isolation valves were reopened.

The noise signal that caused the CVS isolation at 0912 on July 30, 1986, has been attributed to a voltage transient caused by an Instrument and Control technician installing a pressure switch. The installation, in accordance with approved work orders, required the lifting of two leads on the pressure switch while the circuit was energized. While performing this task, the technician noticed a small spark when the lug made contact with its terminal. An Instrument AC inverter AC distribution panel alarm was then received in the control room from the distribution panel that supplies power to both the pressure switch and the CVS isolation initiation circuitry. The noise signals that resulted in the other CVS isolations are undetermined as no other plant activities have been identified which would have caused a voltage transient.

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

None

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18C Form 384A 9 831	LICENSEE EN	ENT REPOR	IT (LER)	TEXT CONTINU	ATTON	• •	U.S. NUCLEAR APPROVE EXPIRES:	REGULATOR D OMB NO 3 8/31/86	Y COMIN 150-010	A15810N )4
FACILITY NAME (1)	<u></u>		DOCKET NU	MBER (2)	LE		(6)		AGE (3)	
				0 7 5	YEAR 200	SEQUENTI NUMPE	AL NEVIS			0.5
		(17)	0 5 0	0 0 4 15	8   0 <b>  -</b>	1 9 9	/  - '	1 4 3	OF	05
1271 (il more spece il regimer, noi pi	nandanan (175, 1977) 385A (8)									
C. Dates and	l approximate	times for	major	occurrences:						
Firs	t event:		-							
1.	July 10, 19	86, at 122	O PDT:	Event and di	scovery	/ date				
2.	July 10, 19	86, at 123	1 PDT:	CVS isolatio	n reset	: .				
3.	July 10, 19	86, at 131	O PDT:	Significant	Event R	Report	phoned	to NRC	;	
Seco	ond Event:	•								
1.	July 15, 19	86, at 164	5 PDT:	Event and di	scovery	/ date				
2.	July 15, 19	86, at 164	7 PDT:	CVS isolatio	n reset					
3.	July 15, 19	86, at 183	7 PDT:	Significant	Event R	Report	phoned	to NRC		
Thir	d event:									
1.	July 30, 19	86, at 091	2 PDT:	Event and di	scovery	/ date				
2.	July 30, 19	86, at 091	4 PDT:	CVS isolatio	n reset	5				
3.	July 30, 19	86, at 101	7 PDT:	Significant	Event R	Report	phoned	to NRC	2	
Four	th event:									
1.	July 30, 19	86, at 135	7 PDT:	Event and di	scovery	/ date				
2.	July 30, 19	86, at 140	2 PDT:	CVS isolatio	on reset	t		ī		
3.	July 30, 19	86, at 151	5 PDT:	Significant	Event R	Report	phoned	to NRC		
Fift	h event									
1.	July 30, 19	986, at 145	2 PDT:	Event and di	scovery	/ date				
2.	July 30, 19	86, at 145	6 PDT:	CVS isolatio	on reset					
3.	July 30, 19	86, at 151	5 PDT:	Significant	Event R	Report	phoned	to NRC		
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C Form 366A 83) i	• ,	. LICENSEE EVENT REPOR	T (LER) TEXT CONTINU	JATION	J.S. NUCLEAR REG APPROVED C EXPIRES: 8/3	GULATORY COMMIS DMB NO 3150-0104 1/88
CILITY NAME	(1)		DOCKET NUMBER (2)		(6)	PAGE (3)
DIA	BLO	CANYON UNIT 1	0 5 0 0 0 2 7 5		7 _ 0 1	Q 4 OF 0
XT (If more spec	ce # 194	vired, use additional NRC Ferm 305A's) (17)				
-	D.	Other systems or secondary	functions affected	:		
		None				
	E.	Method of discovery:				
		The event was immediately control room.	apparent due to ala	rms and indic	ations in	the
	F.	Operator actions:				
		None				
	G.	Safety system responses:				
		None	,			
III.	Caus	<u>se of Event</u>				
	Α.	Immediate cause:				
		The CVS isolations were at Instrument AC power supply 1986, has been attributed and Control technician ins that resulted in the other plant activities have been transient.	tributed to spurious lines. The CVS iso to a voltage transio talling a pressure s CVS isolations are identified which wo	s noise signa blation at 09 ent caused by witch. The undetermined buld have cau	ls on the l2 on Jul an Instr noise sig as no ot sed a vol	y 30, ument nals her tage
l	Β.	Root cause:				
		Noise susceptibility proble	ems of the CVS isola	tion initiat	ion circu	itry.
IV. /	<u>Anal</u>	<u>vsis of Event</u>				
-	Thes cons impl	e CVS isolation occurrences ervative actuations. There ications resulted from this	from spurious nois ore, no adverse saf event.	e signals, ro ety conseque	epresent ices or	
v. <u>g</u>	Corr	ective Actions				

This event and other spurious containment ventilation actuations have been studied by the Noise Reduction Task Force in an effort to determine effective corrective actions to prevent recurrence. These corrective actions are as follows:

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NRC Form 346A	REPORT (LER) TEXT CONTIN	U.S. NUCLEAR REG IUATION APPROVED OF EXPIRES: \$/31/	ULATORY COMMISSION MB NO 3150-0104 /88
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)	PAGE (3)
DIABLO CANYON UNIT 1	0 15 10 10 10 1 2 7	5 8 6 0 0 0 7 0 1	0 5 OF 015
TEXT (If more space is required, use additional NRC Form 386A's) (17)			

- 1. Time delay circuitry to CVI-related radiation monitors has been installed on Units 1 and 2. This circuitry prevents CVI-related radiation monitors from alarming because of short duration electrical transients, yet allows them to function fully on a valid signal.
- 2. DCPP maintenance and operations personnel have been trained on the potential causes of inadvertent CVIs during maintenance and calibration activities.
- 3. Bypass control switches have been added to the Unit 1 CVI circuitry to effectively disable the CVI actuation (without lifting leads) during testing of CVI-related radiation monitors. A similar design change will be implemented on Unit 2.

# VI. Additional Information

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A. Failed components:

None

B. Previous LERs on similar events:

Similar spurious CVI actuations have been reported in a number of LERs since 1985. However, recent implementation of several corrective actions, including the addition of time delay circuitry and training of plant personnel, has significantly reduced the number of CVIs. The addition of CVI bypass switches is expected to prevent spurious CVIs potentially attributed to maintenance and calibration activities on the RMS system. Due to the fast response time of the MDR relays, maintenance activities on other instruments which cause momentary dips in instrument AC power can still cause CVIs. As a long-term measure, a radiation monitoring system upgrade program has been initiated to replace existing radiation monitors with equipment that is less sensitive to electrical noise.

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PG&E Letter No. DCL-89-254

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# ENCLOSURE 3

LER 1-86-014-01, ELECTRICAL TRANSIENT RESULTS IN CONTROL ROOM VENTILATION SYSTEM SHIFTING TO THE PRESSURIZATION MODE

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