A	CCELERATED REGULATION	DOC INFORM	UM	ENT DISTRIBUT	TION SY EM (RIDS)	STEM	
ACCESSION FACIL:50 AUTH.NA SISK,D.1	N NBR:9308040288 0-275 Diablo Canyor AME AUTHOR A P. Pacific G	DOC.D Nucle FFILIA	ATE: ar Po TION	93/07/26 NOTARIZED ower Plant, Unit 1,	Pacific	DOCKEI Ga 050002	!# ?75
RUEGER, C RECIP.1	G.M. Pacific G NAME RECIPIEN	as & E IT AFFI	lecti LIATI	tic Co.			R
							I
SUBJECT	: LER 84-047-00:on inservice testing valves.Performed	840303 of sa testin	,TS 3 fety g den	3.0.4. not met due f injection pump disc monstrating that ST	to inadeq charge ch	uate eck	D
	discharge check v	alves	were	leaktight.W/930726	ltr.		S
DISTRIB	UTION CODE: IE22T 50.73/50.9 Licensee	COPIES Event	RECE Repo	EIVED:LTR / ENCL _/ ort (LER), Incident	SIZE: Rpt, etc	10	1
NOTES:							А
	RECIPIENT ID CODE/NAME	COPIE LTTR	S ENCL	RECIPIENT ID CODE/NAME	COPIE LTTR E	S NCL	D
	PDV LA PETERSON,S	1 1	1 1	PDV PD	1	1	D
INTERNAL:	ACNW AEOD/DOA AEOD/ROAB/DSP NRR/DE/EMEB NRR/DRCH/HHFB NRR/DRCH/HOLB NRR/DRSS/PRPB NRR/DSSA/SRXB RES/DSIR/EIB EG&G BRYCE,J.H	2 1 1 1 2 1 1 2	2 1 1 1 2 1 1 2 1 2	ACRS AEOD/DSP/TPAB NRR/DE/EELB NRR/DORS/OEAB NRR/DRCH/HICB NRR/DRIL/RPEB NRR/DSSA/SPLB REG_FILE 02 RGN5 FILE 01 L ST LOBBY WARD		2 1 1 1 1 1 1 1 1	S
	NRC PDR	1	1	NSIC MURPHY, G.A	1	1	_
	NSIC POORE,W.	1	1	NUDOCS FULL TXT	1	1	I
					1		D

NOTE TO ALL "RIDS" RECIPIENTS:

.

١

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 504-2065) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

D D

S

S

Τ

А

.

u ! .

, ,

н н · .

.

Pacific Gas and Electric Company

77 Beale Street, Room-1451 P.O. Box 770000 San Francisco, CA 94177 415/973-4684 Fax 415/973-2313

Gregory M. Rueger Senior Vice President and General Manager Nuclear Power Generation

July 26, 1993

PG&E Letter No. DCL-93-185

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

Re: Docket No. 50-275, OL-DPR-80 Docket No. 50-323, OL-DPR-82 Diablo Canyon Units 1 and 2 Licensee Event Report 1-84-047-00 Technical Specification 3.0.4 Not Met Due to Inadequate Inservice Testing of Safety Injection Pump Discharge Check Valves

Gentlemen:

Pursuant to 10 CFR 50.73(a)(2)(i)(B), PG&E is submitting the enclosed Licensee Event Report concerning inadequate inservice testing of safety injection pump discharge check valves due to deficiencies in the scope of the Inservice Testing Program Plan reviews.

Sincerely.

Gregory M. Rueger

cc: Bobby H. Faulkenberry Ann P. Hodgdon Mary H. Miller Sheri R. Peterson CPUC Diablo Distribution INPO

DC0-93-TP-N028

Enclosure

1139S/85K/SDL/2246



.

. .

. , •

·

)			-						ENS	EE	EVE	NT	RE	PORT	Г (L	E	y										
FACILITY NAM	IE (1)				-	•							<u>.</u>	-		Ţ	DOC		UMBE	R (2)				-	PAC	E (3)	
	TABL	U CAN	YUN SPEC							T 147	-T D'	<u></u>	<u>ro 7</u>		1107	<u></u> _		5		0		2	$\begin{bmatrix} 7 \\ 2 \end{bmatrix}$	5			9
TITLE (4) I	NJEC	TION	PUMP	D]	ICA I	HARG	1 3. E C	HEC	F NU CK V		S DL	JE	IU I			Ľ	1И2	EKV	10	: I	E21	11	6 U	ır S		EIY	
EVENT DATE (6) DAY I	YR	YR		ل 8F	LER NU	MBER	(6)	REVI	SION	REPOR	T DAT	TE (7)				0	THER	FACI	LIŤ		NVO	VED	(8) BER (\$)		
						NUMBE	38		NUM	ABER					FA	CIUT	Y NA	MES						ە,	ا م	ا م	<u> </u>
									_					DIAB	<u>L0 (</u>	CAN	IYO	N U	NIT	2	0	5	0	0	0	3	2 3
	03	84	84	-		4	7	-	0	0	07	26	93	10 000							0	5	0	0	0		
MODE (9)		1	1415 1	REPUI	KI 15	SUBM	11120	PUR	SUANT	10 18	E REQU	IREME	NIS O	10 CFF	. ()									·			
POWER		<u>_</u>						v	10 0			50	77 / - 1														
(10)	11	0 0				•		×	OTHE	R -			. <u>/</u> 5(8)	<u>(2)(1)</u> -	(8)												
	(, ú									(9	Specif	y i	n Abs	tract	belo	014	and	in	text	;,	NRC	For	n 30	56A)			
· · · · ·		<u> </u>			_				U	CENSE	ECONT	ACT F	OR THIS	LER (12)		-				_			10115				
. D/	AVID	P. S	ISK,	SE	INIC	DR R	EGU	LAT	ORY	COM	IPLIA	NCE	E EN	GINEE	R				A	REA	CODE	LEP		NUMB	EH_	•	
						COMP	LETE	ONE LI	NE FOR	EACH	COMPOR	IENT P	AILURF	DESCRIP	ED IN 1	THIS	REPO	RT (13	((80	5)				545	-44	20
CAUSE S	SYSTEM	COMP	ONENT	Τ	MANU	FAC-	<u> </u>	REPO	RTABLE	- 43			CAUSE	SYST	TEM	CO	MPON	ENT	Í	MAN	IFAC-	Т	REP		BLE	2. A	
	TURER TO NPRDS																										
_										1.1.						1	T										\
	1			Τ	1 1					:		•				1	1										1
			808	PPLEN	MENTA	L REPO	DRT E	PECT	ED (14)	·	· . '	·			ĻΙ						MON	TH TH	-	D/		<u>Ļ_</u>	YEAR
															1	SUB	MIS			┢			╉			+	
	:5 (11	yes,	comple	ete	EXP) SL	JRWIS	SSION	DAT	E)	I X															
On Sp ma va Va Va Va Va Va Va Va Va Va Va Va Va Va	n Mar becif ade w alves n Jun adeq ith A e ro adeq ith A e ro scha scha scha i	ch 3, icati ithou 1-89 e 25, p dis sME S ot ca eview rge c ested IST uent e flo ic re ance	198 ion 3 it re 222A, 224A, 224A, 224A, 224A, 224A, 22	34, 3.0 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	fo .4 rse -89 a cho ify XI f tl ommu a v t f tl ommu a v t f lov the SME	r Un was flo 22B, Teck the ins his unic es whe form in v te Isr Sec	nit not ow f val eir val eir eve cati vere deve sti etio	1 t m tess -89 cal vice sa vice sa vice sa vice ent ion corc ing cogn cogn cogn cogn cogn cogn cogn co	and et w ting 22A, Rev s 1- fety e te inc of i omen Uni danc req ram {I ref	on hen of and 8922 fui stin lude dent t of ts l e wi e wi equi	July ini saf d 2- Gro 2A, nction ng (e de erson tific f the l and ith / ement n. (ireme	25 tia ety 892 up IIST fic son fic ed I SMI ts ts ts ts	, 19 1 enj 2B. dete 922B for 922B for enc SI er SI E SE For cs.	85, try ectio rmind , 2-8 reven quird ies ror equin rogra disch ctior the S heck	for intcon (ed 1 3922 rse emer in t (cog red am F (cog red XI SI p Val	Un o M (SI tha, fls the i the i to i the i i the i i i the i i i i i i i i i i i i i i i i i i i	it lode) I ar ow score tiv be che ST che ST b s w	2, e 3 oump the ad 2 sea rep e rep e rep e rep isc	Te (H d te 2-8 ati sub sub va han bo	chi ot st 922 ng f 1 The odi sec lve ren rge e r	nica Sta chan ing 2B v in che s s cal juer es v eevi	al and rge pr ac IS ly it er sec ew	by) cogn con T f ump rev ifi k v ed) wa nec ram rdan rdan viev ied valv	as fo nce gra vs /es	m	

))

ł٩

(

***** '

.

ACIUTY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)						5
			YEA	1	SEQUENTIAL NUMBER		REVISION NUMBER			
DIABLO	CANYON UNIT 1	0 5 0 0 0 2 7	5 84	_	0 4 7	-	0 0	2	OF	9

Unit 1 and Unit 2 operated in various modes at various power levels while this condition existed.

II. Description of Event

Α. Summary:

On June 25, 1993, following discussion with the SI pump discharge check valve vendor a Technical Review Group (TRG) determined that testing of the SI pump (BP)(P) discharge check valves (BP)(V), which relied upon reverse pump rotation to identify reverse flow, may not have been adequate to meet the reverse flow seating requirements. Although the SI pump discharge check valves were not reverse flow tested in accordance with ASME Section XI, the information provided in Section IV of this LER demonstrates that the SI pump discharge check valves have always been capable of performing their intended safety functions since initial Mode 3 (Hot Standby) entry. However, because SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B are required to be operable to meet the requirements of Technical Specification (TS) 3.5.2, PG&E has conservatively taken the position that Diablo Canyon Power Plant (DCPP) had entered into an operating mode not permitted by TS 3.0.4.

Β. Background:

The SI pumps deliver water from the refueling water storage tank (RWST)(BP) to the reactor coolant system (RCS)(AB) during the injection phase or from the containment recirculation sump (BE)(RVR) to the RCS during the post loss-of-coolant accident (LOCA) recirculation phase. In this capacity, SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B have a safety function to open. SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B also serve to prevent pump-to-pump interaction during SI single pump operation, thus ensuring stable miniflow operation for each SI pump. In this capacity, SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B have a safety function to close.

TS 3.5.2 requires that two emergency core cooling system (ECCS)(BP) subsystems shall be operable with each subsystem comprised of: (a) one operable centrifugal charging pump (CB)(P); (b) one operable SI pump; (c) one operable residual heat removal heat exchanger (BP)(HX); (d) one operable residual heat removal pump (BP)(P); and (e) an operable flow path capable of taking suction from the RWST on a SI signal and manually transferring suction to the containment recirculation sump during the recirculation phase of operation.

· .

F

.

× .

.

r

ه

۰ ۰ ۰

ł,

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

	FACILITY NAME (1)	DOCKET NUMBER (2)		1	ER NUMBER	(6)			PAGE (3)	,
ĩ			YEAR		SEQUENTIAL NUMBER	3	REVISION NUMBER			
	DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	84		047	-	010	3	OF	9

TEXT (17)

TS 3.0.4 states that entry into an operational mode shall not be made when the conditions for the limiting condition for operation are not met and the associated action requires a shutdown if they are not met within a specified time interval.

TS 4.0.5 requires that inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code.

Section XI of the ASME Boiler and Pressure Vessel Code specifies required testing intervals for Class 1, 2, or 3 valves that perform a function in mitigating the consequences of an accident or in bringing the plant to a cold shutdown condition. The DCPP Inservice Testing (IST) Program Plan was developed to meet the requirements of ASME Section XI.

Surveillance Test Procedure (STP) P-1B, "Routine Surveillance Test of Safety Injection Pumps," is performed on a nominal quarterly frequency. STP P-1B verifies the operability of SI pumps in accordance with ASME Section XI. In addition, STP P-1B fully strokes SI pumps to RWST check valves SI-8919A and SI-8919B and partially strokes RWST to SI pumps suction check valve SI-8977. STP P-1B is relied upon to satisfy the requirements of TS 3.5.2 and to verify that the non-operating SI pump does not rotate in reverse.

STP V-15, "ECCS Flow Balance Test," is performed on a nominal 18-month refueling frequency. STP V-15 verifies the proper setting of the ECCS cold leg runout valves (BP)(V) to assure proper flow using a single SI pump. STP V-15 also verifies the full-stroke opening of SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B in accordance with ASME Section XI. IST Program Plan Relief Request No. 7 documents the acceptability of refueling outage test frequency for full-stroking these valves.

The IST Program Plan does not currently specify reverse flow closure testing requirements for SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B.

C. Event Description:

On March 3, 1984, for Unit 1 and on July 25, 1985, for Unit 2, initial entry to Mode 3 was made without reverse flow testing of safetyrelated SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B. These discharge check valves were forward flow tested during STP V-15 testing.

On April 17, 1993, a review of STP P-1B identified a potential SI leak path that could affect the minimum ECCS cold leg injection flows.

· . r 9 -• • •

	EPORT (LER) TEXT C	TINUATION			
CILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)		PAGE	(3)
		YEAR SEQUENTIAL MUMDER	REVISION		
DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	84 - 0 4 7 -	0 0	4 OF	9
DIABLO CANYON UNIT 1 This review also ident reverse flow testing or 1-8922B, 2-8922A, and 3 On April 19, 1993, PG& Unit 1 SI pump dischar pressurizing the dischar pump was then shut down monitored for a decreas approximately 1600 psig the pump is 30 psig, bo 1-8922B held a different test demonstrated that leaked even a small amo Therefore, SI discharge flow seat. In addition fifth refueling outage discharge check valves consistent with the Uni- On June 25, 1993, follow check valve vendor, a 1 valve testing that reli- reverse flow may not has seating requirements. were not reverse flow to information provided in SI pump discharge check their intended safety f because SI pump dischar 2-8922B are required to TS 3.5.2, PG&E has cons- into an operating Mode D. Inoperable Structures, Event: None. E. Dates and Approximate T 1. March 3, 1984: 2. July 25, 1985:	<pre>0 5 0 0 2 7 5 ified that the IST Prog f the SI pump discharge 2-8922B. E performed an operabil ge check valves. SI Pum arge piping to approxim n, and the discharge pip se in pressure. The prog for 20 minutes. Since oth SI discharge check ntial pressure of approx the valves do not leak ount, the pressure would e check valves 1-8922A and (2R5), similar tests would e check valves 1-8922B and it 1 test results. Dwing discussions with f IRG determined that the ied upon reverse pump ro ave been adequate to meet Although the SI pump di tested in accordance with n Section IV of this LEF c valves have always bee functions since initial rge check valves 1-8922A be operable to meet the servatively taken the po not permitted by TS 3.0 Components, or Systems imes for Major Occurrent Event date. Initial e Mode 3. TS 3.0.4 was Event date. Initial e Mode 3. TS 3.0.4 was</pre>	<pre>1 84 - 0 4 7 - ram Plan did not check valves 1- ity assessment of mp 1-1 was start ately 1600 psig. ping pressure wat essure held at e the suction pr valves 1-8922A at ximately 1570 ps . If the valves d have decayed r and 1-8922B will de 3 following t ere performed on d the test resul the SI pump dischar part of the reverse f ischarge check v ch ASME Section R demonstrates t en capable of pe Mode 3 entry. A, 1-8922B, 2-89 be requirements osition that DCP 0.4. that Contribute deces: antry of Unit 1 not met. ntry of Unit 2 not met.</pre>	o o o incl -8922A on the 28922A on the 28922A on the 28922A on the 28922A on the 28922A of the 201 201 201 201 201 201 201 201 201 201	4 or ude fis fis fis fis ce eck ee er, ind ered he	9

į.

1139S/85K

۰. **ب**ر

· ·

, **`**.

·

. r a construction of the second s

.

•

۱.		LICENS EVENT REI	PORT (LER)	IEXT C	JIINU	ATION		•		
FACILITY NAME (1)			DOCKET NUMBER (2	2)	YFAR		(6) REVISION	P	AGE (3	<u>}</u>
						NUMBER	NUMBER			
DIABL	.0 CANY	ON UNIT 1	0 5 0 0	0 2 7 5	84	-047	- 0 0	5	OF	9
	i	1	2-8922A and included in	B were de the IST P	termi rogra	ned not t m Plan.	o be			
		4. June 25, 1993:	Discovery da P-1B is inad reverse flow	ite. The lequate to / IST requ	TRG d meet ireme	etermined the ASME nts.	l that S Sectio	TP n XI		
	F.	Other Systems or Second	ary Functions	Affected	:					
		None.		ı						
	G.	Method of Discovery:			,					
· ,	·	On April 17, 1993, durin identified a potential s cold leg injection flows since SI pump discharge 2-8922B are required to TS 3.5.2, entry into Mod verification of operabi	ng a review o SI leak path s. On June 2 check valves be operable de 3 is not p lity.	of STP P-11 that could 5, 1993, to 1-8922A, to meet the ermitted h	B, Pla d affe the Tl 1-892 ne ree by TS	ant Engin ect the m RG determ 22B, 2-89 quirement 3.0.4 wi	eering ninimum nined th 22A, and s of thout	ECCS at d		
	H.	Operator Actions:								
		None.								
	I.	Safety System Responses	•							
		None.								
III.	<u>Cause</u>	of the Event								
	Α.	Immediate Cause:								
`		Inservice testing requin seating was not performe 1-8922B, 2-8922A, and 2-	red by ASME S ed on SI pump -8922B.	ection XI discharge	to ve chec	erify rev ck valves	erse flo 1-8922/	w ł,		
	Β.	Root Cause:								
		ASME Section XI, Subsect be exercised to the posi Valves that are normally to prevent reverse flow the disk travels to the flow. Valves that are n function to open on reve by proving that the disk closing pressure differe initiated. The SI pump	tion IWV-3522 tion required open during shall be tes seat promptly ormally close rsal of press moves promp ential is remo discharge cho	, states t d to fulfi plant ope ted in a m y on cessa ed during sure diffe tly away f oved and f eck valves	hat c ll th ratio anner tion plant renti rom t low t	theck value in and the that properation or rever al shall the seat through the 22A, 1-8	ves shal tion. at funct oves tha sal of on and t be test when the he valve 922B.	וז it hat ed e is		

1139S/85K

ø

.

***** 1

.

٢

Ą ţ

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)					
ACILITY NAME (1)		YEAR SEQUENTIAL REVISION NUMBER						
DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	84 - 0 4 7 - 0 0	6 ^{of} 9					
TEXT (17)			-					

2-8922A, and 2-8922B perform a safety function in both the open and closed positions. Because the SI pump discharge check valves are normally closed during plant operation and the SI pumps are idle, the check valves normally do not have a reverse pressure differential. Plant Engineering did not interpret the above requirements as requiring that both open and closed positions of the SI discharge check valves be verified by testing. Consequently, because the SI pump discharge check valves are normally closed during plant operation, the valves were classified as normally closed Category C valves and tested for full-stroke open capabilities.

During the development of the IST Program Plan a personnel error occurred because responsible personnel did not recognize the need to reverse flow test the check valves. Reverse flow testing of these valves was not identified as an IST requirement by plant engineers during the detailed design review of the DCPP IST Program Plan in a working session with the NRC in 1983. At that time, the NRC reviewed the adequacy of testing procedures for all components in the IST Program Plan. Where testing deficiencies were identified, plant engineers revised appropriate STPs and the IST Program Plan. The NRC followed up with several safety evaluation reports, ultimately providing approval of the current IST Program Plan in December 1988.

In summary, the root causes of this event include deficiencies in the scope of the IST Program Plan review, miscommunication, and personnel error (cognitive).

IV. Analysis of the Event

During single pump operation, SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B serve to prevent leakage from the operating SI pump discharge back through the non-operating SI pump during the injection phase.

The following operating and maintenance history summary indicates that SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B (on both Units 1 and 2, respectively) are operable and capable of performing their intended safety function to close upon reversal of flow since initial Mode 3 entry.

- 1. SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B have been observed to be leaktight on an incidental basis. Following performance of STP P-1B, the discharge pressure was often observed to remain at SI pump discharge pressure. This indicates that the SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B were leaktight.
- 2. The Unit 1 SI pump discharge check valves 1-8922A and 1-8922B were disassembled and inspected during the Unit 1 fifth refueling outage.

, .

 r^{α}

LICENS	NT REPORT (LER) TEXT CO	FINU	JA1	ΓΙΟΝ				
FACIUTY NAME (1)	DOCKET NUMBER (2)		1	LER NUMBER	(6)			PAGE (3)
		YEAR		SEQUENTIAL NUMBER		REVISION NUMBER		
DIABLO CANYON UNIT 1	0 5 0 0 0 2 7 5	84	_	0 4 7	_	0 0	7	of 9

TEXT (17)

The inspection determined that there was no internal valve damage and a 360° seating surface blue check was satisfactory.

- 3. The Unit 2 SI pump discharge check valve 2-8922A was inspected during the Unit 2 second refueling outage (2R2). The inspection determined that there was no internal valve damage and a visual inspection of the valve seat was satisfactory. The Unit 2 SI pump discharge check valve 2-8922B also was disassembled and inspected during 2R2. The inspection determined that there was no internal valve damage and a 360° seating surface blue check was satisfactory. The Unit 2 SI pump discharge check valve 2-8922B was disassembled and inspected during both the Unit 2 fourth refueling outage and 2R5, with similar results.
- 4. A review of maintenance histories determined that no corrective maintenance has been required for SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B.
- 5. STP V-15, currently performed on an 18-month basis to meet the requirements of TS 4.5.2 action h., ensures that the stringent ECCS flow criteria (including single SI pump operation) are met.

In accordance with the single failure criterion defined by the NRC in SECY 77-439, total valve disk failure or failure in the fully open position is not considered to be a credible failure mode based on the maintenance history of the valve, inspection results, and the service environment. Therefore, any potential valve impairment is considered to be in the form of backleakage. STP V-15 is currently performed on a nominal 18-month frequency and verifies adequate cold leg injection flows for single pump operation. Verification of these flows by performance of STP V-15 demonstrates that the discharge check valve of the non-operating SI pump has seated, is not exhibiting excessive backleakage, and is not degrading the ability of the system to perform its safety function.

During a LOCA, the SI pumps deliver water from the RWST to the RCS after the RCS pressure is reduced. During single pump operation, SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B serve to prevent leakage from the operating SI pump discharge back through the non-operating SI pump. If the discharge check valve of the opposite SI pump leaks, the fluid will flow through the idle SI pump, thereby potentially reducing the overall ECCS flow to the cold legs below the minimum acceptable amount. In the event that both SI pumps are operating, reverse flow in either SI pump discharge check valve is not possible. Surveillances performed in accordance with STP V-15 on an 18-month basis to meet the surveillance requirements of TS 4.5.2 action h. ensure that ECCS injection flow for single pump operation is within the TS minimum and maximum flow rates.

Thus, the failure to perform periodic reverse flow inservice testing on SI pump discharge check valves 1-8922A, 1-8922B, 2-8922A, and 2-8922B did not adversely affect the health and safety of the public.

Υ,

n n

۰ ۱ ۱

•

н М

.

			PORT (LER) TEXT C	FINUATION	
FACILITY NAME (1)			DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)
1 '				YEAR SEQUENTIAL REVISION NUMBER NUMBER	
·					l lorl -
DIABL	O CANYON	UNIT 1	0 5 0 0 0 2 7 5	84 - 0 4 7 - 0 0	8 0* 9
TEXT (17)					
2.6			*		
V.	<u>Correcti</u>	<u>ve Actions</u>			
	A. Im	mediate Corrective Ac	tions:		
	On di Ap 2-	April 19, 1993, test scharge check valves ril 19 and 23, 1993, 8922B were tested and	ing was performed demon 1-8922A and 1-8922B are SI pump discharge check d demonstrated satisfact	nstrating that SI pun e leaktight. Betweer < valves 2–8922A and tory results.	וף ו
	B. Co	rrective Actions to F	Prevent Recurrence:		
	1.	A pressure drop t item lists to be forced outage for verify reverse fl 1-8922A, 1-8922B,	est has been added to the performed during a Moder Units 1 and 2. The provide the seating of SI pump of 2-8922A, and 2-8922B.	the unscheduled outag 5 (Cold Shutdown) ressure drop test wil lischarge check valve	je 1 }s
	2.	The IST Program P periodic testing 1-8922A, 1-8922B, procedures will b refueling outages	Plan will state the fund required for SI pump di 2-8922A, and 2-8922B, be revised prior to the	ction and the type of ischarge check valves and the appropriate Units 1 and 2 sixth	;
	3.	The DCPP IST Prog revised and submi safety-related pu with the requirem	ram Plan for the second tted to the NRC. As pa imps and valves will be ients of ASME Section XI	l ten-year period wil art of this process, reviewed for complia	l be Ince
VI.	Addition	<u>al_Information</u>			

A. Failed Components:

None.

B. Previous LERs on Similar Problems:

LER 1-84-044-01, Check Valves Inservice Testing Deficiencies Due to Personnel Error (submitted to the NRC on July 16, 1990)

As a result of review in response to NRC Information Notice 88-70, "Check Valve Inservice Testing Program Deficiencies," PG&E determined that on February 20, 1984, for Unit 1 and on July 19, 1985, for Unit 2, initial entry to Mode 4 (Hot Shutdown) was made without complete inservice testing of certain check valves. Also, on March 3, 1984, for Unit 1 and on July 25, 1985, for Unit 2, initial entry to Mode 3 was made without closure testing of check valves MS-5166 and MS-5167. The check valves were not being tested to verify their safety

. * * * *

LICENS	ENT REPORT (LER) TEX	т С	TINU	ATI	NC				
FACILITY NAME (1)	DOCKE	T NUMBER (2)		YEAR	LER	NUMBER	(6) 2003	REVISION	1	PAGE (3)
					<u>89</u>	NUMBER	જુપુર	NUMBER		
DIABLO CANYON UNIT 1	05		2 7 5	84	- 0	47		0 0	9	of 9
Text(17) function in the XI IST requirer The IST deficie Engineering did these check vai to prevent rect requirements of consistency wit "Guidance on De (2) revising th proper testing reviewing check the GL 89-04 re requirements. Ol could not has since the correc the event date condition desce LER 1-92-001-00 Previously Unic On April 1, 199 of TS 4.0.5, si valve CVCS-8440 Section XI. Th ASME Section XI. previously beer Corrective activalves in the p other valves pe a similar confit condition descer post-LOCA reciv atmosphere; the	closed position ents. ncies were caus not correctly ves in the close rrence included components in h the guidance veloping Accept e IST Program F requirements for valves in the view considered The corrective ve prevented th ctive actions w of this LER, bu ibed in this LE , Violation of entified Check 2, PG&E determin nce volume cont (CB)(V) was not e root cause for IST Program P1 identified. ons to prevent ost-LOCA recircor form a previou guration. This ibed in this ev culation flow p nonconformance e review associ	n in acco sed by a p identify sed positi (1) rev the IST P of NRC Ge able Inse lan to ac or these c IST Progr all appr actions d e event d vere perfo it should R at an e Technical Valve Saf ned that to the exc an was th recurrence all to ac or the exc an was th recurrence ated with	rdance ersonne testing on. Co iewing rogram neric l curatel have ic arlier Specifie escribe have ic arlier Units J (VCT) (C ested i lusion at its e inclu low pat neified ould no se the may po d in th LER 1-	with el end precipreciprecipreciprecipreciprecipreci	ASM roreet to GP configuration fine configuration f	IE Sec Plasments ingurs ensure ingurs ing	tic nt for seven the seven terms of	on on or s i, i i i i i i i i i i i i i i i i i	a tion ME to to to to	

*

. .

, .

Į