Pacific Gas and Electric Company Humboldt Bay Power Plant TOM A. MOULIA Plant Manager 1000 King Salmon Avenue Eureka, CA 95503 707/444-0700

May 15, 1997

PML-97-049



5 4

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

Docket No. 50-133, OL-DPR-7 Humboldt Bay Power Plant, Unit 3 Licensee Event Report 3-97-001-00 Process Monitor Settings

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.73(a)(2)(i)(B), PG&E is submitting the enclosed Licensee Event Report regarding incorrect settings of the process monitor warning and high alarms.

This condition did not affect the health and safety of the public.

Sincerely,

Moulin 1 cm

TOM A. MOULIA

Enclosure

cc: Richard F. Dudley Kenneth E. Perkins Ellis W. Merschoff Humboldt Distribution INPO

HB3-97-QC-N003

9705230009 970515 PDR ADOCK 05000133 S PDR

220039

Jerr

hart of hart & Gold har har & hart & I I that I of the hart of the hart	L	ICENSEE	EVENT	REPORT	(LER)
---	---	---------	-------	--------	-------

CILITYNA	AME (1)	H Ra	U Do	wor D	lant	Lin	it 3						DOCK	T NUMBER		TAT	217	PA	GE (3) OF
	P	roce	yru ses h	Aonito	r Al	arm	n Set	tinas					101	5101	010	111	3 .	5 1 1	
		1000	001	nonne	1 / 1	Carrie	1001	ungo											
ENT DATE	E (6)	VA	LER NUMBER (0) REPORT DATE (7)							Ve 1	EACH	OTH	ER FACILI	TES INVOI	VED (8)	14			
	-+				T	T	-+-	NUMBER	Incar	1001		Phone	IT PROVIDED		I DOCKE	I	1	1 1	1
8	8	97	97	- 0	0	1	-	0 0	5	15	97				+	-+			
RATING DE (9)			THIS RE	PORT IS SUE	MITTED	PURSU	ANT TO T	E REQUIR	EMENTS C	F 10 CFR	17		area and the parameters in some				i	h	
		N									A.,								and a second and a
VER			]			)	ĸ	10 C	FR 5	i0.73(a)	(2)(i)(B)								
10)			1			-	and the state of the	OTH	ER		I=N.M.			CARD DISCOURSE.	them and even to the tax	÷.			
			1			10.000	alize the state	-	-			the same of the local data in the same same	and the state of t	service operations	CONTRACTOR OF THE OWNER	-			
	0	00	1						(	Specif	y in Abs	tract below	and in tex	I, NRC	Form	366A)	ŧ		
	0	00							(	Specif	y in Abs	tract below	and in tex	I, NRC	Form	366A)			
	0	0 0	_						LICEN	Specif	y in Abs	tract below	and in tex	I, NRC	Form	366A)	TELEF	PHONE N	UMBER
avid		o   o	iky, S	Senior	Lice	ensi	ng E	ngine	( LICEN	Specif ISEE COM	y in Abs	tract below	and in tex	I, NRC	Form	366A)	TELEF	HONE N	UMBER 1-080
avid	0 I I So	0   0 okols	iky, S	Senior	Lice		ng E			Specif ISEE com COMPOR	ACT FOR THE	IS LER (12) JRE DESCRIBED	and in tex	0. NRC	Form	AREA ( 70	YELEF	PHONE N	UMBER 1-080
avid		0 0 okols ™	ky, S	Senior	Lice	OMPL	ng E		CICEN CICEN	Specif ISEE COM COMPOR	V IN Abs	IS LER (12) JRE DESCRIBED E SYSTEM	and in tex D IN THIS REPO COMPONE	0. NRC	Form	AREA ( 70	YELEF	PHONE N 444 REPORTS	UMBER 4-080
avid	0 I So Syste	0 0 okols		Senior	Lice			ngine Line Fo	LICEN CI IR EACH PORTABL	Specif ISEE COM COMPOR	ACT FOR THE	IS LER (12) JRE DESCRIBED E SYSTEM	and in tex	1, NRC	Form	AREA ( 7C	TELEF	A44	UMBER 4-080 RDS
avid		0 0 okols ™	ky, s	Senior PONENT	Lice				( LICE EF FORTABL TO NPRDS	Specif ISEE COMPO	VENT FAILL	IR LER (12) URE DESCRIBED E SYSTEM	and in tex	1, NRC	Form Markin	AREAO 7C	YELEP CODE )7	A44	UMBER 1-080 ABLE RDS
avid		0 0	ky, 5					ngine Live FC	( LICEN OR EACH PORTABL	Specif ISEE COM COMPOR	VENT FAILU	IS LER (12)	and in tex	0. NRC	Form MANU		TELEF CODE 07	PHONE N 444 REPORT TO NP	UMBER 4-080 ABLE RDS
avid		0 0 okols ™	iky, S con						( LICEN OR EACH PORTABL	Specif ISEE COMPO	VENT FAILL	IB LER (12) URE DESCRIBED E SYSTEM L EXPE SUBM	DIN THIS REPRICOMPONE	1, NRC	Form MANO	366A)	YELEP CODE )7	PHONE N 444 REPORTS TO NP	UMBER 1-080 ABLE RDS YEA

in Technical Specification V.B.2.b. The process monitor warning alarm should have been set at 1500 counts per minute (cpm), but was found to be set at 41,000 cpm. The process monitor high alarm should have been set at 5000 cpm, but was found to be set at 300,000 cpm. The operator immediately set the alarm settings to the correct values.

The root cause of the event was personnel error, cognitive, in that the operator who incorrectly set the process monitor alarm settings on April 8 read the wrong scale on the monitor. Corrective actions to prevent recurrence include: coaching and counseling the employee as part of the positive discipline program; and revising the test procedure to modify the method by which the alarm settings are verified, and to specify the proper scale to use.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)					DOCKET NUME	BER (2)					LEP. NL	MBER (6)			PAGE (3)
1.1		-					14.		YEAR		SEQUE	ER	REVISION		
TEXT (17)	Bay	Power	Plant, U	Init 3	0 5	0 0	0 1 3	3	197	- 0	0 0	1 -	0 0	2	OF 5
١.	Plan	t Cond	itions												
	Unit	3 14 20	in a SA	ESTO	P dooon	amiania	nina me	de							
	OTHE	S was	III a SM	13101	n decon	11115510	ning mo	ode.							
Ш.	Des	cription	of Prol	blem											
	Α.	Event	Descri	ption:											
		Surve used at 15 setpo stop (HBP) Spec alarm (whic	eillance to set t 00 cour int is re direct d P) proce ification to be s ch is equ	Test P he pro nts pe eached ischar ess mo N.B.2 set at uivaler	Procedur cess mo r minute during ge. The onitor se 2.b. Thi or below at to app	re (STP onitor ( e (cpm) normal e STP 3 stpoints s Tech v 1.0 E proxima	) 3.21.3 WD)(MC and 50 plant o 2.21.3 s remain nical Sp -4 micro ately 26	8, W DN) pera ettin in c pecifi b cur ,500	(eekly warning cpm, re tions, a gs ens omplian cation ies per ) cpm).	Proc g lig auto auto ure nce requ r mil	cess ht a ctive mat Hun with uires lilite	Moni nd hij ely. 1 ic act nbold n Tec the j r (ml)	tor Cher gh alarm f the hig tuation of Bay Po hnical process for Cs-	cks, h sett h ala occur wer moni 137	is ings arm s to Plant itor
		When found 41,00 equiv equiv excee	n a Seni I setting 00 cpm alent to alent to eds the	or Cor gs for and 3 appro appro Techn	ntrol Ope the proc 00,000 eximatel eximatel incal Spe	erator p cess mo cpm, r ly 1.28 ly 9.78 ecificati	performe phitor w respectiv E-4 mic E-4 mir ion limit	ed S arnir vely. cro c co c of 1	TP 3.2 ng and The v uries p uries p .0 E-4	1.3 high valu ber n ber n mic	on / h ala e of nl, a nl, " cro c	April 41,0 nd 30 The la	15, 199 were not 00 cpm 00,000 c atter valu per ml.	7, the ted to is cpm i ue	e as- o be s
		The p other the m has t scale perfo 10K 41,0 300,	from 1 from 1 honitor 1 he select of the rmed th scale. 7 00 cpm	monite O cpm has tw ctor sv monite ne STP The va on the m on t	or has t - 1,00 vo settin vitch se or. On A , he had lue of 1 e 1M sc he 1M s	wo sca 0,000 ngs: 10 t to 1N April 8, d the se 500 cp cale, an scale.	lles: one (1M) cp K and 1 1, and si 1997, alector s om as re d 5000	e from M. M. ets t whe switc ead c cpm	m 1 cp A selec To perf he alar n a diff ch in th on the n on the	m - ctor form ms feren 10K e 10	10,0 swi for 1 for 1 M po sca DK s	000 ( tch (\ P 3.2 the re enior osition le con cale c	10K) cp ND)(HS) 1.3, the adings c Control n, but re rrespond correspo	m, th belo oper on the Oper ad th Is to nds t	ne rator e 1M ator ne o
	В.	Disco	overy:												
		When found 41,0 cpm, to th	n a Seni d setting 00 cpm respec e correc	ior Cor gs for and 3 tively. ct valu	the proc 00,000 The Se es in ac	erator ( cess mo ) cpm, ( enior Co cordan	perform onitor w respectiontrol O ce with	ed S arnin vely pera STP	TP 3.2 ng and instea tor imr 3.21.3	1.3 higi ad o med 3.	on l h ala f 15 iatel	April arms o 00 cp y set	15, 199 were no om and l the alar	7, th ted to 5000 m se	e as- o be ttings
	C.	Inope	erable S	tructu	res, Cor	mponer	nts, or S	yste	ms tha	at Co	ontri	buted	to the	Even	t:
		None													

5

LICENSEE EVENT I	REPORT	(LER)	TEXT	CONTINUATION	4
------------------	--------	-------	------	--------------	---

FACILITY NAME (1)		anan dina dan karang dina karang dan yang menangkan dan karang dan karang dan karang dan karang dan karang dan Karang dina dan karang dina dan karang dan karang dan karang dina dan karang dina karang dina karang dina karang	DOCKET NUMBER (2)		1	ER NUMBER (	(8)			PAGE (3)							
	-			YEAR	S	EQUENTIAL NUMBER		REVISION		Last							
Humboldt	Bay	Power Plant, Unit 3	0 5 0 0 0 1 3 3	3 97	- 0	0 1	-	0 0	3	OF 5							
	D.	Dates and Approxi	mate Times for Major Oc	currenc	ces:												
		April 8, 1997:	Event Date: A Senior Control Operator performed STP 3.21.3, misread the process monitor scale and incorrectly set the process monitor warning and high alarm settings.														
		April 15, 1997.	Discovery Date: A performed STP 3.2 for the process mo found to be incorre immediately set the in accordance with	Discovery Date: A different Senior Control Operator performed STP 3.21.3 and noted the as-found settings for the process monitor warning and high alarms were found to be incorrect. The Senior Control Operator immediately set the alarm settings to the correct values in accordance with STP 3.21.3.													
	E.	Other Systems or	Secondary Functions Affe	ected:													
		None.															
	F.	. Method of Discovery:															
		When a Senior Confound settings for 41,000 cpm and 3 cpm, respectively.	ontrol Operator performed STP 3.21.3 on April 15, 1997, the as- r the process monitor warning and high alarms were noted to be 300,000 cpm, respectively, instead of 1500 cpm and 5000														
	G.	Operator Actions:															
		Upon discovery, the Senior Control Operator set the alarm settings to the correct values in accordance with STP 3.21.3.															
	н.	Safety System Responses:															
		None.															
111. 9	Caus	e of the Problem															
	Α.																
		The immediate ca Operator read the points.	use of this event was det wrong scale on the proce	ermined Iss mor	d to be hitor w	e that t hen su	the	Senior ng the a	Con alarm	trol n set							

1 it

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY HAME (1)	DOCK	DOCKET NAMBER (2)							1	PAGE (3)									
				÷.,	9.	. 13			YEAR		S	EQUENT	SAL R		RE	MBER			
Humboldt Bay Power Plant, Unit 3	0	5	0	0	0	1	3	3	97	-	0	0	1	-	0	0	4	OF	5

#### B. Root Cause:

The root cause of this event was determined to be personnel error, cognitive, in that the Senior Control Operator read the wrong scale on the process monitor when setting the alarm set points.

## C. Contributory Cause:

A contributing cause of this event was identified to be a procedure weakness in that STP 3.21.3 did not clearly identify the appropriate scale for the operator to use when setting the alarm set points.

### IV. Analysis of the Event

During the period of April 8-15, 1997, the liquid release pathway monitor alarm was set at 300,000 cpm, which is equivalent to a radwaste concentration of 9.78 E-4 mirco curies per ml and is a factor of 10 above the Technical Specification V.B.2.b process monitor alarm setpoint limit of 1.0 E-4 micro curies per ml for Cs-137.

While the monitor alarm setpoint was outside the Technical Specification V.B.2.b limit during the period of April 8-15, it was still capable of performing its function of terminating any liquid release prior to exceeding the Technical Specification VI.B.1.a 10CFR20 APP B effluent limits. This is because of conservatisms in the setpoint requirement and circulator dilution of the liquid radwaste stream during the period.

In addition, all liquid discharges that occurred during this period were monitored for levels of activity by sampling and by a process monitor with a strip chart recorder output that was functional. A review of the strip chart recorder and the batch and composite sample analysis results indicate that the activity levels in the liquid releases during the period of April 8-15, 1997, were well below the Technical Specification VI.B.1.a 10CFR20 APP B effluent concentration limits for liquid radioactive waste discharges at the site boundary.

For example, the Technical Specification VI.B.1.a and 10CFR20 APE 2 effluent concentration limit for Cs-137 is 2.0 E-5 micro curies per ml. In comparison the Cs-137 concentration of the single radwaste batch released during the period was 3.02 E-6 micro curies per ml, and the caisson sump direct discharge composite samples were less than 1.3 E-8 micro curies per ml. Furthermore, the review of the strip chart recorder indicated that no liquid discharges during this period exceeded approximately 3.0 E-6 micro curies per ml. These levels were also consistent with, and did not deviate from, the normal acceptable levels that occurred during the previous weeks.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)				DOCKET NU	BER (2)						LE	R NUMBER	(6)			PAG	(3)
									YEAR	T	SEC	UMBER	T	REVISION			
Humboldt	Bay I	Powerl	Plant, Unit 3	0 5	010	101	13	13	97	-	0	0 1	1	0 0	5	10	15
TEXT (17)	Base by th	ed on ti his eve	ne above info nt.	ormation	n, the	heal	th an	d sa	fety	of t	he p	ublic	We	re not	affe	cted	
V.	Corre	e <u>ctive</u> /	Actions														
	Α.	Imme	diate Correct	ive Act	ions:												
		1.	The process	s monit	or wa	irning	and	high	alar	m s	ettin	ngs w	ere	reset	corre	ectly	
		2.	All operator monitor wa	rs were rning ar	re-ed nd hig	ucati Ih ala	ed on Irm se	the	prop gs.	er r	neth	od to	) SE	ot the p	roce	SS	
		3.	A shift orde verify the c changed. T Action to P	er was s orrect s This is a revent l	sent t setting n inte Recur	o shi gs foi erim i rence	ft fore r proc measu e B.2	eme ess ure t is in	n req mon to rer nplen	uirin itor nair nen	ng th alar n in p ted.	nem 1 ms a place	to ii nyt un	ndepen ime the til Corr	dent ey ar ectiv	ly e ve	
	В.	Corre	ctive Actions	to Prev	vent F	Recur	rence	:									
	<ol> <li>Discussed the event with the responsible employee. Coached and counseled the employee as part of the positive discipline program.</li> </ol>																
		2.	Revise STP process mo	3.21.3 nitor hi	to re gh ala	quire arm s	an in etting	ndep Is ai	ende e ch	nt v ang	/erifi ed.	catio	n v	vhenev	er		
		3.	Revise STP to use whe	3.21.3 n settin	to cl g the	early alarr	ident n set	ify 1 poir	the a	ppro	opria	ite so	ale	for the	e ope	erato	or
		4.	Review oth Specificatic similar to th and B.3.	er STPs ons to d nose de	that eterm scribe	cont nine i ed in	ain al f thes Corre	arm e of ctiv	setti her p e Act	ings proc tion	req edur s to	uired res re Prev	by equi	Techn re moo Recurr	ical lifica ence	tion B.2	s
VI.	Addi	tional I	nformation														
	Α.	Failed	Component	S:													
		None.															
	Β.	Previo	ous LERs on t	Similar	Event	S:											
		None															

- 1- 1- 1-