

Log # TXX-90201 File # 10200 916 Ref. # 50.73 (a)(2)(i)

June 19, 1990

W. J. Cahili Executive Vice President

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

COMANCHE PEAK STEAM ELECTRIC STATION SUBJECT: DOCKET NO. 50-445 OPERATION PROHIBITED BY TECHNICAL SPECIFICATIONS LICENSEE EVENT REPORT 90-015-00

Gentlemen:

Enclosed is Licensee Event Report 90-015-00 for Comanche Peak Steam Electric Station Unit 1, "Missed Chemistry Sample Special Condition Surveillance Due to Procedural Deficiency."

Sincerely,

William J. Cahill, Jr.

KWV/daj

Enclosure

c - Mr. R. D. Martin, Region IV Resident Inspectors, CPSES (3)

9006220177 900619 PDR ADOCK 05000445

PDC

400 North Olive Street LB 81 Dallas, Texas 75201

indiosure	to	TXX-90201	
			- Contraction of the Contract of the Contract

								U.D.	NUCLES	AN NEO	ULATON	COMMISSION	ESTIMAT GOLLEC	ED BU	URDEN REQU	APPRC N PER I EST:	EXPI EXPI 50.0 H	OMB NO RES: 4/3 DNSE TC HRS. FO	0.3150 10/92 0 COM	PLY W	TH THIS	INFOF	
		LIC	CEN	SEE	EV	'Et	NT F	REP	ORT	(LE	R)		BURDEN BRANCH DC. 2055 OFFICE (EST (P-53 55, AM OF MA	IMATI N), U.I ND TO NAGE	E TO B. NUC THE F	THE LEAR PAPER	RECORD REGULI RWORK NUDGET,	ATORY REDL WAS	ND RE Y COMI JCTION HINGTO	PORTS MISSION PROJE	MANA WASH UT (31 20503.	GEMEN1 (ING TON 50-0104)
Facility N	Name ((1)											Dooket N	umber	(2)	~ 1 /			1.5	F	Pa	pe (3)	
Title (4)	<u>VN</u>	ANG	THE	PE/	10 -	0	NILL						TUIS	211	211	211	1.	114	15		1		/ 10
MISS Event	ED	CHE	MIST	RYS	RNumb	PLE	E SP	ECIA	AL CC	NDI	TION	SURVEILI	ANCE	DL	JE T Othe	O P	ROC ies Inv	CEDL	JRA	LDE	FICI	ENC	<u>Y</u>
Month	Day	Year	Year		Numb	tial or	2.2	evision umber	Month	Day	Year		Facility Nat N/A	TIOS			00	oket Nur D 5	10	10	101	1	1
015	10	010	010		11	15		10	alo	110	010				J. De F		T	015	10	10	101	1	1
Operating	10	1210	This re	moort is	submitte	ed pu	insuant	to the re	quiremer	nts of 10	CFR	Check one or mo	ne of the fo	liowin	g) (11)			~ ~	1.2	<u> </u>	1.01		
(10)	01	218	20	.405(a)(.405(a)(.405(a)(.405(a)(1)(ii) (1)(iii) 1)(iv) (1)(v)			50.36 50.73 50.73 50.73	(c) (2) (a) (2) (i) (a) (2) (ii) (a) (2) (iii)	icenser	Contact	50.73(a)(2)(v 50.73(a)(2)(v 50.73(a)(2)(v 50.73(a)(2)(v 50.73(a)(2)(x	ii) ₩3(A) ₩3(B))		F	Othe	r (Sper	oity in Ab Form 30	stract 56A)	below i	and in Te	x1,	
Name														F	1	Forda		Telepho	ne Nu	nber			
rearra															- i -		7 6			1	151	41	717
GAR	RY	P.M	CGE	E			SL	IPE	RVIS	OR.	CO	MPLIAN	DE	3	31	11.1	1.5	319	17	1-			
GAR	RY Tsyst	P.M	Compor	EE	Man	utacti	SL	Com	RVIS	OR.	CO r Each Co	APLIAN moonent Failure Cause	Described System	in Thi	s Repo	ort (13) ent	Ma	nutacture	. T	Repo	nable		
GAE	RY Syst	P. M	Compor	E	Man	utacti	SL	Come Rep To N	RVIS plete One ontable (PRDS	OR.	CO r Each Co	MPLIAN(imponent Failure Cause	Described System	in Thi	s Repo	ent	Ma	nutacture		Repo To NF	nable PRDS		
GAE	BY Syst	P. M		E Ionx	Man	utacti		Comp Rep To N	RVIS plete One ortable (PRDS		CO r Each Co	MPLIAN(imponent Failure Cause	Described System		s Repo	ent	ма 	nutacture		Repo To NF	nable PRDS		
GAE	Syst	P. M		ent	Man	utacti	SL urer	Com Rep To N	RVIS plete One ortable (PRDS	Line Fo	r Each Co	Cause	Described System		s Repon	ont (13)	Ma Exp	nutacture		Repo To NF	nable PRDS		Year
GAE Cause	BY Syst	P. M		E Iont	Man 	Utacti L Date)	SL urer	Comp Repu To N	Suppleme	OR Line Fo	CON r Each Co	Cause	Described System		s Repo ompon	on (13) ont	Ma I Exp Subr Dat	nutacture		Repo To NF	nable PRDS		Year

Technical Specification (TS) 4.4.7, "Reactor Coolant System Specific Activity", Table 4.4-1 requires that a sample of reactor coolant for isotopic analysis is to be taken between two and six hours following a change exceeding 15 percent of rated thermal power (RTP) within a one hour period. Changes in excess of 15

approximately 10 percent. The test was completed at 0915 on May 21.

percent of RTP within a one hour period occurred due to the testing on 8 occasions. TS 4.4.7, Table 4.4-1 surveillance requirements were not met within the required time frame on 4 of the occasions.

The missed surveillances were due to a procedural deficiency. Corrective actions include revising the test procedure to provide the appropriate cautions regarding the required sample.

NRC FORM 366A	CENSEE EVENT	U.S. NUCLEAR REGULATORY COMMISSION REPORT (LER) NUATION	ESTIMA COLLEC BURDE BRANCI DC. 201 OFFICE	TED BI DTION N EST H (P-53 555, AM OF MA	APPRO URDEN PER R REQUEST: IMATE TO T IO: U.S. NUGL ND TO THE P INAGEMENT A	VED OMI EXPIRE ESPONS 50.0 HRS HE REC EAR REC APERWO	B NO. 3150- SE 4/30/92 SE TO COMF DE FORWAR CORDS AN BULATORY DRK REDUI GET, WASH	DIDA DEV WITH T DE COMME DE REPOR COMMISS CTION PR INGTON, D	THIS INF INTS RI ITS MA IKON, WA OJECT IXC. 2050	ORMATION EGARDING NAGEMENT ISHINGTON, (3150-0104). 3.
Facility Name (1)		Docket Number (2)	-	L	ER Number (6)				Page (3	1
			Year		Number		Number			
COMANCHE	PEAK - UNIT 1	015101010141415	910	-	0111	5 -	010	012	OF	018
I. DES	CRIPTION OF TH									

A. PLANT OPERATING CONDITIONS BEFORE THE EVENT

On May 20, 1990 at 0930, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operation, at approximately 28 percent power.

B. STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

Not applicable - no structures, systems or components were inoperable at the start of the event have been determined to have contributed to the event.

C. REPORTABLE EVENT CLASSIFICATION

Any operation or condition prohibited by the plant's Technical Specifications.

D. NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATE AND APPROXIMATE TIMES

On May 20, 1990 at 0338, testing was initiated to verify the capacity of the Steam Dump System (EIIS:(SB)). This test involves opening the valves (EIIS:(PCV)(SB)) in each steam dump bank, while maintaining the Main Generator (EIIS:(EL)) output constant, and measuring the change in nuclear power as the valves are stroked from a full closed position to a full open position. The procedure states that opening each steam dump bank individually should result in a nuclear power increase of approximately 10 percent. The test, which was completed at 0915 on May 21, is conducted one time only during initial power ascension.

As a result of the Steam Dump Valve testing conducted on May 20 and 21, power changed in excess of 15 percent of rated thermal power (RTP) within one hour on eight separate occasions. Technical Specification 4.4.7 (TS), "Reactor Coolant System Specific Activity", Table 4.4-1 requires that a sample of reactor coolant for isotopic analysis to be taken between two and six hours following a change exceeding 15 percent of RTP within a one hour period. The isotopic analysis is for I-131, I-133 and I-135.

Enclosure to TXX-90201 U.S. NUCLEAR REGULATORY COMMISSION NRC FORM 366A APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING LICENSEE EVENT REPORT (LER) BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEME. BRANCH (P 530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON TEXT CONTINUATION DC. 20555, AND TO THE PAPERWORK REDUCTION PROJECT (9150-0104) OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC. 20503. LER Number (6) age (3 Docket Number (2) Facility Name (1) OF COMANCHE PEAK - UNIT 1 0 5 0 0 0 4 4 4 5 910 0 010 Following four of the eight power changes, chemistry samples were not obtained as required by TS 4.4.7 special condition surveillance. The missed surveillances occurred at 0935, 1055, 1219 and 2125 on May 20. Chemistry samples were obtained following four of the eight power changes which met TS 4.4.7 requirements. E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE OR PROCEDURAL OR PERSONNEL ERROR Staff Chemists (utility, nonlicensed) were informed by Station Nuclear Engineering personnel (utility, nonlicensed) on May 21 at 1000 that the plant had experienced significant power changes on May 20. The Staff Chemists reviewed reactur power history for May 19 and May 20 and discovered that two TS special condition surveillances were missed. Further review of the information revealed that a total of four TS special condition surveillances were missed. 11. COMPONENT OR SYSTEM FAILURES A. FAILURE MODE, MECHANISM AND EFFECT OF EACH FAILED COMPONENT Not applicable - there were no component failures which contributed directly to this event. B. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE Not applicable - there were no component failures which contributed directly to this event. C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable - there were no component failures which contributed directly to this event.

NRC FORM 966A	LICENSEE	EVENT R	U.S. NUCLEAR REGULATOR EPORT (LER) UATION	IY COMMISSION	ESTIMATED COLLECTIO BURDEN E BRANCH (P. DC. 20655, OFFICE OF I	BURDEN N REQUE STIMATE 530), U.S AND TO MANAGEN	PPROVED EXP PER RESP ST: 60.0 TO THE NUCLEAR THE PAPE MENT AND I	OMB NO IRES: 4/3 ONSE TO HRS. FO RECOR RECOR RECOR RECOR RECOR RECOR RECOR	0.3150-0 10/92 DORWAR DS AN ATORY REDUC	DIDA DI WITH T DI COMME DI REPOR COMMISS DTION PRO INGTON, D	HIS INFO NTS RE ITS MAP ION, WA DJECT (IC. 2050)	DRMATION GARDING VAGEMENT SHINGTON 9150-0104) 3
Facility Name (1)		D	looket Number (2)		Yan I	LER Num	ber (6) ential	INNEE THE	VISION		Page (3)	
						Nu	nter I F	N	inter.			~ 10
COMANC	HE PEAK	- UNII 11	0151010101	41415	19101-	101	115	-10	10	1014	TOP	010
Text (it more space i	s required, use additio	INALINHO Form 366A	s) (17)									

D. FAILED COMPONENT INFORMATION

Not applicable - there were no component failures which contributed directly to this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable - there were no safety systems required to respond during this event.

B. DURATION OF SAFETY SYSTEM INOPERABILITY

Not applicable - there were no safety systems rendered inoperable.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

The purpose of the isotopic analysis of the reactor coolant sample for I-131, I-133 and I-135 required by TS following changes exceeding 15 percent of RTP in a one hour period is only to assess the parameters associated with the lodine spiking phenomena which may occur following changes in thermal power.

Although sampling the reactor coolant for isotopic analysis was missed on four occasions on May 20, the results of the five samples taken on May 20 and May 21 were within TS 3.4.7 limits for gross activity.

Based on the above, the event did not adversely affect the safe operation of CPSES Unit 1 or the health and safety of the public.

NRC FORM 966A LICENSEE TEX	U.S. NUCLEAR REGULATORY COMMISSION EVENT REPORT (LER) CONTINUATION	ESTIMATE COLLECTIK BURDEN BRANCH (DC. 20555 OFFICE C	D BURI ON RE ESTIM P-530). , AND F MAN	APP DEN PE OUEST ATE TI U.S. N TO TH NGEMEN	PROVE EN R RES 50 D THI UCLEA E PAP	D OMI PIRES PONS D HRS E REC NR REC PERWO D BUD	B NO. 311 S 4/30/92 JE TO CO S. FORW CORDS GULATO DRK REI GET, WA	MPLY W ARD CO AND R RY CON SUCTIO	VITH T DAME EPOR IMISSI N PRO	HIS INF NTS RI TS MA KON, WA DJECT IC. 2050	ORMATION EGARDING NAGE MEN ISHINGTOI (3150-0104 3.
Facility Name (1)	Docket Number (2)		LER	Numbe	(6)			T		Page (3	5
		Year		Numb	tial M		Revisio	2			
COMANIQUE DEAK	LINITIOISIOIOIALAIS	19101-	-10	1	15	-	1010	10	15	OF	018

IV. CAUSE OF THE EVENT

ROOT CAUSE

The root cause of the missed surveillances for the changes in excess of 15 percent of RTP within one hour on May 20 was due to the procedure governing the steam dump capacity test being deficient. The procedure review criteria stated that the steam dump capacity would increase by 10 +/- 2 percent on each bank of valves with generator output fixed. However, unforseen changes greater than 15 percent of RTP occurred during the testing and the procedure did not contain information to "trigger" the special condition surveillance.

Contributing Factor - 1

Unit Supervisor (utility, licensed) involved in portions of the testing was aware of changes occurring in power but did not associate those power changes with the need to perform reactor coolant analysis for lodine. The failure to identify the need for a sample is a cognitive personnel error.

Contributing Factor - 2

Misunderstood verbal communication contributed to the missed surveillance at 2125 for the change greater than 15 percent of RTP that occurred between 1455 and 1525 on May 20. A Unit Supervisor informed the Chemistry Technician at 1910 on May 20 that a change greater than 15 percent of RTP within one hour occurred at 1504. The Chemistry Technician had taken a sample at 1720 due to a four hour frequency sampling program which met the TS requirement also. However, the time of the change provided by the Unit Supervisor was the onset of the power change and not after the change of 15 percent of RTP within one hour was exceeded which occurred at 1525. Therefore, an additional sample should have been taken after 1725 and prior to 2125.

LICENSEE EVENT TEXT CONTI	REPORT (LER)	ESTIMA COLLEC BURDEL BRANCH DC. 205 OFFICE	TED E TION N ES H (P-5 55, A OF M	BURDE REQU TIMAT 30), U. ND TC ANAGE	APPA N PER JEST: E TO S. NUC D THE EMENT	OVED ON EXPIRI RESPON 50.0 HF THE RI CLEAR RI PAPERV AND BU	AB NO. 315 55.4/20/92 ISE TO COM IS. FORWA CORDS A EQULATOR VORK RED DOET, WAS	HOLY WITH RD COMMI ND REPOI Y COMMISS UCTION PF	THIS INF ENTS R RTS MA SION, WI IOJECT DC. 2050	ORMATION EGARDING NAGEMENT ASHINGTON, (3150-0104).
Facility Name (1)	Docket Number (2)	Year		ER Nu	mber (f	5)	Revision	 	Page (3	9
COMANCHE PEAK - UNIT 1	015101010141415	910	-	0	1	5 -	010	1016	OF	018

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

The on-shift licensed operators were informed by Operations staff of the missed special condition surveillances and were reminded to remain cognizant of power changes and the need to perform reactor coolant analysis for lodine to meet TS requirements.

B. Corrective Actions to Prevent Recurrence

Root Cause

Unforseen changes greater than 15 percent of RTP within one hour occurred during the testing and the test procedure did not contain a caution to "trigger" the special condition surveillance.

Corrective Action

The test procedure on steam dump valves capacity will be revised to include a "trigger" to the special condition surveillance to ensure inclusion in Unit 2 testing.

Contributing Factor - 1

Unit Supervisor involved in the testing was aware of changes occuring in power but did not associate those power changes with the need to perform reactor coolant analysis for lodine.

Corrective Action

The Unit Supervisor has been counselled on the importance of remaining cognizant of power change and the need to perform reactor coolant analysis for lodine to meet TS requirements. To provide additional awareness, this Licensee Event Report will be reviewed by on-shift licensed operators.

NRC FORM 386A LICENSEE TEXT	U.S. NUCLEAR REGULATORY COMMISSION EVENT REPORT (LER) CONTINUATION	ESTIMA COLLEG BURDE BRANC DC. 20 OFFICE	HED B DTION N ES H (P-6 555, A OF M	APPI REQUEST: TIMATE TO 30). U.S. NU ND TO THE ANAGEMEN	ROVED EXP 50.0 THE ICLEAR PAPE T AND	OMB IRES ONSE HRS. REC REC REC REC REC REC	NO. 3150-1 4/30/92 FORWARI ORDS AN ULATORY RK REDUC	DIDA DICOMME DICOMME DIREPOR COMMISS DTION PR INGTON, I	THIS INF INTS R ITS MA INN, WI OJECT CO. 2050	ORMATION EGARDING NAGEMENT ISHINGTON, (3150-0104). S.
Facility Name (1)	Dookel Number (2)		L	ER Number	(6)				Page (3)
		Year		Numbe	a		Number		1.50	
COMANCHE PEAK .	UNIT 1 0 5 0 0 0 0 4 4 5	1910	-	011	15	-	010	017	OF	018
Contribut	ting Factor - 2									

Misunderstood verbal communication between the Unit Supervisor and the Chemistry Technician.

Corrective Action

The test procedure revision identified in corrective action to the root cause will include a requirement for Operations personnel to inform Chemistry personnel of the time period the reactor coolant sample is to be taken to meet TS 4.4.7 surveillance requirements.

C. ACTION TAKEN ON GENERIC CONCERNS IDENTIFIED AS A DIRECT RESULT OF THE EVENT

Generic Implication

Other plant procedures may exist that the procedure performance could result in a missed special condition surveillance due to the lack of an adequate "trigger" such as the special condition surveillance on changes in excess of 15 percent of RTP within one hour.

Corrective Action

- Placards have been placed on the control boards above the Control Rod In-Hold-Out switch (EIIS: (HS)(AA)) and below the generator demand panel. The placards caution the Operator to notify Chemistry of changes in excess of 15 percent of RTP within a one hour period.
- Operation and test procedures will be reviewed and revised as necessary to include a "trigger" to the special condition surveillance if the potential of a change in excess of 15 percent of RTP within one hour exists.
- A review will be conducted for the adequacy of "triggers" currently in place for special condition surveillances. The procedures will be revised as necessary. Administrative procedures will be revised to require Operations personnel to include time requirements as necessary when requesting support from other departments.

TEXT CONTINUATION BRANCH (P-530), U. DC. 20555, AND TO OFFICE OF MANAGE	E TO THE REGULATORY COMMISSION, WASHINGTON S. NUCLEAR REGULATORY COMMISSION, WASHINGTON D THE PAPERWORK REDUCTION PROJECT (3150-0104) EMENT AND BUDGET, WASHINGTON, DC. 20503.
Facility Name (1) Docket Number (2)	Page (3)
	Number
COMANCHE PEAK - UNIT 1 0 5 0 0 0 4 4 5 9 0 - 0	115-010018 OF 018

VI. PREVIOUS SIMILAR EVENTS

LER 90-005-00 and LER 90-010-00 involved missed special condition surveillances. However, the specific causes of the events and the specific cause of the event described in this LER were sufficiently different such that the corrective actions for LER 90-005-00 and LER 90-010-00 were not applicable to the event described in this LER.

VII. ADDITIONAL INFORMATION

The times listed in the report are approximate and are Central Daylight Savings Time.