



TU ELECTRIC

Log # TXX-92154
File # 10200
Ref. # 10CFR50.73(a)(2)(1)

April 10, 1992

William J. Cahill, Jr.
Group Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
CONDITION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 92-006-00

Gentlemen:

Enclosed is Licensee Event Report 92-006-00 for Comanche Peak Steam Electric Station Unit 1, "Missed Nuclear Instrumentation Power Range P-9 Interlock Surveillance Due to Personnel Error."

Sincerely,

William J. Cahill, Jr.
William J. Cahill, Jr.

By: *Roger D. Walker*
R. D. Walker
Manager of Nuclear Licensing

UB/tg

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (2)

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NRC FORM 308		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES: 4/30/92	
LICENSEE EVENT REPORT (LER)				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-590), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC. 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC. 20503.	
Facility Name (1) COMANCHE PEAK-UNIT 1				License Number (2) 05000445	Page (3) 1 of 106
Title (4) MISSED NUCLEAR INSTRUMENTATION POWER RANGE P-9 INTERLOCK SURVEILLANCE DUE TO PERSONNEL ERROR					
Event Date (5)		LER Number (6)		Report Date (7)	
Month	Day	Year	Year	Sequence Number	Revision Number
03	11	92	92	006	00
				Month Day Year	
				04 10 92	
Operating Mode (9) 1		This report is submitted pursuant to the requirements of 10 CFR § . (Check one or more of the following) (11)			
Power Level (10) 100		<input type="checkbox"/> 20.402(b) <input type="checkbox"/> 20.405(a)(1)(i) <input type="checkbox"/> 20.405(a)(1)(ii) <input type="checkbox"/> 20.405(a)(1)(iii) <input type="checkbox"/> 20.405(a)(1)(iv) <input type="checkbox"/> 20.405(a)(1)(v)		<input type="checkbox"/> 20.405(c) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.36(c)(2) <input checked="" type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(iii)	
				<input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(vi) <input type="checkbox"/> 50.73(a)(2)(vii)(A) <input type="checkbox"/> 50.73(a)(2)(vii)(B) <input type="checkbox"/> 50.73(a)(2)(x)	
				<input type="checkbox"/> 73.71(b) <input type="checkbox"/> 73.71(c) Other (Specify in Abstract below and in Text, NRC Form 308A)	
Licensee Contact For This LER (12)					
Name D. E. BUSCHBAUM, COMPLIANCE SUPERVISOR				Area Code Telephone Number 817 897-5851	
Complete One Line For Each Component Failure Described in This Report (13)					
Cause	System	Component	Manufacturer	Reportable To NPRDS	
				N	
Supplemental Report Expected (14)				Expected Submission Date (15)	Month Day Year
<input type="checkbox"/> Yes (If yes, complete Expected Submission Date)				<input checked="" type="checkbox"/> No	
Abstract (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)					
<p>In August, 1989, four surveillance work orders (SWO) were performed to meet the surveillance requirements for the nuclear instrumentation power range channels (N41, N42, N43, N44). One of the SWOs failed to include calibration instructions for the P-9 interlock; channel N41. On June 26, 1990, CPSES Unit 1 initially reached 50 percent power. On May 3, 1991 an SWO was performed on channel N41, which included P-9 calibration instructions. The "As Found" data for the N41 P-9 bistable was within the calibration range. The P-9 interlock surveillance for N41 was not performed prior to reaching 50 percent power.</p> <p>The root cause of the event was failure of personnel to properly update procedure files checkout cards. Corrective action includes a review of this event by all I&C Maintenance personnel.</p>					

NRC FORM 366A		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES: 4/30/92	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.	
Facility Name (1)	Docket Number (2)	LER Number (6)		Page (3)	
COMANCHE PEAK-UNIT 1	0500044592	Year	Sequential Number	Revision Number	
			006	000	02 OF 06
Text (If more space is required, use additional NRC Form 366A's) (17)					
I. <u>DESCRIPTION OF THE REPORTABLE EVENT</u>					
A. <u>REPORTABLE EVENT CLASSIFICATION</u>					
Any operation or condition prohibited by the plant's Technical Specifications.					
B. <u>PLANT OPERATING CONDITIONS PRIOR TO THE EVENT</u>					
On March 11, 1992, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operation, operating at 100 percent power.					
C. <u>STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT</u>					
There were no inoperable structures, systems or components that contributed directly to the event.					
D. <u>NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES</u>					
CPSES Technical Specification (TS) surveillance requirement 4.3.1.1 requires each Reactor Trip System (EIS: (JC)) instrumentation channel and interlock and the automatic trip logic to be demonstrated OPERABLE at least once per 18 months.					
In August, 1989, four surveillance work orders (SWO) were performed to meet the surveillance requirements for the nuclear instrumentation power range channels (N41, N42, N43, N44) (EIS: (CH/A)(JC)). Two of the SWOs failed to include calibration instructions for the P-9 interlock; channels N41 and N43. These tests were performed as part of the surveillance program, in support of startup testing of CPSES Unit 1, prior to licensing.					
On December 21, 1989, an SWO was performed on channel N43, which included P-9 calibration instructions. The "As Found" data for the N43 P-9 bistable was within the calibration range.					

NRC FORM 300A		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRED: 4/30/92	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.	
Facility Name (1)	Docket Number (2)	LER Number (6)			Page (3)
COMANCHE PEAK-UNIT 1	05000445	Year	Sequential Number	Revision Number	
		92	- 006	- 00	03 of 06
Text (If more space is required, use additional NRC Form 300A's) (17)					
<p>On February 8, 1990, CPSES Unit 1 received its license and began initial power ascension, entering Mode 1 on April 19, 1990. On June 26, 1990, CPSES Unit 1 reached 50 percent power.</p> <p>On May 3, 1991, an SWO was performed on channel N41, which included P-9 calibration instructions. The "As Found" data for the N41 P-9 bistable was within the calibration range.</p> <p>E. <u>THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE, OR PROCEDURAL OR PERSONNEL ERROR</u></p> <p>On March 11, 1992, during the performance of a TS surveillance audit, the Quality Assurance (QA) specialist (utility, nonlicensed) conducting the audit noted that the N41 P-9 interlock surveillance had not been performed prior to the initial startup of CPSES Unit 1. The QA specialist promptly documented his finding via the appropriate plant procedure.</p> <p>II. <u>COMPONENT OR SYSTEM FAILURES</u></p> <p>A. <u>FAILURE MODE, MECHANISM, AND EFFECT OF EACH FAILED COMPONENT</u></p> <p>Not applicable - there were no component failures associated with this event.</p> <p>B. <u>CAUSE OF EACH COMPONENT OR SYSTEM FAILURE</u></p> <p>Not applicable - there were no component failures associated with this event.</p> <p>C. <u>SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS</u></p> <p>Not applicable - there were no failed components with multiple functions that affected this event.</p>					

<small>NRC FORM 306A</small> LICENSEE EVENT REPORT (LER) TEXT CONTINUATION		<small>U.S. NUCLEAR REGULATORY COMMISSION</small> <small>APPROVED OMB NO. 3150-0104</small> <small>EXPIRES: 4/30/92</small> <small>ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION</small> <small>COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING</small> <small>BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT</small> <small>BRANCH (P-500), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON,</small> <small>DC, 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104)</small> <small>OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC, 20503.</small>													
<small>Facility Name (1)</small> COMANCHE PEAK-UNIT 1	<small>Docket Number (2)</small> 05000445	<small>LER Number (6)</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"><small>Year</small></td> <td style="width: 10%;"></td> <td style="width: 10%;"><small>Sequential Number</small></td> <td style="width: 10%;"></td> <td style="width: 10%;"><small>Revision Number</small></td> <td style="width: 10%;"></td> </tr> <tr> <td>92</td> <td>-</td> <td>006</td> <td>-</td> <td>00</td> <td>04</td> </tr> </table>	<small>Year</small>		<small>Sequential Number</small>		<small>Revision Number</small>		92	-	006	-	00	04	<small>Page (3)</small> 4 OF 6
<small>Year</small>		<small>Sequential Number</small>		<small>Revision Number</small>											
92	-	006	-	00	04										

Text (If more space is required, use additional NRC Form 306A's) (17)

D. FAILED COMPONENT INFORMATION

Not applicable - there were no component failures associated with this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable - there were no safety system actuations associated with this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

Not applicable - there were no safety systems which were rendered inoperable due to a failure.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

OPERABILITY of the Reactor Trip System instrumentation and interlocks ensures that: (1) the associated ACTION and/or Reactor trip will be initiated when the parameter monitored by each channel or combination thereof reaches its Setpoint (2) the specified coincidence logic and sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance consistent with maintaining an appropriate level of reliability of the reactor protection and engineered safety features instrumentation, and (3) sufficient system functional capability is available from diverse parameters.

OPERABILITY of these systems provides the overall reliability, redundancy, and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the safety analyses. The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability.

NRC FORM 966A U.S. NUCLEAR REGULATORY COMMISSION	APPROVED OMT NO. 3150-0104 EXPIRATION: 4/5/92 ESTIMATED BURDEN FOR RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC, 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC, 20503.
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION	

Facility Name (1)	Docket Number (2)	LER Number (6)	Page (3)						
COMANCHE PEAK-UNIT 1	05000445	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Year</td> <td style="width: 10%;">Sequential Number</td> <td style="width: 10%;">Revision Number</td> </tr> <tr> <td>92</td> <td>-006</td> <td>-00</td> </tr> </table>	Year	Sequential Number	Revision Number	92	-006	-00	05 of 06
Year	Sequential Number	Revision Number							
92	-006	-00							

Text if more space is required, use additional NRC Form 966A's (17)

The P-9 interlock enables a reactor (EIS: (AB)) trip on a turbine (EIS: (TA)) trip at power levels greater than or equal to 50 percent. The turbine trip/reactor trip is considered an anticipatory trip at these power levels. No credit is taken for this trip in the Final Safety Analysis Report, Accident Analysis, Chapter 15. At power levels less than 50 percent, the P-9 interlock blocks an automatic reactor trip on a turbine trip. Less than 50 percent power the turbine trip/reactor trip is not required due to the load rejection capability of the plant via the control rods (EIS: (AA)) and the steam dumps (EIS: (JI)).

Three of the four P-9 interlocks had been satisfactorily tested prior to CPSES Unit 1 entering Mode 1. Per TS Table 3.3-1, no action statements apply until less than three channels are OPERABLE in Mode 1. Furthermore, the "As-Found" data for the N41 P-9 bistable, the one not tested prior to entering Mode 1, was within the calibration range and would have performed its intended function. Therefore, it is concluded that this event did not result in a threat to the safe operation of CPSES Unit 1 or the health and safety of the public.

IV. CAUSE OF THE EVENT

ROOT CAUSE

Root cause of the event was personnel error. This error occurred in August, 1989, by I&C personnel preparing to perform the nuclear instrumentation SWOs. As part of the preparation process, working copies of controlled procedures were to be obtained. Whenever working copies were made, the applicable work document (in this case the SWO) was to be recorded on the procedure files checkout card. An administrative process was in place to assure that, as controlled procedures were changed, the open applicable work documents listed on the procedure files checkout card were updated. The event occurred as the result of the applicable work documents (SWOs) not being documented on the procedure files checkout card in August, 1989.

Enclosure to
TXX-92154

NRC FORM 306A		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES: 4/30/92	
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20565, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.	
Facility Name (1)	Docket Number (2)	LER Number (6)		Page (3)	
COMANCHE PEAK-UNIT 1	05000445	Year	Sequential Number	Revision Number	
		92	- 006	- 00	06 OF 06
Text (If more space is required, use additional NRC Form 306A's) (17)					

V. CORRECTIVE ACTIONS

A. CORRECTIVE ACTIONS TO PREVENT RECURRENCE

ROOT CAUSE

Personnel error. Failure to properly update procedure files checkout card.

CORRECTIVE ACTION

This event shall be reviewed by all I&C Maintenance department personnel involved with the work order process. In addition, whenever a working copy of a procedure is made it will be stamped with a working copy stamp which includes a sign off step (initials and date) to indicate that the procedure files checkout card has been updated.

VI. PREVIOUS SIMILAR EVENTS

The event described in CPSES Licensee Event Report (LER) 92-006 occurred in 1989, prior to any previous CPSES LERs. Therefore, corrective actions taken subsequent to this event could not have prevented this event.

VII. ADDITIONAL INFORMATION

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