



TU ELECTRIC

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December 27, 1990

William J. Cahill, Jr.
Executive Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
OPERATION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 90-043-00

Gentlemen:

Enclosed is Licensee Event Report 90-043-00 for Comanche Peak Steam Electric Station Unit 1, "Containment Penetration Not Properly Isolated Due to Personnel Error."

Sincerely,

William J. Cahill, Jr

DEN/daj

Enclosure

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

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NRC FORM 966		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-535), 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										Docket Number (2) 015101010141415				Page (3) 1 OF 017															
Title (4) CONTAINMENT PENETRATION NOT PROPERLY ISOLATED DUE TO COGNITIVE PERSONNEL ERROR																													
Event Date (5)			LER Number (6)			Report Date (7)			Other Facilities Involved (8)																				
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names			Docket Numbers																	
11	27	90	90	043	010	11	27	90	N/A			015101010111																	
11	27	90	90	043	010	11	27	90	N/A			015101010111																	
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)		20.402(b)		20.405(a)(1)(i)		20.405(a)(1)(ii)		20.405(a)(1)(iii)		20.405(a)(1)(iv)		20.405(a)(1)(v)		50.73(a)(2)(iv)		50.73(a)(2)(v)		50.73(a)(2)(vi)		50.73(a)(2)(vii)(A)		50.73(a)(2)(vii)(B)		50.73(a)(2)(ix)		73.71(b)		73.71(c)	
01418																													
Licensee Contact For This LER (12)																													
Name T. A. HOPE						Supervisor Compliance SUPERVISOR COMPLIANCE						Telephone Number 8117 819171-16131710																	
Complete One Line For Each Component Failure Described in This Report (13)																													
Cause	System	Component	Manufacturer	Reportable To NPRDS	Cause	System	Component	Manufacturer	Reportable To NPRDS	Cause	System	Component	Manufacturer	Reportable To NPRDS															
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>At 1337 on November 17, 1990, Post Accident Sampling System containment isolation valve 1-HV-5560 was declared inoperable due to failure of the valve to remain closed. As a result, 1-HV-5560 was deactivated, isolating the containment penetration as required. At approximately 1400 on November 19, 1990, with repairs on 1-HV-5560 complete, the Unit Supervisor authorized the stroke test of 1-HV-5560.</p> <p>At 1600 on November 19, 1990, Operations personnel discovered that 1-HV-5560 had been stroke tested without the upstream containment isolation valve, 1-HV-5561, deactivated in the isolated position as required. This was in noncompliance with Technical Specification (TS) 3.6.3.</p> <p>The root cause of this event was a cognitive personnel error based on the mis-interpretation of the TS action statement. Less than adequate Shift Supervisor oversight was also identified as a root cause. Corrective actions include counselling personnel involved concerning entry into TS action statements and the correct interpretation of TS 3.6.3.</p>																													

NRC FORM 896A		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 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)	
COMANCHE PEAK - UNIT 1		0151010141415		910 - 01413 - 010	
Text (If more space is required, use additional NRC Form 896A's) (17)				Page 3 012 OF 017	
<p>I. <u>DESCRIPTION OF THE REPORTABLE EVENT</u></p> <p>A. <u>REPORTABLE EVENT CLASSIFICATION</u></p> <p>Any operation or condition prohibited by the plant's Technical Specifications.</p> <p>B. <u>PLANT OPERATING CONDITIONS BEFORE THE EVENT</u></p> <p>On November 17, 1990, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operation, at approximately 48 percent power.</p> <p>C. <u>STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT</u></p> <p>Not applicable - no structures, systems or components were inoperable at the start of the event that contributed to the event.</p> <p>D. <u>NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES</u></p> <p>At 1337 on November 17, 1990, Post Accident Sampling System (EIS:(IP)) containment isolation valve 1-HV-5560 (EIS:(ISV)(IP)) was declared inoperable due to failure of the valve to remain closed. Technical Specification (TS) 3.6.3 requires isolation of the containment penetration (EIS:(PEN)(NH)) within 4 hours of the inoperability of a containment isolation valve associated with that penetration. Containment penetration isolation requires at least one deactivated automatic valve secured in the isolation position, or at least one closed manual valve or blind flange to be used. As a result, 1-HV-5560 was deactivated, isolating the containment penetration as required.</p> <p>At 1337 on November 17, 1990, a Limiting Condition for Operation Action Requirement (LCOAR) was initiated to document the entrance into the TS action statement. The LCOAR identified the TS action requirements and stated that the upstream isolation valve, 1-HV-5561 (EIS:(ISV)(IP)), should be maintained closed. The LCOAR did not require 1-HV-5561 to be deactivated.</p>					

NRC FORM 365A		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: 90.0 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 (S150-D104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC, 20503.	
Facility Name (1)		Docket Number (2)		LER Number (6)	
COMANCHE PEAK - UNIT 1		05100445910		043-010013 OF 017	
Year		Sequential Number		Revision Number	
1990		043		010	
Text: If more space is required, use additional NRC Form 365A's (17)					
<p>At approximately 1400 on November 19, 1990, with repairs on 1-HV-5560 complete, the Unit Supervisor (utility, licensed) performed a review of the work order and authorized the stroke test of 1-HV-5560. At 2107 on November 19, 1990, 1-HV-5560 was declared operable and the LCOAR closed.</p>					
<p>E. <u>THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE OR PROCEDURAL ERROR</u></p>					
<p>At 1600 on November 19, 1990, during the review of LCOAR termination requirements, Operation's personnel (utility, licensed) discovered that 1-HV-5560 had been stroke tested without 1-HV-5561 deactivated in the isolated position. Although 1-HV-5561 was closed, it was not isolated per TS requirements. With 1-HV-5560 being stroke tested, and 1-HV-5561 not deactivated in the isolated position, the containment penetration was not isolated as required by TS 3.6.3. All work on 1-HV-5560 was immediately stopped, 1-HV-5561 was deactivated in the isolated position, and the event documented via appropriate plant procedures.</p>					
<p>At 2100 on November 19, 1990, work on 1-HV-5560 was complete and the stroke test was successful. At 2107 on November 19, 1990, 1-HV-5560 was declared operable, and the LCOAR closed.</p>					
<p>On November 27, 1990, a TS Interpretation/Reportability Review of this event was completed. Based on this review this event was determined to be reportable.</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>					

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: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-500), 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)
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Text (if more space is required, use additional NRC Form 366A's) (17)

C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

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

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 - no safety system responses occurred as a result of this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

Not applicable - there were no safety systems which were rendered inoperable.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

Operability of the containment isolation valves ensures that the containment (EIS:(NH)) atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. These valves also serve as a Reactor Coolant System (EIS:(AB)) pressure boundary. Although operation of 1-HV-5560 under plant conditions at the time had no effect on operation of the plant, with 1-HV-5560 inoperable, and 1-HV-5561 not deactivated in the isolated position, the potential for a failure resulting in a release to the outside environment was increased.

However, based on actual plant conditions at the time of the event, the fact that no release to the containment atmosphere was in progress, and that the upstream isolation valve, 1-HV-5561, was maintained closed, no actual threat to the health and safety of the public occurred.

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<small>Text (if more space is required, use additional NRC Form 366A's) (17)</small>					

IV. CAUSE OF THE EVENT**ROOT CAUSE - 1**

The root cause of this event was a cognitive personnel error. The Unit Supervisor who authorized the stroke test was cognizant of the LCOAR, the clearance, and the work being done on 1-HV-5560. The Unit Supervisor authorized the stroke test of 1-HV-5560 based on his understanding of the TS action statement. He understood that a controlled entry into an action statement to test a valve or perform maintenance was acceptable, and he thought he had four hours to close the valve after it had been re-opened, per the action statement. TS 3.6.3 requires that the affected penetration be isolated within four hours of discovery. The containment isolation valve, 1-HV-5560, was discovered inoperable at

1337 on November 17, 1990, and was stroke tested approximately 48 hours later. The four hours had expired. This time limit cannot be reset until the Limiting Condition for Operation (LCO) is met without reliance on the TS action statement.

Based on this incorrect interpretation, the Unit Supervisor reviewed the work order and authorized the stroke test of 1-HV-5560, but failed to identify the additional actions required to ensure compliance with TS 3.6.3.

ROOT CAUSE - 2

Shift Supervisor (utility, licensed) oversight of the Unit Supervisor was less than adequate. The Shift Supervisor was included in the discussion concerning the stroke test of 1-HV-5560 and did not recognize that compensatory actions were required prior to stroking the valve to ensure compliance with TS 3.6.3.

V. CORRECTIVE ACTIONS**A. CORRECTIVE ACTIONS TO PREVENT RECURRENCE****ROOT CAUSE - 1**

The root cause of this event was a cognitive personnel error (the mis-interpretation of the TS action statement).

<p>NRC FORM 966A</p> <p style="text-align: center;">U.S. NUCLEAR REGULATORY COMMISSION</p> <p style="text-align: center;">LICENSEE EVENT REPORT (LER) TEXT CONTINUATION</p>	<p style="text-align: right;">APPROVED OMB NO. 3150-0104 EXPIRES 4/30/92</p> <p>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.</p>						
<p>Facility Name (1)</p>	<p>Docket Number (2)</p>						
<p>LER Number (6)</p> <table border="1" style="margin: auto;"> <tr> <th style="width:10%;">Year</th> <th style="width:10%;">Sequential Number</th> <th style="width:10%;">Revision Number</th> </tr> <tr> <td>1990</td> <td>043</td> <td>010</td> </tr> </table>		Year	Sequential Number	Revision Number	1990	043	010
Year	Sequential Number	Revision Number					
1990	043	010					
<p>COMANCHE PEAK - UNIT 1 015101010141415910 - 01413 - 010 016 OF 017</p> <p><small>Text (if more space is required, use additional NRC Form 966A's) (17)</small></p>							

CORRECTIVE ACTION - 1

The Unit Supervisor has been counselled concerning entry into TS action statements and the correct interpretation of TS 3.6.3. Counselling included emphasis on the verification of TS action statements prior to re-entry into TS LCOs and CPSES Management expectations for compliance with TS and other regulatory requirements during the operation of CPSES.

ROOT CAUSE - 2

Shift Supervisor oversight of the Unit Supervisor was less than adequate.

CORRECTIVE ACTION - 2

The Shift Supervisor has been counselled concerning this event and the correct interpretation of TS 3.6.3. Counselling included CPSES Management expectations for compliance with TS and other regulatory requirements during the operation of CPSES.

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

GENERIC CONSIDERATION

The possibility exists for other Operations Supervisors to misinterpret TS 3.6.3.

CORRECTIVE ACTION

This event and the correct interpretation of TS 3.6.3 will be discussed with all Operations Supervisors and will include CPSES Management expectations for compliance with TS and other regulatory requirements during the operation of CPSES.

NRC FORM 366A LICENSEE EVENT REPORT (LER) TEXT CONTINUATION	U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0106 EXPIRES: 4/30/92 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 (3150-0106), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC, 20503.																			
Facility Name (1) COMANCHE PEAK - UNIT 1	Docket Number (2) 01510101445	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3">LER Number (6)</th> <th colspan="3">Page (3)</th> </tr> <tr> <th>Year</th> <th>Sequential Number</th> <th>Revision Number</th> <th></th> <th></th> <th></th> </tr> <tr> <td style="text-align: center;">90</td> <td style="text-align: center;">- 014</td> <td style="text-align: center;">3 - 010</td> <td style="text-align: center;">017</td> <td style="text-align: center;">OF</td> <td style="text-align: center;">017</td> </tr> </table>	LER Number (6)			Page (3)			Year	Sequential Number	Revision Number				90	- 014	3 - 010	017	OF	017
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Text (If more space is required, use additional NRC Form 366A's) (17)

VI. PREVIOUS SIMILAR EVENTS

LER 90-014 involved a Technical Specification noncompliance resulting in a containment penetration not being properly isolated. The root cause of that event was an inadequate review of the work order by the Unit Supervisor. The work order requested partial release of the clearance, however, the Unit Supervisor released the entire clearance, unisolating the containment penetration prior to completion of the required operability testing. The root cause of the event described in this LER (90-043) was cognitive personnel error based on the misinterpretation of a TS action statement. The specific cause of this event and the specific cause of the event described in LER 90-014 are different. The corrective actions taken to resolve the root cause of the LER 90-014 would not have prevented this event. Therefore, no previous similar events have been reported pursuant to 10CFR50.73.

VII. ADDITIONAL INFORMATION

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