



Log # TXX-96361
File # 10200
Ref. # 10CFR50.73(a)(2)(i)

C. Lance Terry
Group Vice President

May 6, 1996

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)-UNIT 1
DOCKET NOS. 50-445
CONDITIONS PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 445/96-005-00

Gentlemen:

Enclosed is Licensee Event Report (LER) 96-005-00 for Comanche Peak Steam Electric Station Unit 1, "Entry into Technical Specification 3.0.3 Due to a Cracked Weld in the Safety Injection System Piping."

Sincerely,

A handwritten signature in cursive script, appearing to read "C. L. Terry".
C. L. Terry

OB:ob
Enclosure

cc: Mr. L. J. Callan, Region IV
Mr. W. D. Johnson, Region IV
Resident Inspectors, CPSES

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(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST 50 TO 6 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO THE INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (F33), AND TO THE REGULATORY COMMISSION, WASHINGTON, DC 20555-0001. AND TO THE "AFTERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

Facility Name (1)

Docket Number (2)

Page (3)

COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1

05000445

01 OF 05

ENTRY INTO TECHNICAL SPECIFICATION 3.0.3 DUE TO A CRACKED WELD IN THE SAFETY INJECTION SYSTEM PIPING

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 Name			Docket Numbers																		
0	3	10	9	6	9	6	-	0	0	5	-	0	0	0	5	0	6	9	6	N/A			0	5	0	0	0	4	4	6
Operating Mode (9)		1		This report is submitted pursuant to the requirements of 10 CFR § (Check one or more) (11)																										
Power Level (10)		100		20.2201 (b)			20.2203 (a) (2) (v)			<input checked="" type="checkbox"/> 50.73 (a) (2) (i)			50.73 (a) (2) (vii)																	
		20.2203 (a) (1)			20.2203 (a) (3) (i)			<input type="checkbox"/> 50.73 (a) (2) (ii)			50.73 (a) (2) (x)																			
		20.2203 (a) (2) (i)			20.2203 (a) (3) (ii)			<input type="checkbox"/> 50.73 (a) (2) (iii)			73.71																			
		20.2203 (a) (2) (ii)			20.2203 (a) (4)			<input type="checkbox"/> 50.73 (a) (2) (iv)			<input type="checkbox"/> OTHER																			
		20.2203 (a) (2) (iii)			50.36 (c) (1)			<input type="checkbox"/> 50.73 (a) (2) (v)			Specify in Abstract below																			
		20.2203 (a) (2) (iv)			50.36 (c) (2)			<input type="checkbox"/> 50.73 (a) (2) (vi)			or in NRC Form 366A																			

Licensee Contact For This LER (12)

Name _____

Dennis E. Buschbaum - Compliance Manager

Telephone Number (Include Area Code) _____

(817) 897-5851

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
				X					

Supplemental Report Expected (14)

YES
(If yes, completed EXPECTED SUBMISSION DATE)

x	NO	See Text
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EXPECTED
SUBMISSION
DATE (15)

Month		Day		Year	

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 10, 1996, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operations, and operating at 100 percent power. Operations personnel discovered a crack at the piping flange socketweld for valve 1-8851, and noted that system fluid was slowly leaking from the crack. A decision [based on engineering conclusions] was made by operations management to declare both trains inoperable and enter CPSES Technical Specification 3.0.3.

The cracked weldment was removed and replaced with a new weld. On March 11, 1996, the Safety Injection System was declared operable, and Technical Specification 3.0.3 was exited. The cause of the crack is not known to-date. The weldment has been sent to a laboratory for metallurgical analysis. However, if the analysis of the affected weldment reveals material problems or other anomalies, TU Electric will evaluate the need to supplement this Licensee Event Report and promulgate the information via Nuclear Network to other Nuclear power utilities.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Text (if more space is required, use additional copies of NRC Form 366A) (17)

I. DESCRIPTION OF THE REPORTABLE EVENT

A. REPORTABLE EVENT CLASSIFICATION

Any operation or condition prohibited by Technical Specifications.

B. PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

On March 10, 1996, Comanche Peak Steam Electric Station (CPSES) Unit 1 was in Mode 1, Power Operations, and operating at 100 percent power.

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

Not applicable - there were no inoperable, systems, or components that contributed to the event.

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

On March 10, 1996 at approximately 3:30 p.m., central daylight time (CDT) the on duty Shift Manager (utility, licensed) was notified (via an Operations Notification and Evaluation (ONE) Form: a document used at CPSES to report potential adverse conditions) that, an approximately 1/4 inch crack at the piping flange socketweld for valve 1-8851 has been discovered and system fluid was slowly leaking from the crack. Valve 1-8851 (EIIS:(PCV)(AB)) is a 3/4 inch relief valve on the Safety Injection System (EIIS:(BQ)) common header between the cold legs and both of the Safety Injection Pumps(EIIS:(P)(BQ))which is located outside the containment building. The Shift Manager requested engineering (utility, non-licensed) to perform an operability determination with respect to the leak rate and the safety function of the valve.

On March 10, 1996 at approximately 5:44 p.m. CDT, a decision [based on engineering conclusions] was made by operations management to declare both trains inoperable and enter CPSES Technical Specification 3.0.3. On March 10, 1996 at approximately 6:44 p.m. CDT, CPSES control room staff (utility, licensed) Unit 1 initiated a power decrease. Pursuant to the requirements of 10CFR50.73, an event or condition leading to entry into Technical Specification 3.0.3 for any reason or justification is reportable to the Nuclear Regulatory Commission.

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On March 10, 1996, at approximately 7:07 p.m. CDT, the Nuclear Regulatory Commission was notified of this event via the Emergency Notification System pursuant to the requirements of 10CFR50.72(b)(1)(i)(A).

On March 11, 1996 at approximately 12:13 a.m. CDT, the flange and pipe containing the cracked weld was cut out and replaced. The system was declared operable and Technical Specification 3.0.3 was exited at approximately 12:13 a.m., on March 11, 1996.

E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE OR PROCEDURAL ERROR

The operation staff personnel observed the leak and subsequently discovered the crack in the pipe socketweld on the inlet side of the relief valve.

II. COMPONENT OR SYSTEM FAILURES

A. FAILURE MODE, MECHANISM, AND EFFECT OF EACH FAILED COMPONENT

The piping socketweld on the inlet side of valve 1-8851 was discovered to contain a crack approximately 1/4 inch long. Valve 1-8851 (EIIS:(PCV)(AB)) is a 3/4 inch relief valve on the Safety Injection System (EIIS:(BQ)) common header between the cold legs and both of the Safety Injection Pumps(EIIS:(P)(BQ)) and performs a thermal relief function. The weldment is located outside the containment building. A decision was made to declare both Safety Injection trains inoperable and subsequent entry in Technical Specification 3.0.3 was made.

B. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not Known-The weldment containing the through-wallcrack has been sent to a laboratory for failure analysis.

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Text (if more space is required, use additional copies of NRC Form 365A) (17)

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

Not applicable- There were no multiple functions affected by this failure.

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

The Safety Injection Trains A and B (EIIS:(BQ)) were declared inoperable for approximately six hours.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

Injection header relief valve 1-8851 is located outside the containment building on the injection header downstream from the safety Injection pumps discharge, and protects the Safety Injection System piping from the pressure which might be caused by the thermal expansion (which is considered to be very slow) of the fluid trapped in the piping during the post- accident long term recirculation period. The opening set pressure of the valve is compatible with the design pressure of the system. The capacity of the valve is large enough to dissipate the very slow rate of thermal expansion of the trapped fluid. TU Electric believes that the valve would have performed its required function to relieve pressure. However, since the failure occurred in a weld on the inlet side of the valve, it was assumed that this crack may propagate and sufficient leakage of system fluid may cause excessive dose rate concerns. Therefore, a decision was made to enter Technical Specification 3.0.3, and repair the leaking weld.

TU Electric believes that entry into Technical Specification 3.0.3, to repair the weld did not impact health or safety of the public.

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IV. CAUSE OF THE EVENT

The cause of the reportable event was that the Limiting Condition for Operations was not met, which occurred due to a decision made by plant management to replace the weldment to its design condition.

The cause of the cracked weld is not known.

V. CORRECTIVE ACTIONS

The immediate corrective actions were to determine operability, which led to decision to enter Technical Specification 3.0.3, and replace the affected weldment.

The weldment has been sent to a laboratory for analysis. The results of the aforementioned analysis will be evaluated by design engineering to determine additional corrective actions if warranted.

VI. PREVIOUS SIMILAR EVENTS

There are other LERs which reported entry into Technical Specification 3.0.3. However, the causes of the previous events are sufficiently different from the subject events, such that the corrective actions would have not prevented the subject event.

VII. ADDITIONAL INFORMATION

If the analysis of affected weldment reveals material problems or other anomalies, TU Electric will evaluate the need to supplement this Licensee Event Report and promulgate the information via Nuclear Network to other Nuclear power utilities.