



TXU Energy
Comanche Peak Steam
Electric Station
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Senior Vice President &
Principal Nuclear Officer

Ref: 10 CFR 50.55a(g)(5)(iii)

CPSES-200300305
Log # TXX-03009

February 14, 2003

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

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445
RELIEF REQUESTS B-2 AND C-4 FOR THE UNIT 1 INSERVICE
INSPECTION (ISI) FROM 1986 EDITION OF ASME CODE,
SECTION XI, NO ADDENDA (INTERVAL START DATE: AUGUST
14, 2000, SECOND INTERVAL)**

TXU Generation Company LP (hereafter referred to as TXU Energy) has determined that certain inspection requirements of ASME Section XI are impractical, and is requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii) (See Attachments 1 and 2).

This communication contains no new licensing basis commitments regarding Comanche Peak Steam Electric Station (CPSES) Unit 1.

If you have any questions regarding this request, please contact Obaid Bhatti at (254) 897-5839 or Douglas W. Snow at (254) 897-8448.

A047

A member of the **STARS** (Strategic Teaming and Resource Sharing) Alliance

Callaway • Comanche Peak • Diablo Canyon • Palo Verde • South Texas Project • Wolf Creek

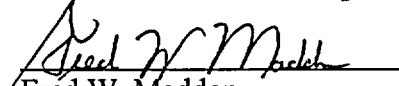
TXX-03009
Page 2 of 2

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,
Its General Partner

C. L. Terry
Senior Vice President and Principal Nuclear Officer

By: 
Fred W. Madden
Nuclear Licensing Manager

DWS/dws
Attachment

c - E. W. Merschoff, Region IV
W. D. Johnson, Region IV
D. H. Jaffe, NRR
Resident Inspectors, CPSES
G. Bynog, TDLR
J.C. Hair ANII, CPSES

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. C-4**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY**

I. System/Component for Which Relief is Requested:

Chemical and Volume Control (CVCS) Pump TBX-CSAPCH-01. ASME Class 2 Integrally Welded Pump Attachments.

Weld No. TBX-2-3110-3WS

Weld No. TBX-2-3110-4WS

II. Code Requirement from Which Relief is Requested:

Comanche Peak Unit 1 is currently required to perform inservice examinations of selected welds in accordance with the requirements of 10 CFR 50.55a, and the 1986 Edition with no Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components. The subject welds are described in Table IWC-2500-1, Examination Category C-C, Code Item B3.30, Figures IWC-2500-5, and requires surface examination of these welds.

Pursuant to the requirements of 10 CFR 50.55a(g)(5)(iii), relief is requested from performing the required 100 percent surface examination.

III. Impracticality of Compliance:

The examination coverage is limited due to interferences from the housing seal and pump base plate. Therefore, the Code required 100 percent surface examination by liquid penetrant method can not be achieved. Best effort examination resulted in coverage of approximately 77 percent of the area. It is impractical to obtain coverage of 100 percent required by the Code for each of the subject welds unless the CVCS Pump is redesigned to improve access to the welds.

IV. Burden Caused by Compliance:

The examination coverage is limited by area geometries of the CVCS pump housing seal and pump base plate, as indicated via the attached sketches on pages 3 and 4. These conditions make 100 percent examination impractical for these welds. To gain access for examination would require a design modification. Imposition of this requirement would be a significant burden on TXU Energy.

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. C-4**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY**

V. Proposed Alternative and Basis for Use:

There are no proposed alternatives. TXU has examined a significant portion of these welds, obtaining approximately 77 percent of the required volumetric examination coverage. There was one recordable indication, which was a 7/32 inch rounded indication, identified by the liquid penetrant surface examination for Weld No. TBX-2-3110-4WS. This indication remained unchanged from the previous examination that was reported for the same weld in 1993, during the first 10-year interval for Unit 1. Based on this amount of coverage, it is reasonable to conclude that degradation, if present, would have been detected.

Therefore, TXU Energy believes that the examination performed provides adequate confidence that there are no matters of concern regarding the structural integrity of the subject welds.

Granting of this relief request will not have an impact on plant quality or safety and will not adversely impact the health and safety of the public.

VI. Duration of Proposed Alternative:

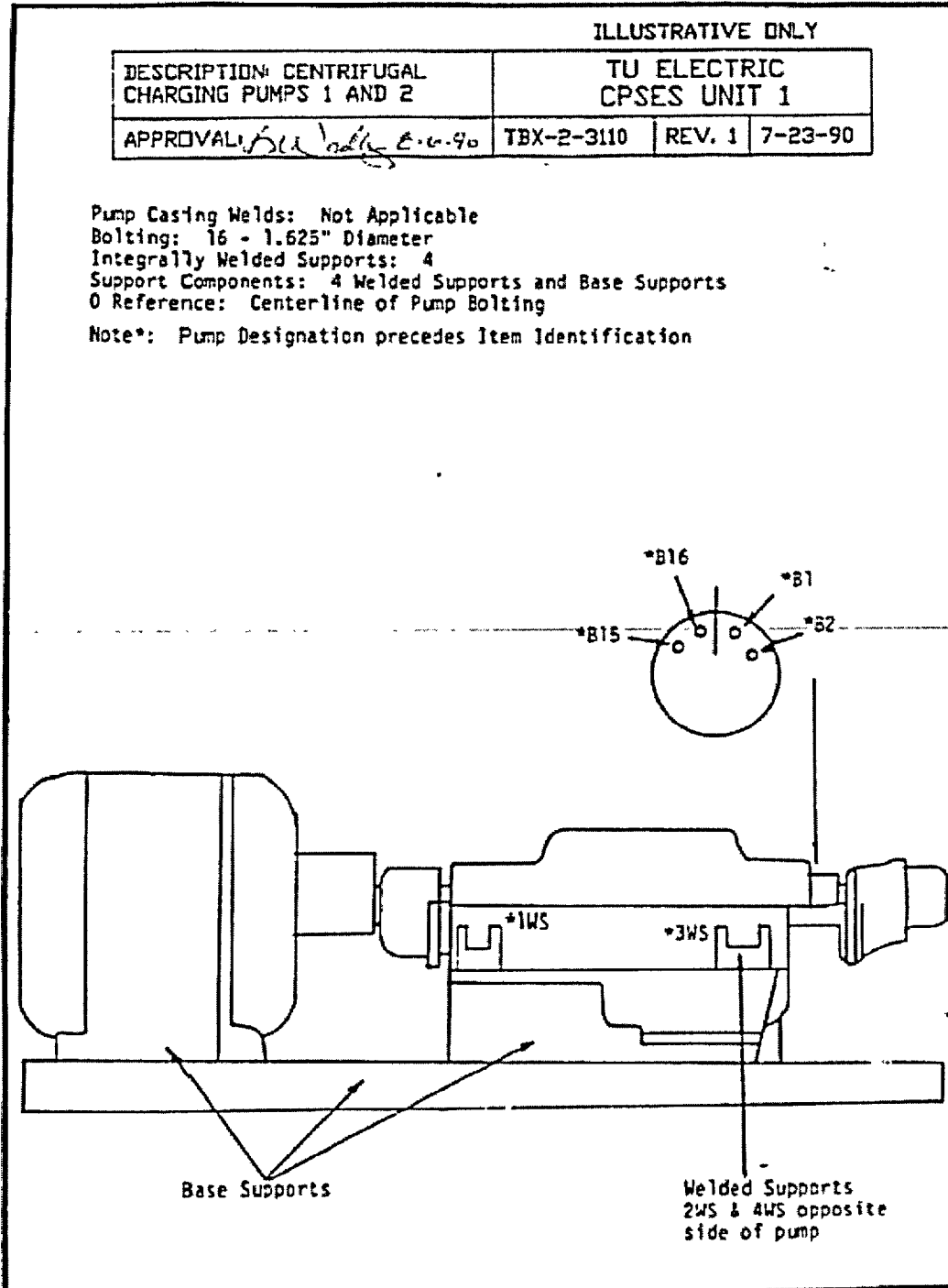
This relief is requested for the Comanche Peak Steam Electric Station Unit 1 second interval.

VII. Precedents:

- 1) TXU Energy letter logged TXX-93107 dated March 15, 1993. NRC response dated November 29, 1994, reference TAC NO. M83125.

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. C-4**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY**



**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. C-4**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY**

	WESTINGHOUSE NUCLEAR SERVICES DIVISION		REPORT NO <u>19PT-05</u>		
	INSPECTION SERVICES		PAGE <u>1</u> OF <u>1</u>		
	SURFACE EXAMINATION DATA				
PLANT	<u>COMANCHE PEAK</u>	UNIT	<u>1</u>	SKETCH	<u>TRX-2-3110</u>
SYST/COMP	<u>CENTRIFUGAL CHARGING PUMP</u>			PROCEDURE	<u>TX-ISI-11, Rev. 7</u>
EXAMINER	<u>Larry M. Musgrave</u> <i>Larry M. Musgrave</i>	LEVEL	<u>II</u>	DATE	<u>09/28/02</u>
EXAMINER	<u>Michael W. Julison</u> <i>Michael W. Julison</i>	LEVEL	<u>II</u>	DATE	<u>09/28/02</u>
PT	BATCH NUMBERS		MT		
CLEANER	<u>Magnaflux SKC-S 97H12K</u>		YOKE	<u>N/A</u> COIL <u>N/A</u>	
PENETRANT	<u>Magnaflux SKL-SP 97K02K</u>		EXAM MEDIUM	<u>N/A</u>	
DEVELOPER	<u>Magnaflux SKD-S2 94J03K</u>		BLACK-LIGHT	<u>N/A</u>	
REMOVER	<u>Magnaflux SKC-S 97H12K</u>		CHECK TIME	<u>N/A</u>	
SURFACE THERMOMETER	<u>TU 2361</u>		SURFACE THERMOMETER	<u>N/A</u>	

COMPONENT ID	RESULTS	REMARKS	LIMITATION	TEMP °F
1WS	NRI	2-1/16" Rounded Indications separated by less than 1/16". This indication unchanged from previous inspection. Reference Indication Data Sheet dated 10/31/92, Indication #2.	NONE	86°
2WS	NRI	A 1/32" Rounded Indication on bracket bottom 3.8" in from West end 1/2" from toe of weld.	NONE	86°
3WS	NI	23% not examined. See Limitation to Examination Data Sheet.	YES	86°
4WS	NRI	A 3/32" Rounded Indication 0.1" from weld toe on 4 WS. This Indication unchanged from previous inspection. Reference Indication Data Sheet dated 10/31/92. 23% not examined. See Limitation to Examination Data Sheet.	YES	86°

TU ELECTRIC REVIEW / DATE <i>Paul W. Presbury</i> 10-15-02	TU ELECTRIC LEVEL III REVIEW / DATE <i>J. Ragan</i> 10/19/02	ANII REVIEW / DATE <i>W. W. H.</i> 10/17/02
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TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. C-4

PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY

WESTINGHOUSE NUCLEAR SERVICE DIVISION
INSPECTION SERVICES

LIMITATION TO EXAMINATION

PLANT COMANCHE PEAK UNIT No. 1 SKETCH TRX-2-3110, REV. 1

SYSTEM/COMP CENTRIFUGAL CHARGING PUMP 1 PROCEDURE TX-ISI-11, REV. 3, FC. 1

EXAMINER Will S. Kelly DATE 10-31-92
Jerry M. Magrane 9-28-02

RELATED TO UVT _____ P.T. X MIT _____ VIT _____ ITEM(SI) 3WS + 4WS

PROVIDE GENERAL INFORMATION TO DESCRIBE APPROXIMATE SIZE, LOCATION AND TYPE OF LIMITATION

BASE METAL INACCESSIBLE DUE TO HOUSING SEAL

7 1/2"

3"

WELD AND BASE METAL INACCESSIBLE DUE TO SUPPORT BASE

TYPICAL 3WS + 4WS

23% OF REQUIRED VOLUME NOT EXAMINED OF 3WS + 4WS

11/9/02

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-**

I. System/Component for Which Relief is Requested:

Relief is requested for the following Class 1 piping welds in the Reactor Coolant System (Pressurizer Relief), Category B-J, Item B9.21, 1986 Edition with no Addenda of ASME Section XI:

Weld No. TBX-1-4502-12

Weld No. TBX-1-4502-28

II. Code Requirement from Which Relief is Requested:

10 CFR 50.55a(b)(2)(xv)(A) states that when applying Supplement 2 to Appendix VIII, the following examination coverage criteria requirements must be used:

- (1) Piping must be examined in two axial directions and when examination in the circumferential direction is required, the circumferential examination must be performed in two directions, provided access is available.
- (2) Where examination from both sides is not possible, full coverage credit may be claimed from a single side for ferritic welds. Where examination from both sides is not possible on austenitic welds, full coverage credit from a single side may be claimed only after completing a successful single sided Appendix VIII demonstration using flaws on the opposite side of the weld.

III. Impracticality of Compliance:

10 CFR 50.55a(b)(2)(xvi)(B) requires that

Examinations performed from one side of a ferritic or stainless steel pipe weld must be conducted with equipment, procedures, and personnel that have demonstrated proficiency with single side examinations. To demonstrate equivalency to two sided examinations, the demonstration must be performed to the requirements of Appendix VIII as modified by this paragraph and Sec. 50.55a(b)(2)(xv)(A).

The Final Rule (67FR60520) requires that if access is available, the weld shall be scanned in each of the four directions (parallel and perpendicular to the weld) where required. Coverage credit may be taken for single side exams for ferritic piping. However, for austenitic piping, a procedure must be qualified with flaws on the inaccessible side of the weld. There are currently no qualified single side examination procedures that demonstrate equivalency to two-sided examination procedures on austenitic piping welds. Current technology is not capable of reliably detecting or sizing flaws on the far side of an austenitic weld for configurations common to US nuclear applications.

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-**

The Performance Demonstrative Initiative (PDI) Program conforms to the Final Rule regarding single side access for piping. PDI Performance Demonstration Qualification Summary (PDQS) certificates for austenitic piping list the limitation that single side examination is performed on a best effort basis. The best effort qualification is provided in place of a complete single side qualification to demonstrate that the examiners qualification and the subsequent weld examination is based on application of the best available technology.

When the examination area is limited to one side of an austenitic weld, examination coverage does not comply with 10 CFR 50.55a(b)(2)(xv)(A) and proficiency demonstrations do not comply with 10 CFR 50.55a(b)(2)(xv)(B) and full coverage credit may not be claimed.

Pursuant to the requirements of 10 CFR 50.55a(g)(5)(iii), relief is requested from performing the required examination as required by 10 CFR 50.55a(b)(2)(xv)(A).

IV. Burden Caused by Compliance:

Imposition of the Code Requirements would require significant system redesign, modifications, and an increase in personnel radiation exposure.

V. Proposed Alternative and Basis for Use:

The best available techniques, as qualified through the Performance Demonstrative Initiative for Supplement 2 (67FR60520) with demonstrated best effort for single side examination, were used from the accessible side of the weld.

These two welds were the only welds identified in the line segments per the RI-ISI Program which met the considerations for system design, the risk analysis, previous examinations, and NDE accessibility.

Therefore, TXU Energy believes that the examination performed provides adequate confidence that there are no matters of concern regarding the structural integrity of the subject welds. And no changes are expected in the overall level of plant safety.

Granting of this relief request will not have an impact on plant quality or safety and will not adversely impact the health and safety of the public.

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-**

VI. Duration of Proposed Alternative:

This relief is requested for the Comanche Peak Steam Electric Station Unit 1 second interval.

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-**

Calibration Data Sheet

PDI

Plant/Unit: COMANCHE PEAK UNIT 1 Data Sheet # 19UT-39
Company: WESDYNE Page 1 of 3
Comp/System: PRESSURIZER RELIEF
Procedure No.: TX-ISI-302
Rev/Chng. No.: 1 / N/A
Cal. Block No.: PDI 03
Cal. Block Temp. 74° Comp. Temp. 82°
Therm S/N: TU-2359
Size: 3.0" Sch 160 / 435" T"
 Ferritic Austenitic

Each Major CRT Div. = 200" / 1.50"
Cal. Direction: Axial Circ. Both X
Scan Area: I to Wed X II to Wed X Type: ULTRAGEL II Batch: 01225

Examination Area/Weld	Access	Recordable Indications		Exam Sens
		Yes	No	
TBX-1-4502-12	UPST	X		57.0/44.0 dB
TBX-1-4502-28	UPST	X		57.0/44.0 dB

Remarks/Reasons for Incomplete Scan(s)
 70° Exam Sens 57.0 dB
 45° Exam Sens 44.0 dB
 Weld #12 pipe to valve 50% not examined
 Weld #28 pipe to valve 50% not examined
 See weld profile

Examiners: James M. Ruffen / JMR Date: 10/09/02

Level: _____ Date: 10/18/02
 Level: _____ Date: 10/18/02

Reviewer: *[Signature]*

10 Year Review/Date: *[Signature]* 10/18/02

10 Year Review/Date: *[Signature]* 10/18/02

10 Year Review/Date: *[Signature]* 10/18/02

Search Unit #1

Search Unit #2

Manufacturer: KBA
 Serial No.: 28050 / 2 25 MHz
 Size: .25" Shape: ROUND
 Exam Angle: 70° S Model: MSWQC
 Measured Angle: 68° S
 Wedge Style: MSW
 Manufacturer: KBA
 Serial No.: 0CMKCF / 5.0 MHz
 Size: .25" Shape: ROUND
 Exam Angle: 45° S Model: MSWQC
 Measured Angle: 44° S
 Wedge Style: MSW

Search Unit Cable: RG-174
 Type: Search Unit Cable
 Length: 0' No. 0
 Instrument Settings: Make/Model: KBA / USNS2R Serial No.: SAP 101941
 Delay: 8.722" Range: 2.00
 MNI Cal/Vol: 1241µs Pulser: SINGLE MVI Cal/Vol: 1231µs Pulser: SINGLE
 Damping: 1000 Ω Reject: OFF Damping: 1000 Ω Reject: OFF
 Rep. Rate: HIGH Freq: 2-3 MHz Rep. Rate: HIGH Freq: 2-8 MHz
 Filter: N/A Mode: FULLWAVE Filter: N/A Mode: FULLWAVE

Reference Sensitivity (Sens)
 Axial: 57.0 dB Circ: N/A
 SDH Sensitivity: 80% 4.5
 Further Evaluation Required? Yes No

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2**

**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-**

PROFILE OF THE EXAMINATION											
REPORT NO. 19UT-39	STATION COMANCHE PEAK	UNIT 1	PAGE 2	OF 3							
SYSTEM PWR RELIEF	COMPONENT PIPE TO VALVE	DRAWING NO. TBX-1-4522	IDENT NO. 12								
DIAMETER 3 0"	WELD LENGTH 12 0"	CROWN WIDTH 70"	CROWN HEIGHT .05"	LONG SEAM LOCATION(S) N/A							
<p>PROFILE SECTION</p> <p align="center">PIPE _____ VALVE _____</p> <p align="center">CENTERLINE WELD</p>											
<p>PROFILE EXAM COMMENTS</p> <p>PROFILE TAKEN AT TDC</p>											
SECTION XI	X	COVERAGE ACHIEVED	X	RISK INFORMED	X	AUGMENTED	N/A	PREVIOUS DATA REVIEWED	N/A	TYPE	N/A
EXAMINER	James M. Bullen	DATE	10/09/02	EXAMINER							
REVIEWER	PHILIPPA BULLEN	DATE	10-17-02	REVIEWER							
ANTI REVIEW	James M. Bullen	DATE	10/23/02	DATE	10/19/02						

TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
FIRST TEN-YEAR INTERVAL ISI RELIEF REQUEST NO. B-2
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)
-INSERVICE INSPECTION IMPRACTICALITY-

PROFILE OF THE EXAMINATION							
REPORT NO.	<u>18UT-39</u>	STATION	<u>COMANCHE PEAK</u>	UNIT	<u>1</u>	PAGE	<u>3</u> OF <u>3</u>
SYSTEM	<u>PRZR RELIEF</u>	COMPONENT	<u>PIPE TO VALVE</u>	DRAWING NO.	<u>TBX-1-4502</u>	IDENT NO.	<u>28</u>
PROFILE SECTION							
DIAMETER	<u>30"</u>	WELD LENGTH	<u>120"</u>	CROWN WIDTH	<u>70"</u>	CROWN HEIGHT	<u>05"</u>
				LONG SEAM LOCATION(S)	<u>N/A</u>		
				MEASUREMENTS START AT CL OF THE WELD, THEN TOE OF WELD AND THEN 1/2" FROM TOE, + 1" AND + 1 1/2" ON BOTH SIDE OF WELD AS APPLICABLE			
PROFILE EXAM COMMENTS							
PROFILE TAKEN AT TDC							
SECTION XI	<u>X</u>	COVERAGE ACHIEVED	<u>RISK INFORMED X</u>	AUGMENTED	<u>N/A</u>	PREVIOUS DATA REVIEWED	<u>N/A</u>
EXAMINER	<u>James M. Bullen</u>	DATE	<u>10/09/02</u>	EXAMINER	<u>N/A</u>	DATE	<u></u>
REVIEWER	<u>Pauline S. Paulson</u>	DATE	<u>10-18-02</u>	REVIEWER	<u>J. Ragan</u>	DATE	<u>10/19/02</u>
ANII REVIEW	<u>Jae C. Hair</u>	DATE	<u>11/23/02</u>				

**TXU GENERATION COMPANY LP
COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1
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