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**Subject:** Re: Code Relief - B-2  
**Creation Date:** 7/7/03 7:18AM  
**From:** <obaidb@txu.com>

**Created By:** obaidb@txu.com

**Recipients**

nrc.gov  
owf4\_po.OWFN\_DO  
DHJ (David Jaffe)

**Post Office**

owf4\_po.OWFN\_DO

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MESSAGE

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B-2 Rev 1.pdf

Mime.822

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949

2886656

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5234264

**Date & Time**

07/07/03 07:18AM

**Options**

**Expiration Date:**

None

**Priority:**

Standard

**Reply Requested:**

No

**Return Notification:**

None

**Concealed Subject:**

No

**Security:**

Standard

**From:** <obaidb@txu.com>  
**To:** "David Jaffe" <DHJ@nrc.gov>  
**Date:** 7/7/03 7:21AM  
**Subject:** Re: Code Relief - B-2

Ok here it is ...please send me an e-mail that you got it..... Thanks It is not formatted I was going to let the Reg Affairs folks to that.

(See attached file: B-2 Rev 1.doc)(See attached file: B-2 Rev 1.pdf)

Obaid Bhatti  
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\*\*\*\*\*  
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**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:**

1986 Edition with no Addenda of ASME Section XI for Category B-J, Item B9.21 requires that these category BJ welds which are less than 4 NPS be examined as depicted in Figure IWB-2500-8, via the surface examination method.

However, on February 15, 2001, TXU Energy had requested and was granted an approval for application of an alternative risk-informed inservice inspection (RI-ISI) program for ASME B&PVC Class 1 and 2 piping (refer to TAC NOS. MB1201 and MB1202). Via the aforementioned request TXU Energy informed the NRC staff that for Category B-J welds it will perform volumetric examination (UT) rather than the Code required surface examination.

**III. Impracticality of Compliance:**

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.

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.

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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. No changes are expected in the overall level of plant safety. TXU Energy will perform a surface examination along with the volumetric examination as specified by the ASME Section XI for these welds during the next upcoming outage ( or within this second interval for CPSES Unit 1).

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.

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**VI. Duration of Proposed Alternative:**

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

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-INSERVICE INSPECTION IMPRACTICALITY-

PDI Calibration Data Sheet									
Plant/Unit Company		COMANCHE PEAK UNIT 1		Data Sheet # 19UT-39		Page 1 of 3			
Comp/System		WESDYNE							
Procedure No.		TA-151-302							
Rev/Chg. No.		1 / N/A							
Cal. Block No.		PDI-03							
Cal. Block Temp.		74° Comp. Temp. 82°							
Therm SN		TU-2309							
Size		3.0"		Sch. 100 / 435"		T			
<input type="checkbox"/> Ferritic		<input checked="" type="checkbox"/> Austenitic							
Each Major CRT Dv. #		2007 / 1.50"							
Cal. Direction:		Aval		Circ.		Both X			
Scan Area:		I to Weld X		II to Weld X					
Couplant		ULTRAGEL R							
Type:		01225							
Batch:									
Cal. Checks		Time		0650					
Initial Calib.		Date		10/26/02					
Intermediate		Date		N/A					
Final Calib.		Date		11/40					
Search Unit #1		Search Unit #2							
Manufacturer:		KBA		Manufacturer:		KBA			
Serial No.:		26050 / 2.25 MHz		Serial No.:		00MKCF / 5.0 MHz			
Size:		25"		Shape:		ROUND			
Exam Angle:		70° S. Model:		Exam Angle:		45° S. Model:			
Measured Angle:		95° S		Wedge Style:		44° S			
Type:		RG-174		Type:		RG-174			
Length:		0		Length:		0			
Instrument Settings		Instrument Settings							
Make/Model:		KBA / USN52R		Make/Model:		KBA / USN52R			
Serial No.:		SAP 101941		Serial No.:		SAP 101941			
Delay:		6.72"		Range:		3.730"			
Mtg Cal/Vol:		12417/1a		Mtg Cal/Vol:		12317/1a			
Pulse:		SINGLE		Pulse:		SINGLE			
Damping:		1000 Ω		Reject:		1000 Ω			
Rep. Rate:		HIGH		Rep. Rate:		HIGH			
Freq.:		2.8 MHz		Rep. Rate:		2.8 MHz			
Filter:		N/A		Mode:		FULLWAVE			
Reference Sensitivity (Sens.)		57.0 dB		Reference Sensitivity (Sens.)		32.0 dB			
Aval:		57.0 dB		Circ:		57.0 dB			
SDH Sensitivity:		80% @ 4.5		SDH Sensitivity:		20% @ 2.0			
Further Evaluation Required?		Yes		Further Evaluation Required?		Yes			
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. Ragan		Date 10/26/02		Level		Date 10/26/02			
Reviewer: [Signature]		Date 10/26/02		Level		Date 10/26/02			
TUI Electric Services / Date		10/26/02		TUI Electric Services / Date		10/26/02			
[Signature]		10/26/02		[Signature]		10/26/02			
[Signature]		10/26/02		[Signature]		10/26/02			

Attachment 1 to TXX-03XXX

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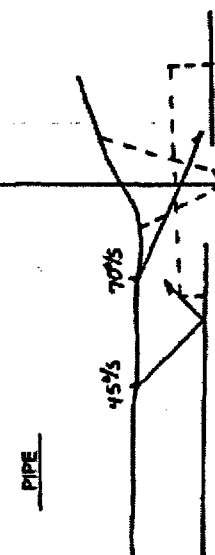
**PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)  
-INSERVICE INSPECTION IMPRACTICALITY-**

<b>PROFILE OF THE EXAMINATION</b>											
REPORT NO.	19UT-39	STATION	COMANCHE PEAK	UNIT	1	PAGE	2	OF	3		
SYSTEM	PRZR RELIEF	COMPONENT	PIPE TO VALVE	DRAWING NO.	TXX-14922					IDENT NO.	12
DIAMETER		3.0"	WELD LENGTH	12.0'	CROWN WIDTH	7.0'	CROWN HEIGHT	0.6"	LONG BEAM LOCATION(S)	N/A	
<b>PROFILE SECTION</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> <p>UPSTREAM</p> <p>FLOW</p> <p>DOWNSTREAM</p> </div> </div>											
<p>MEASUREMENTS TAKEN AT CL OF THE WELD, THEN TOP OF WELD AND THEN 10" FROM TOP. 1" AND 1.5" ON BOTH SIDE OF WELD AS APPLICABLE</p>											
<b>PROFILE EXAM COMMENTS</b>											
<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. Butler	DATE	10/09/02	EXAMINER		DATE		REVIEWER	J. Rogers	DATE	10/19/02
REVIEWER	RN BULLINGTON	DATE	10-18-02	REVIEWER		DATE		ANR REVIEW	J. C. Davis	DATE	10/23/02



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<b>PROFILE OF THE EXAMINATION</b>											
REPORT NO.	19UT-39	STATION	COMANCHE PEAK		UNIT	1	PAGE	3	OF	3	
SYSTEM	PIZR RELIEF	COMPONENT	PIPE TO VALVE	DRAWING NO.	TBX-1-4902	IDENT NO.	28				
<b>PROFILE SECTION</b>											
DIAMETER	3.0"	WELD LENGTH	12.0"	CROWN WIDTH	70"	CROWN HEIGHT	05"	LONG SEAM LOCATION(S)	N/A		
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>PIPE</p>  </div> <div style="text-align: center;"> <p>VALVE</p> </div> </div>											
<p>UPSTREAM      FLOW      DOWNSTREAM</p> <p>45°      45°      45°      70°      01"      N/A      N/A      N/A</p> <p>0.107"      0.107"      0.107"      0.107"      0.107"      0.107"      0.107"      0.107"</p>											
<p>MEASUREMENTS START AT CL OF THE WELD, THEN TOE OF WELD AND THEN TO FURTHEST 1" AND 1" UP OR BOTH SIDS OF WELD AS APPLICABLE.</p>											
<b>PROFILE EXAM COMMENTS</b>											
<p>PROFILE TAKEN AT TOC</p>											
SECTION XI	X	COVERAGE ACHIEVED	X	RISK INFORMED	X	AUGMENTED	N/A	PREVIOUS DATA REVIEWED	N/A	TYPE	N/A
EXAMINER	James M. Batten	DATE	10/09/02	EXAMINER	N/A						
REVIEWER	Paula L. Batten	DATE	10-11-02	REVIEWER	J. Batten						
ANN REVIEW	John C. Harris	DATE	11/23/02	DATE	10/19/02						

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