



**TXU Power**  
Comanche Peak Steam  
Electric Station  
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**Mike Blevins**  
Senior Vice President &  
Chief Nuclear Officer

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

CPSES-200502474  
Log # TXX-05203  
File # 10010

December 2, 2005

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

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NO. 50-446  
RELIEF REQUEST C-1 TO THE UNIT 2 INSERVICE INSPECTION  
(ISI) PROGRAM PLAN FROM THE 1998 EDITION OF ASME CODE,  
SECTION XI, THROUGH 2000 ADDENDA (INTERVAL START  
DATE - AUGUST 3, 2004, SECOND INTERVAL)**

TXU Generation Company LP (hereafter TXU Power) has determined that certain inspection requirements of ASME Section XI are impractical due to physical interferences and is requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii).

TXU Power requests approval of the proposed Relief Request (RR) by the NRC staff. The attached RR is for a component that did not meet the examination coverage criteria of ASME Subsection IWC-2500. TXU Power has reviewed the inspection documentation and determined that the high percentage of examination volume completed and the lack of any recordable indications establishes a high level of confidence in the continued structural integrity of the component.

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-05203

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This communication contains no new licensing basis commitments regarding Comanche Peak Steam Electric Station (CPSES) Unit 2.


TXU Power requests approval of this relief request by December 1, 2006. The approval date was administratively selected to allow for NRC review. If you have any questions or need additional information regarding this matter, please feel free to contact Jack Hicks at (254) 897-6725.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC  
Its General Partner

Mike Blevins

By:   
Fred W. Madden  
Director, Regulatory Affairs

JCH

Attachment

c - B. S. Mallet, Region IV  
M. C. Thadani, NRR  
Resident Inspectors, CPSES  
T. Parks, Chief Inspector, TDLR

**TXU Power  
Comanche Peak Steam Electric Station (CPSES), Unit 2  
Second 10-Year Interval  
Relief Request C-1**

**Proposed Alternative in Accordance with 10 CFR 50.55a(g)(5)(iii)  
Inservice Inspection Impracticality**

**I. System/Component for Which Relief is Requested:**

Excess Letdown Heat Exchanger, Head to Flange Weld (TCX-2-1110-1)

**II. Code Requirement for Which Relief is Requested:**

At the time of the examination, CPSES Unit 2 was required to perform inservice examination of selected welds in accordance with the requirements of 10 CFR 50.55a, and ASME Code, Section XI, 1998 Edition through 2000 Addenda. The Code invokes the examination volume requirements of Figure IWC-2500-1.

The subject weld is a full penetration weld and requires 100% volumetric examination of the head to shell weld per Table IWC-2500-1, Examination Category C-A, Item No. C1.20.

**III. Impracticality of Compliance:**

Interferences from the heat exchanger inlet and outlet nozzles and from the flange taper precluded ultrasonic examination of the volume required by Figure IWC-2500-1. Approximately 25% of the required weld volume did not receive the full code required examination volume. The examination included axial and circumferential scans in both directions. Examination coverage was 100% circumferentially in both directions and approximately 50% in both axial directions. Refer to attached pages 3 through 6 for weld location and examination area configuration for weld TCX-2-1110-1.

There were no recordable indications identified by the volumetric examination performed on the accessible portion of the weld volume.

**IV. Burden Caused by Compliance:**

The examination coverage is limited by physical interferences from the heat exchanger inlet and outlet nozzles and from the flange taper as indicated in the attached pages. These conditions make 100% examination coverage impractical for this weld. In order to gain access to this weld for examination purposes, the heat exchanger would require a design modification. Imposition of this requirement would be a significant burden to TXU Power.

**TXU Power  
Comanche Peak Steam Electric Station (CPSES), Unit 2  
Second 10-Year Interval  
Relief Request C-1 (continued)**

**Proposed Alternative in Accordance with 10 CFR 50.55a(g)(5)(iii)  
Inservice Inspection Impracticability**

**V. Proposed Alternative and Basis for Use:**

There are no proposed alternatives. TXU Power has examined a significant portion of the weld, obtaining approximately 75% coverage of the weld.

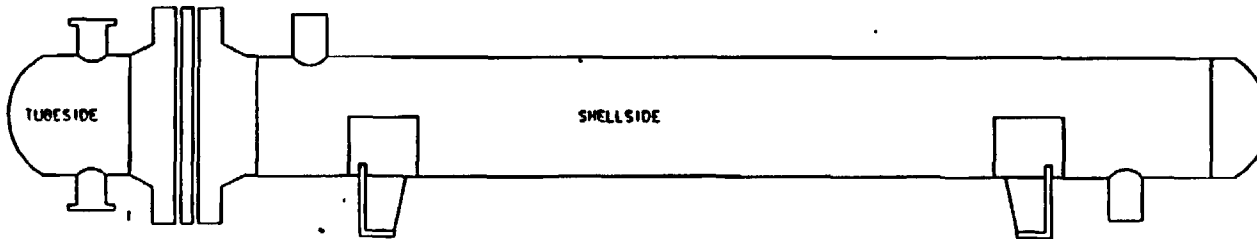
The subject weld was examined to the maximum extent possible. Based on the high percentage of the examination volume completed and the lack of any reportable indications, there is a high level of confidence in the continued structural integrity of the weld. There is no anticipated impact upon the overall plant quality and safety and the granting of the relief should not jeopardize the health and safety of the public.

**VI. Duration of Proposed Alternative:**

This relief is requested for the Comanche Peak Steam Electric Station Unit 2 second interval.

**VII. Precedent:**

- 1) Comanche Peak Unit 2 (Reference SER dated December 28, 1995, TAC No. M93334)



ILLUSTRATIVE USE ONLY

NOTES:	DESCRIPTION: CS EXCESS LETDOWN HX	TU ELECTRIC		
	(TUBESIDE) .750"/SA-240 (SHELLSIDE) .322"/SA-106	CPSES UNIT 2		
APPROVAL: RBM <i>ay</i> RBM <i>ay</i> 9-1-94		INSERVICE INSPECTION		
		LOCATION ISOMETRIC		
		TCX-2-1110	REV. 1	09-01-94

TCX-2-1110-151

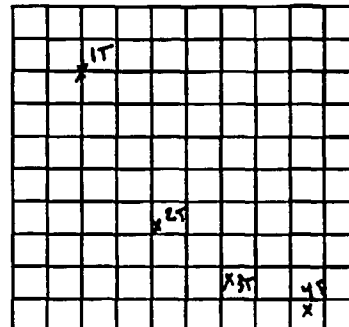
# PDI

## Calibration Data Sheet

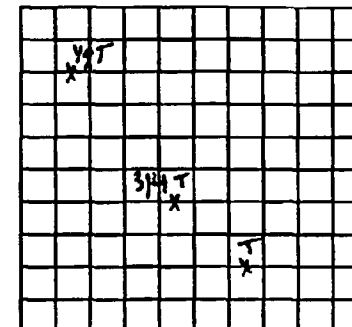
Plant/Unit COMANCHE UNIT 2  
Company WESDYNE  
Comp/System CS EXCESS LETDOWN HX  
Procedure No. TX-ISI-214  
Rev/Chng. No. 3 / N/A  
Cal. Block No. TBX-08  
Cal. Block Temp. 63°F Comp. Temp. 77°F  
Therm S/N TU 2361  
Size 8.0" Sch. 140 / .812" "T"  
☐ Ferritic ☒ Austenitic  
Each Major CRT Div. = .47" / .27"  
Cal. Direction Axial Circ. X Both  
Scan Area: I to Weld  
II to Weld

Data Sheet # 8UT12  
Page 1 of 3

Cal. Checks	Time
Initial Calib.	0912
Initial Calib. Date	04/02/05
Intermediate	N/A
Intermediate	N/A
Final Calib.	1423
Final Calib. Date	04/02/05



Search Unit #1



Search Unit #2

Couplant  
Type: ULTRAGEL II  
Batch: 03125

Manufacturer: KBA  
Serial No.: 0145RV Freq.: 2.25 MHz  
Size: .375" Shape: ROUND  
Exam Angle: 45° Model: MSWQC  
Measured Angle: 45°  
Wedge Style: MSWQC

Search Unit Cable  
Type: RG-174  
Length: 6' No. of Connectors 0

Instrument Settings  
Make/Model: KBA / USN-52R  
Serial No.: 009404  
Delay: 5.613  $\mu$ s Range: 4.776"  
M'tl Cal/Vel: .1239  $\mu$ s Pulser: SINGLE  
Damping: 1000  $\Omega$  Reject: 0%  
Rep. Rate: HIGH Freq.: 2-8 MHz  
Filter: FIXED Mode: FULLWAVE

Reference Sensitivity (Sens.)  
Axial: 25.6 dB Circ. 31.6 dB  
SDH Sensitivity: N/A  
Further Evaluation Required? Yes ☐ No ☒

Manufacturer: MEGASONICS  
Serial No.: PO520 Freq.: 2.25 MHz  
Size: 2 (0.14 x 0.30) Shape: RECT.  
Exam Angle: 70° Model: CGD  
Measured Angle: 70°  
Wedge Style: INTEGRAL

Search Unit Cable  
Type: 2 (RG-174)  
Length: 6' No. of Connectors 0

Instrument Settings  
Make/Model: USN-52R  
Serial No.: 009404  
Delay: 4.765  $\mu$ s Range: 2.7"  
M'tl Cal/Vel: .2301  $\mu$ s Pulser: DUAL  
Damping: 1000  $\Omega$  Reject: 0%  
Rep. Rate: HIGH Freq.: 2-8 MHz  
Filter: FIXED Mode: FULLWAVE

Reference Sensitivity (Sens.)  
Axial: 54.6 dB Circ. N/A  
SDH Sensitivity: N/A

Examination Area/Weld	Access	Recordable Indications			Exam Sens.
		Yes	No	Geom	
TCX-2-1110-1	1-SIDED		X		*

Remarks/Reasons for incomplete Scan(s)  
\* EXAM SENSITIVITY 45° 47.6 dB / 70° RL 60.6 dB  
25% NOT EXAMINED DUE TO NOZZLES. SEE PSI DATA.  
NOTE: LOW AMP. ID GEOMETRY ON CIRC. SCAN FROM DIVIDER PLATE, VERIFIED ON MANUFACTURER DRAWING.

Examiners: PAUL BLECHAY Paul Blechay Level II Date 04/02/05  
Reviewer: N/A 8756 Level N/A Date N/A  
4/4/05

T1 Electric Review / Date

Paul M. Blandino 4/9/05

Level III Review / Date

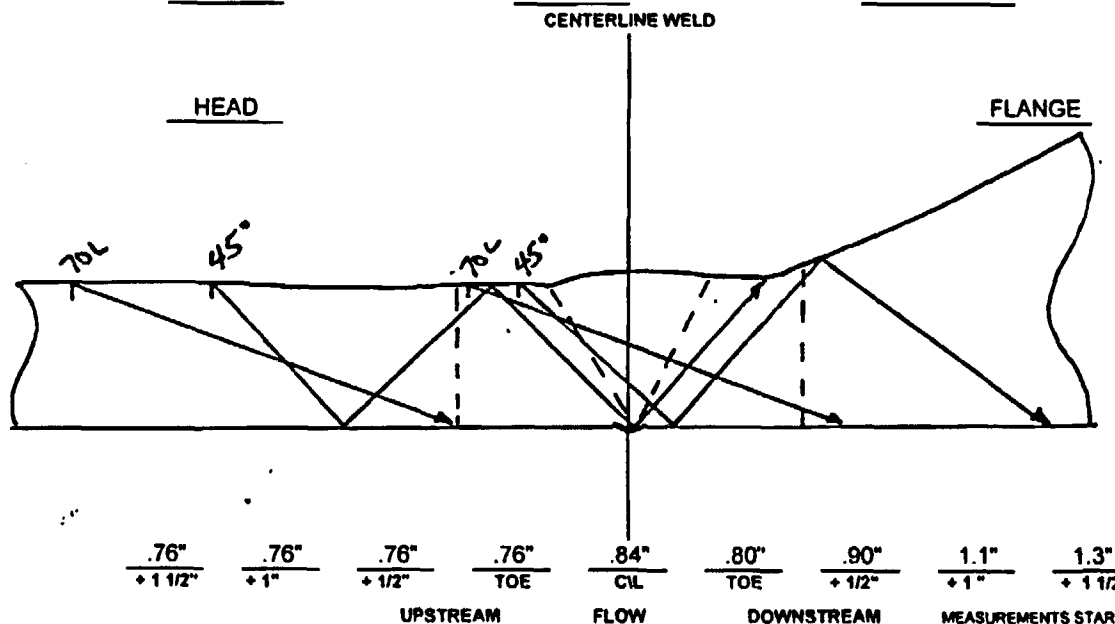
J. Ragan 4/9/05  
ANII: Mr. C. Hair 4/25/05

## PROFILE OF THE EXAMINATION

REPORT NO. 8UT12 STATION COMANCHE PEAK UNIT 2 PAGE 2 OF 3  
SYSTEM CS EXCESS LETDOWN HX COMPONENT HEAD TO FLANGE DRAWING NO. TCX-2-1110 IDENT NO. 1

### PROFILE SECTION

DIAMETER 8.0" WELD LENGTH 25.2" CROWN WIDTH 1.2" CROWN HEIGHT 0.1" LONG SEAM LOCATION(S) N/A



MEASUREMENTS START AT C/L 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 45°

SECTION XI X **COVERAGE ACHIEVED**  
RISK INFORMED        AUGMENTED        PREVIOUS DATA REVIEWED YES TYPE UT

EXAMINER Paul S. Blecha *Paul S Blecha* DATE 04/02/05 EXAMINER N/A DATE N/A  
REVIEWER SA Selo DATE 4/4/05 REVIEWER J. Ragan DATE 4/9/05

ANTI: Inc. Hm 4/25/05

WESTINGHOUSE NUCLEAR SERVICE DIVISION  
INSPECTION SERVICES

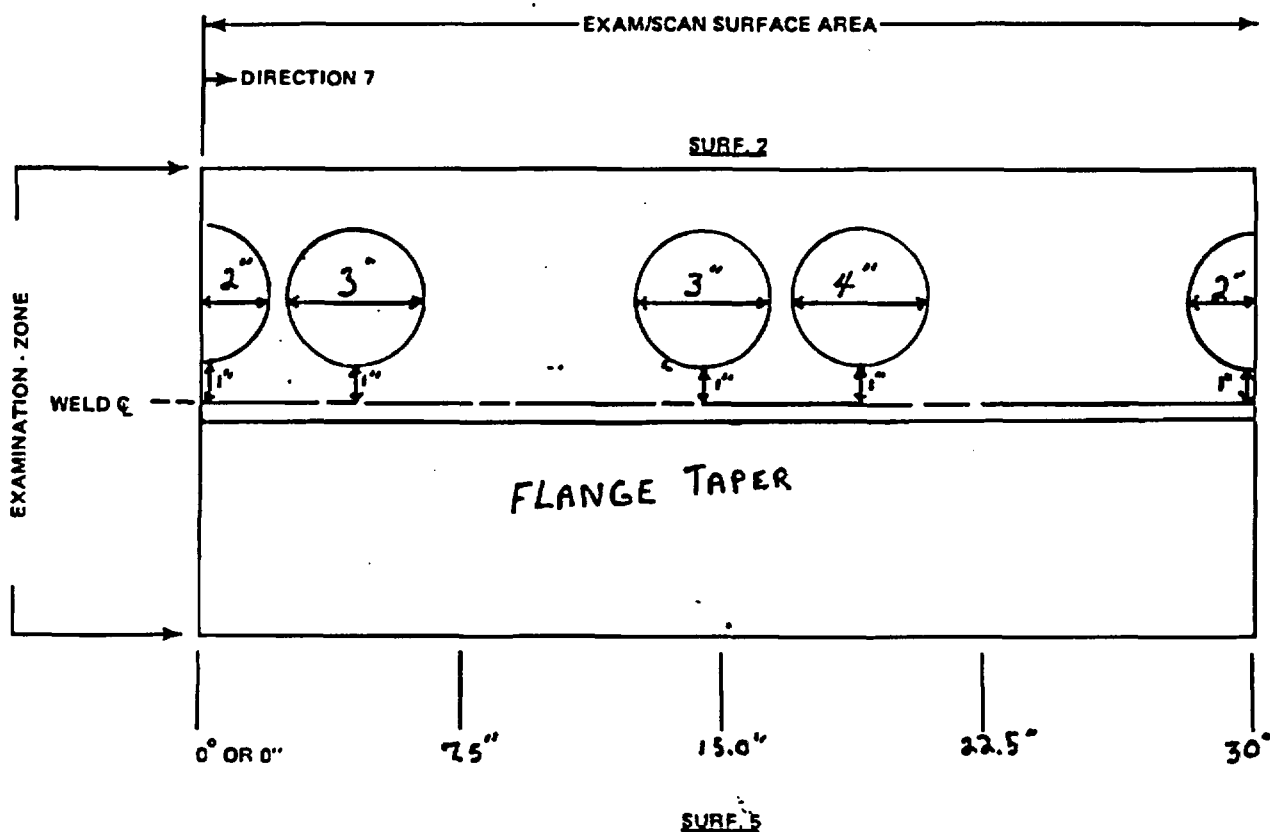
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LIMITATION TO EXAMINATION

PLANT COMANCHE PEAK UNIT 2 SKETCH TCX-2-1110 REV. 0  
SYST/COMP EXCESS LETDOWN HEAT EXCHANGER PROCEDURE TX-151-206 REV 1  
EXAMINER Steve A. Morini II James R. Wainwright DATE 2-6-88  
LEVEL II

RELATED TO: U/T X P/T \_\_\_\_\_ M/T \_\_\_\_\_ V/T \_\_\_\_\_ ITEM(S): WELD 1

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



David L. Ford 2/12/88 J. R. Wainwright 2/18/88 TUC J. D. Green ANZ  
FORM 48745A