

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC  
84 OCT 23

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of: )  
 )  
TEXAS UTILITIES ELECTRIC ) Dockets Nos. 50-445-2 and  
COMPANY, et al. ) 50-446-2  
 )  
(Comanche Peak Steam Electric ) (Applications for  
Station, Units 1 and 2) ) Operating Licenses)

PREFILED TESTIMONY OF  
GEORGE W. CHANEY

Q1. Please state your name.

A1. George W. Chaney.

Q2. By whom and where are you employed, Mr. Chaney?

A2. I am the principal Questioned Document Examiner of James L. Lewis and Associates, 5934 Royal Lane, Suite 255, Dallas, Texas 75230.

Q3. Please briefly describe your employment background.

A3. I was a Special Agent with the United States Secret Service from 1954 to 1977, and worked in the San Antonio, Dallas, and Washington, D.C. field offices. From 1963 to 1969, I was Assistant Special Agent in Charge of Personnel and Training. From 1969 to 1974, I was Assistant Special Agent in Charge of the Dallas Field Office. From 1974 to 1977, I was Special Agent in Charge of the El Paso Field Office. I retired from the Secret Service in February, 1977.

B410240454 B41023  
PDR ADOCK 05000445  
T PDR

Q4. Have you had any training in the examination of documents?

A4. Yes. As a Special Agent, I attended 120 hours of the Secret Service's Questioned Document School. I later taught at the Questioned Document School, in the Training Division.

Q5. Did your employment with the Service include work with questioned documents?

A5. Yes, I worked with documents extensively as a Special Agent. My duties included the investigation of forgeries and alterations of United States Treasury checks, Savings Bonds, and the counterfeiting of United States currency and other obligations. I also investigated anonymous and threatening letters to the President and other dignitaries. As Assistant Special Agent in Charge of the Dallas Field Office, and as Special Agent in Charge of the El Paso Office, I was directly responsible for all forgery and other document investigations assigned to those offices. During my work as a Special Agent, I reviewed and examined thousands of documents for forgery or alteration.

Q6. When did you begin working with James L. Lewis and Associates?

A6. In March, 1977.

Q7. Please describe your work with Lewis and Associates.

- A7. As a Questioned Document Examiner, I examine documents, such as deeds, wills, promissory notes, checks, leases, and anonymous writings, for forgery, alteration, verification of typing, and other attributes. I have examined thousands of documents during my employment with Lewis and Associates.
- Q8. Have you testified regarding documents in any judicial or administrative proceedings?
- A8. Yes. As a Special Agent with the Secret Service, I testified numerous times in criminal cases as a document expert. More recently, I have testified in State and Federal courts in numerous cases involving questioned documents.
- Q9. Mr. Chaney, I show you two documents marked as Attachments 1 and 2 to your testimony. Have you been asked to examine the originals of those documents?
- A9. Yes. On October 2, 1984, I examined the originals of these documents under a microscope. I also directed the photography of aspects of two of the documents.
- Q10. Did you add any markings to the documents identified as Attachments 1 and 2?
- A10. My photographer made certain marks on the documents, which are copies of the originals, to identify the frame numbers of the film. On Attachment 1, for example, next to lines 5 and 6 on the right-hand side,

my photographer wrote "42" and "43" with arrows, to identify the frame number and item that he photographed.

Q11. Mr. Chaney, please identify Attachment 3 to your testimony.

A11. Attachment 3 is an enlarged print of part of frame 43, showing a portion of lines 5 and 6 of the original of Attachment 1.

Q12. Please identify Attachment 4 to your testimony.

A12. Attachment 4 is an enlarged print of part of frame 22, showing an area on the left-hand side of the original of Attachment 2.

Q13. Mr. Chaney, were you given any other documents in connection with your examination?

A13. Yes. I also examined Attachments 5 and 6 to my testimony.

Q14. With respect to the original of Attachment 1, what were you asked to examine?

A14. I was asked to examine the area on lines 5 and 6 of the document where the dates "1/14/84" had been corrected to read "1/17/84." Specifically, I was asked to determine whether the "17" appearing above the crossed-out "14" on each line was made by the same person who wrote the full entries on those two lines, and whether the "17" above the crossed-out "14" was made with the same writing instrument as the other

entries. I was also asked whether the initials and dates appearing immediately below the signatures and dates on lines 5 and 6 were in the same hand, and by the same writing instrument, as the entries on lines 5 and 6. Finally, I was asked whether the line-out of the "14" on each line was performed with the same writing instrument as the other entries on those lines.

Q15. Mr. Chaney, do you have an opinion as to whether all of the writing appearing on lines 5 and 6, as enlarged on Attachment 3, was performed by the same person?

A15. Yes. Based on my microscopic and visual examinations, it is my opinion that all of the writings on lines 5 and 6 as shown on Attachment 3 were made by "JStanford," assuming that this is the person who made these entries. By "all of the writings," I mean the original dates of "1/17/84," the cross-out bar through the "14s," the "17s" above the "14s," the initials "JS," and the dates "1/17/84" next to the initials.

Q16. On what do you base your opinion?

A16. The signature "JStanford" on lines 5 and 6 is distinctive, and is repeated at several other places, both on Attachment 1 and on Attachment 5. The initials "JS" that appear immediately below lines 5 and 6, as shown on Attachment 3, conform to the "J" and "S" of the signatures. The initials "JS" also appear at other places on Attachment 1, in the same handwriting.



As to the dates, both the "8" and the "4" of the "84" in this individual's writing are distinctive. As clearly shown on Attachment 3, each of the "8s" is formed similarly, especially as to the opening in the upper right-hand corner in each of the "8s," top to bottom. The "8s" at other places next to the signature "JStanford" or initials "JS" elsewhere on Attachment 1 and on Attachment 5 reflect the same similarities. The "4s" are also similar, consisting essentially of a check mark with a downstroke to complete the "4."

The "7s" also share points of similarity. Referring to the "7s" on Attachment 3, each "7" tends to come to a point, or sharp angle, where the writer makes the downstroke. This characteristic also appears in the "7s" on Attachment 5. The top three "7s" on Attachment 3 also show a tic at the point where the writer began the figure; the tic is a short downstroke in the upper left-hand corner of the figure. This tic is more apparent from microscopic examination than in Attachment 3, the enlargement.

The same tic appears in more pronounced fashion in the bars that cross out the "14s" in the "1/14/84" dates on lines 5 and 6 of Attachment 1. These tics clearly appear on Attachment 3, the enlargement.

Referring to Attachment 1, the same tic appears in the bottom bar of the Roman "II" appearing to the right of the signatures and dates on lines 3, 4, 5 and 6.

Q17. Mr. Chaney, do you have an opinion as to whether the signatures, initials, dates, and cross-out bars on lines 5 and 6 were written with the same instrument?

A17. All of these markings were made with a ball-point pen. The color is uniform for each of the writings. I cannot, however, determine whether all of these writings were made by the same pen.

Q18. Are the bars through the "14s" and the "17s" above the crossed-out "14s," significantly different from the other writings on lines 5 and 6 of Attachment 1?

A18. As shown on Attachment 3, the bars through the "14s" and the uppermost "17" are somewhat darker in shade than the other writings on lines 5 and 6. This was caused by the writer's bearing down more heavily when he made these entries. This can be seen from the back side of the original of Attachment 1, where the indentation of the bar through the "14" on line 5 is plainly visible. The bar through the second "14" is not as apparent. The "17" above the crossed-out "14" on line 6 is not that much different from the "17" immediately above it. In my opinion, the principal differences between the bars through the "14s" and the

"17s" above them and the other writing on lines 5 and 6 is that the writer pressed down more firmly as to some of these markings.

Q19. Is there any reason, based on your experience as a document examiner, why the writer pressed down more firmly in marking through the "14s"?

A19. Yes. Almost anyone who is crossing out something on any document tends to do so firmly, more firmly than that person normally writes.

Q20. Mr. Chaney, what were you asked to examine with respect to Attachment 4?

A20. I was asked to examine the crossed-out "13s" and the "14s" immediately above them on lines 3 and 4, and to determine whether the writing instrument used to make those entries was the same instrument used on lines 5 and 6 of Attachment 1. I was also asked to determine whether the handwriting is the same.

Q21. Mr. Chaney, do you have an opinion as to whether the writing instrument used in the entries you have described on Attachment 4 is the same instrument used in the entries on lines 5 and 6 of Attachment 1?

A21. Yes, I do.

Q22. What is your opinion?

A22. As I have testified, all of the entries on lines 5 and 6 shown on Attachment 1 were made with a ball-point pen. The bars through the "13s" and the "14s" above



them shown on Attachment 4, which is an enlargement of Attachment 2, were made with a fluid ink pen. The entries on Attachment 4 were made with a fountain pen, a felt-tip pen, or a pen with a similar point, such as a Pentel. The differences are apparent by comparing Attachments 3 and 4. Attachment 4 also shows that the edges of the bars and the "14s" are not sharply defined. This feature, which is even more apparent in a microscopic examination, is caused by the fluid ink soaking into the paper. All entries in Attachment 3, in contrast--including the bars--are sharply-edged. That is characteristic of a ball-point pen.

Q23. Do you have an opinion as to whether the bars and "14s" on Attachment 4 were made by the same person who made the entries on lines 5 and 6 of Attachment 1?

A23. In my opinion, the individual who made the entries on lines 5 and 6 of Attachment 1 was not the same person who marked through the "13s" and wrote the "14s" on Attachment 4. I base that opinion principally on the differences between the "4s" on the two documents. Attachment 3 reflects a uniform formation of the numeral "4," which appears there numerous times in the same hand. The "4s" on Attachment 4 are formed differently.

Q24. Does that conclude your testimony?

A24. Yes, it does.

**CLEARANCE REQUIRED**

Change affects system turn-over and clearance must be obtained from the Startup Engineer prior to starting work.

**INSTALLATION TO BE IN ACCORDANCE WITH PROCEDURES REFERENCED IN -CPM-6.11**

**WELD DATA CARD**

27

29-Free

Attachment 1

WDC Serial No. 40851

Drawing No. AF-1-SB-007R-146

Weld No. FUJ4DC

LINE # <u>6'-AF-1-036-2002.3</u>	WPS # <u>11020</u> <u>11021</u> <u>11010</u>	REV#/ICN# <u>7/0</u> <u>5/0</u> <u>3/0</u>	FABRICATION CODE & CLASS/ACC. STD. ASME III CPM 6.9 <u>3</u>
BASE MATERIAL <u>HT # 316L-73</u> to HT# <u>NA</u> PC # <u>IAE-CX7</u> to PC# <u>303</u> P # <u>1</u> to P # <u>1</u>	POSTWELD HEAT TREATMENT TIME <u>NA</u> Hrs., TEMP. <u>NA</u> °F HEATING RATE <u>NA</u> °/Hr. <u>NA</u> SPECIFICATION WPS/CPM 6.9D		
QI-QAP/REV <u>NA</u> <u>VT/11.1-26</u>	<u>PT/10.2-1</u>	<u>MT/10.2-2</u>	<u>RT/10.2-3</u> <u>UT</u>
MR#(S)	M.&T.E.	CALIB. DUE DATE	QC
QC VERIF. DATE:	<u>13.55 1/14/84</u>	<u>14 Mar 84</u>	<u>13-11/14/84</u>
			WELD FILLER MATERIAL REQUIRED ROOT CLASS <u>EN8-2</u> FILL CLASS <u>EN8-2</u> CLASS <u>E-7018</u> <u>Rev 1-13-84</u> CLASS

NOTES: (1) Applicable QC/ANI hold points shall be indicated by checkmark ✓.  
 (2) ANI inspection points indicated by (X).  
 (3) Denote Satisfactory inspection by an "S"; Unsatisfactory inspections by a "U".  
 X(12) **PRODUCTION RELEASE**

OPER. NO.	OPERATION	HOLD POINTS			CON	SAT. or UNSAT.	INSPECTION RESULTS (SIGN AND DATE)		
		WT	QC	ANI			QC or WT	NOE CERT. LEVEL	ANI
1	Verify Cut	Y	NA	NC		Sat. DWR 1-3-84			
2	Cleanliness	NA	✓	NC		*UNSAT (Amended) 1-3-84	II		
3	Fitup	NA	✓	(X) NC		Sat. Brandon 1/14/84	II		157/1/14/84
4	Preheat	NA	✓	NC		Sat. Brandon 1/14/84	II		
5	Final VT	NA	✓	NC		Sat. Brandon 1/17/84	II		← 42
6	Final NDE	NA	✓	NC		Sat. Brandon 1/17/84	II		← 43 ✓
	Reviewed: [Signature]					1-3-84			1/1-3-84
2A	Cleanliness	NA	✓	NC		*Sat. Brandon 1/14/84	II		
	Reviewed: [Signature]					1-14-84			BU 1/14/84

\*Noted in error 1/9/1984 28

NCR # 12963  
 WE A.K. 1/14/84 QC [Signature] 1/23/84 ANI [Signature] R. Byars 3/28/84

Approval signatures shall be affixed on the line immediately below the last step in each sequence.  
 \*REL. NCR # M-12,382-5 2/1-3-84

23-*Full*

WPS #	
11010	11020
	11021

WOC Serial No. 40851  
 Drawing No. AF-1-SR-07R-14  
 Weld No. FWJ40C

WELD FILLER MATERIAL LOG

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
FW 40C	1/3/84	6" x 3/32 K	A HS	11021				<i>Alan Just</i>
		E705-2		5-0	42508131	1	1	
FW 40C	1/3/84	3/32	A HS	11021				<i>Alan Just</i>
		E705-2		5-0	87401	10	10	R350
FW 40C	1/4/84	E-705-2	AHS	11010				<i>Alan Just</i>
		3/32		5-0	87401	10	7	R-389
FW 40C	1/4/84	E-705-2	AHS	11010				<i>Alan Just</i>
		1/8		5-0	97401	10	5	R-434
FW 40C	1/4/84	3/32	AFK	11010	G64772			<i>Alan Just</i>
		E-705-2		5-0	0268227	40	0	
FW 40C	1/4/84	3/32	AHS	11010	G64772			<i>Alan Just</i>
		E7018		5-0	0268227	40	0	R-221
FW 40C	1/16/84	3/32	AHS	11020				<i>Alan Just</i>
		E-705-2		7-0	87401	10	10	R250
FW 40C	1/14/84	1/8	AHS	11020				<i>Alan Just</i>
		E-705-2		7-0	97401	10	10	R608
FW 40C	1/18/84	E-7018	AHS	11010	G64772			<i>Alan Just</i>
		3/32		5-0	0268227	50	5	R230



Stanford 1/14/84

Stanford 1/14/84

Stanford 1/17/84 \*

Stanford 1/17/84 \*

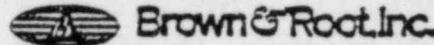
Stanford 1/17/84

Stanford 1/14/84

WELL NO.	DATE	SIZE/CL
FW 40C	1/3 /84	6 <sup>1</sup> / <sub>8</sub> X <sup>5</sup> / <sub>32</sub> E705-
FW 40C	1/3 /84	3/32 E705-2
F.W. 40C	1/8 <sup>4</sup> FA 43/114 /84	E-705-2 3/32
F.W. 40C	1/8 <sup>4</sup> FA 12 /84	E-705-2 1/8
FW 40C	1/14 /84	3/32 E701 70C

Attachment 4





Post Office Box 1001, Glen Rose, Texas 76043

QUALITY ASSURANCE DEPARTMENT  
VISUAL EXAMINATION CHECKLIST

33-*Jul*

PROJECT: COMANCHE PEAK      JOB NO. 35-1195      UNIT 1      PAGE 1 OF 1

DRAWING <u>AF-1-SB-007</u> <i>AG</i>	SYSTEM <u>AF</u>	CLASS <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> OTHER
WELD/ITEM NUMBER <u>FW-40C</u>	LOCATION <u>EL 805' SB #1</u>	<u>Am 72</u>

Enter NA adjacent to attribute when not applicable. Enter Sat./Unsat. or NA above results in each section 1 through 4 as applicable.

WDC#40851

<p>SKETCH AND REMARKS (S)</p> <p>34      <i>Sat</i>      34</p>	<p>34</p>
<p>Check List</p> <p>1. FITUP (Prior and During)</p> <p>Base Material _____</p> <p>Joint Design _____</p> <p>Cleanliness _____</p> <p>Joint Fitup _____</p> <p>Joint Alignment _____</p> <p>Socket Engagement _____</p> <p>Socket End Gap _____</p> <p>Inspection Inspection Stamp _____</p> <p><u>SURGE</u> <i>NA</i></p> <p>Orientation/Direction of Flow _____</p>	<p>34</p> <p>Results</p> <p><u>Standard II</u>      <u>11/4/84</u></p> <p>Inspector      Level      DATE</p>
<p>2. AFTER WELDING OF ROOT</p> <p>External Surface _____</p> <p>Internal Surface _____</p>	<p>Results <u>NA</u></p> <p>Inspector      Level      DATE</p>
<p>3. COMPLETION OF WELD (ID)</p> <p>Surface _____</p> <p>Reinforcement _____</p> <p>Concavity _____</p> <p>Cracks _____</p> <p>Crater Fills _____</p> <p>Unburned Insert _____</p> <p>Ins. Fusion (Ins. Penetration) _____</p> <p>Burn-Through _____</p> <p>Undercut _____</p>	<p>Results <u>NA</u>      <u>25</u></p> <p>Inspector      Level      DATE</p>
<p>4. COMPLETION OF WELD (OD)</p> <p>Surface _____</p> <p>Reinforcement _____</p> <p>Undercut _____</p> <p>Flillet Size <u>NA</u></p> <p>Standing of Surface _____</p> <p>Joint/Welder Ingress _____</p> <p>Suitability of Surface for NDT _____</p> <p>Removal of Tens. Attachments <u>NA</u></p> <p>Surface free from Arc Spikes _____</p> <p>Weld Spatter, etc. _____</p> <p>Purge Gasm Removed <u>VA</u></p>	<p>Results <u>Sat</u>      <u>37</u></p> <p><u>Standard II</u>      <u>1/17/84</u></p> <p>Inspector      Level      Date</p>

QC Supervision	Date
NOE PROCEDURE QI-QAP 11.1-26	Rev.      CERTIFICATION LEVEL




QUALITY ASSURANCE DEPARTMENT  
MT/PT REPORT

PROJECT: COMANCHE PEAK JOB NO. 35-1195

UNIT 1 PAGE 1 OF 1

MT  PT

WDC/Traveler # 40851  
Class 3

Drawing AFT-SB-007  System A.F.

Welds/Item # F.W. 40C Location Ele. 805'-3<sup>3</sup>/<sub>16</sub>" S.G.1 Rm.# 72

Mfg Stage FINAL NDE Procedure No QAI CAP 10.2-1 Rev. 3

Equip/Mat'ls Mfg. MAGNAflux Acceptance Std. ASME Sec. III

Penetrant Batch # 81L071 Cleaner Batch # 83H100 Developer Batch # 82C090

AC Yoke  DC Prods  NA Model # NA M&TE IRC # NA

Mat'l Type P-1 Mat'l Thickness 5/20 Diameter  Length  6"

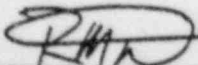
Sketch & Comments ID  OD

No rejectable indications noted

24

26

25



DOCKETED  
USNRC

UNITED STATES OF AMERICA<sup>84</sup> OCT 23 P4:02  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
)  
TEXAS UTILITIES ELECTRIC ) Docket Nos. 50-445-2 and  
COMPANY, et al. ) 50-446-2  
)  
(Comanche Peak Steam Electric ) (Application for  
Station, Units 1 and 2) ) Operating Licenses)

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing document in the above-captioned matter was served upon the following persons by hand-delivery,\* overnight delivery,\*\* or by deposit in the United States mail,\*\*\* first class, postage prepaid, this 23rd day of October, 1984:

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