

449.

RELATED CORRESPONDENCE

DOCKETED
USNRC

LAW OFFICES OF
BISHOP, LIBERMAN, COOK, PURCELL & REYNOLDS

1200 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
(202) 857-9800
TELEX 440574 INTLAW UI

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BISHOP, LIBERMAN & COOK
1155 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10036
(212) 704-0100
TELEX 222767

WRITER'S DIRECT DIAL
(202)

October 11, 1984

Peter B. Bloch, Esq.
Atomic Safety and Licensing
Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. Walter H. Jordan
881 West Outer Drive
Oak Ridge, Tennessee 37830

Herbert Grossman, Esq.
Atomic Safety and Licensing
Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Re: Texas Utilities Electric
Company, et al. (Comanche Peak
Steam Electric Station, Units 1
and 2), Docket Nos. 50-445-2,
50-446-2

Gentlemen:

As requested by the Board, Applicants herewith provide copies of the following documents relating to work planned, discussed or conducted by Oliver B. Cannon & Son, Inc., for Texas Utilities Electric Company or its successors or their agents (Comanche Peak) during or after 1983, the purpose or planning for the "Lipinsky Memo Meeting of November 10-11, 1983", and the contractual or informal relationship between O.B. Cannon and Comanche Peak, including payments:

1. J.J. Norris letter to J.T. Merritt dated 7/15/83, with attached fee schedule.
2. Letter and attachment identified in item 1, with handwritten notations (date unknown) by Robert D. Gentry, Project Support Services Manager.
3. Field Requisition prepared by J.C. Youngblood, Purchasing Supervisor, dated 7/19/83.

8410150180 841011
PDR ADDCK 05000445
PDR
G

DS03

4. Handwritten notes by J.T. Merritt dated 7/28/83.
5. Handwritten notes by J.T. Merritt dated 8/3/83.
6. Memorandum re air compressors. Handwritten notation and date by J.T. Merritt.
7. Memorandum re construction procedures. Handwritten notation and date by J.T. Merritt.
8. J.J. Norris letter to J.T. Youngblood dated 8/10/83.
9. R.M. Kissinger memo to distribution dated 8/15/83, with attachments.
10. Memo identified in item 10, with highlights by R.M. Kissinger.
11. Memo identified in item 10, with notations by J.T. Merritt.
12. O.B. Cannon invoice dated 8/29/83.
13. O.B. Cannon invoice dated 8/30/83.
14. Handwritten note from R.B. Roth to J.T. Merritt dated 10/12/83 [enclosing J.J. Lipinsky Trip Report dated 8/8/83].
15. Handwritten note from R.B. Roth to J.T. Merritt, with enclosure, dated 10/18/83.
16. J.T. Merritt letter to R.B. Roth dated 10/28/83, with attached D.N. Chapman memorandum to J.T. Merritt dated 10/27/83.
17. J.J. Lipinsky memo to R.B. Roth dated 10/28/83.
18. J.J. Norris memo to R.B. Roth dated 10/31/83.
19. Handwritten notes by J.T. Merritt dated 11/3/83.
20. Handwritten notes by J.T. Merritt dated 11/4/83.
21. R.B. Roth letter to J.T. Merritt dated 11/4/83, with enclosures.
22. Handwritten notes by J.T. Merritt dated 11/8/83.
23. Undated memo titled "J.J.L. & M.K.M. COMANCHE PEAK TRIP," author unknown. Believed to have been received by Applicants from O.B. Cannon during period 11/8/83 - 11/10/83.

24. Handwritten notes by J.T. Merritt dated 11/10/83.
25. R.B. Roth letter to N.S. Reynolds dated 11/28/83.
26. R.B. Roth letter to J.T. Merritt dated 11/30/83, enclosing R.A. Trallo memo to R.B. Roth dated 11/28/83.
27. O.B. Cannon invoice dated 1/31/84, with some handwritten notations by R.D. Gentry dated 6/22/84.
28. O.B. Cannon invoice dated 4/2/84, with some handwritten notations by R.D. Gentry dated 6/22/84.
29. O.B. Cannon invoice dated 4/30/84, with some handwritten notations by R.D. Gentry dated 6/22/84.
30. C.R. Graves memo to J.T. Merritt dated 6/5/84.
31. Field Requisition prepared by B. Thompson, undated. Prepared in June, 1984.
32. Debit memo dated 7/5/84 [the copy is obscured by sticker apparently used for accounting purposes. Counsel for Applicants will supply a clean copy of this document].
33. Memorandum prepared under R.D. Gentry's supervision on 10/10/84, with attached memo.
34. Business cards of M.K. Michels and J.J. Lipinsky.

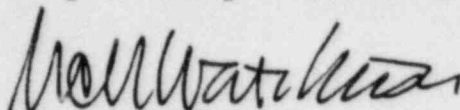
Applicants are not submitting duplicate copies of documents that have already been supplied to the Board and the parties, such as J.J. Lipinsky's Trip Report dated 8/8/83, the transcript of meetings held at the site on 11/10/83 and 11/11/83, and the original and supplemental purchase orders.

Applicants are withholding production of the following document:

Handwritten notes by J.T. Merritt during a telephone conference with R.G. Tolson and N.S. Reynolds dated 10/26/83.

This two-page document is subject to the privilege for communications between attorney and client.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "McNeill Watkins II".

McNeill Watkins II
Counsel for Applicants

cc (w/enc): All Parties

UNITED STATES OF AMERICA
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 "Subpoenas to Cory Allen" in the above-captioned matter were served upon the following persons by hand-delivery,* overnight delivery,** or by deposit in the United States mail,*** first class, postage prepaid, this 12th day of October, 1984:

*Peter B. Bloch, Esq.
Chairman, Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

**Dr. Walter H. Jordan
881 West Outer Drive
Oak Ridge, Tennessee 37830

*Herbert Grossman, Esq.
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

***Mr. John Collins
Regional Administrator
Region IV
U.S. Nuclear Regulatory
Commission
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

***Chairman, Atomic Safety and
Licensing Appeal Panel
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

*Mr. William L. Clements
Docketing & Services Branch
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

*Stuart A. Treby, Esq.
Office of the Executive
Legal Director
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555

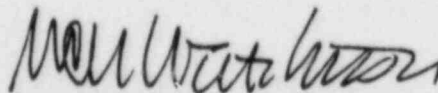
**Chairman, Atomic Safety and
Licensing Board Panel
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

***Renea Hicks, Esq.
Assistant Attorney General
Environmental Protection
Division
P.O. Box 12548
Capitol Station
Austin, Texas 78711

***Lanny A. Sinkin
114 W. 7th Street
Suite 220
Austin, Texas 78701

*Anthony Z. Roisman, Esq.
Executive Director
Trial Lawyers for Public Justice
2000 P. Street, N.W.
Suite 600
Washington, D. C. 20036

*Ellen Ginsberg, Esq.
Atomic Safety and Licensing
Board Panel
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555



McNeill Watkins II

cc: Homer C. Schmidt
John W. Beck
Robert Wooldridge, Esq.



ERKOTE

RECEIVED
OLIVER B. CANNON & SON, INC.
TUSI - B & R
CPSES OPGM

OLIVER B. CANNON & SON, INC.

Industrial Painting Specialists

9001 AIRPORT BLVD. · SUITE 801 · HOUSTON, TEXAS 77061
PHONE 713 947-9670

*Corrosion
Control Services*

REPLY TO:

P.O. BOX 166 · SOUTH HOUSTON, TX 77567

July 15, 1983

C8301:001

Texas Utilities Services, Inc.
P.O. Box 1002
Glen Rose, Texas 76043

Attention: Mr. J. T. Merritt, Jr., P.E.
Engineering & Construction Manager

Reference: Texas Utilities Generating Company
Comanche Peak Steam Electric Station
1981-83 - 2300 MW Installation
Gibbs & Hill Project No. 2323
05277 Protective Coatings
Specification No. 2323-AS-31

CPSES-OPGM	
LFF	DCF
IBC	RDG
<u>ITM</u>	
MRM	
MH	
BIM	FILE

Gentlemen:

Thank you for the time and courtesies extended to me during my visit to the jobsite on July 13, 1983. We are organizing our analysis of the Service Level One coating effort into the following categories:

- | | |
|--------------------------------------|--------------------------------|
| 1-Production | 5-Quality Control |
| 2-Work Procedures | 6-Management of Coating Effort |
| 3-Scheduling | 7-Future Maint. Considerations |
| 4-Training and Painter Qualification | 8-Specifications |

Per the above breakdown, we will send you our recommendations and observations, individually as we perceive the need, rather than wait until we complete our analysis. Please promptly indicate your acceptance, rejection or "needs further study" so that we don't waste time on recommendations that can't be implemented for reasons we might not be aware.

I have reviewed the commercial terms with John Youngblood and confirm them on Exhibit A (attached). TUSI General Terms and Conditions are acceptable except for the Hold Harmless Clause. A limited Hold Harmless Clause is acceptable.

We will, of course, send you a weekly report, indicating manpower, work in process, etc.

519
434
827

FOUNDED 1916

July 15, 1983

Texas Utilities Generating Company
Comanche Peak Steam Electric Station

Page 2

Our Certificate of Insurance was mailed to Mr. Gentry's attention on July 14, 1983.

Very truly yours,

J. J. Norris
Vice President

/d

cc: R. B. Roth
A. P. McDonald
T. F. Rogers

Attachment: Exhibit A

EXHIBIT A

FEE SCHEDULE

A.	Management Personnel	\$500/day + reasonable expenses
B.	Line Personnel	\$400/day + reasonable expenses
C.	Technical Personnel	
	1. Site	\$350/day + reasonable expenses
	2. Office	\$250/day
D.	Clerical Personnel	Cost
E.	To A, B, C & D above add 16% for overhead	
F.	FIXED FEE thru 9/15/83 (Negotiable after 9/15/83)	\$63,000
G.	Test Equipment (if necessary)	Per OBC List XIII(attached)
H.	Terms:	Net 30



OLIVER B. CANNON & SON, INC.

Industrial Painting Specialists

8001 AIRPORT BLVD. • SUITE 801 • HOUSTON, TEXAS 77061
PHONE 713 947-9670

*Corrosion
Control Services*

July 15, 1983

Jc Youngblood

REPLY TO:
P.O. BOX 188 • SOUTH HOUSTON, TX 77587

C8301:001

Texas Utilities Services, Inc.
P.O. Box 1002
Glen Rose, Texas 76043

Attention: Mr. J. T. Merritt, Jr., P.E.
Engineering & Construction Manager

Reference: Texas Utilities Generating Company
Comanche Peak Steam Electric Station
1981-83 - 2300 MW Installation
Gibbs & Hill Project No. 2323
05277 Protective Coatings
Specification No. 2323-AS-31

Gentlemen:

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|---------------------------------------|---|
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| ✓3-Scheduling | 7-Future Maint. Considerations |
| ✓4-Training and Painter Qualification | ✓8-Specifications |

Per the above breakdown, we will send you our recommendations and observations, individually as we perceive the need, rather than wait until we complete our analysis. Please promptly indicate your acceptance, rejection or "needs further study" so that we don't waste time on recommendations that can't be implemented for reasons we might not be aware.

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July 15, 1983

Texas Utilities Generating Company
Comanche Peak Steam Electric Station

Page 2

Our Certificate of Insurance was mailed to Mr. Gentry's attention on July 14, 1983.

Very truly yours,

J. J. Norris
Vice President

/s/

cc: R. B. Roth
A. P. McDonald
T. F. Rogers

Attachment: Exhibit A

EXHIBIT A
FEE SCHEDULE

A.	Management Personnel <u>CORPORATE LEVEL</u>	\$500/day + reasonable expenses
B.	Line Personnel (<u>WORKING LEVEL - CRAFT</u>)	\$400/day + reasonable expenses
C.	Technical Personnel	
	1. Site	\$350/day + reasonable expenses
	2. Office	\$250/day
D.	Clerical Personnel	Cost
E.	To A, B, C & D above add 16% for overhead	
F.	FIXED FEE thru 9/15/83 (Negotiable after 9/15/83)	\$63,000 - <u>PAID AT END - 9-15-83</u>
G.	Test Equipment (if necessary)	Per OBC List III (attached)
H.	Terms:	Net 30

W ACTION - DEFINE SCOPE
 - GET ESTIMATE OF MAN HOURS REQUIRED FOR SCOPE
 - WRITE P.O. COVERING SCOPE WITH CAP ON DOLLARS

Phase I - CAP ORDER FOR THIS EXPENSE @ 50% - 14/83

2. SCOPE ~~ORDER~~ & 2/3 PEOPLE FOR TWO/THREE WEEKS TO DO GENERAL SURVEY TO GET GENERAL FEE FOR WORK FOR JOB (FEE SCHEDULE A MANAGING PERSONNEL)

3. GET PEOPLE ON SITE FOR TWO/THREE WEEK PERIOD

4. SECURITY AGREEMENT - TUESDAY JACK NORRIS - WEDNESDAY

5. RAY TOSGAY - CREDENTIALS FOR BACK UP

7. EPAGE & ABOVE

8. BILL WARD PRODUCTION / ACTIVITY REPORT

Jul 19 1983

THIS IS NOT A PURCHASE ORDER

PURCHASING

(Leave blank for Purchasing Dept.)
 VENDOR NAME: Oliver B Cannon & Son Inc
 STREET: 9001 Airport Blvd
 CITY: Suite 801
 STATE, ZIP: Houston Texas 77061
 SHIP VIA: N/A
 SHIPPING DATE: N/A
 F.O.B. SP-PPA TERMS: Net 30

DEPARTMENT: PMG
 INTENDED USE: Technical Services

REQUISITION NO. EPF 16245
 DATE: July 19 1983
 DATE REQUIRED: _____
 ESTIMATED COST - \$100,000.00
 BUYER: JC Youngblood

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION Give complete descriptions, ratings, catalog nos., etc. Attach specifications, if required.	SAFETY CLASS CODE	LEAVE BLANK FOR PURCHASING DEPT.		COST CODES
					UNIT PRICE	TOTAL	
			<p>This requisition is written to procure the services of Oliver B. Cannon & Son, Inc for the purpose of coming to Comanche Peak Jobsite AND analyzing the protective coatings program.</p> <p>Phase I - Scope</p> <p>Oliver B. Cannon & Son Inc. will organize their analysis of the protective coatings program into the following categories:</p> <ul style="list-style-type: none"> Production Work Procedures Scheduling Trainings and Painter Qualification 				129230 940000-108

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 JUL 20 1983
D

JOB NO. 35-1195

REQUISITIONER: JC Youngblood
 CONTRACTOR APPROVAL: _____
 APPROVED: _____

No. Q.A. Required
 Safety Related Q.A. required
 Q.A. ACCEPTED
 TJSI APPROVALS: _____
 Robert W. Gulley 7-19-83

DATE: _____
 APPROVED: JC Youngblood 7/19/83

TEXAS UTILITIES GENERATING COMPANY
 CPSES FIELD REQUISITION CONTINUATION SHEET — CONSTRUCTION No P

THIS IS NOT A PURCHASE ORDER

REQUISITION 21928

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION Give complete descriptions, ratings, catalog nos., etc. Attach specifications, if required.	SAFETY CLASS CODE	LEAVE BLANK FOR PURCHASING DEPT.		COST CODES
					UNIT PRICE	TOTAL	
			Quality Control Management of Coating Effect Specifications Oliver B. CANNON & SON INC will send a team of two to three individuals (Corporate level management personnel) to the jobsite beginning July 19, 1983 for a duration of approximately three (3) weeks to do a general survey and get a general feel for the above mentioned categories. Fee Schedule A. MANAGEMENT PERSONNEL (Corporate Level) * 500/day B. Line Personnel (Working Level - Craft) * 400/day C. Technical Personnel 1. Site * 350/day 2. Office * 250/day				

REQUISITIONER
JC Goggin X-347
 CONTRACTOR APPROVAL
 APPROVED

No Q.A. Required Safety Related Q.A. Required Q.A. ACCEPTED
 TUS APPROVALS
Robert W. Gentry 7-19-83 APPROVED

DATE: *9/5/83*

TEXAS UTILITIES GENERATING COMPANY
CPSES FIELD REQUISITION CONTINUATION SHEET — CONSTRUCTION No R

THIS IS NOT A PURCHASE ORDER

REQUISITION 21928

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION Give complete descriptions, ratings, catalog nos., etc. Attach specifications, if required.	SAFETY CLASS CODE	LEAVE BLANK FOR PURCHASING DEPT.		COST CODES
					UNIT PRICE	TOTAL	
			D. Clerical Personnel * Cost				
			E. To A, B, C + D Above ADD 16% for overhead				
			F. Fixed Fee thru 9-15-83 * 63,000.00 (Negotiable after 9-15-83)				
			G. Test Equipment (if necessary) Per OBC List III				
			H. Terms Net 30 * plus reasonable expenses				
			Oliver B. CANNON & SON INC. will furnish QUALIFICATIONS DATA & resumes for the PERSONNEL assigned to this effort.				
			Total cost of Phase I is not to exceed * 40,000.00 100,000.00. **				
			Phase II will be defined as a comprehensive study with associated recommendations and observations. If this is required a supplement will be issued to add the additional scope.				

REQUISITIONER J.C. Youngblood X-347

No Q.A. Required Safety Related Q.A. Required

Q.A. ACCEPTED

DATE:

CONTRACTOR APPROVAL
APPROVED

US APPROVALS
APPROVED Robert D. Bentley 7-19-83 APPROVED J.F. [Signature]

Paint

7/28/85

FSAR

ANSI 101.2

§ . 4

Problem proving what we have done

A. Question on total traceability from refg. to final installation.

B. Do we need an audit of the paint record effort.

1. Material storage
2. Documentation

C. Painters do their own inspection before calling QC.

1. If consistent errors then get rid of crews.
2. Requalify all craft with QC on test sample
3. In 45 min. of inspection of polar crane 7 people are not working.

D. We need to look at air supply

1. Select compressors

2. Desiccant Dryers
3. Cannon will recommend a system.

Go back to C

- A. Get QC to trend rejects to painter / foreman
- E. Improve moral lit. QC. $\frac{1}{1}$ journeymen painters
- F. Divide containment vs. other bldgs.
- G. Get a schedule for all groups and hold to it for all groups. incl. painters.
- H. Do not paint before work is completed.

~~I. We need~~

I. Foreman not supervising. Not with crew; too much talk;

1. Preparation is not taking too long with little to no production.
 2. Ratio foreman to helper 1:12 OK
 3. ~~What is~~ helper to painter ~~1 1/2~~ to ~~3~~ normal. What is ratio CP.
- J. Spec. rewrite in R.B. not effective so to retraining and lost effort plus high initial NCRs.
1. We use mfg. Data sheets which are not acceptable we need a mfg spec.
 2. Our spec. references so many stds we are in conflict.
 3. Someone needs to rewrite spec.
 4. for VZ. spell out touchup spec.
- K. QA/QC has not no time off with too many hours
- L. Need touchup procedure
- M. Run qty. survey on R.B. as to what we could tolerate in the future ∴ declassify attached paint.

N. Mike Coulton ANO Nbs. Pan. &
Flight. review & cleanup problems.

O. \$6.00 starting is low on labor

P. QA/QC

1. Attitude problem
2. Averaging 60 need to get back to 40 hours. Need more inspectors.

3.

I plan to bring up issue
of Head removal sched.

OK?

- I People qualifications # good programs
- II Supervision 1 & 2 level prof
- III spec. no change. For Unit 2 it
is needed.
 - A. Remove all B.S. or requirements from
spec.
 - B. Declassify spec attachments
 - C. Touchups.
- IV QC need more

Paint

8/3/83

I. Summary of Problem

- A. Problems with preparation, installation and inspection of paint system on liner & attachments

II. Recommendations of Consultant

- A. Specification - Remove attachments from paint spec ~~in particular~~
1. Eliminate the QA requirements for inspection to SP-3
Wire Brush cleanliness
 2. Eliminate the dry film thickness from attachments

- ~~3.~~ 3. Do this by establishing an acceptable level of paint loss to the floor & to the sump
- a. Waterford 500 cu. ft. translates to 15,000 cu. ft.
 - b. San Onofre 220 #
 - c. Perry 7000 S.F.

4. We need a touchup spec. Carboline
Epoxy Polishes
not the present broad spec.
5. Need to go to single color.

B. Craft

1. Retest all jourman painters
Approx. 120. Believe we
will have 40-50 qualified
painters
2. Obtain 50-60 nuclear painters
to take staff to 110-120
3. Have craft inspect their
own work before call in QC,
take corrective action when
necessary w/ too flunks
4. Increase the quality of
first line supervision experienc-
ed in painting.
5. Set production goals for
preparation and require their
being met.

C. QC

1. Has identified several inspectors which appear to have a bad attitude. These should be transferred to another job site.
2. Need more QC inspectors to hold down O.T. to around 45 hours per week. We run between 55 & 70 hours per week
3. Provide a full time P.E with paint application experience in the field to work with all parties on paint concerns.

Dryers

8/3/83

The following items are manufactured by Van-Aire Systems in Lake City, PA. They do not sell direct and refuse to give discounts. O.B. Cannon buys the product from Alexander & Company in Corry, PA. Their phone number is (814) 665-8260 and they give a 20% discount. Jack Norris is sure that there is a Texas distributor but they don't know who or where.

1200 CFM Compressor

1" D-42 dessicant dryer	\$4,575
WF-27 aftercooler	2,304
WSH-45 separator	567
WCH-7 connector kit	<u>326</u>
	\$7,772 less a 20% discount

You also need 1375 lbs. of dessicant at approx. 50¢/lb. = \$687.50

2000 CFM Compressor

D-54 dessicant dryer	\$ 6,840
WF-42 aftercooler	3,490
WSH-6 separator	1,147
WCH-9 connector kit	<u>861</u>
	\$12,338 less a 20% discount

You also need 2475 lbs. of dessicant at approx. 50¢/lb. = \$1,237.50

CONSTRUCTION PROCEDURES

	CCP30	CCP30A
Surface Preparation	SSPC-SP10	SSPC-SP10
Primer	Carbonzinc 11 (Carboline)	Dimetcote 6 (Ameron)
Top Coat	Phenoline 305 (Carboline)	Phenoline 305 (Carboline)
Specification	2323-AS-31	2323-AS-31
Primer Thickness	2-5 mil Avg. 1.5 to 5.5 spot check	2-5 mil Avg. 1.5 to 5.5 spot check
Total System Thickness	7-11 mil Avg. 11.5 max spot check	7-11 mil Avg. 11.5 max spot check
DBA Tested to ANSI N101.2	Yes	Yes

SSPC-SP10

Steel surface preparation to near white metal blast with minimum of 1 mil surface profile per manufacturer.

Purpose

Coating systems provided to facilitate the control of contamination as well as to protect surfaces from corrosion.

Design Criteria

Per the FSAP, the coating systems used inside containments which are qualified to ANSI N101.2 will not create any solid debris due to radiolytic and chemical decomposition at DBA Conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause the clogging of the containment recirculation sumps screen (1/8 in. mesh screen on sumps).

PURCHASE



*Corrosion
Control Services*

OLIVER B. CANNON & SON, INC.

Industrial Painting Specialists

9001 AIRPORT BLVD. · SUITE 801 · HOUSTON, TEXAS 77061
PHONE 713 947-9670

REPLY TO:
P.O. BOX 166 · SOUTH HOUSTON, TX 77587

August 10, 1983

C8301:002

Texas Utilities Services, Inc.
P.O. Box 1002
Glen Rose, Texas 76043

Attention: Mr. J. T. Youngblood
Purchasing Agent

Reference: Texas Utilities Generating Company
Comanche Peak Steam Electric Station
1981-83 - 2300 MW Installation
Gibbs & Hill Project No. 2323
05277 Protective Coatings
Specification No. 2323-AS-31
Purchase Order No. CPF-16245

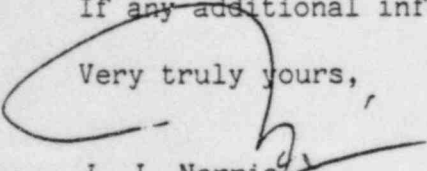
Gentlemen:

In accordance with your request, enclosed please find our signed acknowledgement of the above referenced purchase order for services performed at the Comanche Peak Steam Electric Station.

We express our appreciation for this order and look forward to working with you on this project.

If any additional information is required, kindly contact this office.

Very truly yours,


J. J. Norris
Vice President

/d

cc: R. B. Roth
A. P. McDonald
T. F. Rogers

Encl.

OFFICE MEMORANDUM

To Distribution _____ Glen Rose, Texas August 15, 1983Subject PAINING
MINUTES OF MEETING

The subject of the meeting was to define design philosophy, design criteria, exchange information and address problem areas at Comanche Peak.

There are three basic reasons for applying protective coatings inside containment.

- A) Protect against corrosion
- B) Provide an easily decontaminable surface
- C) Minimize debris generation that may impair operation of the Emergency Core Cooling and containment spray systems.

5-1195
RECEIVED

FEB 27 1984

DEPARTMENT CONTROL

Nuclear industry practice defines coatings system inside containment as nuclear safety related. Standards used throughout the industry are as follows.

- 1) Regulatory Guide 1.54, Quality Assurance Requirement for Protective Coatings applied to Water Cooled Nuclear Power Plants.
- 2) ANSI N101.2 Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities.
- 3) ANSI N101.4 Quality Assurance for Protective Coatings applied to Nuclear Facilities
- 4) ANSI N5.12, Protective Coatings (Paints) for the Nuclear Industry.

Per the Final Safety Analysis Report, the coatings systems at Comanche Peak used inside containment which are qualified to ANIS N101.2 will not create any solid debris due to radiolytic and chemical decomposition at Design Base Accident (DBA) conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause clogging of the containment recirculation sumps screen (1/8 inch mesh screen on sumps).

Thru discussion it was determined that CPSES is consistent with the remainder of the nuclear industry with respect to design criteria.

The industry and the NRC realize that it is not feasible nor practical to have 100% qualified coatings inside containment. As a general rule unqualified coatings are identified and quantified on a case by case basis for impact on recirculation sumps.

Quantified amounts of unqualified coatings have been identified by other A/E's in their Safety Analysis Report as specific square footage and discussing debris generated as insignificant.

This amount has been determined by Ebasco for Waterford #3 as approximately 14,000 square feet. The quantity was requested by the site for engineering acceptance (i.e. an as built case). The NRC acknowledged this amount but did not accept or reject it.

Engineering acceptance of quantities of unqualified coating has been accepted by engineering judgement or analysis. Ebasco presented two documents NUREG-0897 Containment Emergency Sump Performance and Regulatory Guide 1.82, Sumps for Emergency Core Cooling and Containment Spray Systems. These are methods recognized by the NRC that could provide a basis for engineering analysis on quantities of unqualified coatings. Calculations are complex and include many assumptions.

From the general discussion it was evident the common practice is to achieve as high a quantity of qualified coatings as possible. Acceptance of unqualified coatings is strictly on a case by case basis only. Declassification of large amounts of areas to be coated is not accepted by A/E's or utilities and if done, problems may arise with the NRC. Large quantities of unqualified coatings could possibly cause operational maintenance problems.

DISCUSSIONS - ATTACHMENT B OF AGENDA

Items

- 1) Eliminate the requirement for coating code numbers (QP#'s) for installed miscellaneous steel, supports and attachments.

Resolution - Item closed - Working agreement between craft and QC.

- 2) Inspections be performed or limited to no closer than "arms length":

Resolution - Item closed - Criteria placed into inspection procedures.

- 3) Primer and topcoat system which can be brushed applied.

Resolution - Procedures are to be established to allow the use of Carboline 191 primer. Oliver B. Cannon & Son Inc. is to write the touch up and repair procedure.

- 4(A) Eliminate destructive testing of all supports and miscellaneous steel:

Resolution: Adhesion of supports and miscellaneous steel has been suspended due to high rate of confidence level. See Resolution 4(B) for clarification on primer thickness verification by Tooke Tests.

- 4(B) Eliminate the requirement for primer and topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution - Thicknesses of primer and topcoat will require verification of the inspection agency. The present specified range of primer thickness will be broadened to dry film thickness from 2.0-6.0 mil average with spotchecks of 1.5-7.0 allowable on primer. Total system will range from 6.0-13.0 average with spotchecks of 15.0 allowable.

- 5) Eliminate the use of NCR's to denote unsat conditions: Closed - Unsatisfactory coatings are noted by unsat report.

- 6) Utilize only one color in containment rather than the established color scheme:

Resolution - DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- 7) Utilize the same coating (topcoat) for concrete coatings, embeded plates and base plates:

Resolution - Topcoating primed steel with 1201 topcoat is acceptable. O.B. Cannon Inc. is to write procedures for this activity. Due to possible difficulties arising from the use of 1201 over Phenoline/CZ11 system a committee was established consisting of Keith Falk, Tom Kelly and Mark Wells to establish the practicality of mixing systems.

- 8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are procured as required.

- 9) Remove QC acceptance stickers from supports to complete total paint system.
- 10) Delete the requirement for 28 day cure of grout prior to coating:

Resolution - Procedures will be revised to reflect acceptability of coating grouted base plates or equipment, limited to 3 square feet of exposed grout, may be coated after a 48 hour cure.

- 11) Relax present visual inspection requirement of abandoned anchor bolts.

Resolution - DCA-13,388 Rev. 5 and DCA-17,475 Rev. 1 renders coatings on anchor bolts N.N.S..

- 12) Relax the requirement of weld areas from SSPC SP10 to SSPC-SP6.

Resolution: DCA will be written to allow surface preparation of weld areas to be performed with tools like, 3M clean-n-strip or flapper wheels, and obtain surface cleanliness equal to cleanliness of SSPC-SP6 surface. The are covered by this preparation will be 1 inch each side of the weld.

New Items


- 1) Delete 1 mil minimum profile requirement.

Resolution: Procedures will be revised to delete the one mil minimum profile requirement for SSPC-SP-3 surface preparation. The degree of cleanliness will be stated and an example for tools utilized will be given, however, the tools utilized will not be limited to the example.

- 2) CPPE and G & H is to establish exemption list of coatings and quantify unqualified coated surface.

Resolution of all items should be in a maximum time frame of two weeks.


R.M. Kissinger
Project Civil Engineer


RMK/CRH/MW/sgr

cc: Attendees

J.T. Merritt - Assistant Project General Manager

J. Firtel - EBASCO

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16. Keith Falk - Chemical (G & H)
17. S.M. Marano - Project Engineer (G & H)
18. M.A. Vivirito - Vice President Power Engineering (G & H)

AGENDA 8-9-83 MEETING

PROTECTIVE COATING INSIDE REACTOR BUILDING

- 1) Design Philosophy
Percentage declassification (Non Q) inside containment
- 2) Industry Standards
Regulatory Guide 1.54
ANSI N 101.2
ANSI N 101.4
ANSI N 5.12
- 3) Coating Systems at Comanche Peak
(See Attachment C)
- 4) Specific Questions (See Attachment B)

CONSTRUCTION PROCEDURES

	CCP30	CCP30A
Surface Preparation	SSPC-SP10	SSPC-SP10
Primer	Carbonzinc 11 (Carboline)	Dimetcote 6 (Ameron)
Top Coat	Phenoline 305 (Carboline)	Phenoline 305 (Carboline)
Specification	2323-AS-31	2323-AS-31
Primer Thickness	2-5 mil Avg. 1.5 to 5.5 spotcheck	2-5 mil Avg. 1.5 to 5.5 spot check
Total System Thickness	7-11 mil Avg. 11.5 max spot check	7-11 mil Avg. 11.5 max spot check
DBA Tested to ANSI N101.2	Yes	Yes

SSPC-SP10 Steel surface preparation to near white metal blast with minimum of 1 mil surface profile per manufacturer.

Purpose Coating systems provided to facilitate the control of contamination as well as to protect surfaces from corrosion.

Design Criteria Per the FSAR, the coating systems used inside containments which are qualified to ANSI N101.2 will not create any solid debris due to radiolytic and chemical decomposition at DBA Conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause the clogging of the containment recirculation sumps screen (1/8 in. mesh screen on sumps).

ATTACHMENT B

The following listed items are requested by Painting Personnel in order to support Dec. '83 Fuel Load.

- (1) Eliminate the requirement for coating code numbers (QP #'s) for installed miscellaneous steel, supports and attachments.

Resolution: QP numbers are now only required for items not installed in the building. Installed items will be documented by location or permanent I.D. numbers.

- (2) Inspections be performed or limited to no closer than "arms length".

Resolution: Quality Control Procedures have been revised to reflect this criteria.

- (3) Primer and topcoat system which can be brush applied.

Resolution: Present topcoat may, at the option of craft, be brush applied. Various "touch up systems" are to be reviewed by engineering. Suggestions are Carboline 191 Primer or Carboline 305 Primer both with the existing Carboline 305 topcoat. These systems have DBA/LOCA Testing already performed. Procedures will be revised to include an alternate touch up system. Engineering to resolve week ending 8/13/83 - Procedure following week 8/20/83.

- (4) (A) Eliminate destructive testing of all supports and miscellaneous steel.

Resolution: Adhesion testing for backfit purposes has been suspended due to high rate of acceptance. Tooke Testing is still being performed until a resolution of the requirement for primer thickness is established.

- (B) Eliminate the requirement for primer & topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution: Engineering is studying the feasibility of voiding this criteria. Presently testing is underway to broaden the thickness range of primer up to 12 mil. See CPPA-31,575.

- (5) Eliminate the use of NCR's to denote unsat conditions:

Resolution: Conditions of coatings which are denoted as unsatisfactory and can be repaired per existing procedures, are repaired per those procedures without the generation of an NCR.

- (6) Utilize only one color in containment rather than establish color scheme:

Resolution: DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- (7) Utilize the same coating (topcoat) for concrete coatings, embedded plates and base plates:

Resolution: Engineering is reviewing this request. There will be no problem of topcoating primed steel with the topcoat utilized for concrete; however, the question arises of topcoating existing finish coated steel with the specified concrete topcoats and later repairs. There would be a mixing of coating systems which would be very difficult to control during construction application and later operation maintenance. Engineering to resolve week ending 8/13/83.

- (8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are being procured as required.

- (9) Remove Q.C. acceptance stickers from supports to complete total paint system.

Resolution: This item to be completed by 8/8/83.

- (10) Delete the requirement of 28 day cure of grout and pour back areas.

Resolution: For the most part this criteria may remain; however, engineering is presently looking at alternatives. Presently abandoned Hilti holes, tie holes and spalled concrete patched per CFI-20 has a cure time of 48 hrs. Grout under base plates may become included in this criteria; however, pour backs and larger concrete areas probably will remain 28 days without the use of some product like Nutec 10 as a sealer. Engineering to resolve week ending 8/13/83.

- (11) Relax the present, visual inspection requirement, of abandoned anchor bolts. Resolution: See DCA-13,388 R. 5 and DCA-17,475 R. 1 rendering anchor bolt coatings N.N.S.

- (12) Relax requirement of surface preparation for weld areas in containment from SSPC-SP10 to SSPC SP6.

Resolution: Engineering will review and resolve week ending 8/13/83.

TEXAS UTILITIES SERVICES INC.

OFFICE MEMORANDUM

To Distribution Glen Rose, Texas August 15, 1983
Subject PAINING
MINUTES OF MEETING

The subject of the meeting was to define design philosophy, design criteria, exchange information and address problem areas at Comanche Peak.

There are ~~three basic reasons~~ for applying protective coatings inside containment.

- A) Protect against corrosion
- B) Provide an easily decontaminable surface
- C) Minimize debris generation that may impair operation of the Emergency Core Cooling and containment spray systems.

Nuclear industry practice defines coatings system inside containment as nuclear safety related. Standards used throughout the industry are as follows.

- 1) Regulatory Guide 1.54, Quality Assurance Requirement for Protective Coatings applied to Water Cooled Nuclear Power Plants.
- 2) ANSI N101.2 Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities.
- 3) ANSI N101.4 Quality Assurance for Protective Coatings applied to Nuclear Facilities
- 4) ANSI N5.12, Protective Coatings (Paints) for the Nuclear Industry.

Per the Final Safety Analysis Report, ~~the coatings systems~~ at Comanche Peak ~~used inside containment~~ which ~~are qualified to~~ ~~ANSI N101.2~~ will not create any solid debris due to radiolytic and chemical decomposition at Design Base Accident (DBA) conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause clogging of the containment recirculation sumps screen (1/8 inch mesh screen on sumps).

~~This discussion it was determined that GPSES is consistant~~
with the remainder of the nuclear industry with respect to
design criteria.

~~The industry and the NRC realize that it is not feasible~~
~~and impractical to have 100% qualified coatings~~ inside con-
tainment. As a general rule unqualified coatings are ident-
ified and quantified on a case by case basis for impact on
recirculation sumps.

~~Quantified amounts of unqualified coatings have been ident-~~
~~ified by some A/E's~~ in their Safety Analysis Report as
specific square footage and discussing debris generated as
insignificant.

~~This amount has been determined by Ebasco for Waterford #8~~
~~as approximately 14,000 square feet.~~ The quantity was re-
quested by the site for engineering acceptance (i.e. an as
built case). The NRC acknowledged this amount but did not
accept or reject it.

~~Engineering acceptance of quantities of unqualified coating~~
~~has been accepted by engineering judgement and analysis.~~
Ebasco presented two documents NUREG-0897 Containment Emer-
gency Sump Performance and Regulatory Guide 1.82, Sumps for
Emergency Core Cooling and Containment Spray Systems. These
are methods recognized by the NRC that could provide a basis
for engineering analysis on quantities of unqualified coat-
ings. Calculations are complex and include many assumptions.

~~Even though a large quantity of unqualified coatings~~
~~is acceptable, a high quantity of qualified coatings~~
~~is not possible.~~ Acceptance of unqualified coatings is strictly
on a case by case basis only. Declassification of large
amounts of areas to be coated is not accepted by A/E's or
utilities and if done, problems may arise with the NRC.
Large quantities of unqualified coatings could possibly
cause operational maintenance problems.

DISCUSSIONS - ATTACHMENT B OF AGENDA

Items

- 1) Eliminate the requirement for coating code numbers (QP#'s)
for installed miscellaneous steel, supports and attach-
ments.

Resolution - ~~Item Closed~~ - Working agreement between craft
and QC.

- 2) Inspections be performed or limited to no closer than
"arms length":

Resolution - ~~Item Closed~~ - Criteria placed into inspection
procedures.

- 3) Primer and topcoat system which can be brushed applied,

Resolution - Procedures are to be established to allow the use of Carboline 191 primer. Oliver B. Cannon & Son Inc. is to write the touch up and repair procedure.

- 4(A) Eliminate destructive testing of all supports and miscellaneous steel:

Resolution: Adhesion of supports and miscellaneous steel has been suspended due to high rate of confidence level.
See Resolution 4(B) for clarification on primer thickness verification by Tooke Tests.

- 4(B) Eliminate the requirement for primer and topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution - Thicknesses of primer and topcoat will require verification of the inspection agency. The present specified range of primer thickness will be broadened to dry film thickness from 2.0-6.0 mil average with spotchecks of 1.5-7.0 allowable on primer. Total system will range from 6.0-13.0 average with spotchecks of 15.0 allowable.

- 5) Eliminate the use of NCR's to denote unsat conditions: Closed - Unsatisfactory coatings are noted by unsat report.

- 6) Utilize only one color in containment rather than the established color scheme:

Resolution - DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- 7) Utilize the same coating (topcoat) for concrete coatings, embeded plates and base plates:

Resolution - Topcoating primed steel with 1201 topcoat is acceptable. O.B. Cannon Inc. is to write procedures for this activity. Due to possible difficulties arising from the use of 1201 over Phenoline/CZ11 system a committee was established consisting of Keith Falk, Tom Kelly and Mark Wells to establish the practicality of mixing systems.

- 8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are procured as required.

- 9) Remove QC acceptance stickers from supports to complete total paint system.
- 10) Delete the requirement for 28 day cure of grout prior to coating:

Resolution - Procedures will be revised to reflect acceptability of coating grouted base plates or equipment, limited to 3 square feet of exposed grout, may be coated after a 48 hour cure.

- 11) Relax present visual inspection requirement of abandoned anchor bolts.

Resolution - DCA-13,388 Rev. 5 and DCA-17,475 Rev. 1 renders coatings on anchor bolts N.N.S..

- 12) Relax the requirement of weld areas from SSPC SP10 to SSPC-SP6.

Resolution: DCA will be written to allow surface preparation of weld areas to be performed with tools like, 3M clean-n-scrip or flapper wheels, and obtain surface cleanliness equal to cleanliness of SSPC-SP6 surface. The areas covered by this preparation will be 1 inch each side of the weld.

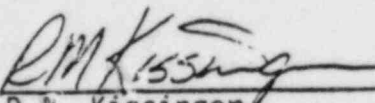
New Items


- 1) Delete 1 mil minimum profile requirement.

Resolution: Procedures will be revised to delete the one mil minimum profile requirement for SSPC-SP-3 surface preparation. The degree of cleanliness will be stated and an example for tools utilized will be given, however, the tools utilized will not be limited to the example.

- 2) CPPE and G & H is to establish exemption list of coatings and quantify unqualified coated surface.

Resolution of all items should be in a maximum time frame of two weeks.


R.M. Kissinger
Project Civil Engineer


RMK/CRH/MW/sgr

cc: Attendees

J.T. Merritt - Assistant Project General Manager

J. Firtel - EBASCO

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AGENDA 8-9-83 MEETING

PROTECTIVE COATING INSIDE REACTOR BUILDING

- 1) Design Philosophy
Percentage declassification (Non Q) inside containment
- 2) Industry Standards
Regulatory Guide 1.54
ANSI N 101.2
ANSI N 101.4
ANSI N 5.12
- 3) Coating Systems at Comanche Peak
(See Attachment C)
- 4) Specific Questions (See Attachment B)

CONSTRUCTION PROCEDURES

	CCP30	CCP30A
Surface Preparation	SSPC-SP10	SSPC-SP10
Primer	Carbonzinc 11 (Carboline)	Dimetcote 6 (Ameron)
Top Coat	Phenoline 305 (Carboline)	Phenoline 305 (Carboline)
Specification	2323-AS-31	2323-AS-31
Primer Thickness	2- 5 mil Avg. 1.5 to 5.5 spotcheck	2-5 mil Avg. 1.5 to 5.5 spot check
Total System Thickness	7-11 mil Avg. 11.5 max spot check	7-11 mil Avg. 11.5 max spot check
DBA Tested to ANSI N101.2	Yes	Yes

SSPC-SP10

Steel surface preparation to near white metal blast with minimum of 1 mil surface profile per manufacturer.

Purpose

Coating systems provided to facilitate the control of contamination as well as to protect surfaces from corrosion.

Design Criteria

Per the FSAR, the coating systems used inside containments which are qualified to ANSI N101.2 will not create any solid debris due to radiolytic and chemical decomposition at DBA Conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause the clogging of the containment recirculation sumps screen (1/8 in. mesh screen on sumps).

ATTACHMENT B

The following listed items are requested by Painting Personnel in order to support Dec. '83 Fuel Load.

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- (4) (A) Eliminate destructive testing of all supports and miscellaneous steel.

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DISCUSSIONS - ATTACHMENT B OF AGENDA

Items

✓ EJM/Jr. Hold) Eliminate the requirement for coating code numbers (QP#'s) for installed miscellaneous steel, supports and attachments.

Resolution - Item closed - Working agreement between craft and QC.

✓ RGT/Jr. Hold) Inspections be performed or limited to no closer than "arms length":

Resolution - Item closed - Criteria placed into inspection procedures.

3) Primer and topcoat system which can be brushed applied. *Engr. Procedure
RH - ETA*

Resolution - Procedures are to be established to allow the use of Carboline 191 primer. Oliver B. Cannon & Son Inc. is to write the touch up and repair procedure. *F.R. - Craft
QA Procedure*

*Record
Backfit
Review
Only*

4(A) Eliminate destructive testing of all supports and miscellaneous steel: *Elisa Befelt QA
R.G. Tolson*

Resolution: Adhesion of supports and miscellaneous steel has been suspended due to high rate of confidence level. See Resolution 4(B) for clarification on primer thickness verification by Tooke Tests. *ETA 8/16*

4(B) Eliminate the requirement for primer and topcoat thickness limitations on supports equipment and miscellaneous steel. *R.H.
ETA 8/16*

Resolution - Thicknesses of primer and topcoat will require verification of the inspection agency. The present specified range of primer thickness will be broadened to dry film thickness from 2.0-6.0 mil average with spotchecks of 1.5-7.0 allowable on primer. Total system will range from 6.0-13.0 average with spotchecks of 15.0 allowable.

*R.G.
Closed 8/15*

5) Eliminate the use of NCR's to denote unsat conditions: Closed - Unsatisfactory coatings are noted by unsat report.

*JCK
Closed 8/3/0*

6) Utilize only one color in containment rather than the established color scheme:

Resolution - DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

*RH
Closed 8/15*

7) Utilize the same coating (topcoat) for concrete coatings, embedded plates and base plates:

Resolution - Topcoating primed steel with 1201 topcoat is acceptable. O.B. Cannon Inc. is to write procedures for this activity. Due to possible difficulties arising from the use of 1201 over Phenoline/CZ11 system a committee was established consisting of Keith Falk, Tom Kelly and Mark Wells to establish the practicality of mixing systems.

*No change
leave spec as is.*

Purchased

8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are procured as required.

RGT
Closed 8/3 9) Remove QC acceptance stickers from supports to complete total paint system.

RH
ETA 8/16/83 10) Delete the requirement for 28 day cure of grout prior to coating:

Resolution - Procedures will be revised to reflect acceptability of coating grouted base plates or equipment, limited to 3 square feet of exposed grout, may be coated after a 48 hour cure.

RH
Closed 8/9/83 11) Relax present visual inspection requirement of abandoned anchor bolts.

Resolution - DCA-13,388 Rev. 5 and DCA-17,475 Rev. 1 renders coatings on anchor bolts N.N.S..

RH
Closed 8/16/83 12) Relax the requirement of weld areas from SSPC SP10 to SSPC-SP6.

Resolution: DCA will be written to allow surface preparation of weld areas to be performed with tools like, 3M clean-n-strip or flapper wheels, and obtain surface cleanliness equal to cleanliness of SSPC-SP6 surface. The are covered by this preparation will be 1 inch each side of the weld.

New Items

1) Delete 1 mil minimum profile requirement.

Resolution: Procedures will be revised to delete the one mil minimum profile requirement for SSPC-SP-3 surface preparation. The degree of cleanliness will be stated and an example for tools utilized will be given, however, the tools utilized will not be limited to the example.

2) CPPE and G & H is to establish exemption list of coatings and quantify unqualified coated surface.

Resolution of all items should be in a maximum time frame of two weeks.


R.M. Kissinger
Project Civil Engineer

CRH
RMK/CRH/MW/sgr
cc: Attendees

J.T. Merritt - Assistant Project General Manager
J. Firtel - EBASCO

ATTENDEES

1. Mike McBay - Manager of Engineering (TUSI)
2. C.R. Hooton - Civil Supervisor (TUSI)
3. R.M. Kissinger - Project Civil Engineer (TUSI)
4. David H. Wade - Licensing (TUSI)
5. Bob Dacko - Licensing (TUSI)
6. O.B. Jones - Civil Engineer (TUSI)
7. B.J. Murray - Construction Manager (TUSI)
8. Mark Wells - Civil Engineering (B & R)
9. Thomas Kelly - Corrosion Engineer (EBASCO)
10. Robert C. Ietti - Applied Physics (EBASCO)
11. Tom Brandt - TUGCO QA (EBASCO)
12. Jack Norris - Vice President (O.B. Cannon)
13. Joseph Lipinsky - QA Director (O.B. Cannon)
14. Robert Roth - President (O.B. Cannon)
15. D.C. Purdy - Advanced Tech. (G & H)
16. Keith Falk - Chemical (G & H)
17. S.M. Marano - Project Engineer (G & H)
18. M.A. Vivirito - Vice President Power Engineering (G & H)

AGENDA 8-9-83 MEETING

PROTECTIVE COATING INSIDE REACTOR BUILDING

- 1) Design Philosophy
Percentage declassification (Non Q) inside containment
- 2) Industry Standards
Regulatory Guide 1.54
ANSI N 101.2
ANSI N 101.4
ANSI N 5.12
- 3) Coating Systems at Comanche Peak
(See Attachment C)
- 4) Specific Questions (See Attachment B)

CONSTRUCTION PROCEDURES

	CCP30	CCP30A
Surface Preparation	SSPC-SP10	SSPC-SP10
Primer	Carbozinc 11 (Carboline)	Dimetcote 6 (Ameron)
Top Coat	Phenoline 305 (Carboline)	Phenoline 305 (Carboline)
Specification	2323-AS-31	2323-AS-31
Primer Thickness	2-5 mil Avg. 1.5 to 5.5 spotcheck	2-5 mil Avg. 1.5 to 5.5 spot check
Total System Thickness	7-11 mil Avg. 11.5 max spot check	7-11 mil Avg. 11.5 max spot check
DBA Tested to ANSI N101.2	Yes	Yes

SSPC-SP10

Steel surface preparation to near white metal blast with minimum of 1 mil surface profile per manufacturer.

Purpose

Coating systems provided to facilitate the control of contamination as well as to protect surfaces from corrosion.

Design Criteria

Per the FSAR, the coating systems used inside containments which are qualified to ANSI N101.2 will not create any solid debris due to radiolytic and chemical decomposition at DBA Conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause the clogging of the containment recirculation sumps screen (1/8 in. mesh screen on sumps).

The following listed items are requested by Painting Personnel in order to support Dec. '83 Fuel Load.

- (1) Eliminate the requirement for coating code numbers (QP #'s) for installed miscellaneous steel, supports and attachments.

Resolution: QP numbers are now only required for items not installed in the building. Installed items will be documented by location or permanent I.D. numbers.

- (2) Inspections be performed or limited to no closer than "arms length".

Resolution: Quality Control Procedures have been revised to reflect this criteria.

- (3) Primer and topcoat system which can be brush applied.

Resolution: Present topcoat may, at the option of craft, be brush applied. Various "touch up systems" are to be reviewed by engineering. Suggestions are Carboline 191 Primer or Carboline 305 Primer both with the existing Carboline 305 topcoat. These systems have DBA/LOCA Testing already performed. Procedures will be revised to include an alternate touch up system. Engineering to resolve week ending 8/13/83 - Procedure following week 8/20/83.

- (4) (A) Eliminate destructive testing of all supports and miscellaneous steel.

Resolution: Adhesion testing for backfit purposes has been suspended due to high rate of acceptance. Tooke Testing is still being performed until a resolution of the requirement for primer thickness is established.

- (B) Eliminate the requirement for primer & topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution: Engineering is studying the feasibility of voiding this criteria. Presently testing is underway to broaden the thickness range of primer up to 12 mil. See CPPA-31,575.

- (5) Eliminate the use of NCR's to denote unsat conditions:

Resolution: Conditions of coatings which are denoted as unsatisfactory and can be repaired per existing procedures, are repaired per those procedures without the generation of an NCR.

- (6) Utilize only one color in containment rather than establish color scheme:

Resolution: DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- (7) Utilize the same coating (topcoat) for concrete coatings, embedded plates and base plates:

Resolution: Engineering is reviewing this request. There will be no problem of topcoating primed steel with the topcoat utilized for concrete; however, the question arises of topcoating existing finish coated steel with the specified concrete topcoats and later repairs. There would be a mixing of coating systems which would be very difficult to control during construction application and later operation maintenance. Engineering to resolve week ending 8/13/83.

- (8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are being procured as required.

- (9) Remove Q.C. acceptance stickers from supports to complete total paint system.

Resolution: This item to be completed by 8/8/83.

- (10) Delete the requirement of 28 day cure of grout and pour back areas.

Resolution: For the most part this criteria may remain; however, engineering is presently looking at alternatives. Presently abandoned Hilti holes, tie holes and spalled concrete patched per CEI-20 has a cure time of 48 hrs. Grout under base plates may become included in this criteria; however, pour backs and larger concrete areas probably will remain 28 days without the use of some product like Nutec 10 as a sealer. Engineering to resolve week ending 8/13/83.

- (11) Relax the present, visual inspection requirement, of abandoned anchor bolts. Resolution: See DCA-13,388 R. 5 and DCA-17,475 R. 1 rendering anchor bolt coatings N.N.S.

- (12) Relax requirement of surface preparation for weld areas in containment from SSPC-SP10 to SSPC SP6.

Resolution: Engineering will review and resolve week ending 8/13/83.

OLIVER B. CANNON & SON INC.

X

OLIVER B. CANNON & SON, INC. OF FLORIDA
Lakeland, Fl. 33803
Phone: 813-846-1405-7

5600 WOODLAND AVENUE
PHILADELPHIA, PA. 19143
215-729-4600

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Baton Rouge, La. 70803
Phone: 504-387-6601

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Glen Rose, Texas 76043

INVOICE RECEIVED
SEP 11 1983

DATE 08-29-83

YOUR ORDER NO. CPF 16245

TEXAS UTILITIES GENERATING CO. INVOICE NO. B-08003

B.C. JOB NO. H-8301 RE: General Survey Completed to Date
Unit 1
Comanche Peak Steam Electric Station
Glen Rose, Texas

PLEASE REMIT TO:
Oliver B. Cannon & Son Inc.
P.O. Box 7777-W7640
PHILADELPHIA, PA 19175

1-2-9230-941000-108

Ticket Number	Amount
1	\$ 755.10
2	290.00
3	1,106.09
4	1,447.48
5	901.41
6	2,710.64
7	823.73
8	1,424.36
9	1,534.61
10	2,188.56
11	753.17
	\$ 12,935.15

AMOUNT DUE THIS INVOICE..... \$ 12,935.15

/ja

TEXAS UTILITIES GENERATING COMPANY	
MRR	GROSS AMT <u>12,935.15</u>
P O <u>F16245</u>	DISC <u>—</u>
VO	AMOUNT DUE <u>12,935.15</u>
DISTRIBUTION ACCT.	TAXABLE AMT <u>—</u>
<u>1-300</u>	<u>12,935.15</u>

Service Charge
Will Be Made On
Past Due Accounts

PREPARED BY [Signature] 9/25/83

OLIVER B. CANNON & SON INC.

OLIVER B. CANNON & SON, INC. OF FLORIDA
 Deland, Fl. 32803
 Phone: 813-646-1405-7

5600 WOODLAND AVENUE
 PHILADELPHIA, PA. 19143
 215-729-4600

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 South Houston, Tx. 77587
 Phone: 713-047-9670

OLIVER B. CANNON & SON OF LOUISIANA, INC.
 Baton Rouge, La. 70803
 Phone: 504-387-6601

PURCHASING SEP 12 1983

Industrial
 PAINTING SPECIALISTS
INVOICE RECEIVED

DATE 8/30/83

Texas Utilities Generating Company
 Post Office Box # 1002
 Glen Rose, Texas 76043

SEP 06 1983 YOUR ORDER NO. CPF 16245

TEXAS UTILITIES GENERATING CO.
 CPSES CONST. OFFICE

INVOICE NO. B-08001

O.B.C. JOB NO.

H-8301

RE: General Survey Completed to Date
 Unit 1
 Comanche Peak Steam Electric Station
 Glen Rose, Texas

OK

CHECKED BY PROCUREMENT
 MANAGEMENT GROUP

[Signature]

[Handwritten Signature]

100% Fixed Fee Due

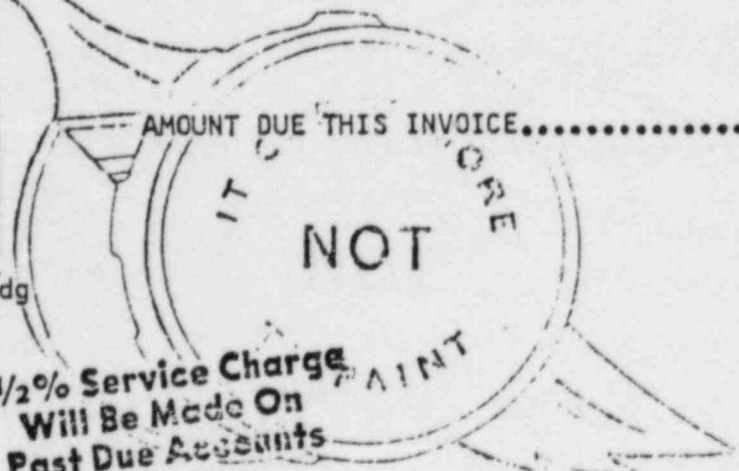
\$63,000.00

1-2-9230-940000-108

TEXAS UTILITIES
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MRR	GROSS AMT	63,000.00
P.O. F16245	DISC	
VO	AMOUNT DUE	63,000.00
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1-300	AMT	63,000.00
PREPARED	APPROVED	APPROVED

AMOUNT DUE THIS INVOICE..... \$63,000.00



1 1/2% Service Charge
 Will Be Made On
 Past Due Accounts

FROM THE DESK OF
ROBERT B. ROTH

9/12

John —

As per our tel/con, a copy of our in-house memo is enclosed. As discussed, insofar as our consulting contract w/RSJ is concerned, this memo has no official status.

Please read, bearing in mind or recognizing that Joe Lipinski is "talking" to me on a candid basis. Other than this copy to you, I'm not aware of any other copies of this memo that are not within our organization.

Regards -
Bob Roth

FROM THE DESK OF

ROBERT B. ROTH 10-18-63

John

for line w/area tel-con this date.
I've Xeroxed the information from
last Friday 10/14, on Jos. Lipinski's
weekly activity report.

Each of my Dept. chiefs is req'd.
to give me this type report, high-lighting
the managers' principal activities,
contacts, etc.

J. L. (Lipinski) verified that Don Dressell
was w/NCC, before returning his call. The
phone number w/area code 301, is a
Maryland area code.

I thought you should have a
confidential copy of our in-house activity
report.

Regards -
Bob Roth

FRIDAY: ARR. OPOS HRS. LV. 1715 HRS.

T. CONN. W/ TCD RE: REC'D 10 GAL OF CE#11 TO REPLACE PREVIOUSLY REJECTED MATERIAL - LIDS ON REPLACEMENT MATERIAL BETTER BUT STILL LOOSE - TCD ACCEPTED BUT POINTED OUT THAT LOOSE LIDS COULD BE A PROBLEM IF ABC RECEIVED 1000+ GAL ON SITE / GO INTO STORAGE FOR LONG TERM → T. CONN. W/ WFM RE: JL DANFORD ON WATER BLAST / WHITING DEMO. ; ADVISE ON PROBLEM W/ CE#11 FINISH UP ON CR. LEVEL II TEST

T. CONN. W/ DON DRISKILL (NRC - 917 860 8109 or 8110) WANTED TO DISCUSS 8/8/83 TRIP REPORT - JL ASKED FOR A PHONE NUMBER TO VERIFY THAT DRISKILL WORKS FOR NRC → 301 492 7246 BILL WENT TO GILBERT → JL CALLED (PHONE ANSWERED HELLO NRC) COULD NOT GET A HOLD OF MR. WOOD OR MR. GILBERT BUT MS. D. LEWIS CONFIRMED THAT DRISKILL IS AN NRC INVESTIGATOR → T. CONN. W/ S. DRISKILL RE: 8/8/83 TRIP REPORT - JL EXPLAINED THAT THE TRIP REPORT HAD NO OFFICIAL STATUS AND IS BASED ON JL IMPRESSIONS / OPINIONS / OBSERVATIONS, MR. DRISKILL INDICATED THAT THE REPORT IS PART OF HIS INVESTIGATIONS (NOT A FORMAL INVESTIGATION BASED ON JL TRIP REPORT BUT TRIP REPORT DEALS W/ ISSUES BEING INVESTIGATED) AND WILL INDICATE THAT REPORT IS SUBJECTIVE OTHER DETAILS IN CJ FOLDER OTHER ITEMS / ACTIVITIES NOT RECORDED

PERSONAL & CONFIDENTIAL

TEXAS UTILITIES SERVICES INC.

P. O. BOX 1002 • GLEN ROSE, TEXAS 76043

October 28, 1983

Mr. Robert B. Roth
President
Oliver B. Cannon & Son, Inc.
5600 Woodland Avenue
Philadelphia, PA 19143

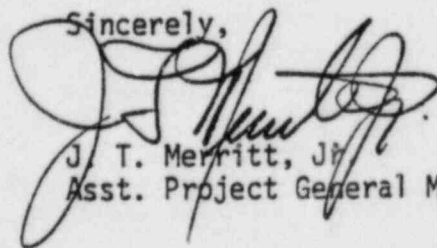
Dear Bob:

As you and I discussed Friday, attached is a list of detailed questions to clarify the J. J. Lipinsky report. We need to get Joe to sit down and answer these questions in as much detail as possible so we understand the basis for Joe's statements in his report. I need Joe's answers telecopied as well as a hard copy by overnight Express Mail sent on Monday afternoon.

I will call you Monday morning.

Your help in this is certainly appreciated.

Sincerely,



J. T. Merritt, Jr.
Asst. Project General Manager

JTM:pew
Attachment
cc: D. N. Chapman

TEXAS UTILITIES GENERATING COMPANY

OFFICE MEMORANDUM

To J. T. Merritt

Dallas, Texas October 27, 1983

Subject O. B. Cannon Trip Report OBC Job No: H8301

After reviewing the subject report, I have detailed below a list of questions which must be answered by O. B. Cannon. It is imperative that we evaluate fully all of the issues raised in the report. In order to do so we must have all of the facts upon which these serious charges were based. Please provide me with answers to the following questions by 5:00 p.m. C.D.T. October 28, 1983. Please feel free to transmit your response to us by telecopy.

The questions we have are as follows (the references in parentheses following each question are to Trip Report OBC Job No. H8301):

- (1) Did Mr. Lipinsky meet with any individuals other than those listed in the Trip Report? If so, provide their names and the sum and substance of the discussions with them. (Page 1.)
- (2) Provide a detailed explanation and the specific technical bases for the preliminary assessment by Mr. Lipinsky that Comanche Peak may have problems in the areas of:
 - (a) material storage,
 - (b) workmanship (quality of work and painter qualification and indoctrination),
 - (c) compliance with ANSI requirements,
 - (d) "possibly" coating integrity,
 - (e) possible document deficiencies,
 - (f) morale problems. (Page 1; Page 2, paragraph B.)
- (3) Did Mr. Lipinsky take Mr. Tolson's reply quoted on page one of the Trip Report as indicating that he (Tolson) was not concerned with quality, or not concerned with production? (Page 1.)
- (4) How does the discussion relating to the employment by OBC of T. L. Miller relate to the subject and purpose of the site visit? (Page 1.)
- (5) With regard to Mr. Lipinsky's view that there are areas of concern "based on observations and specification/ANSI commitments," specifically, what is the issue being raised and what is the technical basis for that issue? (Page 2, paragraph B.)
- (6) Provide the basis for Mr. Lipinsky's understanding of the statement that "only 34 out of 452 individuals are of any value as painters," and relate the response to the number of individuals on site actually working as painters. (Page 2, paragraph C.)
- (7) Explain the statement that there is currently a "No Win" situation on site between the craft and QC inspectors. (Page 2, paragraph C.)

- (8) Explain the technical aspects of the air supply quality matter. (Page 3, paragraph E.) NOTE: We understand the issue here, but would appreciate a description of it by Mr. Lipinsky to confirm that we are in agreement on it.
- (9) Provide a thorough explanation and the detailed bases for the statement that "(t)o some extent a parallel can be drawn with Comanche Peak and Zimmer." (Page 3, paragraph A.)
- (10) Explain the meaning and implications, and provide the detailed bases, for the statement that "Comanche Peak is doing inspections to the degree that they (Comanche Peak) are comfortable with or will tolerate." (Page 3, paragraph A.)
- (11) Provide a detailed explanation and the specific bases for the statement that "Comanche Peak falls short in adequately satisfying" requirements regarding material storage, painter qualification/indoctrination, documentation and traceability. (Page 3, paragraph A.)
- (12) Provide the specific bases and implications for Mr. Lipinsky's opinion that management at Comanche Peak "has deluded itself into thinking everything is alright or it will all come out in the wash." (Page 3, paragraph A.)
- (13) Provide the detailed explanation and bases for the statement that Comanche Peak management has attempted "to squash any efforts to point out quality problems (No NCR;s (sic), QC reporting to production, etc.)." (Page 3, paragraph A.)
NOTE: This item is of paramount importance to Texas Utilities, and we must be provided with a detailed explanation of every aspect, including the specific bases for the statement, specific examples of such attempts and all other specific information known to Mr. Lipinsky regarding this most serious charge.)
- (14) How is Mr. Lipinsky able to state that "(a)lmost everyone in the inspection staff is looking to get out of Comanche Peak?" (Page 4, paragraph B.) Provide the names and statements of the inspectors with whom Mr. Lipinsky spoke and upon whose statements he bases this view.
- (15) Provide a complete list of "the inspectors contacted by the writer (other disciplines included)" and a recitation of the opinions expressed by them regarding work quality and the basis for Mr. Lipinsky's statement that they are "keeping quiet until they can find another job." (Page 4, paragraph B.)
- (16) Explain the statement regarding Mr. Lipinsky's dissatisfaction "with the way JJN (J. J. Norris) presented the ANSI requirements." (Page 4, paragraph C.) Is this simply an internal disagreement among OBC employees?

- (17) Provide the specific bases for the statement that Brown & Root is hostile to the idea of an audit by OBC. Provide the specific bases for Mr. Lipinsky's conclusion that "no action would be taken by B&R on problems/concerns detected during the audit." Provide the names and summarize the statements of Brown & Root employees who stated or implied that they would be hostile to an audit and/or take no action in response to an audit. (Page 4, paragraph D.)
- (18) Provide the specific engineering bases for the observation on the power grinding of high DFT of CZ#11 and the possible result of poor adhesion of the top coat. (Page 4, paragraph E.)
- (19) Provide the specific engineering bases for the observation on the top coating of old Phenoline 305 "with new Phenoline 305 with little or no surface preparation (solvent wipe)." (Page 4, paragraph F.)
- (20) Explain and provide the detailed bases for Mr. Lipinsky's view that "B&R wanted to buy the 'right' answer." What expertise and/or experience" of Mr. Lipinsky was not utilized by Brown & Root? Also, provide specific details regarding his conclusion that the "attitude of B&R management (especially Quality Assurance)" substantiated his conclusion regarding Brown & Root's attitude. (Page 4, paragraph 1.)
- (21) Describe exactly what Mr. Lipinsky means by the term "rework contract" in his suggestion that any site work to be performed by OBC should be through that method. (Page 4, paragraph 2.)
- (22) Provide a detailed explanation and the complete technical bases for Mr. Lipinsky's view that "it appears improbable that the work currently in place is salvagable (sic) to any meaningful extent." In this regard, provide a detailed description of any tests performed by OBC that led to Mr. Lipinsky's conclusion, and provide the results of those tests and the names and affiliations of any witnesses to those tests. (Page 4, paragraph 2.)
- (23) Provide a complete listing of all persons to whom copies of Trip Report OBC Job No. H8301 were sent or otherwise distributed together with the dates on which such copies were transmitted.
- (24) Provide a complete listing of all persons with whom Mr. Lipinsky or any other OBC employee communicated by telephone or otherwise regarding the sum and substance of Trip Report OBC Job No. H8301, together with the dates on which such communications took place.

We also need to ascertain whether Jack Norris agrees or disagrees with the charges in Mr. Lipinsky's trip report, and whether Mr. Norris'

perceptions of any facts underlying those charges differ from the perceptions of Mr. Lipinsky.

You should emphasize to O.B. Cannon how seriously we regard many of the statements made by Mr. Lipinsky in his trip report. Please express to them our need for OBC to respond promptly and completely to all inquiries set forth above. It is particularly imperative that Mr. Lipinsky provide a detailed explanation of the technical bases for his views, including whether those bases are founded on first-hand information and personal knowledge, or on information provided to Mr. Lipinsky by others. In the latter case, we must receive an item-by-item report of the individuals involved.

Sincerely,


D. N. Chapman

DEPARTMENTAL CORRESPONDENCE

DATE October 28, 1983

SUBJECT Texas Utilities Services - Letter dated October 27, 1983

TO R. B. Roth

FROM J. Lipinsky

1. In addition to the individuals identified in the subject trip report, the writer met with a number of the coating quality control inspectors.

These individuals were:

- Lanette Adams
- Dave Ambrose
- Gary Corrigan
- Joe Deshanbo (sp?)
- Margaret Lucke
- Evert Mouser
- Casandra Owen

Note: The writer met other inspectors but cannot recall the individual names.

The writer discussed job status, project conditions, work activities and other miscellaneous items with the above individuals. The writer has either employed or worked with the above listed individuals on one or more nuclear projects.

2. As stated repeatedly by the writer, a thorough review/audit would be required to provide specifics on the six items listed by D. N. Chapman. However, the following explanation is provided for each item as listed by D. N. Chapman.
 - A. Material Storage - the writer observed that the coating material is mixed, and set on pick up pallets outside Containment. None of the material had tags attached (status or mix information), and there is no apparent control on how long mixed material sits on the pallets.
 - B. Workmanship - at the time of the writer's visit the applicator qualification program was being administered by production personnel with no inspection or monitoring of the qualification process (before during or after) by quality control. This information was provided to the writer by Mark Wells of site engineering and quality control.

With regard to the quality of the work, the writer observed numerous areas of in place work which by appearance was less than the quality of work put in place by Cannon on nuclear and non-nuclear projects.

To: R. B. Roth
Re: Texas Utilities Services
Letter Dated 10/27/83

October 28, 1983
Page 2

Additionally, the writer was informed on more than one occasion by engineering and/or production that a low percentage of the individuals (34 out of 452 individuals) employed as painters were no any good as painters.

C. Compliance with ANSI Requirements - the writer only briefly examined the report format utilized on site. However, indications were that all of the required data was not included on the inspection reports. Also, ANSI has requirements for applicator qualification (in addition there are forms to be completed), material storage, tagging, and manufacturers' instructions, to name a few.

D. "Possibly" coating integrity - see Item E and F on page 4

E. Possible document deficiencies - see Item C above

F. Morale problems - based on conversation with various inspection personnel, including those individuals listed in number 1 above, the writer concluded that the inspection personnel on the project were not satisfied with their jobs.

To the writer's knowledge, J. Deshanbo, E. Mouser, C. Owen and H. Williams are no longer on the project site as of October 31, 1983.

3. As indicated in the subject trip report, when the writer advised R. Tolson that 'preliminary assessment by J. J. Lipinsky, that Comanche Peak has problems in areas of material storage, workmanship (quality of work and painter qualification and indoctrination), not satisfying ANSI requirements and possible coating integrity', he (R. Tolson) replied "That's not my job or concern". The items indicated, with the possible exception of coating integrity (and that is debatable) deal, at least in the writer's opinion, with quality related matters and R. Tolson, the QA Manager state "That is not his job or concern". Therefore, the writer would be inclined to believe that R. Tolson was indicating that he (R. Tolson) was not concerned with quality.

4. C. Brandt and R. Tolson mentioned T. Miller specifically when the writer advised them (C. Brandt and R. Tolson) that approximately nine former Cannon employees (inspectors) were or are employed on the project.

5. The writer was referring to issues raised in Item 2 above.

6. See item 2B above.

7. In the writer's opinion and apparently in the opinion of those individual at the meeting of July 28, 1983 (see page 2) this was the situation. As result of this a get together was planned to bring the Quality Control Inspectors and foreman together. However, this was later cancelled, based on follow-up conversations with the site personnel

To: R. B. Roth
Re: Texas Utilities Services
Letter dated 10/27/83

October 28, 1983
Page 3

8. Apparently, the air compressors or air supply lines were not providing clean (water and oil free) air, and up to half the shift, approximately five hours, was utilized to make the air quality acceptable.
9. Zimmer has problems related to coatings as a result of placing more emphasis on production than they (Zimmer) did on quality. It is the writer's opinion that this appears to be a hang-up at Comanche Peak.
10. The writer based this statement on conversations with inspection staff in what appeared to be poor instructions in the procedures (though the writer cannot recall specifics), coupled with the number of changes to the specifications (most of which catered toward relieving requirements on areas or items where requirements could not be satisfied).

The implications of the writer's statement is that somewhere down the road, another set of eyes may or may not concur with my assessment.

11. See Item 2 above.
12. As a result of the meetings attended by the writer, the site management people (R. Tolson) declined the offer of Cannon to perform an in-depth audit that would have either confirmed or satisfied the concerns I raised.
13. The writer based this on conversations with site inspection personnel and the apparently disinterested attitude of R. Tolson, when advised of potential coating quality problems.
14. See Item 2F above.
15. The writer is unable to recall the names of inspection personnel encountered while in the field. However, two of the topics frequently discussed were the quality of work and where employment possibilities may currently exist.
16. There is an honest internal disagreement in the manner in which ANSI requirements impact the cost of a project and the quality of the work.
17. See Item 12 above.
18. The writer based this observation on previous work experience, and suggests that the coating manufacturer be contacted to confirm same.

Note: Power grinding on isolated areas of one square foot or less should not be a problem.

19. Again, the writer based this observation on previous work experience and suggests that the coating manufacturer be contacted. However, old Phenolinc #305 (one year or more, with weld fume accumulation) may not

To: K. B. Roth
Re: Texas Utilities Services
Letter dated 10/27/83

October 28, 1983
Page 4

19. - continued

be adequately cleaned and provide sufficient intercoat adhesion by solvent wiping.

20. The writer's speciality is Quality Assurance/Quality Control, as these terms deal with coatings and the writer's offer of an in-depth audit (in order to confirm or allay quality concerns) was repeatedly rejected.

Also see Items 3 and 12.

21. Based on the writer's observations on site and my past Nuclear site experience, the work observed in place appears questionable with regard to quality. (Again, an in-depth audit/review may resolve this issue.)

Also, any attempt by Cannon or any qualified professional applicator to salvage "in place work", may not be practical or realistic. Certainly, isolated areas may prove acceptable and perhaps complete rooms may be okay. However, realistically and from a cost/effective viewpoint, "rework" is more logical considering production effort and the attendant documentation.

22. See Item 21 above.

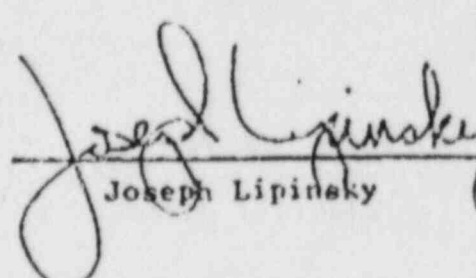
Additionally, the retrofit program may well resolve the writer's concern but I have not reviewed the adequacy or results of the retrofit program. Realizing that the writer is not familiar with the results of the retrofit program, I cannot comment one way or the other on the acceptability of the retrofit program.

23. The writer distributed the trip report to K. B. Roth and J. J. Norris, on or around August 8, 1983.


24. The writer did discuss the subject matter in my trip report with E. Mous Field Coatings Quality Control Supervisor, on subsequent trips to the project site.

Dated:

October 31, 1983


Joseph Lipinsky

OLIVER B. CANNON & SON, INC.

A member of the corporate family of 

DEPARTMENTAL CORRESPONDENCE

DATE October 31, 1983

SUBJECT TUSI IOM 10/27/83 and J. T. Merritt Letter of 10/28/83
TO R. B. Roth
FROM J. J. Norris

Bob, confirming our telecon of 10/31/83 I have a quipped copy of Mr. Chapman's 10/27 memo to John Merritt regarding Joe Lipinsky's trip report of 8/28/83.

I never dreamt that Joe's report would be communicated to anyone outside of our organization or I would have taken issue with it. Reasonable people differ in their perceptions of problems. I saw the problems at Comanche Peak differently than Joe did. As you know, over the years we have had problems from time to time with the objectivity of FQCI's. The ones involved in documenting the coating effort at nuclear installations tend to get involved in engineering decisions as a group and in my opinion, therein lies the lion's share of the problem.

Using Mr. Chapman's numbering system the following are my observations at Comanche Peak:

1. I believe Joe met with some line type FQCI's and garnered his impressions from those inspectors. Joe, of course, did not audit so his comments are at best second hand information. I'm not saying the allegations are true or false, but it is my impression subject to an audit that there is alot of "sour grapes" conversations taking place among the line inspection personnel. I sensed a way of thinking amongst the inspection personnel that indicated, at least to me, that they had no loyalty to their supervisors. For example; in the QA/QC machinery to document problems and provide a means for rectifying same there exists at Comanche Peak an NCR and another document that does not stop work, but allows remedial work on an on-going item of work. It was my understanding that Mr. Tolson simply asked the inspector or inspectors to quit issuing NCR's and issue the other document instead. That was a reasonable request in my opinion and in no way compromised quality or integrity.

2a. I interviewed the foreman in charge of the material storage warehouse in the company of Jr. Haley, Brown & Root Paint Superintendent. The "Q" portion of the warehouse was, if anything, a model for proper storage of material. There are temperature records, limited access, expiration dates on all containers, neat and orderly and with a reasonable inventory. I did not formally audit but I would be very surprised if they got many gigs.

2b. As I recommended to TUSI I felt like the ratio of helpers to journeyman was too high. However, they were doing a tremendous amount of masking of unistrut and other items not requiring paint and previously painted surfaces that were not compatible with the current system.

2c. The coating program seems to be in compliance with ANSI requirements, but again I'd have to audit to be sure.

2d. I made a casual inspection of the Unit I and Unit II containments and the AUX Building. I saw evidence of destructive testing of the coating systems that far exceeds anything I have ever experienced. Seemingly every few square feet of the concrete coating system had evidence of destructive testing and film thicknesses recorded in Magic Marker. Additionally, the same statement can be made of a significant amount of structural steel. The coating on practically every stair stringer had been destroyed with a Tooke Gauge. If there were any concerns in this area it was that the obvious over-inspection could lead to failure by substrate or intercoat contamination from sweat, body oil, dirty hands, etc.

2e. I have no knowledge of any document deficiencies.

2f. In my opinion, a good part of the problem at Comanche Peak is the fact that inspectors are working long hours on a continuing basis. It's been my experience every time that when you get yourself into scheduling continuing overtime people get tired and irritable, ie; "A morale problem". You and I both know how difficult it is to secure trained inspectors as they are simply not available at this time.

3. I think that Joe took Mr. Tolson out of context on the statement "That's not my concern". Perhaps Mr. Tolson was referring to the fact that the licensing of Unit I was not his area of responsibility.

4. I have no knowledge of the T.L. Miller subject.

5. Many have concerns for what we feel are good reasons, then so let the individual voice these concerns and address it objectively.

6. Regarding "only 34 out of 452 individuals are of any value as painters", as I stated previously, there was a large number of helper types on the payroll because of the intensive masking operation. It was my impression that a number of otherwise qualified painters had slowed down considerably because of real or imagined quality control restraints.

7. See paragraph 2f above.

8. Brown & Root was having trouble with moisture in the compressed air during QC checks of the air supply early in one or two of the shifts. It was a simple matter of upgrading the air drying components which I believe was taken care immediately.
9. I see no parallel between Comanche Peak and Zimmer. As I understand the Zimmer situation from Nucleonics Week and The Wall Street Journal there was a complete and total breakdown of 10 CFR 50, Appendix B requirements because local management was treating the project as most people would treat a fossil plant. That certainly is not the case at Comanche Peak.
10. I disagree entirely with the statement that "Comanche is doing inspections to the degree that they (Comanche Peak) are comfortable with or will tolerate". The coating effort, if anything, is over inspected. See paragraph 2d above.
11. I disagree with this statement.
12. My impression of Comanche Peak management differs from that of Joe Lipinsky's.
13. I have no knowledge of Comanche Peak management attempting to "squash" QC problems. My impression is that they want to do things correctly but they are becoming tired of having to reinvent the wheel every day on the coating effort.
14. I have no knowledge of the inspection staff's trying to leave the site "en masse".
15. Ditto.
16. The internal disagreement is self-explanatory per the responses above and below.
17. I did not perceive this hostility. I heard that TUSI/B&R has recently undergone an audit and has received a passing grade according to Tolson.
18. That's for Carboline to provide guidelines as CZ-11 is their product.
19. Ditto.
20. I don't agree here. TUSI was of course alarmed that painting might end up on the project's critical path, indeed, become the critical path. They wanted advice on how best to get the painting effort on the right track, but certainly within the spirit and letter of the law.
21. I can't clarify the "rework contract" statement.

22. I would disagree because of the purported results of the testing effort. Additionally, I had not reviewed the adequacy or results of the retrofit program.

23. I only know that I received a copy of Joe's report, which I have not released from my office.

24. I did not communicate with anyone about the trip report, nor did I send a copy of the trip report to anyone. My secretary is the only other person in Houston that could possibly have seen the report and she says that she did not.

During my visits, consultations, site interfaces, etc. I would not describe the site activities, conversations and meetings as anything but a workaday attempt by TUSI to resolve perceived problems in the coating effort. To imply anything else is irresponsible. With fuel load approaching and the attendant pressures there is bound to be a nervous, somewhat cautious atmosphere.

Norris
George
Roth

Clements
Cannon
Vega

CANNON

11/3

1. Kelley - engr. to discuss any testimony
2. Jack & Joe both go to site for review.
3. Jack & Jack next Wed.
 - A. Retrofit record sample
 - B. Pull tests summary & statistics
 - C. DFT tests " & "
 - D. Material processing & single pellet
 - E. storage @ Containment

800-523-4515

Bob Roth

11/4

O. B. Cannon

10:36

1. Coating

Ralph Trallo V.P. Nucl.

M.E.

VEC

B & W

Keth Michles - Corp Auditor

— x — x —
Meet 3:00 Wed.



*Corrosion
Control Services*

OLIVER B. CANNON & SON, INC.

Industrial Painting Specialists

5600 WOODLAND AVENUE · PHILADELPHIA, PA 19143
AREA CODE (215) 729-4600 · TWX 710-670-0482

November 4, 1983

Mr. John T. Merritt, Jr.
Assistant Project General Manager
Texas Utilities Services, Inc.
Post Office Box 1002
Glen Rose, Texas 76043

Reference: Oliver B. Cannon & Son, Inc.
Nuclear Coatings Overview Task Group
Site Assignment - Starting November 9, 1983

Dear John,

Confirming our telephone conversation this date, I have set up a Cannon Task Group, to visit the site starting Wednesday, November 9th, and to continue for as long as needed to complete an evaluation of the matters we discussed with you and your Management people at your Dallas Office on November 3, 1983. I would guess that three to five days, perhaps a week, would be our site stay.

A courtesy copy of my departmental memorandum, dated November 4, 1983, which formalizes this Task Group and their instructions, is attached. Please review, and you may want to add or delete to the specifics of my assignment. Let Ralph Trallo or Jack Norris know what else you may want.

Our Task Group shall include:

Task Leader - Ralph A. Trallo	- Vice President, Nuclear Services
John J. Norris	- Vice President, Houston Operations
Joseph J. Lipinsky	- Corporate QA/QC Director
Keith M. Michels	- Corporate Auditor - Nuclear

I am enclosing copies of the Resumes on our people. I believe you already have one for Jack Norris, on file.

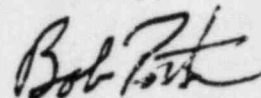
I will be on vacation thru November 13th, returning to my office on Monday, November 14th, and can monitor our progress at that time.

To: Texas Utilities Services, Inc.
Re: Cannon Task Group

November 4, 1983
Page 2

May I express my appreciation, at this time, for the hospitality and courtesies extended to Jack Norris and me, by you, your Management people and associates in our recent meeting. I feel our getting together was well worth the effort.

Sincerely,



Robert B. Roth
President

/1
encl.

cc: J. J. Norris
R. A. Trallo
Account File

OLIVER B. CANNON & SON, INC.

DEPARTMENTAL CORRESPONDENCE

DATE November 4, 1983

SUBJECT Job H8301-Coatings Overview Task Group, Cannon to TUSI, Comanche Peak
TO R. A. Trallo, J. J. Norris, J. J. Lipinsky, K. Michels cc: APMC, Acct File
FROM R. B. Roth

1. As a follow-up to our Consulting Services Contract over the past summer, for this client, I am assigning this Cannon Task Force to perform a Nuclear Coatings overview at the Comanche Peak Nuclear Plant, being constructed by Texas Utilities Services, Inc. at Glen Rose, Texas
2. Task Force to be:
 - R. A. Trallo - Vice President - Nuclear Services
 - J. J. Norris - Vice President Houston Operations
 - J. J. Lipinsky - Corporate QA/QC
 - K. Michels - Lead Corporate Auditor
3. Site effort to commence, Wednesday morning, November 9, 1983. Jack, Joe and Keith to report on Wednesday. Ralph may not be able to schedule till later in the week. There is no established time limit. I suspect from three to five days may be necessary, but the best judgment of our senior managers involved will so ascertain. Ralph is designated as Task Force Leader.
4. Principal purpose is to evaluate the Nuclear Coatings Retrofit Program that has been in effect over the last 3 to 4 months. Key areas would include:
 - Material Storage and Control
 - Painter mechanic qualification/documentation
 - Working relationship between Production/Inspection
 - Status and adequacy of documentation/traceability
 - Implementation of coatings retrofit effort, see "Painting Minutes of Meeting", pages 1 to 4, dated 8/15/83, as prepared by R. M. Kissinger, Project Civil Engineer
 - Compliance of Nuclear coatings to Project Specifications requirements.
 - Overview as to adequacy of current safety-related coatings in place, as per proper Industry practice, etc.

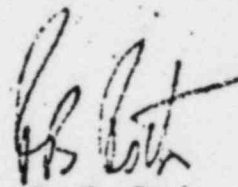
To: R. A. Trallo, J. J. Norris, J. J. Lipinsky, K. Michels
Re: Job H8301 - Task Group

November 4, 1983
Page 2

-
5. Separate individual and objective reports are due to Task Leader and his composite report shall be submitted to my office within five working days after site assignment.

Ralph is further charged with the security of the reports/observations given to him and his composite report shall be directed to me, and no other copies issued or distributed.

6. I shall then communicate the results of our effort to TUSI.
7. All costs and expenses involved shall be submitted in separate expense envelopes, with appropriate receipts and clearly marked with Job #H8301.
8. Any questions or clarifications to the above shall be addressed to my attention.


R. B. Roth

RESUME

for

RALPH A. TRALLO

- EDUCATION - Newark College of Engineering
Bachelor of Engineering - Civil 1967
- Drexel University, Philadelphia, Pa.
Corrosion Engineering Credits
- Continuing education courses in Labor Relations
and Claims Management -
Pepperdine University
Rutgers University
- EMPLOYMENT - Oliver B. Cannon & Son, Inc., Philadelphia, Pa.
1974 to Present
- 1980 to Present - Oliver B. Cannon & Son, Inc.
Vice President Nuclear Services
- Primary responsibility for all corporate Nuclear projects.
See Attachment I for current projects
- 1978 to 1980 - Oliver B. Cannon & Son, Inc.
Appointed Vice President, Production Services
- Primary responsibility for corporate field and production
services, equipment assignment, OSHA compliance and Safety
Program.
- 1974 to 1978 - Oliver B. Cannon & Son, Inc.
Project Management
- Responsible manager on all phases of projects assigned.
- Key projects included:
- Unit 2 - Three Mile Island
 - Units 1, 2, 4 - WWPSS
 - Units 1, 2 - GGNS
 - Five (5) Fossil Generating Units
- 1971 to 1974 - Babcock & Wilcox, Inc.
- Field Construction Manager for boiler construction and erection
Champion Paper Co., Canton, NC
City of Lakeland Power Authority, Lakeland, FL

Re: Resume for Ralph A. Trallo

1970 to
1971

- United Engineers & Constructors, Inc.

Lead Engineer - Civil Group - Three Mile Island

Nuclear Construction - General Public Utilities Corp.

1969 to
1970

- Active Duty - U. S. Navy - Fleet Submarine Service

1967 to
1969

- United Engineers & Constructors, Inc.

Field Engineer - Fossil and Nuclear construction projects

Professional Affiliations:

- American Nuclear Society

- National Association of Corrosion Engineers

- ASTM - Committee D-33

- UNCWC

- Liberty Bell Corrosion Conference - NACE - Lecturer

ATTACHMENT I

- Units #1 & 2 - GCNS, Port Gibson, MS - New Construction
- Unit #1 - Jersey Central Power & Light, Oyster Creek, NJ - Retrofit
- Unit #1 - General Public Utilities, Three Mile Island - Maintenance
- Unit #1 - Cincinnati Gas & Electric Co., Zimmer Station - Coatings Retrofit
- Unit #2 - WPPSS, Richland, WA - New Construction
- Unit #1 - Public Service Electric & Gas, Hope Creek, NJ - New Construction
- Units #1 & 2 - Public Service Electric & Gas, Salem Station, NJ - Maintenance

RESUME
for
MARTIN K. MICHELS

EDUCATION

Pennsylvania State University
Bachelor of Science - Biology, 1978

EMPLOYMENT

Oliver B. Cannon & Son, Inc. - 1980-Present
Philadelphia, PA. 19143

1982-Present CORPORATE QUALITY ASSURANCE AUDITOR -
Responsible for the performance and
coordination of internal and vendor quality
assurance audits for all nuclear contracts.
Also included is the coordination of activities
required to assure the resolution of
deficiencies noted by outside auditing
organizations. Currently certified as a Lead
Quality Assurance Auditor in accordance with
ANSI N45.2.12 and ANSI N45.2.23.

1981-1982 QUALITY ASSURANCE AUDITOR - Responsible for
field audits and evaluation of quality
assurance programs for all nuclear contracts.
Experience included regular audit functions
combined with filing and maintenance of quality
assurance records, review of records and
interface with management personnel as
necessary to achieve quality goals.
Aforementioned duties require familiarity with
ANSI N45.2 and applicable daughter standards,
Appendix B of 10CFR50 and Regulatory Guides
pertaining to the construction and maintenance
of nuclear power plants.

1980-1981 QUALITY ASSURANCE TECHNICIAN - Responsible for
quality assurance testing of paints and
coatings along with calibration, repair and
certification of measuring and test equipment
used for the field inspection of coatings.

Valley Forge Laboratories, Inc.
Devon, PA. 19333

9/79-12/79 FIELD QUALITY CONTROL INSPECTOR - Responsible
for the inspection of various concrete
products. Duties involved specific testing
procedures in both the field and laboratory to
determine the suitability of different types of
concrete in construction projects. Familiarity
with ASTM testing procedures was necessary to
accomplish all work assignments.

PROFESSIONAL AFFILIATIONS

American Nuclear Society - Member since 7/83

RESUME
for
JOSEPH J. LIPINSKY

EDUCATION

Pennsylvania State University
Associate Degree - Liberal Arts, 1974
Bachelor of Science - Biology, 1977

EMPLOYMENT

Oliver B. Cannon & Son, Inc. - 1978-Present
Philadelphia, PA. 19143

1981-Present CORPORATE QUALITY ASSURANCE DIRECTOR -
Responsible for developing, implementing and
coordinating all aspects of the Quality
Assurance Program and Quality Work Procedures
as related to ANSI N101.4, Class I and II
Service Levels. Also responsible for
non-nuclear work with regard to Quality Work
Procedure development and implementation. In
addition, responsibilities include inspector
training and qualification, providing technical
direction as needed for nuclear and
conventional work, providing continuity and a
point of interface between manufacturers,
clients and technical representatives.
Currently certified as a Level III Coatings
Inspector in accordance with ANSI N45.2.6.

1980-1981 CORPORATE QUALITY ASSURANCE AUDITOR -
Responsible for satisfying the internal and
external audit requirements relating to all
nuclear contracts. Certified as a Lead Auditor
in accordance with ANSI N45.2.12 and ANSI
N45.2.23.

1979-1980 QA/QC MANAGER - Responsible for all quality
activities and the supervision and direction of
field personnel on the WNP-1/4 and WNP-2
nuclear projects, Richland, Washington. In
addition, functioned as the OBC quality
assurance representative on these sites.

1978-1979 LEAD FIELD QUALITY CONTROL INSPECTOR (Level II)
- Responsible for the implementation of the OBC
Quality Assurance Program and Quality Work
Procedures on the Three Mile Island and Perry
Nuclear Power Plant projects. Responsible for
the quality assurance testing of surface
preparation and coating application of Class I
nuclear coatings applied on these sites.

PROFESSIONAL AFFILIATIONS

American Nuclear Society - Member since 6/82
National Association of Corrosion Engineers -
Member since 4/81
American Society for Quality Control - Member
since 4/81

O. B. Cann
Ralph Trowler

11/8/83

1. Org Chart
Proj Coatings
QC Mainly
2. QA Program
3. All inspection people & level
of cert.
4. Names of production
Foreman up
5. List of cert. Painters
6. G.B. Crane interface contact

JJL & MKM COMANCHE PEAK TRIP

NEED: Organizational chart with names and titles of individuals and positions filled

Copy of current revision of the QA Program

Complete cooperation with various on site departments, organizations and individuals

List of names of all inspection personnel and level of certification

List of names and positions of production personnel (foremen and above)

List of certified painters and systems for which the painters are qualified

Require liason or interface person for quality assurance, quality control, production, and other departments in order to expedite and aid in the performance of this review

DAY #1 Review QA Program in general

Review QC Procedures and how those procedures related to the QA Program

Go over QC Procedure numbering sequence

Review site organization and responsibilities (both individual and company)

Review Retrofit program (why implemented, still on-going-why? why not?, what has been accomplished to date)

Tour Site (containment, paint shop, warehouse, calibration lab, etc.)

NOTE: Badge MKM as time allows

DAY #2

Non-Confirming Conditions

Review existing NCR's

Review procedure for unsatisfactory reports to determine adequacy

Review procedure for NCR to determine adequacy

Review logs for NCR and unsatisfactory report

Review status tag procedure and logs

Review NCR and/or unsatisfactory coordinator status

Procedure and Specification Revision Control

Review system and procedure for changes to specification and procedures

Review controls - assure that only most current revisions of specification and procedures are utilized

Examine on site situation to determine sequence of work activities

DAY # 3&4

Material Storage

Review procurement documents

Review receiving procedures and records

Review personnel qualifications for receiving personnel

Review product certification

Examine reject and hold areas (review tagging procedures and logs)

Examine facilities (take representative batches and determine if procedure followed)

Review warehousing records

Examine facilities and check calibration of recording thermographs (examine certificates of compliance for instruments, calibration records for instruments, personnel for individuals performing calibrations)

Determine traceability of material from receiving to in place work from warehousing records and daily reports (also going backwards from in place work)

DAY #5

Personnel Qualifications

Painter Qualifications

Review indoctrination and training program

Observe (if possible) class room session and field qualifications

Review documentation on personnel qualifications

Inspector Qualifications

Review indoctrination and training program

Review personnel qualification with regard to level of certification

Review documentation on personnel qualifications

Auditor Qualifications

Review personnel qualifications for auditors

Review documentation on personnel qualifications

Audits

Review audits of the coating operation

DAY #6

Calibration

Review calibration logs

Review certificates of compliance for test instruments

Review traceability of instruments to NBS

Review training and qualification of calibration personnel

Review documentation of personnel qualifications

DAY #7 & 8 Daily Inspection Reports

Review adequacy of daily inspection reports (compared to information required by ANSI)

Determine traceability of records for representative areas and/or items

DAY #9 & 10 Wrap up and tie together items that were examined earlier.

NOTE: The above schedule is tentative in nature and is not meant to be all inclusive. Areas or questions raised during the review will be pursued until a response is provided.

O.B.C.

11/10/82

B. Did not do thro review ∴ only
a concern.

▷ 1. Do we need to cover paint
storage,

2. Why do we mix, store, transport by
time, tag paint the way we do
a) Let's review
b

→ B. Painter qualification / indoc.
~~Cert~~ Program for painter certifier
Q.C. " " cert.
sample effort

C. Zimmer



*Corrosion
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OLIVER B. CANNON & SON, INC.

Industrial Painting Specialists

5600 WOODLAND AVENUE • PHILADELPHIA, PA 19143
AREA CODE 215/729-4800 • TWX 710-620-0812

November 28, 1983

Nicholas S. Reynolds, Esquire
Debevoise & Liberman
1200 Seventeenth St., N.W.
Washington, D. C. 20036

Dear Nick,

This will confirm our telephone conversation on Wednesday, November 23rd, relative to the position of Cannon to the matters reviewed in your office on Tuesday, November 22nd, with our Messrs. Norris and Lipinsky, in connection with the Lipinsky trip report dated August 8, 1983, concerning his visit to the Comanche Peak Nuclear construction site.

The referenced trip report is a Cannon in-house document, transmitting information to me, as President and Chief Executive Officer of Cannon, expressing Lipinsky's observations, concerns, etc. It is not an official document in connection with TUGO's Purchase Order CPF-15245, to Cannon, nor does it represent the Cannon corporate position relative to our contractual commitment with TUGO/TUSI.

I assure you Joe does not have a prejudicial attitude, nor 'an axe to grind', in this whole matter. I would, both corporately and personally, be disappointed, should you or your client harbor such a concern. Suffice to say, it has been most embarrassing to this office, that Lipinsky's memorandum was surreptitiously removed from his personal papers to effect a breach of our corporate security.

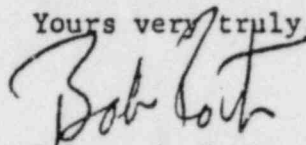
Cannon's posture is to support TUGO/TUSI with whatever objective and honest effort we can render.

Further, as a matter of re-emphasis, Cannon, at the time we accepted the consulting assignment from TUGO/TUSI, had no interest in site work or contracting, and we continue in this position. The conflict is obvious. We are fully committed in Nuclear coatings contract work thru spring of 1984. Staff availability thereafter is questionable.

Cooperative efforts, as the term implies, requires mutuality, particularly in communicating, and you assured me of your concurrence therein.

I have forwarded by mail on Wednesday, November 23, 1983, the memorandum and all copies thereto, as we had discussed.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Bob Roth".

Robert B. Roth
President

/1



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November 30, 1983

Mr. John T. Merritt, Jr.
Assistant Project General Manager
Texas Utilities Services, Inc.
Post Office Box 1002
Glen Rose, Texas 76043

Reference: Cannon Nuclear Coatings Overview Task Group
Summary Report of November 28, 1983

Dear John,

Please refer to my letter to you of November 4, 1983, regarding the assignment of our above subject Task Group, to visit your Comanche Peak construction site. This assignment was implemented on November 9, 10 and 11, 1983. Our comment copy of the transcribed meetings that took place thereon, has been forwarded to your office, under separate cover, on November 28, 1983

Our Task Group leader, Ralph Trallo, in accordance with my November 4th directive, has submitted to me his composite report which embodies the comments, remarks, etc. of all our Task Group members.

In turn, I have studied Ralph's composite report, and concur with the conclusions set forth. Hence, I am transmitting a copy to you as being properly representative of our corporate position on the assigned matter.

Yours very truly,

Robert B. Roth
President

/1
encl.

cc: J. J. Norris
R. A. Trallo
N. S. Reynolds

DEPARTMENTAL CORRESPONDENCE

DATE November 28, 1983

SUBJECT H-8301 - Coatings Overview Task Group Report

TO Robert B. Roth

FROM Ralph A. Trallo

I. Background:

Cannon Personnel Concerned:

- Robert B. Roth - President and Chief Executive Officer
- Ralph A. Trallo - Vice President Nuclear Services
- John J. Norris - Vice President and Project Account Manager
- John J. Lipinsky - Corporate Quality Assurance Director
- M. Keith Michels - Corporate Quality Assurance Lead Auditor

On November 4, 1983 a Cannon Task Group consisting of the writer, J. J. Norris, J. J. Lipinsky, and M. Keith Michels was established to perform follow-up evaluation of items previously addressed within the scope provided under our Consulting Services Contract¹ with this client.

This follow-up was to be in accordance with guidelines set forth in departmental correspondence from Robert B. Roth to the writer² and the principle purpose detailed was to evaluate the nuclear coatings retrofit program at Comanche Peak. Key areas included:

Material Storage and Control

Painter mechanic qualification/documentation

Working relationship between Production/Inspection

Status and adequacy of documentation/traceability

Implementation of coatings retrofit effort, see "Painting Minutes of Meeting", pages 1 to 4, dated 8/15/83, as prepared by R. M. Kissinger, Project Civil Engineer

Compliance of Nuclear coatings to Project Specifications requirements

Overview as to adequacy of current safety-related coatings in place, as per proper Industry practice, etc.

1. - TUGO Purchase Order No. CPF-15245

2. - Departmental correspondence R. B. Roth to R. A. Trallo, 11-4-83

H-8301 - Coatings Overview Task Group Report
TO: Robert B. Roth
November 28, 1983
Page Two

II. Preliminary Preparation:

The writer discussed the operation and purpose of the Cannon Task Group with the other participants. A point of departure schedule was established in accordance with Robert B. Roth's memo guidelines, and preliminary checklists were prepared to facilitate orderly progression and review.³ The intent was to have OBC QA Services (Lipinsky and Michels) and J. J. Norris (Account Manager) onsite for whatever time was required to complete the necessary reviews. R. A. Trallo was to visit the site to perform an overall evaluation as to the effectiveness of the Cannon Task Group activities. Commencement dates for site activities were: November 9, 1983, J. J. Norris, J. J. Lipinsky and M. Keith Michels onsite to begin preliminary reviews; November 10, 1983, the writer onsite to insure effective implementation of the Cannon Task Group activities.

III. Task Group Activities:

On November 8, 1983 I called John Merritt to advise him that Oliver B. Cannon personnel would be onsite November 9, 1983, and requested that he have available the following information for review:

Organizational chart with names and titles of individuals and positions filled

Copy of current revision of the QA Program

Complete cooperation with various onsite departments, organizations and individuals

List of names of all inspection personnel and level of certification

List of names and positions of production personnel (foremen and above)

List of certified painters and systems for which the painters are qualified

3. "JL and MKM Comanche Peak Trip Plan" (4 Pages)

H-8301 - Coatings Overview Task Group Report
TO: Robert B. Roth
November 28, 1983
Page Three

III. Task Group Activities: (continued)

Liason or interface person for quality assurance, quality control, production, and other departments in order to expedite and aid in the performance of this review

Mr. Merritt requested that any reviews conducted by OBC were to be performed on a joint basis (ie. QA and Accout Management).

Cannon personnel were onsite the morning of November 9, 1983. At that time J. J. Lipinsky gave a copy of the preliminary review checklist³ to John Merritt. J. J. Norris and John Merritt discussed the checklist and Mr. Merritt requested a "kick off" meeting prior to any formal reviews or implementation of Cannon Task Group activities.

It became evident that the scope of the Cannon Task Group activities which had been previously outlined²; were not coincident with that perceived by TUGO. Mr. Merritt requested a review meeting to discuss the concerns of the "Lipinsky.Memo"⁴ and based on the outcome of that meeting TUGO would re-define the scope of the Cannon Task Group activities. The review meeting was held commencing Thursday, AM, November 10, 1983, with John Merrit' chairing.

Mr. Ron Tolson, Construction QA Supervisor, started the discussion. In essence the "Lipinsky Memo"⁴ was used as an agenda, and each memo paragraph, or statement, was discussed and clarified. The meeting was recorded and the transcript has been distributed for comment.⁵ It became evident that certain statements in the trip memo⁴ were incorrectly stated or misinterpreted. This was principally due to the organizational structure at Comanche Peak. (ie. A management team consisting of individual's employed by different organizations.)

2. - Departmental correspondence R. B. Roth to R. A. Trallo, 11-4-83
3. "JLJ and MKM Comanche Peak Trip Plan" (4 Pages)
4. - Trip Report (JLJ to RBR) 8-8-83
5. - "Lipinsky Memo Meeting on November 10 and November 11, 1983"

H-8301 - Coatings Overview Task Group Report

TO: Robert B. Roth

November 28, 1983

Page Four

Mr. Tolson explained the operational roles of the individuals involved on the Comanche Peak Team, along with their proper titles, responsibilities, and lines of reporting.

Concerns raised in the "Lipinsky Memo"⁴ were for the most part, based on observations and discussions between Joe Lipinsky and site personnel. At face value this "information," would be the cause for raising concerns regarding the site coating activity. Throughout the course of the November 10 meeting, it was evident that Site QA Management at Comanche Peak was not interested in further audits, or program reviews, since they have been subject to numerous outside and internal reviews and audits in the past several years. These constant and sometimes redundant reviews, compounded by the apparent personnel matters, resulted in short or clipped responses, which could readily be misinterpreted.

Regarding areas of coatings material handling, personnel qualifications, non-conformances, and quality responsibility, Mr. Tolson discussed the current procedures and controls in effect at Comanche Peak. This detailed information not readily available to Joe Lipinsky during his site visit of July 26, 27, 28th, 1983, and on which visit he based his August 8, 1983 trip report to Robert B. Roth.

Comanche Peak Management stated that they do not feel they have a problem in the areas of concern, as raised in the "Lipinsky Memo."⁴ A detailed indepth audit was not agreed to. However, a review of specific items could be scheduled, or program "paper" be made available for review, at Cannon's request. After consideration the Cannon Task Group decided that a limited review was unwarranted, since it would not provide sufficient support to a statistical extrapolation as to the entire coatings programs' effectiveness.

Detailed discussion and information is provided in the notes of the November 10 and November 11 meetings. (Reference footnote 5.)

H-8301 - Coatings Overview Task Group Report
TO: Robert B. Roth
November 28, 1983
Page Five

IV. Conclusion:

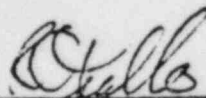
The Cannon Task Group did not perform the total overview function as originally scoped by Robert B. Roth. This was due to the request of our client to explore and review the "Lipinsky Memo"⁴ in further detail, paragraph by paragraph.

The site meetings of November 10 and 11, 1983 resulted in the following:

The concerns raised in the "Lipinsky Memo"⁴ were based on limited information and observations which were neither investigated nor discussed in sufficient detail, during his site visit, to either allay or to confirm.

Comanche Peak Site Management adequately detailed the programs and controls in place, which would relieve or allay the concerns raised in the "Lipinsky Memo."⁴ Cannon has no basis to confirm that these programs and controls are in place and are being effectively implemented. Confirmation could only be provided by a detailed audit. Such an audit could be redundant and certainly time consuming. Further, TUGO has neither requested same, nor is it required by the referenced Purchase of Services Agreement.

Based on the information provided by the Comanche Peak Site Organization we can assume that our concerns are unfounded, however, affirmation could only be finalized by further effort.



Ralph A. Trallo

RAT: jr

OLIVER B. CANNON & SON INC.

OLIVER B. CANNON & SON, INC. OF FLORIDA
Lakeland, FL 33803
Phone: 813-646-1405-7

5600 WOODLAND AVENUE
PHILADELPHIA, PA. 19143
215-729-4600

BRENO PAINTING COMPANY DIVISION OF
OLIVER B. CANNON & SON, INC.
South Houston, Tx. 77587
Phone: 713-047-9670

OLIVER B. CANNON & SON OF LOUISIANA, INC.
Baton Rouge, La. 70803
Phone: 504-387-6601

Industrial
PAINTING SPECIALISTS

FEDERAL EMPLOYER ID #23-1268674

INVOICE

DATE 1/31/84

Texas Utilities Generating Company
Post Office Box 1002
Glen Rose, Texas 76043

RECEIVED

YOUR ORDER NO. CPF 16245

FEB 14 1984

TEXAS UTILITIES GENERATING INVOICE NO.

B-01001

F.B.C. JOB NO.

H-8301

RE: General Survey Completed to Date
Unit 1
Comanche Peak Steam Electric Station
Glen Rose, Texas

PLEASE REMIT TO:
Oliver B. Cannon & Son Inc.
P.O. Box 7777-W7640
PHILADELPHIA, PA 19175

Ticket
Number

12
13
14
15
16
17

Amount

\$3,554.92
1,475.37
2,674.56
1,563.10
2,226.41
2,808.10
14,302.46

*PAY ONLY 50%
OF THIS INVOICE PER
AGREEMENT BETWEEN
CRG/GRANES/J.J. MORRIS
LETTER OF 6-5-84
RDQuinty
6-22-84*

1-2-9230-941000-108

TEXAS UTILITIES GENERATING COMPANY										
NO.		GROSS AMOUNT								14,302.46
P.O.		DISC.								
V.		AMOUNT DUE								14,302.46
DISTRIBUTION ACCT.		TAXABLE AMT.								
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9900	236	12	70	712	0000					
PREPARED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED					

INVOICE.....\$14,302.46

**1 1/2% Service Charge
Will Be Made On
Past Due Accounts**

OLIVER B. CANNON & SON INC.

OLIVER B. CANNON & SON, INC. OF FLORIDA
 Orlando, FL 32803
 Phone: 813-646-1405-7

5600 WOODLAND AVENUE
 PHILADELPHIA, PA. 19143
 215-729-4600

BRENO PAINTING COMPANY DIVISION OF
 OLIVER B. CANNON & SON, INC.
 South Houston, Tx. 77587
 Phone: 713-047-9870

OLIVER B. CANNON & SON OF LOUISIANA, INC.
 Baton Rouge, La. 70803
 Phone: 504-387-8601

Industrial
PAINTING SPECIALISTS

INVOICE

DATE 4/2/84

YOUR ORDER NO. CPF 16245

FEDERAL EMPLOYER ID #23-1268674

Texas Utilities Generating Company
 Post Office Box 1002
 Glen Rose, Texas, 76043

INVOICE NO. **B-04002**

B.C. JOB NO. H-8301 RE: Comanche Peak Steam Electric Station
 Glen Rose, Texas

PLEASE REMIT TO:
Oliver B. Cannon & Son Inc.
 P.O. Box 7777-W7640
 PHILADELPHIA, PA 19175

RECEIVED

APR 03 1984

TEXAS UTILITIES GENERATING CO. Ticket Number
 CPSS CONST. OFFICE

Amount

\$604.31

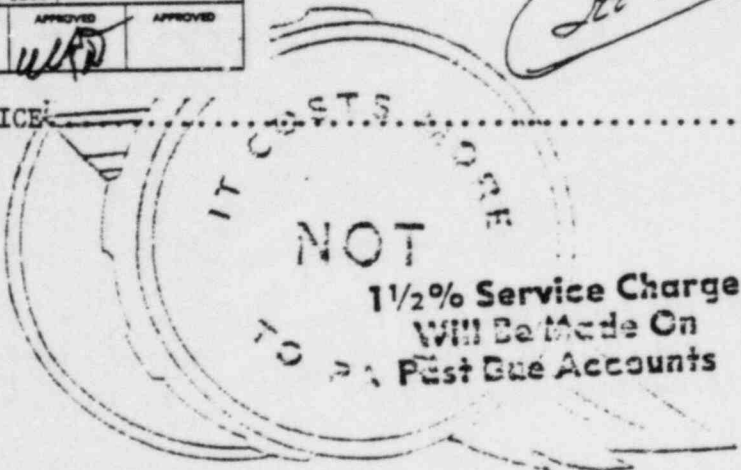
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NO. 11-032302									
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9900	236	12	70	712	0000				
PREPARED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED				
by	LP	MP	WR						

PAY ONLY 50% OF THIS INVOICE PER AGREEMENT BETWEEN CRGRAVES / J.J. Noels LETTER OF 6-5-84
RJ
6-22-84

SEE DMBN 725

AMOUNT DUE THIS INVOICE:\$604.31

/db



OLIVER B. CANNON & SON INC.

OLIVER B. CANNON & SON, INC. OF FLORIDA
 Ft. Lauderdale, FL 33803
 Phone: 813-846-1405-7

5600 WOODLAND AVENUE
 PHILADELPHIA, PA. 19143
 215-729-4600

BRENO PAINTING COMPANY DIVISION OF
 OLIVER B. CANNON & SON, INC.
 South Houston, Tx. 77587
 Phone: 713-047-9670

OLIVER B. CANNON & SON OF LOUISIANA, INC.
 Baton Rouge, La. 70803
 Phone: 504-387-8801

FEDERAL EMPLOYER ID #23-1268674

Industrial
 PAINTING SPECIALISTS

INVOICE RECEIVED

DATE 4/30/84

Texas Utilites Generating Company
 Post Office Box #1002
 Glen Rose, Texas 76043

MAY 14 1984

YOUR ORDER NO. CPF 16245

TEXAS UTILITIES GENERATING CO.
 CPSES CONST. OFFICE

INVOICE NO. B-04002

B.C. JOB NO. B-8301 RE: Comanche Peak Steam Electric
 Station
 Glen Rose, Texas

PLEASE REMIT TO:
 Oliver B. Cannon & Son Inc.
 P.O. Box 7777-W7640
 PHILADELPHIA, PA 19175

Ticket Number

19

Amount

\$693.88

*PAY ONLY 50%
 OF THIS INVOICE PER
 AGREEMENT BETWEEN
 CRGAMES / J.J. MORRIS
 LETTER OF JUNE 5 1982!
 R.D. Crutney
 6-22-84*

TEXAS UTILITIES GENERATING COMPANY						
GROSS AMOUNT		693.88				
DISC		-				
AMOUNT DUE		693.88				
TAXABLE AMT.		-				
DISTRIBUTION ACCT.						
2161	73	71	5001	693.88		
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9900	236	12	70	712	0000	
PREPARED	APPROVED	APPROVED	APPROVED	APPROVED		

NOT

AMOUNT DUE THIS INVOICE.....\$693.88

/db

**1 1/2% Service Charge
 Will Be Made On
 Past Due Accounts**

TUGCO UTILITIES GENERATING COMPANY ANY

OFFICE MEMORANDUM

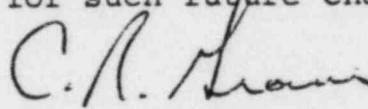
To Mr. J. T. MerrittDate June 5, 1984Subject CPF-16245, Oliver B. Cannon & Son, Inc.

You requested my resolution to the question of the propriety of O. B. Cannon's Invoices No. B-04002 dated 4-2-84 for \$604.31, No. B-04002 dated 4-30-84 for \$693.88 and No. B-01001 dated 1-31-84 for \$14,302.46.

After discussion with yourself, R. D. Gentry and J. J. Norris of O. B. Cannon, Norris and I mutually agreed that we will pay 50% of the above invoices.

It is suggested that a supplement be issued to CPF-16245 to incorporate provisions for payment of \$7,800.33 for the additional travel expenses. It should be noted in the supplement that "this amount reflects 50% of actual expenses, based on C. R. Graves and J. J. Norris agreement of 5-31-84. The actual charges for the subject invoice is split 50/50 since O. B. Cannon did not obtain prior agreement from TUGCO for reimbursement of the costs."

Since I understand we will quite likely be requiring some additional services from O. B. Cannon, some provision should also be included in the supplement for such future charges.



C. R. Graves

CRG:th

cc: Mr. R. D. Gentry (w/attached invoices)
Purchase Order File

TEXAS UTILITIES GENERATING COMPANY
CPSES FIELD REQUISITION - CONSTRUCTION

No R 31414

Sub. No. 1

(Leave blank for Purchasing Dept.)
 VENDOR NAME: O. B. Cannon + Son
 STREET: 900 Airport Blvd., Suite 801
 CITY: Houston, Tex. STATE: Tx. ZIP: 77061
 SHIP VIA: N/A
 SHIPPING DATE: N/A
 F.O.B.: N/A TERMS: N/A

THIS IS NOT A PURCHASE ORDER

DEPARTMENT: PMG
 INTENDED USE: CPSES Protective Coating Program
Incorporate additional travel expenses into purchase order

PURCHASING JUL 2 1984
 PURCHASE ORDER NO. CPF 16245
 DATE: _____ 19____
 DATE REQUIRED: _____
 ESTIMATED COST - \$ 2,800.33
 BUYER: B. Thompson

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION Give complete descriptions, ratings, catalog nos., etc. Attach specifications, if required.	SAFETY CLASS CODE	LEAVE BLANK FOR PURCHASING DEPT.		COST CODES
					UNIT PRICE	TOTAL	
			<p>This requisition is to provide for a supplement to purchase order CPF 16245 to cover additional travel expenses per O. B. Cannon's Invoices No. B-04002 dated 4-2-84, No. B-04002 dated 4-30-84 and No. B-01001 dated 1-31-84.</p> <p>The amount of the Supplement is to reflect 50% of actual expenses, based on agreement of 5-31-84 between C. R. Graves, TUGCO and J. J. Norris, O. B. Cannon + Son, Inc.</p>				<p>1-2-9230- 940000-108</p>

REQUISITIONER: B. Thompson Ext 184
 CONTRACTOR APPROVAL: _____
 APPROVED: _____

No. Q.A. Required Safety Related Q.A. required
 TUSI APPROVALS: _____
 APPROVED: Robert D. [Signature] 6-20-84

DATE: _____
 ACCEPTED: _____
 APPROVED: [Signature] 6/27/84

Stamp: JUN 24 1984
 Stamp: JUN 24 1984
 Stamp: JUN 24 1984

6:01 58/07H
 JOE NO 151195

TEXAS UTILITIES GENERATING COMPANY
CPSES FIELD REQUISITION CONTINUATION SHEET — CONSTRUCTION No R

THIS IS NOT A PURCHASE ORDER

REQUISITION

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION Give complete descriptions, ratings, catalog nos., etc. Attach specifications, if required.	SAFETY CLASS CODE	LEAVE BLANK FOR PURCHASING DEPT.		COST CODES
					UNIT PRICE	TOTAL	
			Additional ^{related} expenses which may be incurred by O. B. Cannon personnel attending hearings and giving testimony as dictated by TUGCo management will be reimbursed under the scope of this purchase order.				

REQUISITIONER

B. Thompson

CONTRACTOR APPROVAL

APPROVED

No Q.A. Required

Safety Related Q.A. Required

Q.A. ACCEPTED

DATE:

TUGSI APPROVALS

Robert D. Gunt - 6-20-04 APPROVED

TEXAS UTILITIES GENERATING CO.

P.O. Box 1002
Glen Rose, Texas 76043

DEI

IM

TO OLIVER B CANDE

D.M. NO. BN725

TEXAS UTILITIES GENERATING COMPANY					
MEM	GROSS AMOUNT <u>7,800.33</u>				
P.O. <u>OFF-16245</u>	DISC. <u>-</u>				
NO. <u>11-032302</u>	AMOUNT DUE <u>7,800.33</u>				
DISTRIBUTION ACCT.					TAXABLE AMT. <u>-</u>
2161	300	73	59	71	5001 <u>7,800.33</u>
2161		73		71	5001
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2161		73		71	5001
9900	236	12	70	711	0000
9900	236	12	70	712	0000
PREPARE	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED

7-5-84
OFF-16245
B-01001, B-04002, B-04002-A

REMITTANCE TO BE	AMOUNT
We debit you for 50% of Billings listed below per Supplement #1.	
B-01001	\$14,302.46
B-04002	604.31
B-04002-A	693.88
TOTAL	15,600.65
LESS 50%	<u>(7,800.33)</u>
TOTAL	<u>7,800.33</u>

OLIVER B. CANNON & SON
CPF 16245

HISTORICAL

Mr. J. J. Norris, Vice President of O. B. Cannon & Son, Inc., was requested to come to the jobsite July 13, 1983 to consult with Mr. J. T. Merritt on CPSES paint coating problems.

A meeting was held in the TUGCO conference room with Mr. Norris, Ron Tolson, F. G. Peyton, Dick Kissinger to discuss areas of paint coatings and NRC concerns with coatings. Mr. Norris was asked if he had any suggestions as to how to proceed with evaluating the coatings at CPSES.

After a tour of the plant areas to view actual coating applications and discussing NRC concerns pertaining to paint, Mr. Norris was asked to prepare a proposal for review by site management.

On July 15, 1983 we received Mr. Norris' initial proposal for Service Level 1 coating effort and analysis by O. B. Cannon & Son.

August 1, 1983 a purchase order was issued for
Phase I - consisting of a General Survey of CPSES protective coating program (2 - 3 people for 3 weeks)

- a) Production
- b) Work Procedures
- c) Scheduling
- d) Training and Qualification
- e) Quality Control
- f) Management of Coating Effort
- g) Specification (2323-AS-31)

Phase II - Comprehensive study of protective coating program including recommendations and observations (to be added by formal supplement if required).

Purchase Order Requirements: (CPF 16245)

Fixed Fee (over and above daily rate structure) \$ 63,000.00

Total Phase I - not to exceed 100,000.00

Personnel Qualifications - Qualification data and resumes to be furnished to CPSES for CPSES Management review and approval.

Fee Schedule

Management Personnel	\$500.00/Day
Line Personnel	400.00/Day
Tech. Personnel	350.00/Day
	250.00/Day
Clerical	Actual Cost
Overhead for above	Add 16%

On August 15, 1983 a second meeting with O. B. Cannon personnel was held at CPSES as outlined in CPP-13338 (Minutes of Meeting) attached.

SUPPLEMENT 1 TO PURCHASE ORDER

Supplement 1 to Purchase Order CPF 16245 was issued on 6/25/84 to incorporate negotiated agreement between C. R. Graves and J. J. Norris per C. R. Graves memo dated June 5, 1984. This allowed payment of 50% of unauthorized travel expenses since O. B. Cannon did not obtain prior agreement from TUGCO for travel other than to and from jobsite.

This supplement also allowed for future payment of expenses for O. B. Cannon personnel requested to attend hearings and give testimony as directed by TUGCO management.

Invoicing:

To date we have received five (5) invoices as follows;

8/19/83	#B-08003	\$12,935.15
8/30/83	#B-08001	63,000.00
1/30/84	#B-01001	*14,302.46
4/2/84	#B-04002	* 604.31
4/30/84	#B-4002	* <u>693.88</u>
	TOTAL	<u>\$91,535.80</u>
	*LESS DEBIT MEMO (50%)	<u>(7,800.32)</u>
	TOTAL PAID TO DATE	\$83,735.48

TEXAS UTILITIES SERVICES INC.

OFFICE MEMORANDUM

To: Distribution

Glen Rose Texas August 15, 1983

Subject

PAINTING
MINUTES OF MEETING

The subject of the meeting was to define design philosophy, design criteria, exchange information and address problem areas at Comanche Peak.

There are three basic reasons for applying protective coatings inside containment.

- A) Protect against corrosion
- B) Provide an easily decontaminable surface
- C) Minimize debris generation that may impair operation of the Emergency Core Cooling and containment spray systems.

 1195
RECEIVED

FEB 27 1984

CONTAINMENT CONTROL

Nuclear industry practice defines coatings system inside containment as nuclear safety related. Standards used throughout the industry are as follows.

- 1) Regulatory Guide 1.54, Quality Assurance Requirement for Protective Coatings applied to Water Cooled Nuclear Power Plants.
- 2) ANSI N101.2 Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities.
- 3) ANSI N101.4 Quality Assurance for Protective Coatings applied to Nuclear Facilities
- 4) ANSI N5.12, Protective Coatings (Paints) for the Nuclear Industry.

Per the Final Safety Analysis Report, the coatings systems at Comanche Peak used inside containment which are qualified to ANIS N101.2 will not create any solid debris due to radiolytic and chemical decomposition at Design Base Accident (DBA) conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause clogging of the containment recirculation sumps screen (1/8 inch mesh screen on sumps).

Thru discussion it was determined that CPSES is consistent with the remainder of the nuclear industry with respect to design criteria.

The industry and the NRC realize that it is not feasible nor practical to have 100% qualified coatings inside containment. As a general rule unqualified coatings are identified and quantified on a case by case basis for impact on recirculation sumps.

Quantified amounts of unqualified coatings have been identified by other A/E's in their Safety Analysis Report as specific square footage and discussing debris generated as insignificant.

This amount has been determined by Ebasco for Waterford #3 as approximately 14,000 square feet. The quantity was requested by the site for engineering acceptance (i.e. an as built case). The NRC acknowledged this amount but did not accept or reject it.

Engineering acceptance of quantities of unqualified coating has been accepted by engineering judgement or analysis. Ebasco presented two documents NUREG-0897 Containment Emergency Sump Performance and Regulatory Guide 1.82, Sumps for Emergency Core Cooling and Containment Spray Systems. These are methods recognized by the NRC that could provide a basis for engineering analysis on quantities of unqualified coatings. Calculations are complex and include many assumptions.

From the general discussion it was evident the common practice is to achieve as high a quantity of qualified coatings as possible. Acceptance of unqualified coatings is strictly on a case by case basis only. Declassification of large amounts of areas to be coated is not accepted by A/E's or utilities and if done, problems may arise with the NRC. Large quantities of unqualified coatings could possibly cause operational maintenance problems.

DISCUSSIONS - ATTACHMENT B OF AGENDA

Items

- 1) Eliminate the requirement for coating code numbers (QP#'s) for installed miscellaneous steel, supports and attachments.

Resolution - Item closed - Working agreement between craft and QC.

- 2) Inspections be performed or limited to no closer than "arms length":

Resolution - Item closed - Criteria placed into inspection procedures.

- 3) Primer and topcoat system which can be brushed applied.

Resolution - Procedures are to be established to allow the use of Carboline 191 primer. Oliver B. Cannon & Son Inc. is to write the touch up and repair procedure.

- 4(A) Eliminate destructive testing of all supports and miscellaneous steel:

Resolution: Adhesion of supports and miscellaneous steel has been suspended due to high rate of confidence level.
See Resolution 4(B) for clarification on primer thickness verification by Tooke Tests.

- 4(B) Eliminate the requirement for primer and topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution - Thicknesses of primer and topcoat will require verification of the inspection agency. The present specified range of primer thickness will be broadened to dry film thickness from 2.0-6.0 mil average with spotchecks of 1.5-7.0 allowable on primer. Total system will range from 6.0-13.0 average with spotchecks of 15.0 allowable.

- 5) Eliminate the use of NCR's to denote unsat conditions:
Closed - Unsatisfactory coatings are noted by unsat report.

- 6) Utilize only one color in containment rather than the established color scheme:

Resolution - DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- 7) Utilize the same coating (topcoat) for concrete coatings, embeded plates and base plates:

Resolution - Topcoating primed steel with 1201 topcoat is acceptable. O.B. Cannon Inc. is to write procedures for this activity. Due to possible difficulties arising from the use of 1201 over Phenoline/CZ11 system a committee was established consisting of Keith Falk, Tom Kelly and Mark Wells to establish the practicality of mixing systems.

- 8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are procured as required.

- 9) Remove QC acceptance stickers from supports to complete total paint system.
- 10) Delete the requirement for 28 day cure of grout prior to coating:

Resolution - Procedures will be revised to reflect acceptability of coating grouted base plates or equipment, limited to 3 square feet of exposed grout, may be coated after a 48 hour cure.

- 11) Relax present visual inspection requirement of abandoned anchor bolts.

Resolution - DCA-13,388 Rev. 5 and DCA-17,475 Rev. 1 renders coatings on anchor bolts N.N.S..

- 12) Relax the requirement of weld areas from SSPC SP10 to SSPC-SP6.

Resolution: DCA will be written to allow surface preparation of weld areas to be performed with tools like, 3M clean-n-strip or flapper wheels, and obtain surface cleanliness equal to cleanliness of SSPC-SP6 surface. The are covered by this preparation will be 1 inch each side of the weld.

New Items


- 1) Delete 1 mil minimum profile requirement.

Resolution: Procedures will be revised to delete the one mil minimum profile requirement for SSPC-SP-3 surface preparation. The degree of cleanliness will be stated and an example for tools utilized will be given, however, the tools utilized will not be limited to the example.

- 2) CPPE and G & H is to establish exemption list of coatings and quantify unqualified coated surface.

Resolution of all items should be in a maximum time frame of two weeks.


R.M. Kissinger
Project Civil Engineer


RMK/CRH/MW/sgr

cc: Attendees

J.T. Merritt - Assistant Project General Manager

J. Firtel - EBASCO

ATTENDEES

1. Mike McBay - Manager of Engineering (TUSI)
2. C.R. Hooton - Civil Supervisor (TUSI)
3. R.M. Kissinger - Project Civil Engineer (TUSI)
4. David H. Wade - Licensing (TUSI)
5. Bob Dacko - Licensing (TUSI)
6. O.B. Jones - Civil Engineer (TUSI)
7. B.J. Murray - Construction Manager (TUSI)
8. Mark Wells - Civil Engineering (B & R)
9. Thomas Kelly - Corrosion Engineer (EBASCO)
10. Robert C. Iotti - Applied Physics (EBASCO)
11. Tom Brandt - TUGCO QA (EBASCO)
12. Jack Norris - Vice President (O.B. Cannon)
13. Joseph Lipinsky - QA Director (O.B. Cannon)
14. Robert Roth - President (O.B. Cannon)
15. D.C. Purdy - Advanced Tech. (G & H)
16. Keith Falk - Chemical (G & H)
17. S.M. Marano - Project Engineer (G & H)
18. M.A. Vivirito - Vice President Power Engineering (G & H)

AGENDA 8-9-83 MEETING

PROTECTIVE COATING INSIDE REACTOR BUILDING

- 1) Design Philosophy
Percentage declassification (Non Q) inside containment
- 2) Industry Standards
Regulatory Guide 1.54
ANSI N 101.2
ANSI N 101.4
ANSI N 5.12
- 3) Coating Systems at Comanche Peak
(See Attachment C)
- 4) Specific Questions (See Attachment B)

CONSTRUCTION PROCEDURES

	CCP30	CCP30A
Surface Preparation	SSPC-SP10	SSPC-SP10
Primer	Carbonzinc 11 (Carboline)	Dimetcote 6 (Ameron)
Top Coat	Phenoline 305 (Carboline)	Phenoline 305 (Carboline)
Specification	2323-AS-31	2323-AS-31
Primer Thickness	2-5 mil Avg. 1.5 to 5.5 spotcheck	2-5 mil Avg. 1.5 to 5.5 spot check
Total System Thickness	7-11 mil Avg. 11.5 max spot check	7-11 mil Avg. 11.5 max spot check
DBA Tested to ANSI N101.2	Yes	Yes

SSPC-SP10 Steel surface preparation to near white metal blast with minimum of 1 mil surface profile per manufacturer.

Purpose Coating systems provided to facilitate the control of contamination as well as to protect surfaces from corrosion.

Design Criteria Per the FSAR, the coating systems used inside containments which are qualified to ANSI N101.2 will not create any solid debris due to radiolytic and chemical decomposition at DBA Conditions. Coating systems must be durable to prevent the contribution of materials of significant size that would cause the clogging of the containment recirculation sumps screen (1/8 in. mesh screen on sumps).

The following listed items are requested by Painting Personnel in order to support Dec. '83 Fuel Load.

- (1) Eliminate the requirement for coating code numbers (QP #'s) for installed miscellaneous steel, supports and attachments.

Resolution: QP numbers are now only required for items not installed in the building. Installed items will be documented by location or permanent I.D. numbers.

- (2) Inspections be performed or limited to no closer than "arms length".

Resolution: Quality Control Procedures have been revised to reflect this criteria.

- (3) Primer and topcoat system which can be brush applied.

Resolution: Present topcoat may, at the option of craft, be brush applied. Various "touch up systems" are to be reviewed by engineering. Suggestions are Carboline 191 Primer or Carboline 305 Primer both with the existing Carboline 305 topcoat. These systems have DBA/LOCA Testing already performed. Procedures will be revised to include an alternate touch up system. Engineering to resolve week ending 8/13/83 - Procedure following week 8/20/83.

- (4) (A) Eliminate destructive testing of all supports and miscellaneous steel.

Resolution: Adhesion testing for backfit purposes has been suspended due to high rate of acceptance. Tooke Testing is still being performed until a resolution of the requirement for primer thickness is established.

- (B) Eliminate the requirement for primer & topcoat thickness limitations on supports equipment and miscellaneous steel.

Resolution: Engineering is studying the feasibility of voiding this criteria. Presently testing is underway to broaden the thickness range of primer up to 12 mil. See CPPA-31,575.

- (5) Eliminate the use of NCR's to denote unsat conditions:

Resolution: Conditions of coatings which are denoted as unsatisfactory and can be repaired per existing procedures, are repaired per those procedures without the generation of an NCR.

- (6) Utilize only one color in containment rather than establish color scheme:

Resolution: DCA-18,330 issued to allow the use of "white" as an alternate color for any color specified.

- (7) Utilize the same coating (topcoat) for concrete coatings, embedded plates and base plates:

Resolution: Engineering is reviewing this request. There will be no problem of topcoating primed steel with the topcoat utilized for concrete; however, the question arises of topcoating existing finish coated steel with the specified concrete topcoats and later repairs. There would be a mixing of coating systems which would be very difficult to control during construction application and later operation maintenance. Engineering to resolve week ending 8/13/83.

- (8) Obtain air supply drier tank to supplement current systems.

Resolution: Items are being procured as required.

- (9) Remove Q.C. acceptance stickers from supports to complete total paint system.

Resolution: This item to be completed by 8/8/83.

- (10) Delete the requirement of 28 day cure of grout and pour back areas.

Resolution: For the most part this criteria may remain; however, engineering is presently looking at alternatives. Presently abandoned Hilti holes, tie holes and spalled concrete patched per CEI-20 has a cure time of 48 hrs. Grout under base plates may become included in this criteria; however, pour backs and larger concrete areas probably will remain 28 days without the use of some product like Nutec 10 as a sealer. Engineering to resolve week ending 8/13/83.

- (11) Relax the present, visual inspection requirement, of abandoned anchor bolts. Resolution: See DCA-13,388 R. 5 and DCA-17,475 R. 1 rendering anchor bolt coatings N.N.S.

- (12) Relax requirement of surface preparation for weld areas in containment from SSPC-SP10 to SSPC SP6.

Resolution: Engineering will review and resolve week ending 8/13/83.



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