TUGCO ENGINEERING DIVISION	INSTRUCTION	REVISION	ISSUE DATE	PAGE
FOR INFORMATION ONLY CONTROLLED COPY NO.	CP-EI-4.0-51	1	4-6-84	1 of 5
CONTROL OF PROTECTIVE COATINGS FIELD VERIFICATION ACTIVITIES	PREPARED BY Mark Weller APPROVED BY			

1.0 REFERENCES

1-A CP-EP-4.0 Design Control
1-B CCP-30 Coating Steel Substrates Inside Reactor Building and Radiation Areas
1-C CCP-40 Protective Coating of Concrete Surfaces
1-D Gibbs & Hill Specification 2323-AS-31

2.0 GENERAL

2.1 PURPOSE

To describe the program used by Engineering (by walkdown) for field verification of protective coatings. This instruction is established to ensure the integrity of design control activities specified per Reference 1-A.

2.2 SCOPE

This instruction is applicable to all areas of protective coating including areas previously "final accepted" by the quality control organization in which the protective coatings may have been subjected to minor damage and require repair.

2.3 RESPONSIBILITY

The CPP Civil/Structural Engineer has been delegated the responsibility for the implementation of the measures described herein.

Where specific individuals are identified by position in this instruction, properly authorized designees may be delegated to act in that capacity.

2.4 DEFINITIONS

2.4.1 Minor Damage

Damage to finish coat, regardless of size with damage possibly extending through primer to substrate and exposing substrate for a maximum of four (4) square inches in area.

2.4.2 Major Damage

Damage through coating extending to substrate with exposed substrate for an area greater than 4 square inches.

3.0 INSTRUCTION

3.1 MINOR DAMAGE REPAIR

Minor damage will be repaired as directed by the engineer by applicators qualified to procedures using material specified per Reference 1-D. "Nicks and Dings" to the coating will not require repair unless directed by the engineer. At the discretion of the engineer, minor damage may be required to be repaired utilizing a protective coatings traveler referenced in Section 3.2.

Minor damage repair shall be made by removal of any foreign matter from the damaged area, lightly abrade and feather edge as required, ensure acceptables profile if substrate is exposed, solvent wipe and apply finish coat at a thickness which will provide full hiding poperties of the primer or substrate and which will provide a smooth transition to existing coatings.

3.2 MAJOR DAMAGE REPAIR

Major damage shall be repaired as follows.

a. A traveler will be issued for any area or item that has not been coated, or requires major repair.

b. The area or item will be cleaned and coated in accordance with Reference 1-B or 1-C.

c. Inspection will be in accordance with the appropriate QC procedure (normally QI-QP-11.4-26 or QI-QP-11.2-27).

3.3 FIELD VERIFICATION

Repair activities shall be verified by Engineering by completion of the Coatings Walkdown Report (Figure 1) in accordance with Attachment 1.

Building Management shall establish controls to preclude additional coatings activities in the walkdown area(s) specified on the report unless prior approval is received from Civil Engineering.

Note, for repair areas where travelers are required, engineering shall be notified of traveler completion. Completion of the traveler (and notice) may constitute completion of the walkdown for that area.

ATTACHMENT 1

FORM COMPLETION

The Coatings Walkdown Report (CWR) form shall be completed as follows. The form should be completed using black ink or equivalent.

a) A1 or B1 Area - Work scope (area, room, etc.) as designated by the appropriate building management group.

b) A2 or B2 Coatings - a) Specify the brand and product number of the coating. The "Batch Log No." shall be obtained from the construction mixing station.

b) Specify the Badge number of the applicator.

c) Signed By & Date - The CWR shall be signed and dated by the CPP Civil Engineer or his designee.

Note 1) If no repair or touch-up is required in an area being inspected, N/A applicable sections.

2) If notes or additional information is required attach additional sheets as required.

3) A minimum of one (1) report shall be completed for each walkdown area and a minimum of one (1) report shall be completed for each work shift, in a specific area, which touch-up coatings are applied. Upon completion of a specific area walkdown refer to Section 3.3 for required submittals.

FIGURE 1

COATINGS WALKDOWN REPORT

(TYPICAL)

A. CONCRETE SURFACE

1. Area: _____

2. Coatings for Repair

a) Finish Coat _____ Batch Log No. _____,

b) Qualified Applicator _____.

B. STEEL SURFACE

1. Area: _____

2. Coatings for Repair

a) Finish Coat _____ Batch Log No. _____,

b) Qualified Applicator _____.

Signed by: _____

Date: _____

TEXAS UTILITIES
GENERATING CO

COMANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR NO: CP-C-52

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO
1	Polar Crane Girder Support	Primer Repair	QP 20352	940'-950' El 144° Az	

REPORTING PERSONNEL

NONCONFORMING CONDITION: Construction has been applying CZ-11 (primer) over [illegible] Phenoline 305 finish coat in areas of primer repair areas with damage to steel substrate. According to para 5.1 of AS-31, there is not an acceptable coating system for application of CZ-11 (primer) directly over Phenoline 305 finish coat. Para 5.0 of AS-31 states, "coatings shall be used and applied in accordance with the manufacturers' instructions, without being extended or modified except as called for in these instructions. The correct surface preparation and condition to be painted shall be rigidly adhered to." [illegible]

1 Hold Tag Applied

REFERENCE DOCUMENT: Spec 2323-AS-31 Appendix A Table A2 PARA Steel Coatings

REPORTED BY: Noel J. Arthur DATE: 6/23/83

INFORMATION COPY

QE REVIEW/APPROVAL: Harry O. Williams DEPARTMENT: QA/QC

ACTION ADDRESSEE: Kissinger PDRV

ACTION ADDRESSEE

DISPOSITION:

REWORK ____ REPAIR ____ USE AS IS XXX SCRAP ____

Table A2 in appendix A of AS 31 specifies acceptable coating systems i.e. primer and final coat product identification and vendors. This table does not identify full system sequencing or application parameters.

Site application procedures are established for each system utilized. CCP30, CZ11/305 application procedure, states in section 4.4.30 that coating interface areas shall be "feathered back" to ensure a smooth final system.

Established painting pratice establishes feathered areas shall have interfaces as shown on the attached RFIC to ensure positive coating blend.

ENG. REVIEW/APPROVAL: C.K. Hooton DATE: 7.5.83

ARMS INDEXED

QA RECORD I
RTN. L QA REVIEW GM 7-7-83
FILE NO: 15.1
SUBFILE NO: Nit-No

QE REVIEW/APPROVAL: C.T. Hansen DATE: 7.5.83

DISPOSITION VERIFICATION & CLOSURE: C.D. Kissinger DATE: 7.5.83

COMMENTS:

Brown & Root Inc.

REQUEST FOR INFORMATION OR CLARIFICATION

Sheet ____ of ____

TO: Mark Wells

FROM: Paint Dept

REQUEST NO. ____ DATE: 1-7-83

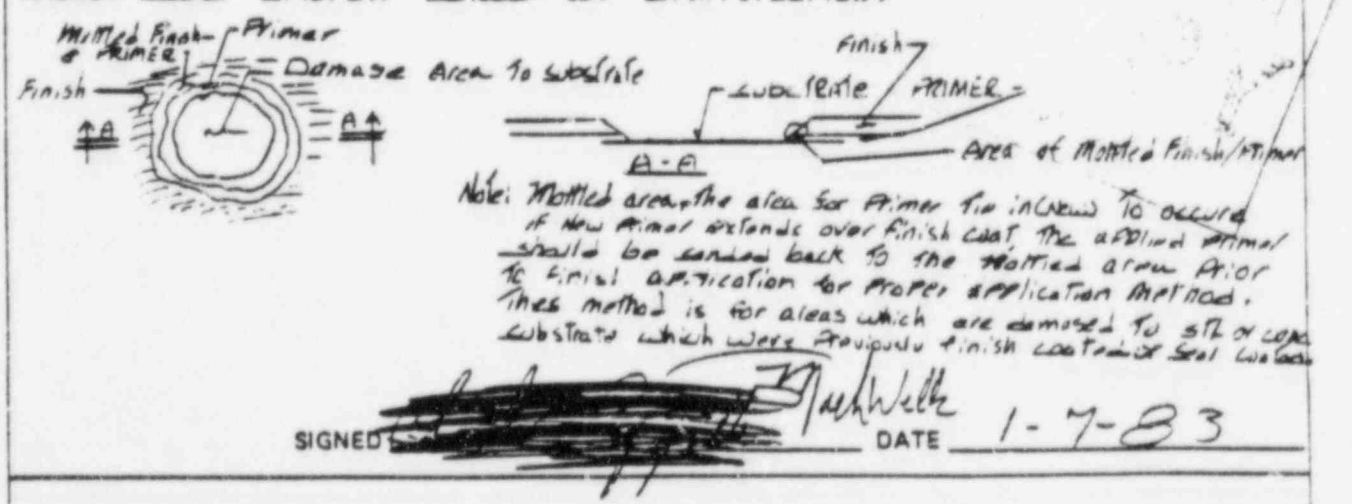
Texas Utilities Services, Inc.
Comanche Peak Steam Electric Station
1980-82 2300 MW Installation
Brown & Root, Inc. Job 36-1195

REFERENCE: CCP-30 Rev. 10 Para. 4.4.25, 4.4.29, 4.4.30

QUESTION: Cited paragraphs addresses repairs of scratches and damaged areas, repair of top coat or CZ11 major defects and coating interface. When performing spots repair that require abrasion feathering of 305 and CZ11, is it permissable to apply CZ11 directly over Phenoline 305. If so, is there a maximum distance that may be coated with CZ11 for this tie in. CCP30 states "feather" back a sufficient distance to insure a smooth blend with existing coating. Please clarify.

ORIGINATOR Clarify it DATE 1-7-83

ANSWER: See sketch below for clarification:



Note: Mottled area the area for Primer tie in. Where to occur if New Primer extends over finish coat the applied primer should be sanded back to the Mottled area prior to finish application for proper application method. This method is for areas which are damaged to STL or CON substrate which were previously finish coated or Seal Coated

SIGNED [redacted] Mark Wells DATE 1-7-83

DISTRIBUTION:

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET 1 OF 1
NO. PC 102533

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM / STRUCTURE DESIGNATION
PROTECTIVE COATINGS 2	SUPPORT PIPE CLAMP CA-2000 3	PCB 1 189' AZ EL 940'

SPEC. NO.	REV.	REF. Q.C. DOC. & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
AS 31 5	1 6	QI-QP 11.45 R.15 7	N/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☒ FINAL INSPECTION ☐ PRE TEST INSPECTION

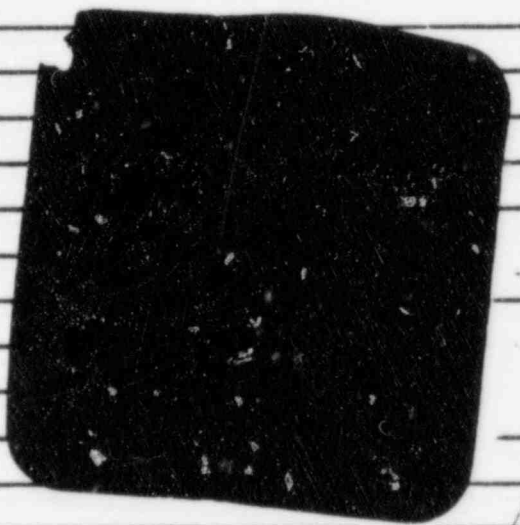
INSP. RESULTS

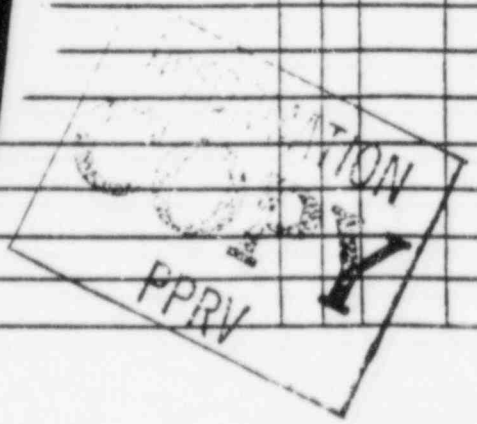
☒ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

Danny O. Williams 2/2/83
QC INSPECTOR DATE

ITEM NO. 11	INSPECTION ATTRIBUTES 12	SAT	UNSAT	DATE	QC SIGNATURE
1	DISPOSITION PE NCR-CE3-01752 13 "USE AS IS"	✓			
2	HOLD TAGS REMOVED	✓			
3	THIS INSPECTION REPORT CLOSES NCR CE3-01752	✓			





REMARKS (DWGS, SPECS, ETC.)

RELATED NCR NO. 15	I.R. CLOSED	DATE	SIGNATURE
N/A	N/A ☐	N/A	N/A QC INSPECTOR

TEXAS UTILITIES GENERATING CO.

COMANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR NO. CE3-01824
SHEET 1 OF 2

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO
1	R.C.B.	CONCRETE COATINGS	NA	AZ 223. EL 903'7"	NA

REPORTING PERSONNEL

NONCONFORMING CONDITION

APPROXIMATELY 20 HOLES IN CONCRETE CEILING AT EL. 903'7" WERE FILLED WITH AN UNIDENTIFIED MATERIAL WHICH APPEARS TO BE A SILICONE OR RUBBER TYPE SEALANT. THE HOLES RECIEVED CONCRETE COATINGS IN VIOLATION OF BELOW REFERENCED PROCEDURE. CONDITION WAS DISCOVERED BECAUSE SEALANT MATERIAL HAS EXPANDED UNDER HOT CONDITIONS CAUSING COATINGS TO FAIL. SEVERAL HOLES HAD SEALANT MATERIAL "BLEEDING" THROUGH CRACKS IN COATINGS. SEE SHEET 2 FOR LOCATION OF AREA.
(HOLD TAG APPLIED)

REFERENCE DOCUMENT QI-QP-11.4-10 REV 11 PARA 3.1.2.2(b)

REPORTED BY: Walter J. Elliott DATE: 7/5/83

QE REVIEW/APPROVAL: Harry O Williams DATE: 7/5/83

ACTION ADDRESSEE: Klisenger DEPARTMENT: Engineering

ACTION ADDRESSEE

DISPOSITION:

REWORK ____ REPAIR XXX USE AS IS ____ SCRAP ____

Remove the caulking material from the affected holes and patch in accordance with CEI-20. Repair damaged coatings in accordance with specification 2323-AS-31 and applicable site procedures.

INFORMATION COPY PPRV

ARMS INDEXED

QA RECORD I

RTN.	QA REVIEW
L	7/6/83
FILE NO.	15.1
SUBFILE NO.	NCR-NO

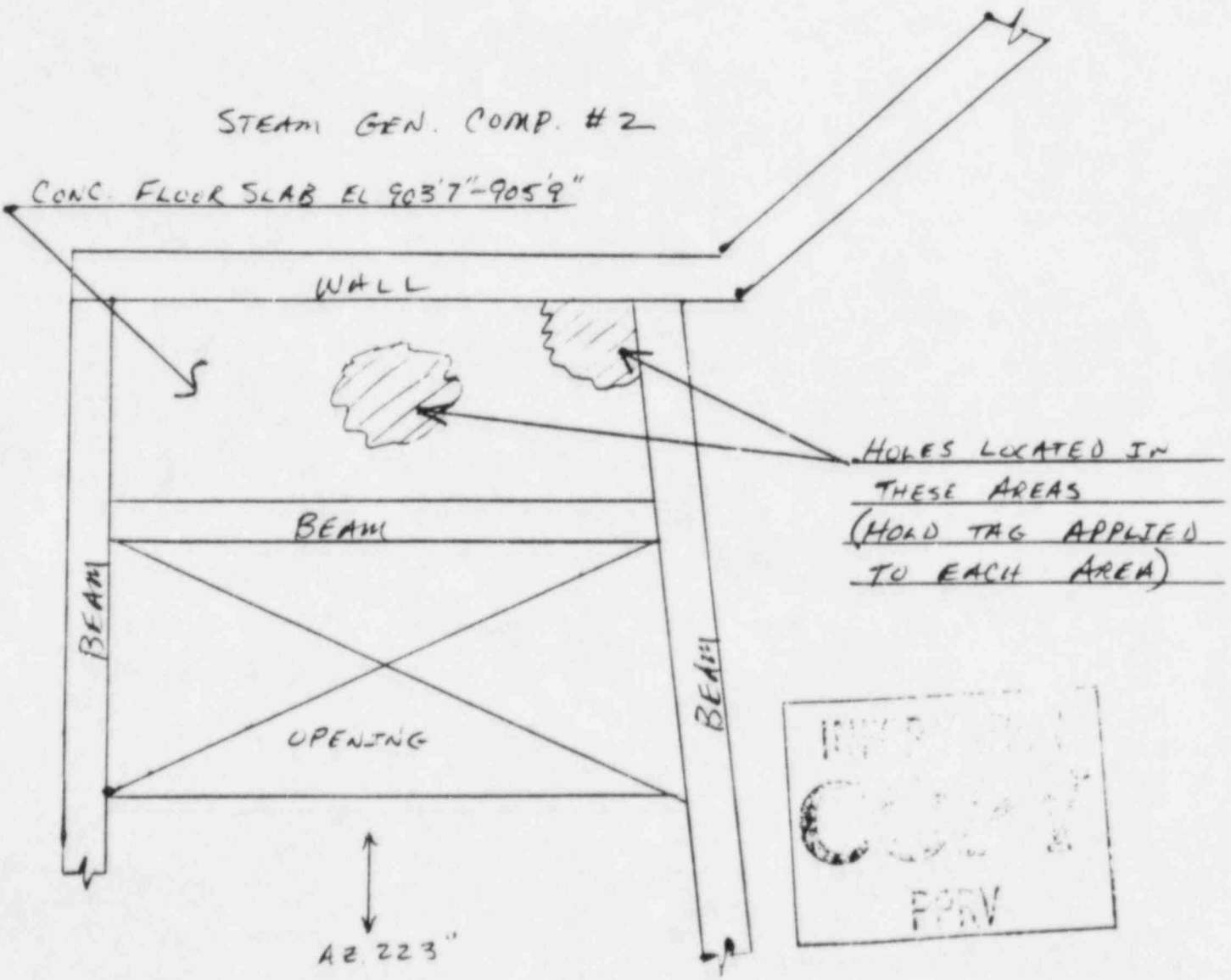
ENG. REVIEW/APPROVAL: C Robertson DATE: 7/7/83

QE REVIEW APPROVAL: C. I. Rogers DATE: 7/8/83

DISPOSITION VERIFICATION & CLOSURE: N/A C. I. Rogers DATE: 8/11/83

COMMENTS:

NCR-C83-01824
SHEET 2 OF 2



PLAN VIEW EL. 905'9"
(HOLES ARE LOCATED BELOW FLOOR SLAB AT EL. 903'7")

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET 1 OF 1

NO. PC 104030 1

ITEM/DESCRIPTION 2	IDENTIFICATION NO. 3	SYSTEM / STRUCTURE DESIGNATION 4
Protective Coatings	Coated Components	RCB #1

SPEC. NO. 5	REV. 6	REF. Q.C. DOC. & REV. & CHANGE NO. 7	MEASURE OR TEST EQUIP. IDENT. NO. 8
AS-31	1	QI-QP 11.4-10 R. 12	N/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☒ FINAL INSPECTION ☐ PRETEST INSPECTION 9

INSP. RESULTS

☒ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

QC INSPECTOR 8/9/83 DATE 10

ITEM NO. 11	INSPECTION ATTRIBUTES 12	SAT	UNSAT	DATE	QC SIGNATURE 13
1.	PER DISPOSITION OF NCR CR3-01824 IS TO REPAIR THE PLASTIC.	✓			
2.	PER THE ATTACH DOCUMENTATION PC 103496 AND PC 103667 THE AREA WAS REPAIRED AND ACCEPTABLE.	✓			
3.	THIS IR CLOSES N/CR CR3-01824	✓			

INFORMATION COPY PPRV

REMARKS (DWGS, SPECS, ETC.) 14

RELATED NCR NO. 15	L.R. CLOSED ☐	DATE	SIGNATURE QC INSPECTOR 16
CR3-01824	N/A	N/A	N/A

8/29/84

PC01279

QUALITY ASSURANCE DEPARTMENT
STEEL SUBSTRATE
PRIMER APPLICATION CHECKLIST

ARMS
INDEXED

DATE:

Building Reactor
Location Containment

PROJECT: CPSES

UNIT #1 PAGE 1 OF 1

Time of Day	Temperature			Relative Humidity	Dew Point	M&TE S/N
	Dry Bulb	Wet Bulb	Surface			
1:30 P	78°	74°	80°	83%	72°	488 + 800

Inspection of Pre-application operations in accordance with QI-QP-11.4-3

Qualified Applicators Name: W. Scarbrough

	RESULTS	INITIAL	DATE
Visual Defects Inspection	✓		6-27-78
2. Dry Film Thickness Min. 5.5 Max. 5.0 Avg- 6.0	✓		6-27-78
3. Touch-up/Repairs	n/a		6-27-78
4. Primer Tack-Free Cure	✓		6-27-78
5. Primer Cure Prior to Topcoat	✓		6-27-78

INFORMATION COPY PPRV

COMMENTS: #2 61°-65° F/L 030-912
#1 61°-65° F/L 912-908
REF: UCR 0-81-01567

FED DATE RECORD
ITEM 2 DATE 17.1.99.3
SUSP LE LOC 300/PC01279

F. ACCEPTANCE: INSPECTOR [signature] DATE 6-27-78

12.1L-00083

QUALITY ASSURANCE DEPARTMENT PC04379

PROTECTIVE COATING MATERIAL IDENTIFICATION AND MIXING CHECKLIST

Building Reactor
Location See Comments

PROJECT: CPSES UNIT

	Results	Initial	Date
Premixing Coating Materials Verification			
1. Coating Material Product Identification	V	[illegible]	9-3-78
2. Coating Material Acceptability	V	[illegible]	1
Coating Mixing/Thinning Operations			
1. Mixing	V	[illegible]	9-8-78
2. Thinning	V	[illegible]	1

Comments: 42 61-65° F 1/ 9/28-9/28
42 61-65° F 1/ 9/2-9/3

Final Acceptance: [illegible] Date 9-8-78
(QC Inspector)

INFORMATION COPY PPRV

Satisfactory
X Unsatisfactory
* Inspection Hold Point

Mix Number: N/A Applicator: Scarborough

Coating Mixing/Thinning Record

	Material Identification	Batch Number	Weight Or Volume
1.	CZ 11 (Base)	BF52091	13# 3 oz
2.	CZ 11 (Filler/Catalyst)	BF1242	30# 2 oz
		Volume (1. + 2.) =	3 Gal
3.	Carboline #33 (Thinner)	BD0423M	1 Gal
		Volume (1.+2.+3)	4 Gal 1 Qt

Time Mixed 5:57 a.m./p.m.
Approx. Temperature 78 °F

Pot Life Expires: 10:57 a.m./p.m. (approx.)

INTERNAL ☐
EXTERNAL ☐

CPSES TRT

Telephone Memorandum

RE: Tooke DFT Test on Concrete.

CALL DATE: 9/19/84 TIME: ____ A.M 3 P.M. INCOMING: ____

OUTGOING: ✓

BETWEEN Neill Britton OF TUGCO

ADDRESS: CMES

AND S S Kirslis OF TRT COATINGS TEAM

SUMMARY OF DISCUSSION: Neill says in Tooke DFT test on concrete coatings 5 scratches are made per 100 ft² of coating. Record average of the 5 minimum readings for the 5 scratches as "minimum", average of 5 maximum readings of the 5 scratches as "maximum" and average of the 5 average readings of all 5 scratches as "average". Each recorded set of "minimum", "maximum" and "average" thus corresponds to 100 ft² of concrete coating.

S S Kirslis

COPIES TO: ____

INTERNAL ☐
EXTERNAL ☐

CPSES TRT

Telephone Memorandum

RE: [illegible] DFT test

CALL DATE: 9/20/84 TIME: 10:30 A.M ____ P.M. INCOMING: ____

OUTGOING: [illegible]

BETWEEN [illegible] OF TUGCO

____ ADDRESS: CPSES

AND S. D. Kirkley OF TRT COATINGS TEAM

SUMMARY OF DISCUSSION: [illegible] made by a Sodic DFT tester, a single average reading of primer thickness and of topcoat thickness is selected as representative of that location. Out of the 5 resulting numbers obtained for each of from the 5 locations per 10 ft², the lowest is recorded as "minimum". The highest of the 5 is recorded as "maximum". The average of the 5 is recorded as "average".

S. D. Kirkley

COPIES TO: ____

Procedure (Generic Writeup) 10/21/94

As part of traceability ~~for~~ generic review the TRT observed Keeler and Long paint in storage. Procedure CCP-30 M-7, Rev-1, 4/24/84 requires the use of Keeler and Long No. 6548 (to be used on steel). The TRT knows of no data demonstrating that this system is DBA qualified. Also ~~SSES~~ Spec 2323-AS-31 approves Keeler + Long for use on concrete but not for use on steel

INTERNAL [X]
EXTERNAL [ ]

CPSES TRT

Telephone Memorandum

RE: QC Inspectors that have Eng. Backgrounds

CALL DATE: 10/5/84 TIME: 11 A.M ~~P.M.~~ INCOMING: ____

OUTGOING: X

BETWEEN Tom Kelly OF EBASCO ADDRESS: TUGCo Ext 24?

AND Vincent Killian OF TRT COATINGS TEAM

SUMMARY OF DISCUSSION: Question: What Work individuals perform TUGCo Instruction CP-EI-4.0-51

Brian FRANK STONGER (TUGCo Eng (Dallas) then CP QC then Eng @ CP)
JOE AUSTIN (TUGCo Eng (Dallas) then CP QC then Eng @ CP)
Bruce KEITH (Has QC experience but not @ CP) } Now Field
Stan RUTHERFORD (Has QC experience but not @ CP) } Engineers.
Harry YORK (Has BOP inspection experience)

QC Inspectors currently, that were TUGCo Eng. @ Dallas
Paul LEYENDECKER
JIM WREN

COPIES TO: BILL WELLS
BRIAN HOOGSON

PHONE CON RECORD

DATE: 9 NOV 84
HOUR: 1130

FROM: S. J OECHSLE
B. H. HODGSON

TO: W. JAGUSCH, DEVILBISS CO, TOLEDO, OH
(419) 470 2169

JAGUSH STATES: HAS NEVER HEARD OF CIGARETTE FILTER USED AT CHEATER VALVE OR ELSEWHERE: PROBABLY BETTER THAN NOTHING. NOTES THAT THERE ARE SOME IN-LINE FILTERS ON MARKET (E.G. LAMAN) WHICH WORK BY PUTTING A ROLL OF TOILET PAPER INTO A CANISTER. SUCH FILTERS MAY WORK IN PART BY FRICTIONAL HEATING OF AIR VAPORIZING CONDENSATION; SIMILAR TO AUTOMOTIVE USE OF IN-LINE HEATERS FOR SARAN OPERATIONS. FIGURES THAT USE OF BIG CIGARETTE FILTER WILL CAUSE SUBSTANTIAL PRESSURE DROP & FLOW REDUCTION. THERE IS A BASIC PRESSURE VARIABLE IN HOSE SIZE: FOR EXAMPLE, IN 5/16" 1/4" AIR LINE, 100' LINE THERE IS 50# DROP, EQUAL 5/16" AIR LINE ONLY 15# DROP. WHETHER CIGARETTE FILTER MAKES GUN UNWORKABLE DEPENDS ON TIP SIZE; THERE MAY NOT BE SUFFICIENT FLOW TO ATOMIZE PROPERLY AT LARGER TIP SIZES; LARGER DROPLETS WON'T FLOW TOGETHER PROPERLY, PAINTER MUST APPLY MORE MATERIAL TO GET COVERAGE, PLUS PRODUCTION RATE GOES WAY DOWN.

CC: WELLS.

By _____ Date _____ Subject _____ Sheet No. _____ of _____

Chkd. By _____ Date _____ Job No. _____

(7)

27 Feb 84 11 AM to 12 AM

Inspected site of 1201 Application — TALKed To Joe FAZI the QC inspector about The allegation reguarding The use of chip filters in the cheater valve prior To white blotter Test.

FAZi Was aware of the situation. Air system was bad — ~~Has~~ since been replaced.
Painters did install filters
Painters did remove filters after test and continue To spray
Manifolds do have drain values and are drained at regular intervals.

FAZi indicated that he could not verify That The water/oil contamination would show Through The coating-

POSSIBLE

1- If contamination were visable it would be most Likely, in The form of a fish eye on the surface.

2- Could also discolor the coating

3- Water will speed up cure not slow it down as in the allegation.

4- Oil in coating or on surface would be a problem.