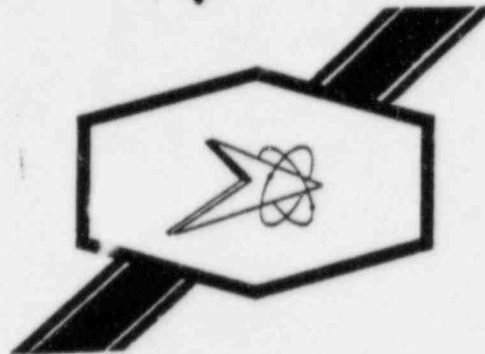


Imperial



TECHNICAL REPORT

NUMBER

553-81

TITLE

TEST PROGRAM TO EVALUATE DBA PERFORMANCE
OF OVERLAP COATING SYSTEMS (CARBOLINE/IMPERIAL)
FOR BEAVER VALLEY UNIT 2

FOR

GENERAL USE

CUSTOMER

STONE AND WEBSTER

Submitted by: GERALD E. ARNOLD *HCA*

Approved: ROBERT R. TAYLOR *RRT 12/28/81*

Date: DECEMBER 24, 1981

SOUTHERN IMPERIAL COATINGS CORPORATION, INC.
P. O. Box 29077, • New Orleans, Louisiana 70189
Phone: (504) 254-1433

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8511050331 851016
PDR FOIA
GARDE85-59 PDR

TEST PROGRAM TO EVALUATE DBA PERFORMANCE
OF OVERLAP COATING SYSTEMS (CARBOLINE/IMPERIAL)
FOR BEAVER VALLEY UNIT 2

INDEX

	<u>Section</u>	<u>Page</u>
INTRODUCTION	1	1 - 2
STONE & WEBSTER TEST SPECIMEN PREPARATION PROCEDURE	2	3 - 12
STONE & WEBSTER TEST SPECIMEN PREPARATION DATA	3	13 - 115
ORNL RADIATION/DBA PROCEDURES	4	116 - 118
RADIATION AND DBA RESULTS	5	119 - 131

SCOPE:

The purpose of this test was to evaluate the DBA performance of Carboline/Imperial mixed systems for use at Beaver Valley 2 Nuclear Plant. Systems to be tested are:

- A] CZ-11/191
- B] CZ-11/191/1201
- C] CZ-11/1201
- D] CZ-11/1201/191
- E] CZ-11/11S/11/1201

BACKGROUND:

The above systems are possible overlap combinations at Beaver Valley especially on steel imbeds. Most steel imbeds at the project are already coated with Carboline's CZ-11 primer or CZ-11 topcoat with #191. When the adjacent concrete is coated with Imperial's 11S/11/1201 system, some of the coated imbeds are overlapped.

The test specimens were prepared under the direction of Stone and Webster by painters at the Beaver Valley Project. The coated specimens were then submitted to Imperial. Imperial coordinated the testing activities at ORNL. The work was authorized by Stone and Websters Purchase Order #E24476.

SUMMARY OF RESULTS:

All test specimens were irradiated to 2.66×10^7 rads and then DBA tested with maximum temperature and pressure parameters of 340°F and 70 PSIG respectively. All panels performed in accordance with the acceptance criteria of ANSI N101.2.

PROCEDURE:

The test specimens were fabricated and coated at the Beaver Valley Nuclear Plant in Shippingport, Pa. Section 2 of this report contains the Stone and Webster procedure for test specimen preparation. The specific panel preparation data can be found in Section 3. It describes the coating application performed by Stuart Painting under the surveillance of Stone and Webster Quality Control. The coated specimens were allowed to cure and then were shipped to Imperial coatings. Coordination of the testing activities was performed by Imperial through its contract with ORNL. Authorization of this testing program was made by Stone and Webster per Purchase Order #E24476.

The test specimens were submitted to Oak Ridge National Laboratories where they were exposed to a cumulative radiation dose of 2.66×10^7 rads and then DBA tested. The test was designed to be subjected to maximum temperature and pressure of 280°F and 45 PSIG respectively. However, during the test a sudden surge in these parameters resulted in a maximum temperature of 340°F and a maximum pressure of 70 PSIG. The temperature/pressure spike lasted for only 1.5 minutes. The initial 28 hours of the DBA tested were performed in the autoclave. The remaining 11 days were conducted in a constant temperature chamber at 130°F and 100% RH.

RESULTS:

The test results, Section 5, describe the condition of the panels following irradiation then again at the end of DBA testing.

CONCLUSIONS:

The tested systems met the acceptance criteria of ANSI N5.12 (radiation tolerance) and ANSI N101.2 (DBA testing). Two defects (unacceptable per ANSI) were noted on panels 4-1-4-2, and 4-3-4-4, along the coating overlap area where the repair coating was tied into the previously applied system. Some minor separation was occurring at this interface prior to submittal of the panels to ORNL. This separation can be attributed to the taping method used to apply the repair coating and the length of time the tape was allowed to remain on the panels. When the specimens were received by Imperial, the tape was still intact along the edges of the 3,4 and 4A series. The taping resulted in high millages along the tape line, solvent entrapment, and exposed repair primer. Some of the repair system began to peel back a short distance from the tape line when the tape was removed. As a consequence of these observations, the minor defects noted on panels 4-1-4-2 and 4-3-4-4, should be ignored, especially since the remaining four panels 4-5-4-6, 4-1A-4-2A, 4-3A-4-4A and 4-5A-4-6A, exhibited no defects.

SECTION 1

STONE AND WEBSTER
TEST SPECIMEN
PREPARATION PROCEDURE

Test Specimen Preparation

The Test Specimen Preparation procedure consisted of the following:

1.0 Steel Panel Preparation

- 1.1 Cut 4 in by 2 in panels from ASTM A36 $\frac{1}{2}$ in thick steel. A total of 18 panels are required. All edges and corners shall be rounded.
- 1.2 Permanently identify each panel as shown in Figure 2.
- 1.3 In order to attach the stainless steel tag, a hole $\frac{1}{8}$ in diameter shall be located with its center $\frac{1}{2}$ in from the upper edges of the panel at a midpoint between the side edges of the panel.
- 1.4 Sandblast all surfaces of each panel to meet the requirements of SSPC SP10 (1.0 to 3.0 mil profile).
- 1.5 Spray-apply the primer as indicated in Table 1 to all surfaces.
- 1.6 Apply the top coat system as indicated in Table 1 to all surfaces.
- 1.7 On panels 3.1 thru 3.6 and 4.1 thru 4.6 grind back approximately $\frac{3}{4}$ in of primer and topcoat along edge (front and back) of each panel. Refer figure 2. Use a 3M Co. Clean-N Strip Wheel and remove all visible traces of paint from area.
- 1.8 On panels 3-2, 3-4, 3-6, 4-2, 4-4 and 4-6, chamfer this denuded long edge to 45 deg as shown in Figure 3. Weld the twelve panels together such that panel 3-1 is welded to panel 3-2, panel 3-3 is welded to panel 3-4, etc. Use a single bevel groove full penetration weld. Back gouge and apply a weld bead similar in configuration to the weld bead on the front side. After welding cut $\frac{1}{2}$ in off of all panels as shown in Figure 3. Grind corners after cutting.
 - 1.8.1 Recoat cut edges as originally called for in Table 1.
- 1.9 Clean the weld of spatter and slag but do not grind smooth.
- 1.10 Drill a $\frac{1}{8}$ in dia hole through the plate center line approximately $\frac{1}{2}$ in from the top. Attached a stainless steel tag with stainless steel wire as shown in Figure 2.

2.0 Surface Preparation at Steel Panel Weld

- 2.1 Prepare the surfaces of each steel panel for touch-up painting by solvent wiping in accordance with SSPC SP1. Acceptable solvents are Methanol, Isopropyl Alcohol, or MEK. The surface preparations indicated below shall then be employed. Feather-edge, using a Scotch-Brite Scrubber, the boundary for a distance of about $\frac{3}{8}$ in into the existing coating.

- 5
- 2.2 Use 3M Co. Rotapeener with Type "C" abrasive tips. Where it shows that the Rotapeener is ineffective because its scroll case will not permit access of the tipped loops to all parts of the weld, e.g., in corners, the 3M Company Clean 'N Strip abrasives or a needle gun are the only acceptable alternatives. Document which was used.

3.0 Touch-up Systems/Application (Steel)

Immediately after performing the surface preparation, solvent clean the prepared area in accordance with SSPC SP1, and apply the coatings as indicated in Table 2. Use masking tape as required to limit the overlap of the repair coatings over the existing coating to $\frac{1}{4}$ in. Apply touch-up paint into the bore of the drilled hole. Remove masking tape no sooner than 2 days after applying touch-up coating.

4.0 Touch-up Systems/Application (Steel)

- 4.1 Immediately after performing the surface preparation, solvent clean the prepared area in accordance with SSPC SP1, and apply the coatings as indicated in Table 2. Use masking tape as required to limit the overlap of the repair coatings over the existing coating to $\frac{1}{4}$ in. Apply touch-up coatings by brush. Be sure to work touch-up paint into the bore of the drilled hole. Remove masking tape no sooner than 2 days after applying touch-up coating.

5.0 M.S.P.R./DBA Testing

- 5.1 Forward the test specimens to the Oak Ridge National Laboratories for qualification Testing under M.S.P.R./DBA - - - Conditions
- 5.2 Test Criteria
- 5.2.1 Temperature and Pressure Curves -
Temperature - SEE ATTACHED CURVE
Pressure -
- 5.2.2 Spray Solution - 2000 FPM boric acid; NaOH up to pH - 8.5 to 10.5.

5.2.3 Irradiation - 2.66×10^7 Rads.

5.2.4 Examination and Reporting - ASTM D-3911.

6.0 Documentation

6.1 Test samples

6.1.1 Conformance with respect to Sections 1 through 4 shall be documented for steel panels.

6.1.2 The method, equipment used, degree of cleanliness, and profile shall be documented for surface preparation for original and touch-up coatings.

6.1.2.1 The profile of steel surfaces shall be described by visual comparison with Surface Profile Comparator or by other suitable methods.

6.2 Coatings Application

6.2.1 The product name, product number, color, and batch number of all coating materials shall be documented.

6.2.2 The relative humidity, temperature, and date and location of application shall be documented.

6.2.3 The method of application shall be documented.

6.2.4 The dry film thickness (DFT) of the individual coats, as well as the total DFT for the system, shall be documented.

6.3 Curing

6.3.1 The length of time curing for all coats and the range of both the temperature and relative humidity during cure shall be documented.

6.4 Testing Procedures

6.4.1 The type of energy source and the procedure for the irradiation of the test samples shall be documented.

6.4.1.1 The dose rate and the total accumulate dose shall be documented.

6.4.2 A description of the test apparatus, temperature and pressure profiles, spray solution composition, including pH, duration and other pertinent test conditions, shall be documented.

6.5 Testing Laboratory

6.5.1 The testing laboratory shall be responsible for the documentation, reporting, and certification of all test results.

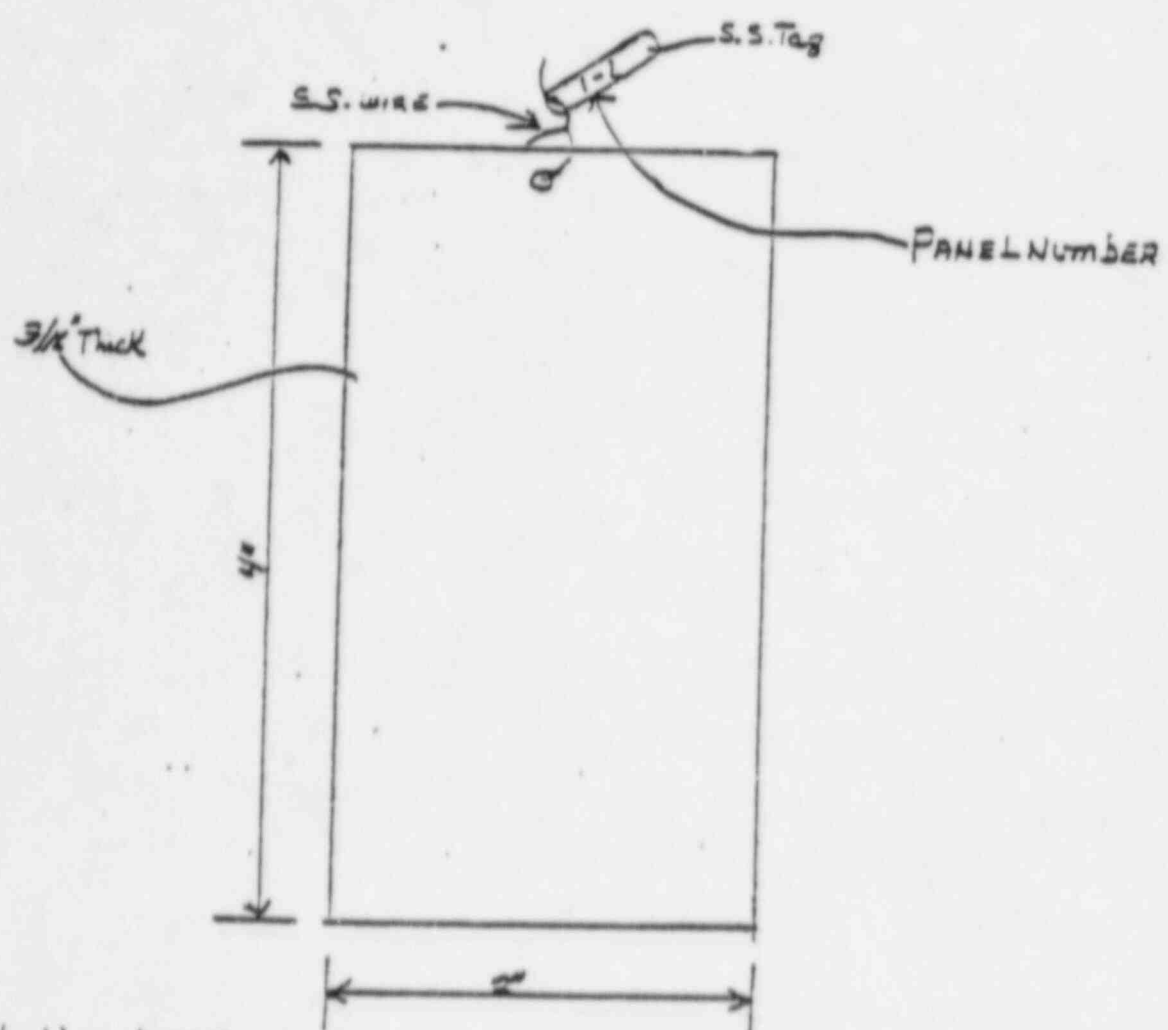
6.5.1.1 Evaluation of the test results (chalking, blistering, flaking, etc) shall reflect the various surface conditions of the test specimens.

6.5.2 The testing laboratory shall be responsible for meeting Quality Assurance requirements.

6.5.3 The testing laboratory shall be responsible for providing certified photographic documentation of the test results.

6.5.3.1 Photographs shall reflect the approximate actual size of the samples.

STEEL PANEL IDENTIFICATION

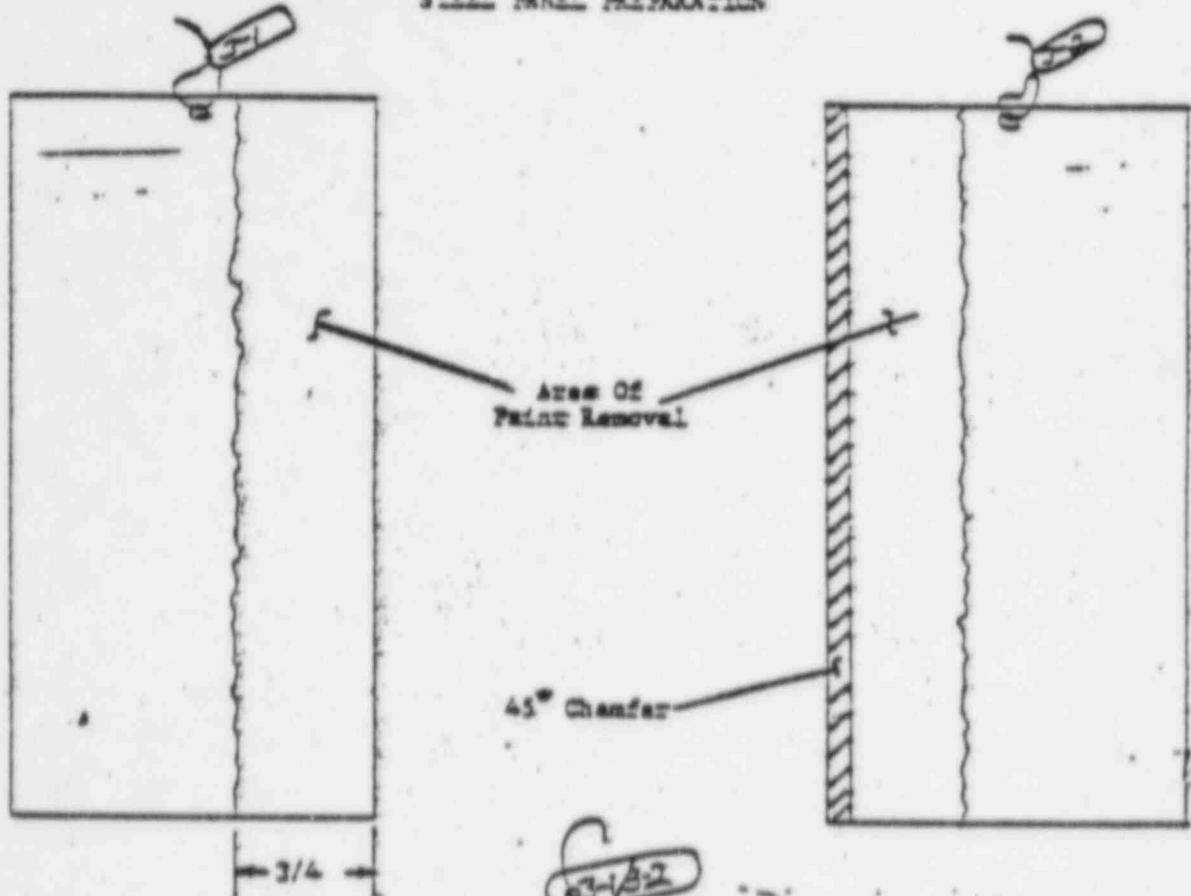


PANEL NUMBERS

- 1-1
- 1-2
- 1-3
- 2-1
- 2-2
- 2-3
- 3-1
- 3-2
- 3-3
- 4-1
- 4-2
- 4-3
- 4-4
- 4-5
- 4-6
- 4-7
- 4-8
- 4-9
- 4-10

FIGURE 1

STEEL PANEL PREPARATION



NUMBERS

- 1-2
- 1-4
- 1-6
- 1-8
- 1-10
- 1-12

Weld Bead
(Front/Back)

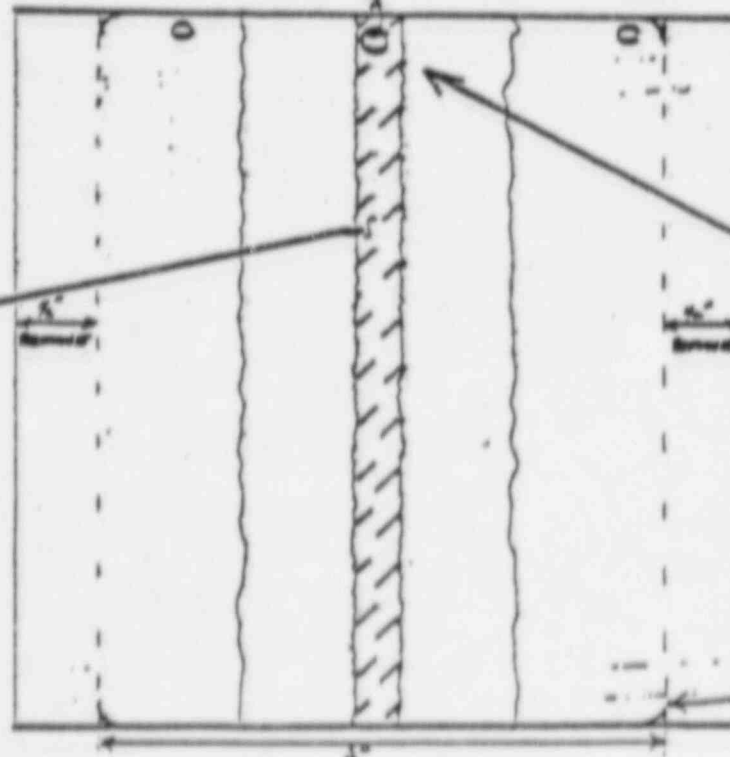


Figure 2



PANELS
3-1/3-2
3-3/3-4
3-5/3-6
4-1/4-2
4-3/4-4
4-5/4-6

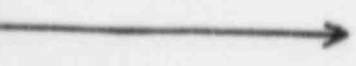
Painted

Catholics 22-11



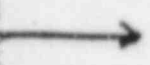
DEFI

3.0-1.0+2.0



Imperial

IMPERIAL #12.01

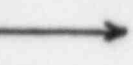


DEFI

5.0-2.0+7.0



Catholics #141111



4.5-2.0+1.0

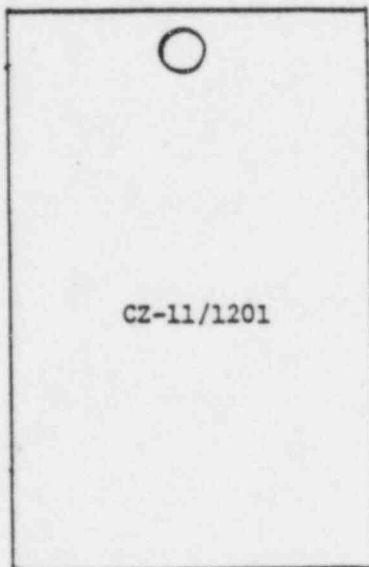


SECTION 2

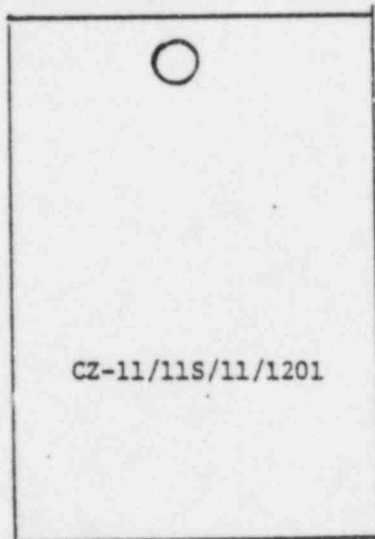
STONE AND WEBSTER
TEST SPECIMEN PREPARATION
DATA

SUMMARY OF SYSTEMS

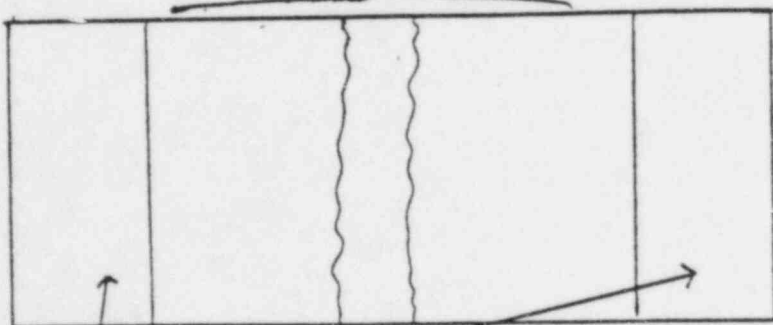
1 Series



2 Series



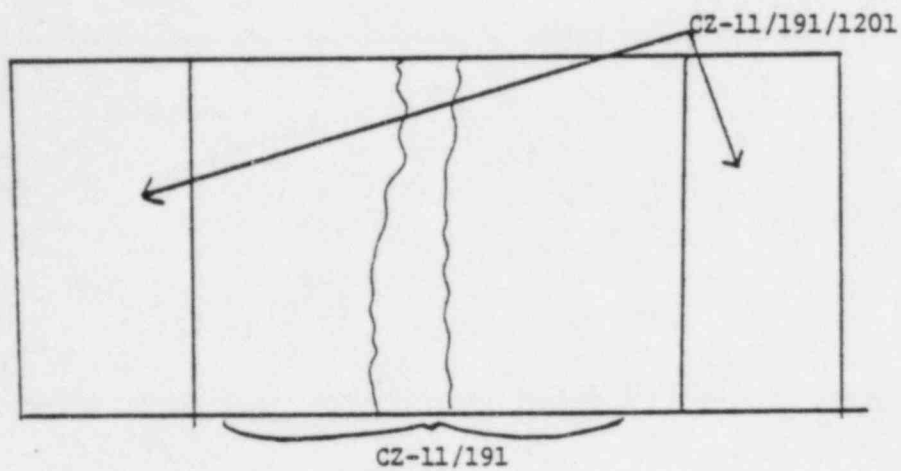
CZ-11/1201

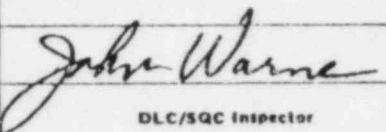


CZ-11/1201/191

SUMMARY OF SYSTEMS (Con't)

4 and 4A Series



DLC/SQC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. 1)				Sheet 1 of 7		No. DBA-1	
				Date SEPT. 1, 1981			
				Day TUESDAY Shift 7:30A-4:00P Foreman S. ROGOWSKI			
 DLC/SQC Inspector		Coating Contractor Supervisor/Designer		Contractor STUART PAINTING Co, INC		Approved DLC/SQC Date	

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:20 AM.	JOB SITE PAINT SHOP / BLASTING AREA	70°	64°	81%	64°	73°	P&PD	ALL
9:50 AM.	" " " " / " "	72°	68°	82%	66°	76°	P&PD	ALL
12:15 PM.	" " " " / PAINTING AREA	80°	72°	68%	67°	82°	P&PD	ALL
2:10 PM.	" " " " / " "	82°	74°	69%	71°	84°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS				
					SPEC	ACTL	PROP	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	THICK	
1	DBA COUPONS	BLASTING AREA	BLAST	OK	SP-10	SP-5	1.5	C	N/A					N/A			
2	DBA COUPONS	PAINTING AREA	MIX & APPLY PRIMER	OK	N/A				CZ II	A	1E5636M 1B2271Z	2	N/A				
3a	DBA COUPONS	" "	DFT OF PRIMER	OK	N/A				N/A				2.0	2.6	4.3	28 I	
3b	DBA COUPON	" "	DFT OF PRIMER	FUL	N/A				N/A				2.0	.8	1.2	1.0 I	
					SEE DBA-2												

STEEL SUBSTRATE

COMMENTS:

A. GENERAL

1. Compressed Air WHITE BLATTER TEST @ 8:05 AM, AIR OK. @ 8:40 AM @ 12:35 PM. RECYCLED GRIT TEST - OK

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. NO IRREGULARITIES
2. Presurface conditions of steel RUST GRNDE C & D OF SSPC-VIS 1
3. Grease/oil removal NONE REQ'D,
4. Protective Coatings "

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type G/S # 80
2. Nozzle Pressures N/A
3. Appearance Csa 3 AND Dsa 3

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN & DUSTED
2. Airborne Dust Cleanliness NONE, VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NONE PRESENT
2. Zinc Salt Test N/A @ THIS TIME
3. Cure GOOD / COIN TEST
4. Adhesion N/A

5. Appearance GOOD OVERALL (1-3' FACE B REQUIRES BUILD-UP)

REMARKS:

BLAST CLEANING PERFORMED BY: T. TORRES, N. SUDANO
J. MUK AND L. ZELINSKI, AT 11:30 AM, 2-16 GAL. KITS OF CE-11 WAS
MIXED. MATERIAL TEMPS. WERE: BASE: 74° 1/33 THINNA (1E7831M) 75°
CONTAINED MIXTURE: 76°. MATERIAL WAS THINNED 12% by Vol. ALL EDGES AND
FACE "A" WERE PRIMED @ 11:45 AM. THE OPPOSITE FACE WAS PRIMED
@ 1:15 APPLICATION BY L. JUD

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pyro-Dyne	BXB -
P - Pyrometer	B17 -
C - Keane-Tator Comparator	G/S DISC
W - Wet Film Gage	N/A
I - Inspector	B15 -
M - Microtest	N/A
T - Tooke Gage	N/A
B - Brush	
N - Roller	
I - Inflator	

A - Airless Spray
CS - Additional Spray

Attachment to: DBA-1

Page 3 of 7 Signature Joseph F. Paclaw

Date 9-1-81

COUPON NUMBER	OPERATION PERFORMED	WFT	* DFT OF CZ-11	REMARKS
3a 2-1	BLAST & PRIME	A N/A B A	A 4.3 28 B 2.4 1.4	3-5-81 → BUILD-UP ON 9-2-81 ↪ SEE DBA-2
3b 2-2	BLAST & PRIME	A N/A B A	A 4.2 2.6 B 2.8 3.5	
2-3	BLAST & PRIME	A N/A B A	A 3.8 2.6 B 2.8 4.1	
N/A A	N/A A	A N/A B A	A N/A B A	
N/A A	N/A A	A N/A B A	A N/A B A	
N/A A	N/A A	A N/A B A	A N/A B A	
N/A A	N/A A	N/A A	N/A A	

* .3 MBR DEDUCTED
NOTE: FACE "A" IS HARDMARKED
FACE "B" IS NOT HARDMARKED

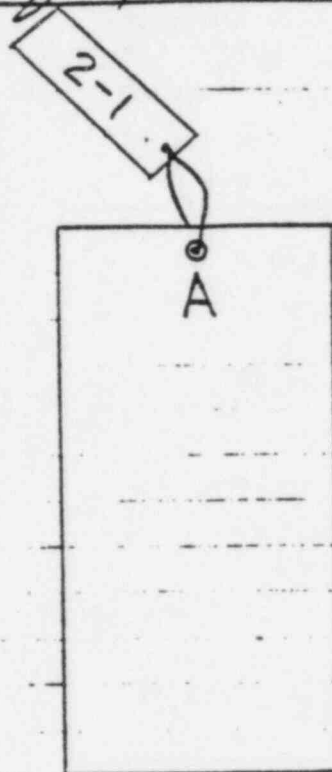
Attachment to: DBA-1

Page 4 of 7 Signature Joseph A. Padanil

Date 9-1-81

*
CZ-11 DFT
ON 2-1
FACE 'A'

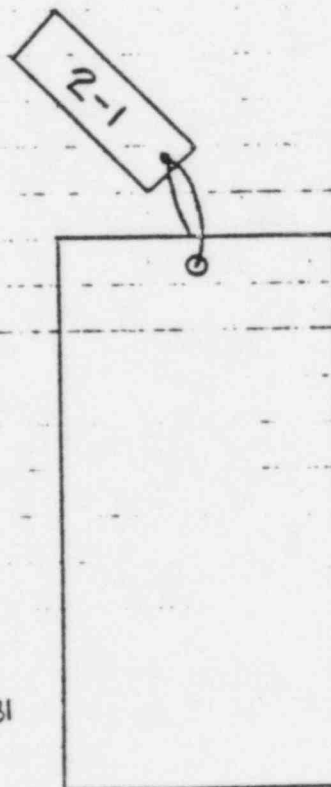
4.3 2.8



*
CZ-11 DFT
ON 2-1
(OPPOSITE FACE)

2.4 1.4

→ BUILD-UP
ON 9-2-81



* .3mil MBR DEDUCTED

Attachment to: DBA-1

Page 5 of 7

Signature Joseph H. Salunke

Date 9-1-81

2-2

*
CZ-11 DFT
ON 2-2
FACE "A"

4.2 2.6

A

2-3

*
CZ-11 DFT
ON 2-2
(OPPOSITE FACE)

2.8 3.5

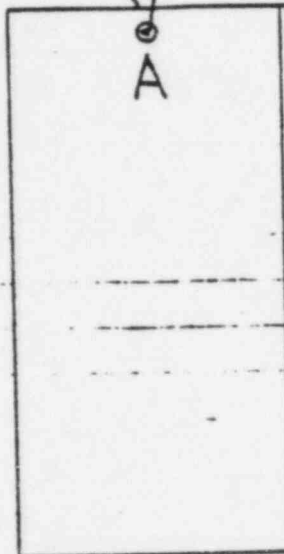
* .3 MIL NBR DEDUCTED

Attachment to: DBA-1

Page 6 of 7 Signature Joseph F. Paulumb Date 9-1-81

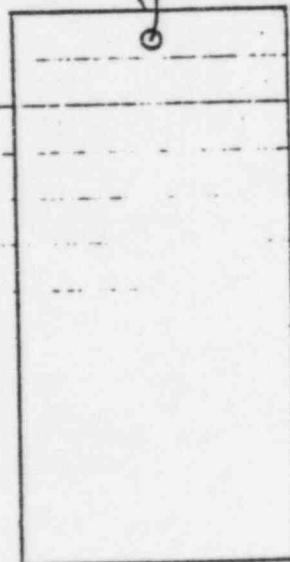
*
CZ-11 DFT
ON 2-3
FACE "A"

3.8 2.6



*
CZ-11 DFT
ON 2-3
(opposite FACE)

2.8 4.1



* .3 MIL MBR DEDUCTED

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

DBA-1

POT NUMBER ST-0945

DATE 9-1-81

SHIFT 7:30 To 3:00

MATERIAL Carbolive Carbo Zinc 11 & Thinner

BATCH NOS. 1E5636M

1B2271Z

THIN. 1E7831M

THINNER # 33 PERCENTAGE ADDED: 12 % #1

THINNER # PERCENTAGE ADDED: 8 % #2

- () SaT. MIXING EQUIPMENT CLEAN AND OPERABLE
() SaT. MATERIAL CANS INSPECTED AND NOT LEAKING
() SaT. COMPLETE KIT MIXED (2.1 Gal. kits)
() 11:30 O'CLOCK COATING THOROUGHLY MIXED
() 11:45 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

74° PART A
PART B
75° THINNER # 33
THINNER #
ADDITIVE
76° MIXED - #1
MIXED - #2

Robert Sauter
COATING SUPERVISOR (OR DESIGNEE)

DLC/SQC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. II)		Sheet 1 of 4	No. DBA-2
		Date SEPT. 2, 1981	
		Day WEDNESDAY Shift 7:30A-4:00P Foreman S. ROGOWSKI	
John Warne DLC/SQC Inspector	Coating Contractor Supervisor/Designer	Contractor STUART PAINTING Co., Inc.	
		Approved DLC/SQC	Date

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:15AM	Job Site PAINT SHOP / ^{SP} PAINTING BLASTING AREA	73°	69°	82%	67°	75°	P&PD	ALL
9:45AM	" " " " / PAINTING AREA	74°	70°	80%	68°	76°	P&PD	ALL
12:25PM	" " " " / " "	78°	71°	71%	68°	78°	P&PD	ALL
2:00PM	" " " " / " "	79°	72°	71%	69°	81°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS					
					SPEC	ACTL	PROP	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	NORM	METH	
1	DBA COUPONS	PAINTING AREA	MIX & APPLY BUILD-UP	OK	N/A	Touch-up			C2	B	1E5636M	★	N/A					
2	DBA COUPONS	" "	DFT OF BUILD-UP	OK	N/A	FROM 9-1-81			N/A	Touch-up	1B2271Z	3	2.0 S.D	26	37	26	I	
			FROM DBA-1															

* ONLY ONE GT.
1 SEP 11 1981

STEEL SUBSTRATE

Page 2 of 4

COMMENTS:

A. GENERAL

1. Compressed Air 8:10 AM. W/HAIR BLASTING TEST @ NEWFIELD - AIR OK.

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. COUPON 3

2. Presurface conditions of steel PREVIOUSLY

3. Grease/oil removal

4. Protective Coatings

BLASTED & PRIMED
w/ CZ-11

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type NO

2. Nozzle Pressures BLASTING

3. Appearance THIS DATE

D. COATING APPLICATION

1. Surface Cleanliness DUSTED PRIOR TO PAINTING

2. Airborne Dust Cleanliness NONE PRESENT

E. INORGANIC ZINC TESTS

1. Dry Spray NO SPRAYING PERFORMED

2. Zinc Salt Test N/A AT THIS TIME

3. Cure GOOD CURE / COIN TEST

4. Adhesion N/A

5. Appearance GOOD OVERALL / SOME SPOT PRIMING PERFORMED

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pycro-Dyne	B18-881
P - Pyrometer	B17-1032
C - Keane Tator Comparator	OKS PK. 345
W - West Film Gage	N/A
I - Inspector	B15-502
M - Microtest	N/A
T - Tooke Gage	N/A
B - Brush	A - Airless Spray
R - Roller	CS - Conventional Spray
T - Trowel	

REMARKS: NO BLASTING PERFORMED ON DBA COUPONS TODAY. ONLY BUILD-UP COAT OF CZ-11 APPLIED TO COUPONS LISTED ON Pg. 3. AT 8:45 AM. THREE KITS OF CZ-11 WERE MIXED (ONLY 1 QT. OF THIS MIX WAS USED FOR DBA COUPONS. MATERIAL TEMPS. WERE: BASE 76°, #33 THIN (1E7B31M) 76° COMBINED MIXTURE. 76°. APPLICATION BY L. JUDD USING BRUSH FOR SPOT BUILD-UP OF CZ-11. NOTE: ENTIRE MIX WAS THINNED 12% by Vol. ONE QT. THINNED BY Vol. For Aug 12 11:11 AM.

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

POT NUMBER ST 0949

Pg. 40 + 4

DATE 9-2-81

SHIFT 7:30 TO 3:00

MATERIAL Carboline Carbonyl 11 + 33 Thinner

BATCH NOS. 1E5636M

1B2271Z

THIN 1E7831M

THINNER # 33 PERCENTAGE ADDED: 12% #1

THINNER # PERCENTAGE ADDED: 8 #2

(SAT MIXING EQUIPMENT CLEAN AND OPERABLE

(SAT MATERIAL CANS INSPECTED AND NOT LEAKING

(SAT COMPLETE KIT MIXED (3-19A/CANS)

(8:45 O'CLOCK COATING THOROUGHLY MIXED

(9:00 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

18T CUT TO 50% for Build Up.
76°

TEMPERATURES

76° PART A

 PART B

76° THINNER # 33

 THINNER #

 ADDITIVE

76 MIXED - #1

 MIXED - #2

Robert L. Matine
COATING SUPERVISOR (OR. DESIGNEE)

(Panels 2-1, 2-2, 2-3)

FCPF-804 (013079)

Gov. 1

Type No. A4.404E

Control Level 2

Control Level 2										1.D.																																																																																																																																											
DLC SOC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. II)										Sheet 1 of 4					No. DBA-3																																																																																																																																						
Date SEPT, 4, 1981										Day FRIDAY Shift 7:30A-4:00PM Foreman S. ROZOWSKI																																																																																																																																											
Contractor STUART PAINTING Co., INC.										Approved DLC/SQC																																																																																																																																											
Murry Kahl DLC/SQC Inspector										Coating Contractor Supervisor/Designer																																																																																																																																											
TIME										LOCATION										DRY BULB										WET BULB										REL. HUM.										DEW POINT										SURFACE										INST.										OPERATIONS PERMITTED																																																																					
7:05 AM										JOB SITE PAINT SHOP / PAINTING AREA										73°										70°										86%										69°										77°										PE PD										ALL																																																																					
10:20 AM										" " " " / " "										77°										71°										74%										68°										79°										PE PD										ALL																																																																					
11:15 AM										" " " " / " "										75°										69°										74%										66°										77°										PE PD										ALL																																																																					
1:00 PM										" " " " / " "										78°										70°										67%										66°										81°										PE PD										ALL																																																																					

Attachment to: DBA-3

Page 3 of 4 Signature Joseph F. Salameh

Date 9-4-81

COUPON NUMBER	OPERATION PERFORMED	WFT OF NUTEC 11S	TOAL DFT OF CZ-11 & NUTEC 11S	REMARKS (CONT. From Pg 2)
2-1	NUTEC # 11 S	15	* 25, 22, 22	WAS APPLIED USING 2" BRUSH AND THEN SQUEEZED WITH SCRAPER (ALL SURFACES)
		16	* 22, 20, 22	
2-2	NUTEC # 11 S	16	* 20, 22, 20	WHITE VINYL WFT GAUGE (DLC/SQL) WAS USED TO DETERMINE WFT (GIBNEY-BRUCE INC)
		15	* 25, 25, 22	
2-3	NUTEC # 11 S	17	* 23, 22, 25	
		17	* 25, 25, 25	

* NOTE: FACE "A" AND "B" CAN NOT BE DISTINGUISHED WITH THE 11^S APPLIED TO ALL SURFACES OF COUPONS.

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

DBA-3
pg 4 of 4

POT NUMBER N/A
DATE SEPT. 4, 1981
SHIFT 7:30 AM - 4:00 PM
MATERIAL IMPERIAL NUTEC # 11 S
BATCH NOS. 2833D222 - SURFACER
2863E042 - CURING AGENT
2864E042 - FILLER

THINNER # N/A PERCENTAGE ADDED: N/A #1
THINNER # A PERCENTAGE ADDED: A #2

- () SAT. MIXING EQUIPMENT CLEAN AND OPERABLE
() SAT MATERIAL CANS INSPECTED AND NOT LEAKING
() SAT. COMPLETE KIT MIXED (1-5 GAL. KIT)
() 10:30 AM O'CLOCK COATING THOROUGHLY MIXED
() N/A O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

NOTE: ONE QT.
USED FOR
DBA TEST COUPON

TEMPERATURES

75° PART A (SURFACER)
76° PART B (CURING AGENT)
N/A THINNER # N/A
N/A THINNER # A
N/A ADDITIVE
77° MIXED - #1
N/A MIXED - #2

Robert Isatman
COATING SUPERVISOR (OR DESIGNEE)

(Panel 2-1, 2-2, 2-3)

[illegible]

STEEL SUBSTRATE

Report Number DBA-4

Page 2 of 4

COMMENTS:

A. GENERAL

1. Compressed Air NO COMPRESSED AIR EMPLOYED

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. PREVIOUSLY2. Presurface conditions of steel BLASTED & PRINED3. Grease/oil removal AND COATED4. Protective Coatings w/ NUTEC # 11S

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type NO2. Nozzle Pressures BUSTING3. Appearance PERFORMED

D. COATING APPLICATION

1. Surface Cleanliness DUSTED PRIOR TO SURFACER APPLICATION2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray N/A2. Zinc Salt Test N/A3. Cure PROPER RECOAT TIMES OBSERVED4. Adhesion N/A5. Appearance GOOD UNIFORM COVERAGE

KEY

Instrument

S - Sling Psychrometer

PD - Pycro-Dyne

P - Pyrometer

C - Keane-Tator Comparator

W - Wet Film Gauge

I - Inspector

M - Microtest

T - Tooke Gauge

(B) - Brush

R - Roller

T - Trowel

Serial No.

N/A

B18-499

B17-1389

N/A

See pg.

N/A

B15-1153

N/A

A - Airless Spray

CS - Conventional Spray

REMARKS: THE FOLLOWING COMPOUNDS WERE COATED w/ NUTEC # 11 TODAY:

2-1, 2-2, 2-3. AT 10:03 AM, ONE - ONE GAL KIT OF IMPERIAL NUTEC # 11 WAS MIXED. MATERIAL TEMPS. WERE: SURFACER 71° CURING AGENT 71° MIXED 73°.

APPLICATION BEGAN @ 10:21 AM, AND COMPLETED @ 10:35 AM. APPLICATION PERFORMED

BY L. J. BOB USING 2" BRUSH. (ALL SURFACES WERE COATED)

SEE PAGE 3 FOR DETAILS.

Attachment to: DBA-4

Page 3 of A Signature Joseph F. Rednick

Date 9-9-81

COUPON NUMBER	OPERATION PERFORMED	WFT OF NUTEC 11	TOTAL DFT OF CZ-11, 11S & 11	REMARKS
2-1	NUTEC # 11	10, 12 13, 12	* 27, 29 * 27, 23	
2-2	NUTEC # 11	7, 7 7, 13	* 26, 26 * 30, 25	
2-3	NUTEC # 11	12, 7 12, 12	* 29, 29 * 28, 30	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	

NOTE: WFT'S TAKEN
W/ WHITE VINYL
DLG/SGC WFT GAUGE
(GIBNEY-BRUXE IN)

* FACE "A" AND "B" CAN NO
LONGER BE DISTINGUISHED
TWO SPOT READINGS TAKEN
ON EACH FACE

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

34

DBA-4
Pg 4 of 4

POT NUMBER ST-0984

DATE 9/9/81

SHIFT 7:30 - 3:00

MATERIAL IMPERIAL NUTEC II SURFACER

BATCH NOS. SURFACER 2881-E052

CURE 2866-E042

FILLER 2907-E262

THINNER # NONE PERCENTAGE ADDED: N/A #1

THINNER # PERCENTAGE ADDED: A #2

- () SAT MIXING EQUIPMENT CLEAN AND OPERABLE
() SAT MATERIAL CANS INSPECTED AND NOT LEAKING
() SAT COMPLETE KIT MIXED (1 GAL.)
() 10:03 O'CLOCK COATING THOROUGHLY MIXED
() 10:13 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

71° ~~PART A~~ Sulf
71° ~~PART B~~ Cure
N/A THINNER # N/A
N/A THINNER # A
N/A ADDITIVE
73° MIXED - #1
N/A MIXED - #2

Larry Nicolaud
COATING SUPERVISOR (OR DESIGNEE)

ATTENTION OF CC II
(Panels 1-1, 1-2, 1-3)

35

DLC SOC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. II)				Sheet 1 of 7		No. DBA-5	
				Date SEPT. 11, 1981			
				Day FRIDAY Shift 7:30A - 4:00PM Foreman S. Rogowski			
<i>Murray Kohl</i> DLC/SQC Inspector		Coating Contractor Supervisor/Designee		Contractor STUART PAINTING CO., INC.		Approved DLC/SQC _____ Date _____	

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:05 AM	JOB SITE PAINT SHOP / BLASTING AREA	75°	63°	51%	55°	77°	PEPD	ALL
7:13 PM	" " " " / PAINTING AREA	76°	64°	51%	57°	79°	PEPD	ALL
10:02 AM	" " " " / " "	72°	64°	65%	59°	76°	PEPD	ALL
12:40 PM	" " " " / " "	78°	68°	60%	63°	75°	PEPD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS					
					SPEC	ACTL	PROP	MEIN	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	THICK	METH.	
1	DBA COUPONS	BLASTING AREA	BLAST	OK	SP-10	SP-5	2.0	C	N/A					N/A				
12	DBA COUPONS	PAINTING AREA	MIX & APPLY PRIMER	OK	N/A				C2-11	A	1E5636M 1B2271Z	3	N/A					
3a	DBA COUPONS	" "	DFT OF PRIMER	OK	N/A				N/A				2.0-5.0	2.9	4.5	3.7	M	
3b	DBA COUPON	" "	DFT OF PRIMER	Fail	N/A				N/A				2.0-5.0	LITE	See pg. 6		M	
BUILT-UP ON 9-14-81 - See DBA-6																		

STEEL SUBSTRATE

36

COMMENTS:

A. GENERAL

1. Compressed Air WHITE BLOTTER TEST @ 8:04 AM, AIR OK; RECYCLED ABRASIVE CHECKED @ 8:10 @ 12:50 PM OK

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. NO IRREGULARITIES
2. Presurface conditions of steel PREVIOUSLY COATED w/ C2-11, NUTEC 1201 AND CARBOLINE 191-HB
3. Grease/oil removal NONE REQ'D.
4. Protective Coatings NONE REQ'D.

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type STEEL GRIT 6/s #80
2. Nozzle Pressures N/A
3. Appearance Sa3

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN & DUSTED
2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NONE PRESENT
2. Zinc Salt Test N/A @ THIS TIME
3. Cure GOOD CURE / COIN TEST
4. Adhesion N/A
5. Appearance GOOD OVERALL

REMARKS: THE FOLLOWING DBA COUPONS WERE REBLASTED TODAY, BECAUSE THEY WERE COATED w/ NUTEC CARBOLINE 191-HB BY MISTAKE. N° 1-1, 1-2, 1-3. THEY WERE INITIALLY RUST GRINDERS 'C' & 'D' OF SSPC-VIS-1 PRIOR TO THE FIRST TIME THEY WERE BLASTED & PRIMED ON 9-1-81. ON 9-10-81 THEY WERE COATED w/ NUTEC 1201 AND CARBOLINE 191-HB. THESE COUPONS SHOULD NOT HAVE BEEN COATED w/ 191-HB. Therefore, THIS DATE THEY WERE REBLASTED AND PRIMED w/ C2-11

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pyro-Dyne	B18-499
P - Pyrometer	B17-1381
C - Keane-Tator Comparator	345
W - Wet Film Gage	N/A
I - Inspector	N/A
M - Microtest	B13-1152
T - Tooke Gage	N/A
(a) - Brush	(A) - Airless Spray
R - Roller	CS - Chemical Spray
F - Finish	

Attachment to: DBA-5Page 3 of 7

Signature

Joseph F. PadanilDate 9-11-81

(CONT. FROM PAGE 2)

DBA COUPONS 1-1, 1-2, 1-3 WERE BLAST CLEANED TO SSPC-SP5, PROFILE 2.0 MILS., MAGNETIC BASE READING .4 MIL. BLASTING WAS PERFORMED BY: J. MULK, L. ZELINSKI, N. SUDANO, T. TORRES. BLASTING COMPLETE @ 9:00 AM.

AT 12:40 PM. 3-1 GAL. KIT OF CARBO ZINC II WERE MIXED, COATING MATERIAL TEMPS. WERE: BASE 71°, #33 Thinner 75°. MATERIAL WAS THINNED 12% BY VOL COMBINGD MIX: 73°. (SEE ATTACHED POT MIXING RECORD).

AT 1:00 PM APPLICATION BEGAN BY L. JUDD. ALL SIDES (FACE "A" & "B") AND EDGES WERE PRIMED W/ CZ-11. ON 9-14-81 DFTS WERE TAKEN AND RECORDED. Coupon 1-3 (FACE "B") WAS RECORDED AS HAVING LITE DFTS (.9-1.6)

NOTE: FACE "B" WAS BUILT-UP ON 9-14-81

COUPON NUMBER	OPERATION PERFORMED	* CZ-11 DFT
1-1	BLAST & PRIME	"A" 4.1 37 "B" 3.8 42
1-2	BLAST & PRIME	"A" 4.0 43 "B" 2.9 37
1-3	BLAST & PRIME	"A" 4.5 39 "B" .9 1.6

NOTE: FACE "B" IS NOT HARD MARKED
FACE "B" IS OPPOSITE FACE "A"

→ BUILT-UP ON 9-14-81 See DBA-6

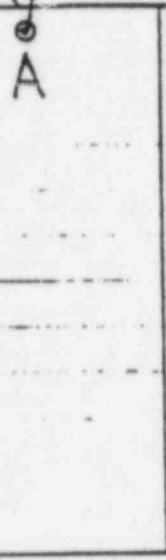
* .4 MIL. BASE READING HAS BEEN DEDUCTED.

Attachment to: DBA-5

Page 4 of 7 Signature Joseph F. Ladavich

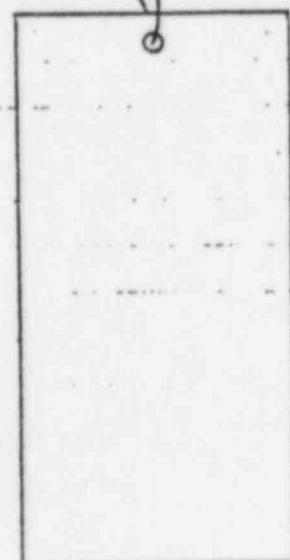
Date 9-11-81

1-1



*
CZ-11 DFT
ON 1-1
FACE 'A'
4.1 3.7

1-1



*
CZ-11 DFT
ON 1-1
(OPPOSITE FACE)
3.8 4.2

* - 4 NL NBR DEDUCTED

Attachment to: DBA-5

Page 5 of 7 Signature Joseph F. Padernik

Date 9-11-81

1-2

A

*
CZ-11 DFT
ON 1-2
FACE "A"
4.0 4.3

1-2

*
CZ-11 DFT
ON 1-2
(OPPOSITE FACE)
2.9 3.7

* .4 MIL MBR DEDUCTED

Attachment to: DEA-5

Page 6 of 7 Signature Joseph F. Padanil Date 9-16-81

1-3

A

*
CZ-11 DFT
ON 1-3
FACE 'A'
4.5 3.9

1-3

*
CZ-11 DFT
ON 1-3
(Opposite FACE)
.9 1.6

BUILD-UP REQ'D.
SEE

* .4 MIL MBR DEDUCTED

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

TEST
Coupons
DBA-5
Pg 7 of 7

POT NUMBER ST-0971
DATE 9-11-81
SHIFT 7:30 To 3:00
MATERIAL Carboline Carbo Zinc 11 & Thinner 33
BATCH NOS. 1E5636M
1B2271Z
Thin. 1E7831M
THINNER # 33 PERCENTAGE ADDED: 12 % #1
THINNER # PERCENTAGE ADDED: 8 % #2

() Sat. MIXING EQUIPMENT CLEAN AND OPERABLE
() Sat. MATERIAL CANS INSPECTED AND NOT LEAKING
() Sat. COMPLETE KIT MIXED (3.1 Gal. kits)
() 12:40 O'CLOCK COATING THOROUGHLY MIXED
() 12:55 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

71° PART A
PART B
75° THINNER # 33
THINNER #
ADDITIVE
73° MIXED - #1
MIXED - #2

Robert G. Stinner
COATING SUPERVISOR (OB DESIGNEE)

(BUILD UP ON 1-3, also panels 4-1 → 4-6, 4-1A → 4-6A, 3-1 → 3-6)

42

DLC/SQC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. II)		Sheet 1 of 16 Date SEPT. 14, 1981 Day MONDAY Shift 7:30A-4:00PM Foreman S. ROGOWSKI Contractor STUART PAINTING Co., INC. Approved DLC/SQC _____ Date _____	No. DBA-6
Murry Kohl DLC/SQC Inspector	Coating Contractor Supervisor/Designer		

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:11 AM	JOB SITE PAINT SHOP/PAINTING AREA	79°	68°	57%	62°	79°	P&PD	ALL
10:08 AM	" " " " / BLASTING AREA	80°	70°	61%	65°	84°	P&PD	ALL
1:11 PM	" " " " / PAINTING AREA	81°	70°	57%	65°	87°	P&PD	ALL
3:55 PM	" " " " / "	80°	70°	61%	65°	83°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS				
					SPEC	ACTL	PROF	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	THICKNESS	METH.
1	DBA COUPONS	BLASTING AREA	BLAST	OK	SP-10	SP-5	1.5	C	N/A				N/A				
2	DBA COUPONS	PAINTING AREA	MIX & APPLY PRIMER	OK	N/A				C2	A/B	1E5636M 1B2271Z	3	N/A				
3	DBA COUPONS	" "	DFT OF PRIMER	OK	N/A				N/A				2.0-6.0	2.0	4.5	3A	M
3a	COUPON	" "	DFT OF BUILD-UP	OK	N/A				N/A				2.0-5.0	2.3	4.7	N/A	M

STEEL SUBSTRATE

Page 7 of 16

COMMENTS:

A. GENERAL

1. Compressed Air WHITE, BLOTTER TEST @ 8:00AM, AIR QUALITY SAT. RECYCLED ABRAVE TEST @ 8:05, 12:30 OK

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. NO IRREGULARITIES
2. Presurface conditions of steel PREVIOUSLY BLASTED, PRIMED, AND TOP COATED w/ NUTEC #1201 & CARBOLINE 191-HB
3. Grease/oil removal NONE REQUIRED
4. Protective Coatings 4-1 THRU 4-6 AND 4-1A THRU 4-6A AND 3-1 THRU 3-6 GROUND & WELD AREAS MASKED OFF

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type STEEL GRIT 6/5 #80
2. Nozzle Pressures N/A
3. Appearance Sa3

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN & DUSTED
2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NONE PRESENT
2. Zinc Salt Test N/A @ THIS TIME
3. Cure GOOD / COIN TEST
4. Adhesion N/A
5. Appearance GOOD OVERALL

REMARKS: DBA COUPONS BLASTED & PRIMED TODAY WERE PREVIOUSLY BLASTED & PRIMED AND TOP COATED w/ NUTEC #1201 AND CARBOLINE 191-HB. THESE COUPONS WERE SENT TO DICK CORP. FAB SHOP WHERE THEY WERE WELDED TOGETHER IN PAIRS. THE WELDING PROCESS CAUSED THE TOP COATING TO BLISTER AND CRACK. THESE SAMPLES AFTER WELDING WERE SENT BACK TO THE PAINT SHOP. THE GROUND & WELD AREAS WERE MASKED OFF. THE EXPOSED PORTIONS OF COUPONS WERE BLASTED & PRIMED

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pyro-Dyne	B18-499
P - Pyrometer	B19-1389
C - Keane-Tator Comparator	GS-345
W - Wet Film Gage	N/A
I - Inspector	N/A
M - Microtest	B16-1153
T - Tooke Gage	N/A

(A) - Airtless Spray
CS - Conventional Spray

Attachment to: DBA - 6

Page 3 of 16

Signature

Joseph F. Padanik

Date

9-14-81

REMARKS (CONT.)

BLASTING PERFORMED BY: J. MULK, N. SUDANO, T. TORRES
AND L. ZELINSKI (NOTE: WELD & GROUND AREAS WERE NOT BLASTED)

AT 10:01 AM, ~~ONE~~ 3-1 GAL. KITS OF CZ-11
WERE MIXED. BASE: 75°, #33 Thinner (1E7831M) 75°
COMBINED MIX 76°. MATERIAL WAS THINNED 12% BY
VOLUME. NOTE: ONE PINT WAS THINNED AN ADDITIONAL
38% BY VOL FOR BUILD-UP COAT TO 1-3

AT 2:16 PM. APPLICATION BEGAN BY L. JUDD.

AT 2:25 PM APPLICATION WAS COMPLETE.

EDGES OF COUPONS AND SPOT NEAR TAGS
WERE SPOT PRINED W/ BRUSH

Attachment to: DBA-6Page 4 of 16 Signature Joseph F. PadanilDate 9-14-81

COUPON NUMBER	OPERATION PERFORMED	WFT	DFT OF CZ-11	REMARKS
3-1-3-2	BLAST & PRIME	A N/ B A	A 2.4 3.3 B 3.0 3.1	
3-3-3-4	BLAST & PRIME	A N/ B A	A 3.1 3.6 B 3.4 3.4	
3-5-3-6	BLAST & PRIME	A N/ B A	A 3.1 2.6 B 2.6 3.7	
4-1-4-2	BLAST & PRIME	A N/ B A	A 3.9 3.7 B 3.0 3.5	
4-3-4-4	BLAST & PRIME	A N/ B A	A 3.3 3.4 B 3.8 3.4	
4-5-4-6	BLAST & PRIME	A N/ B A	A 3.4 3.6 B 2.5 3.3	
1-3	BUILD-UP OF CZ-11 FACE "B"	N/ A	B 2.3 4.7	BLASTED & PRIMED ON 9-11-81 CZ-11 BUILD-UP APPLIED TODAY

Attachment to:

DBA-6

Page

5

of

16

Signature

Joseph F. Padernik

Date

9-14-81

COUPON NUMBER	OPERATION PERFORMED	WFT	DFT CZ-11	REMARKS
4-1A-4-2A	BLAST & PRIME	A N/ B A	A 23 26 B 4.2 4.4	
4-3A-4-4A	BLAST & PRIME	A N/ B A	A 25 27 B 4.5 3.7	
4-5A-4-6A	BLAST & PRIME	A N/ B A	A 20 21 B 4.4 3.0	
		A B	A B	
		A B	A B	
		A B	A B	

Attachment to: DBA-6Page 6 of 16

Signature

Joseph F. Padernik

Date

9-14-81

FACE "A"
BLASTED & PRINED
ON 9-11-81
DFT'S SAT.

A

*
(Z-11 DFT
ON 1-3
(OPPOSITE FACE)
AFTER BUILD-UP
COAT
2.3 4.7

* .4 MIL. NBR DEDUCTED

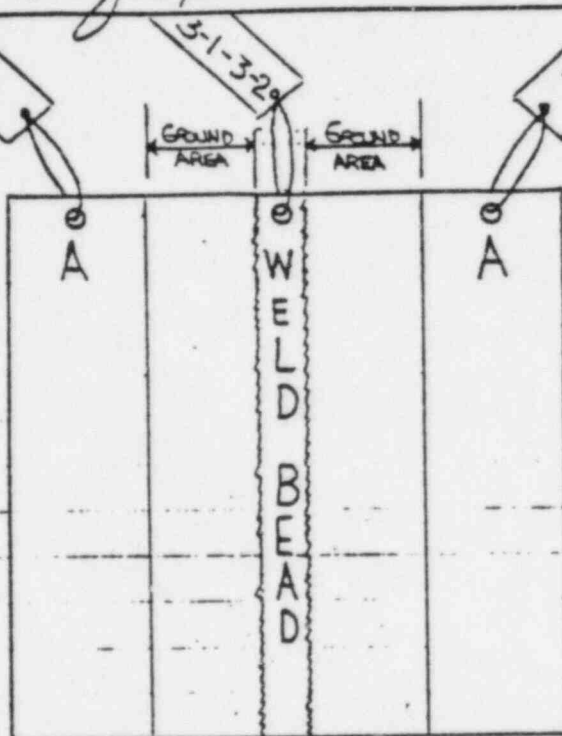
Attachment to: DBA-6

Page 7 of 16

Signature Joseph F. Padonik

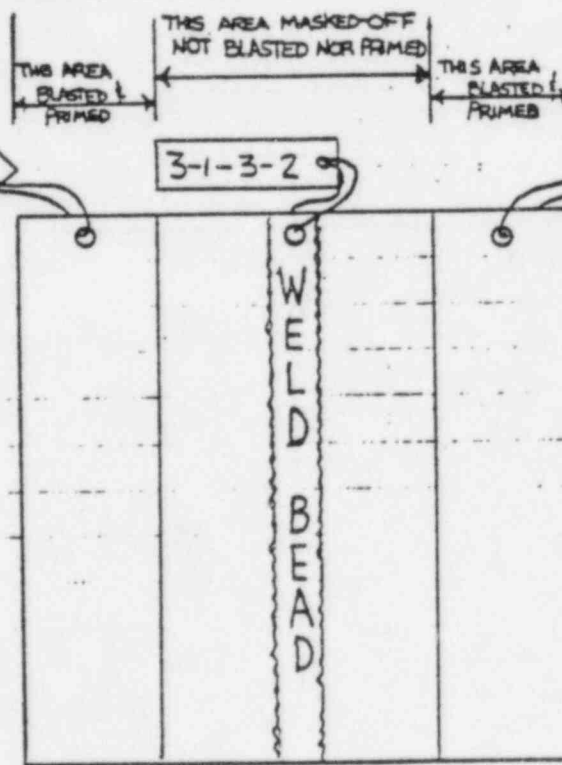
Date 9-14-81

*
CZ-11 DFT
ON 3-1
FACE "A"
2.4

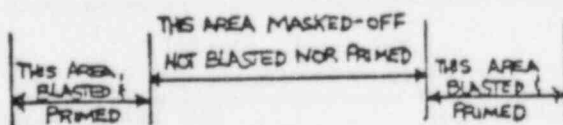


*
CZ-11 DFT
ON 3-2
FACE "A"
3.3

*
CZ-11 DFT
ON 3-2
(OPPOSITE FACE)
3.0



*
CZ-11 DFT
ON 3-1
(OPPOSITE FACE)
3.1



* .5 MIL MBR HAS
BEEN DEDUCTED

Attachment to: DBA-6

Page 8 of 16

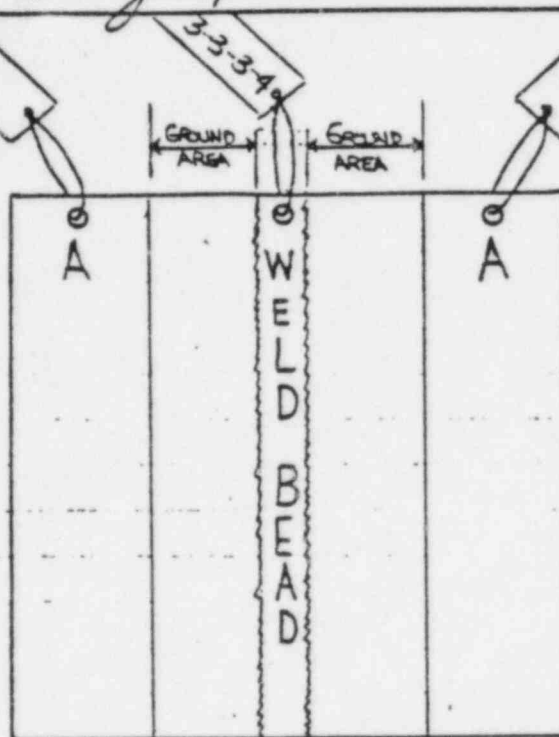
Signature

Joseph F. Palamuk

Date

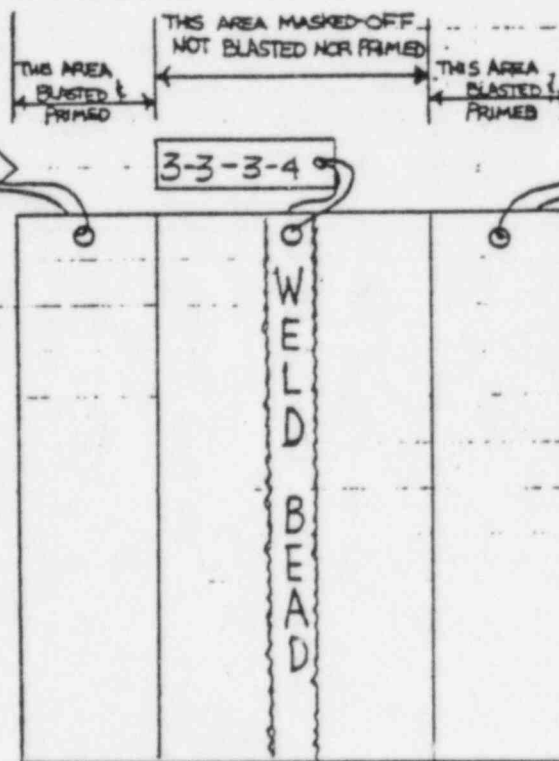
9-14-81

*
CZ-11 DFT
ON 3-4
FACE "A"
3.6

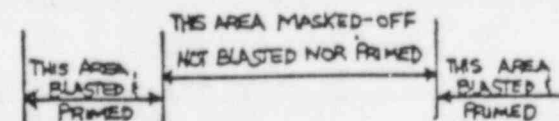


*
CZ-11 DFT
ON 3-3
FACE "A"
3.1

*
CZ-11 DFT
ON 3-3
(OPPOSITE FACE)
3.4



*
CZ-11 DFT
ON 3-4
(OPPOSITE FACE)
3.4



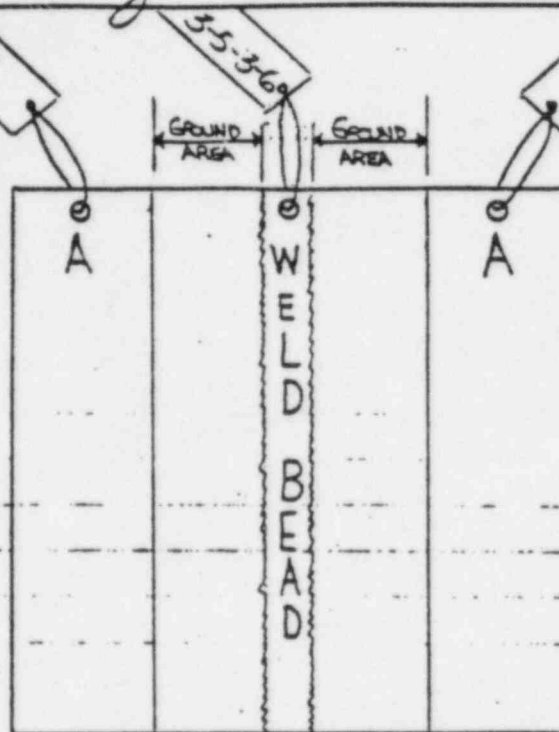
* .5 MI. BMR. DEDUC

Attachment to: DBA-6

Page 9 of 16 Signature Joseph F. Leland

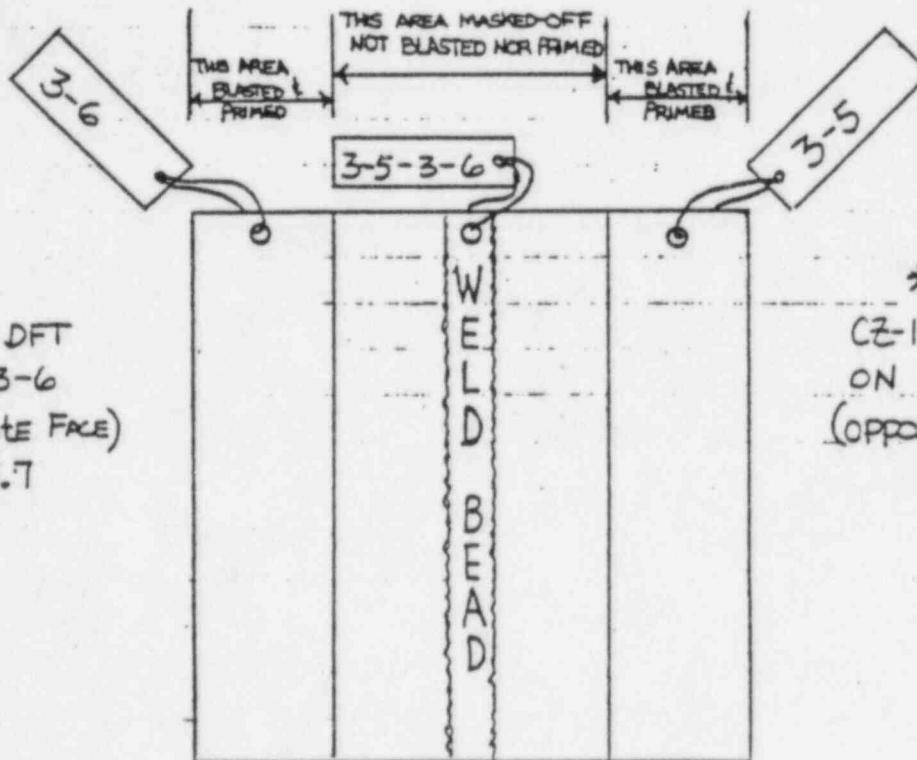
Date 9-14-81

*
CZ-II DFT
ON 3-5
FACE 'A'
3.1

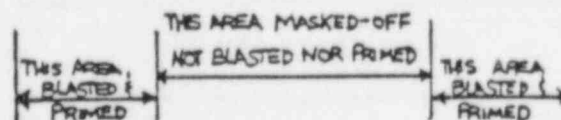


*
CZ-II DFT
ON 3-6
FACE 'A'
2.6

*
CZ-II DFT
ON 3-6
(OPPOSITE FACE)
3.7



*
CZ-II DFT
ON 3-5
(OPPOSITE FACE)
2.6



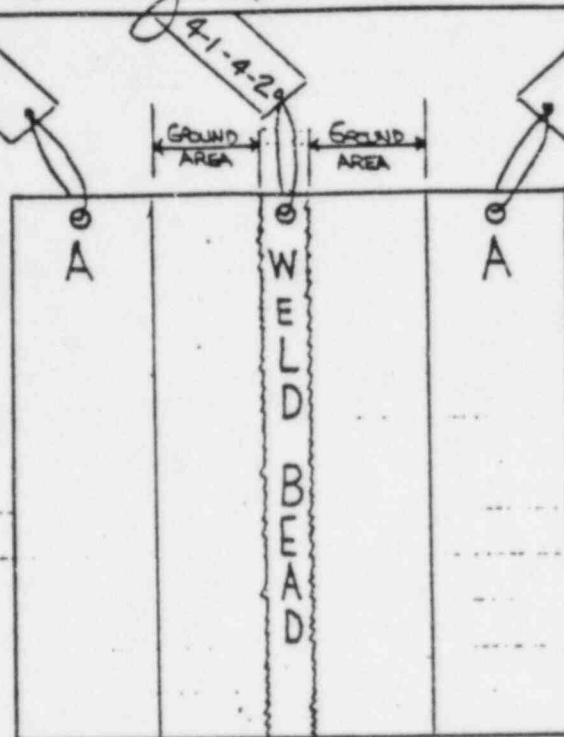
* 5 mil. MBR DEDUCTED

Attachment to: DBA-6

Page 10 of 16 Signature Joseph F. Padlunich

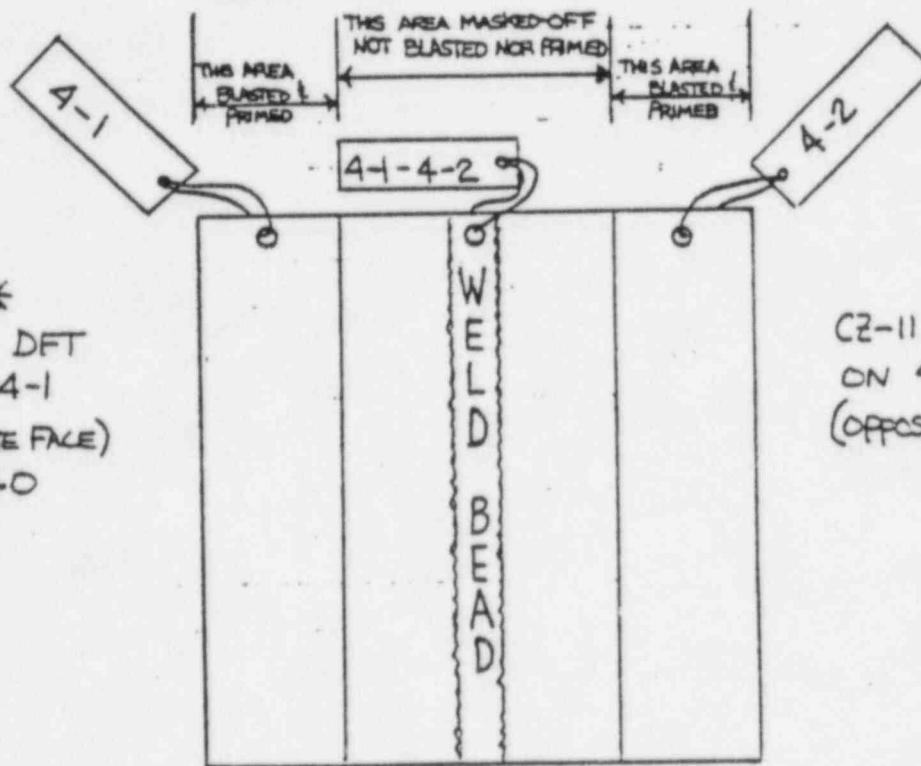
Date 9-14-81

*
CZ-II DFT
ON 4-2
FACE "A"
3.7

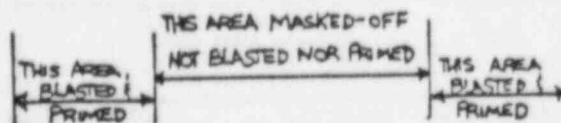


*
CZ-II DFT
ON 4-1
FACE "A"
3.9

*
CZ-II DFT
ON 4-1
(OPPOSITE FACE)
3.0



*
CZ-II DFT
ON 4-2
(OPPOSITE FACE)
3.5



* , 3 mil. MER DEDUCTED

Attachment to: DBA-6

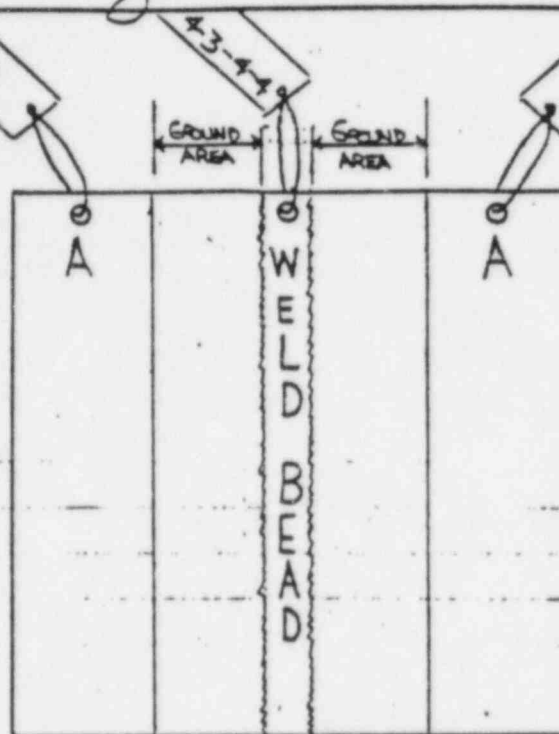
Page 11 of 16

Signature

Joseph F. Padunil

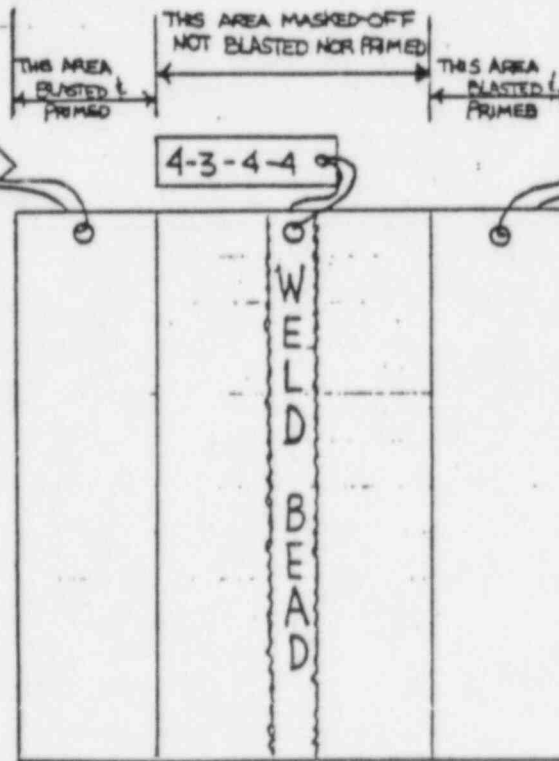
Date 9-14-81

*
CZ-II DFT
ON 4-3
FACE 'A'
3.3

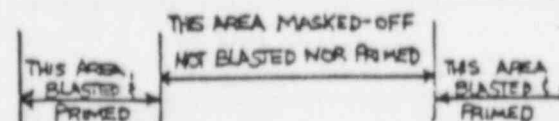


*
CZ-II DFT
ON 4-4
FACE 'A'
3.4

*
CZ-II DFT
ON 4-4
(OPPOSITE FACE)
3.4



*
CZ-II DFT
ON 4-3
(OPPOSITE FACE)
3.8



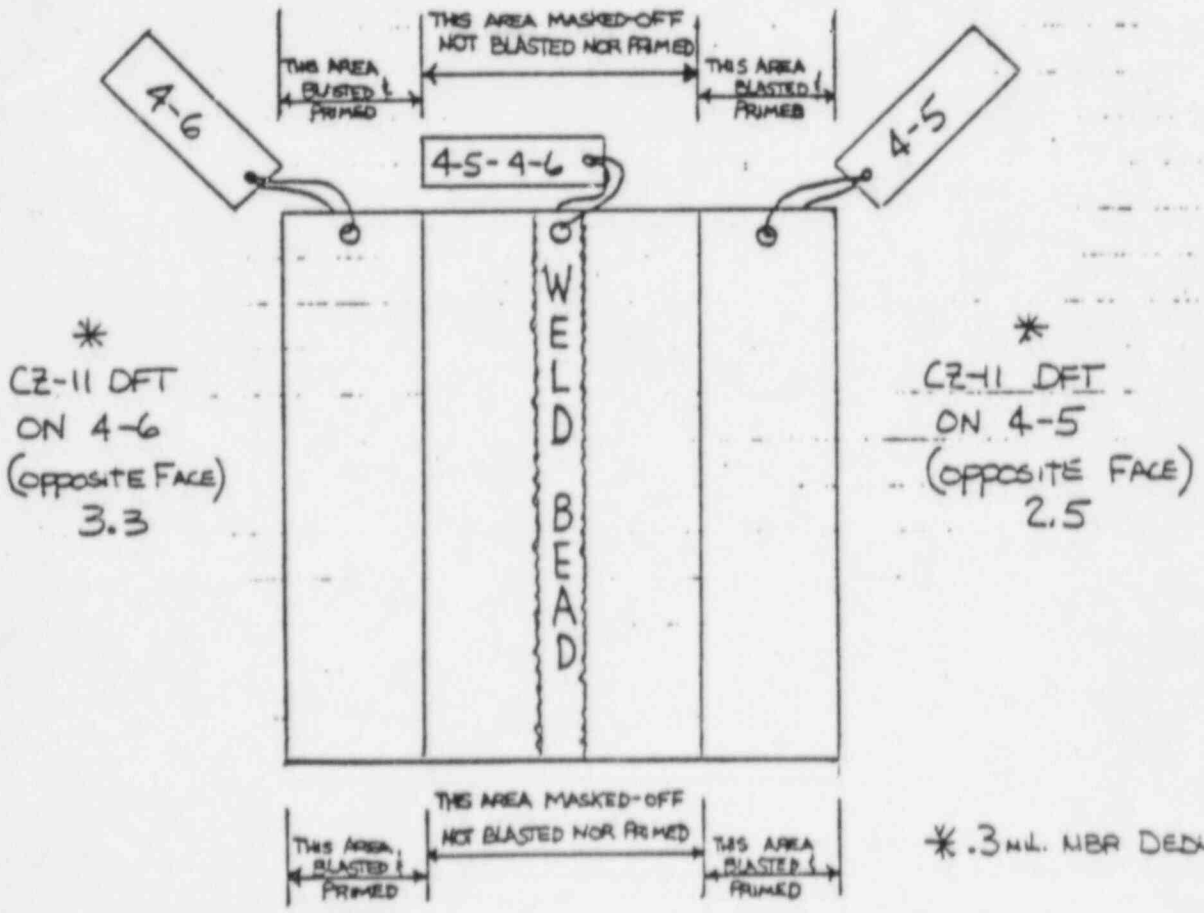
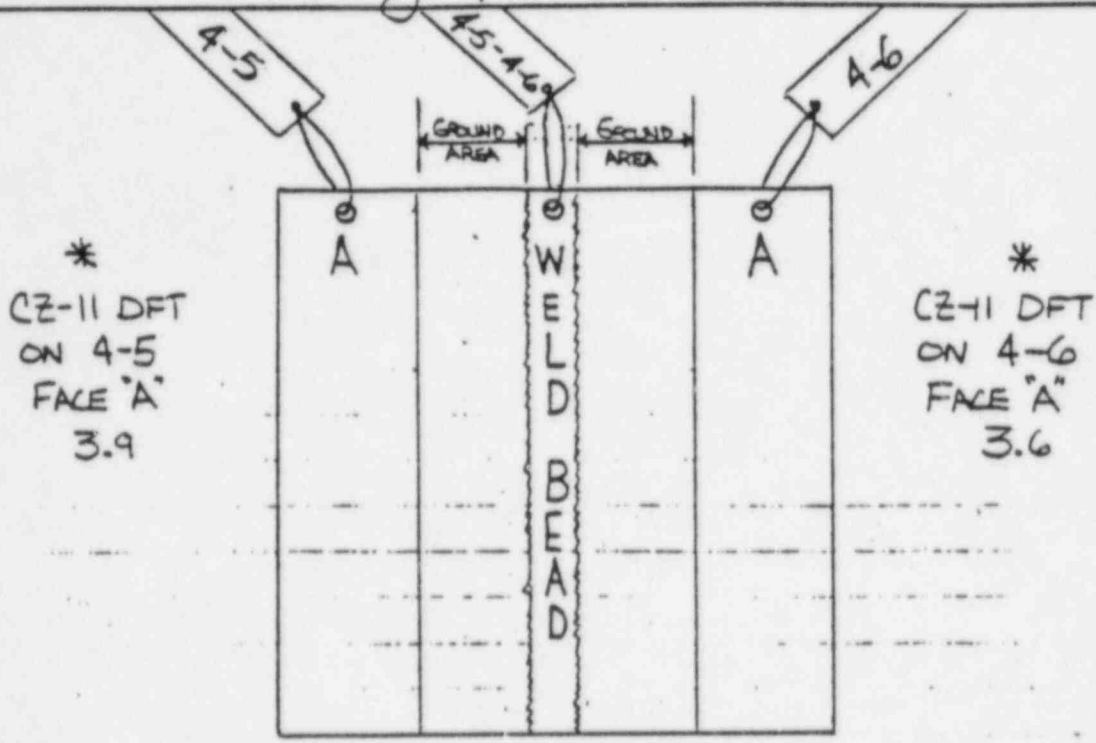
* .3 MIL. MBR DEDUCTED

Attachment to: DBA-6

Page 12 of 16

Signature Joseph F. Padovich

Date 9-14-81



* .3 mil. NBR DEDUCTED

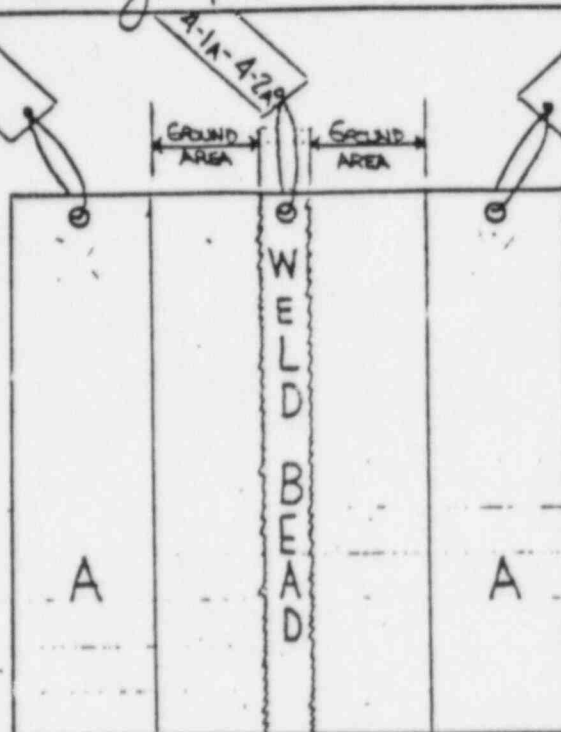
Attachment to: DBA-6

Page 13 of 16 Signature Joseph E. Palovich

Date 9-14-81

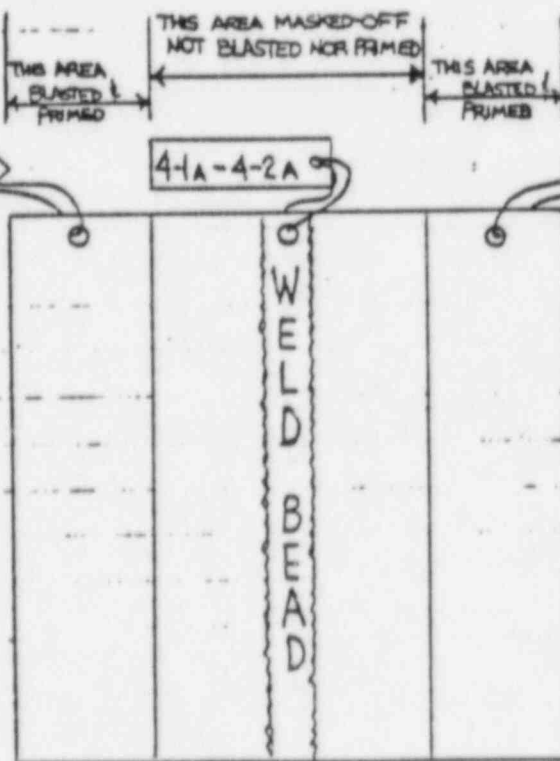
*
CZ-11 DFT
ON 4-1A
FACE 'A'
2.3

*
CZ-11 DFT
ON 4-2A
FACE 'A'
2.6



*
CZ-11 DFT
ON 4-2A
(OPPOSITE FACE)
4.4

*
CZ-11 DFT
ON 4-1A
(OPPOSITE FACE)
4.2



*.2 mil. HBR DEDUCT

Attachment to:

DBA-6

Page 14

of 16

Signature

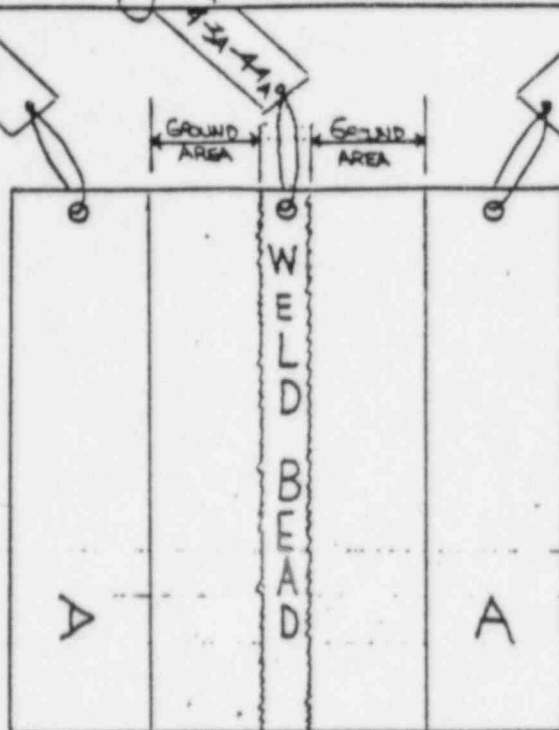
Joseph F. Paduini

Date

9-14-81

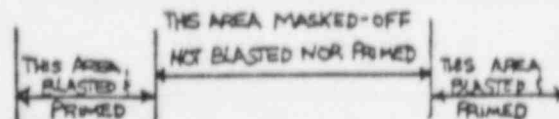
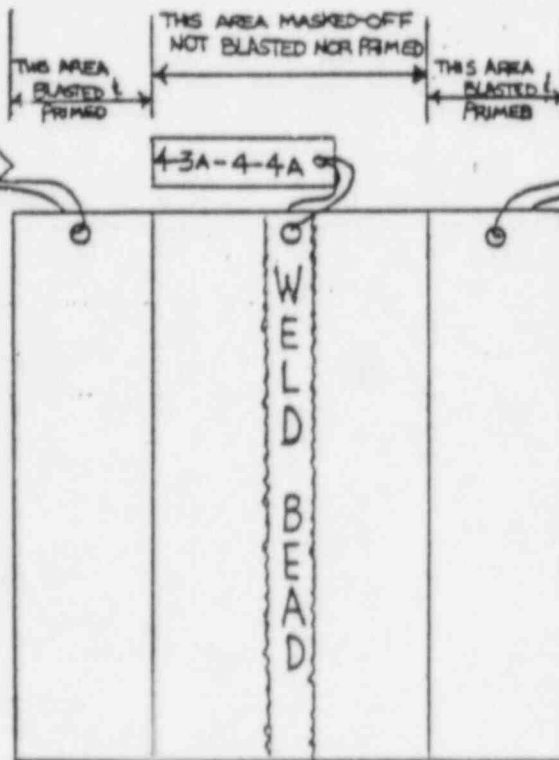
*
CZ-11 DFT
ON 4-3A
FACE "A"
2.5

*
CZ-11 DFT
ON 4-4A
FACE "A"
2.7



*
CZ-11 DFT
ON 4-4A
(OPPOSITE FACE)
3.7

*
CZ-11 DFT
ON 4-3A
(OPPOSITE FACE)
4.5

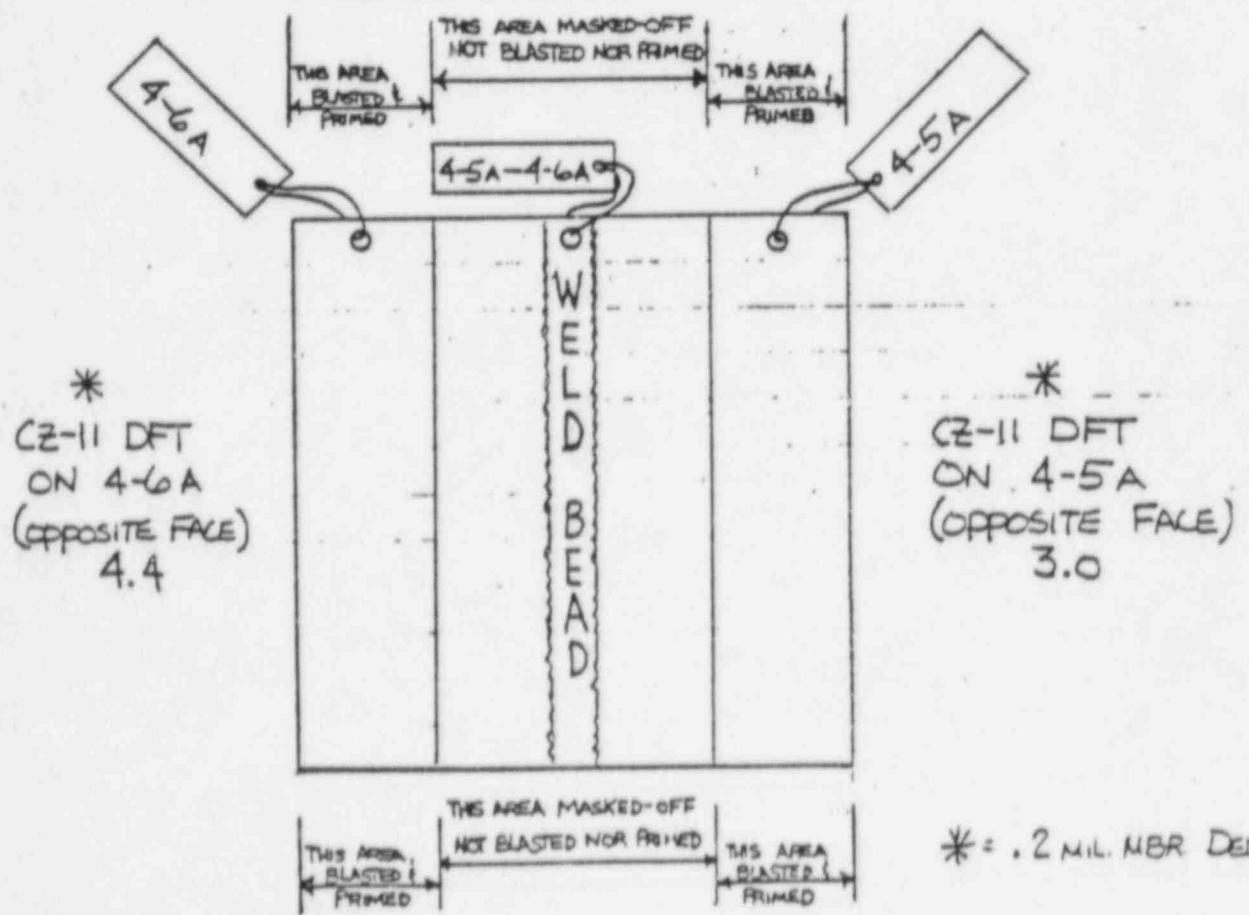
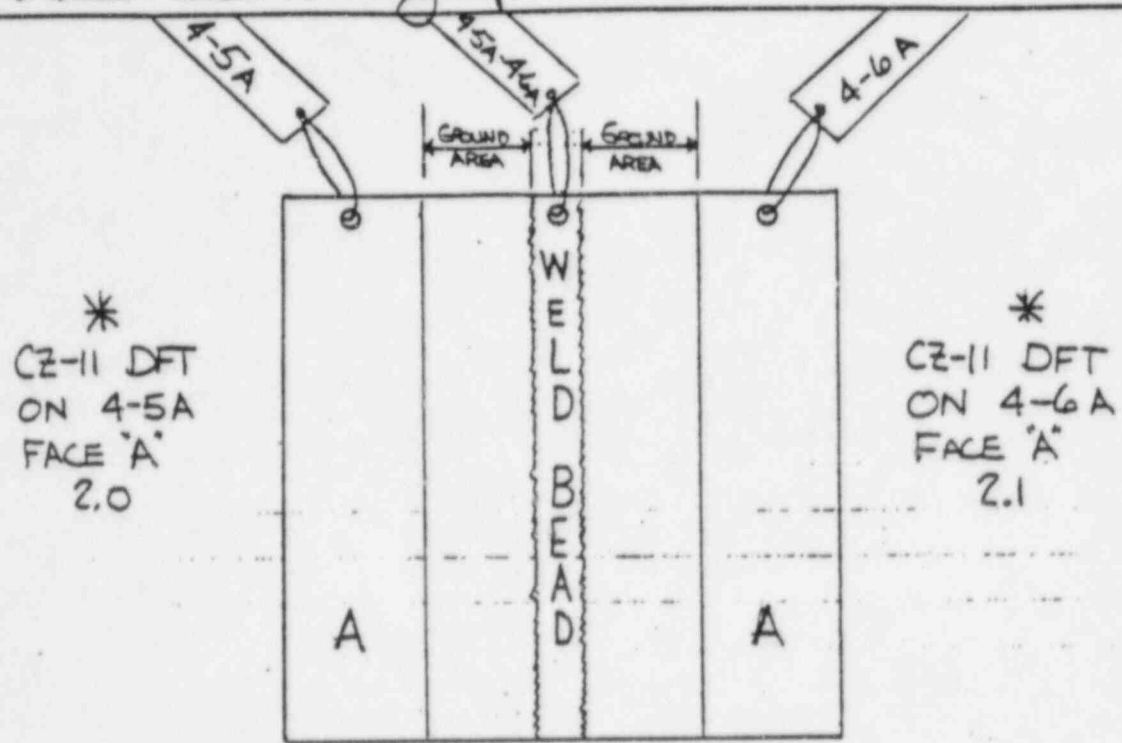


* .2 MIL NBR DEDUCT

Attachment to: DBA-6

Page 15 of 16 Signature Joseph F. Paulovich

Date 9-14-81



BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

57
DBA-C
COUPONS
16 OF 16

POT NUMBER 57-0975

DATE 9-14-81

SHIFT 7:30 To 3:00

MATERIAL Carboline Carb Zircall & Thinner 33

BATCH NOS. 1E5636M

1B2271Z

TRAIL 1E7831M

THINNER # 33 PERCENTAGE ADDED: 12 % #1

THINNER # PERCENTAGE ADDED: 8 % #2

- () SaT. MIXING EQUIPMENT CLEAN AND OPERABLE
() SaT. MATERIAL CANS INSPECTED AND NOT LEAKING
() SaT. COMPLETE KIT MIXED * 3.1 Gal. k. + s)
() 10:01 O'CLOCK COATING THOROUGHLY MIXED
() 10:10 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

ONE PINT Thinned Addition
38% by Vol. FOR
BUILD-UP

TEMPERATURES

75° PART A
PART B
75° THINNER # 33
THINNER #
ADDITIVE
76° MIXED - #1
MIXED - #2

Robert S. Geringer
COATING SUPERVISOR (OR DESIGNEE)

(Panels 1-1, 1-2, 1-3, 3-1-3-2, 3-3-3-4, 3-5-3-6)

APPLICATION OF 191

(Panels 4-1-4-2, 4-3-4-4, 4-5-4-6, 4-1A-4-2A, 4-3A-4-4A, 4-5A-4-6A)

DLC SOC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. I)		Sheet 1 of 19	No. DBA-7
Date SEPT. 16, 1981		Day WEDNESDAY Shift 7:30 AM - 4:00 PM Foreman S. Rogowski	
Contractor STUART PAINTING Co., INC.		Approved DLC/SOC	
DLC/SQC Inspector		Coating Contractor Supervisor/Designer	

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:07 AM	JOB SITE PAINT SHOP / PAINTING AREA	75°	60°	40%	49°	77°	P&PD	ALL
9:55 AM	" " " " / " "	72°	60°	52%	49°	73°	P&PD	"
12:20 PM	" " " " / " "	74°	60°	46%	51°	76°	P&PD	"
2:00 PM	" " " " / " "	75°	60°	40%	49°	76°	P&PD	"

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS			
					SPEC	ACTL	PROP	METH	SPEC	APPL	BATCH NOS.	GA.	SPEC	MIN	MAX	METH
1	DBA COUPONS	PAINTING AREA	MIX & APPLY 1201 SEAL COAT	OK	N/A				MUTEC 1201			1	N/A			
2	DBA COUPONS	" "	MIX & APPLY 1201 TOP COAT	OK	N/A				SAME AS ABOVE	*		*	N/A			
3	DBA COUPONS	" "	MIX & APPLY 191-HB SEAL	OK	N/A				191 HB			2	N/A			
4	DBA COUPONS	" "	MIX & APPLY 191-HB TOP COAT	OK	N/A				SAME AS ABOVE	*		*	N/A			
5	DBA COUPONS	" "														
					* TOTAL OF 2 GAL MIXED				* TOTAL							

COMMENTS:

A. GENERAL

1. Compressed Air WHITE BLOTTER TEST @ 8:05 AM - MR. QUALITY SAT.

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. COUPONS

2. Presurface conditions of steel PREVIOUSLY

3. Grease/foil removal BLASTED AND

4. Protective Coatings PRIMED

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type NO

2. Nozzle Pressures BLASTING

3. Appearance PERFORMED

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN & DUSTED

2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NONE PRESENT

2. Zinc Salt Test NONE PRESENT

3. Cure GOOD Cure ACHIEVED PRIOR TO TOPCOAT APPLICATION

4. Adhesion N/A

5. Appearance SOME Slight Shadow-Through

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pycro-Dyne	B18-881
P - Pyrometer	B17-1032
C - Keane Tator Comparator	N/A
W - Wet Film Gage	N/A
I - Inspector	B15-502
M - Microtest	N/A
T - Tooke Gage	N/A
B - Brush	
R - Roller	
F - Finish	
A - Airless Spray	
CS - Conventional Spray	

REMARKS: DBA COUPONS: 1-1, 1-2, 1-3, 3-2-3-1, 3-3-3-4, 3-5-3-6 WERE SEAL COATED & TOPCOATED w/ NUTEC 1201 TODAY. DBA COUPONS: 4-1-4-2, 4-3-4-4, 4-5-4-6, 4-1A-4-2A, 4-3A-4-4A, 4-5A-4-6A WERE SEAL COATED AND TOPCOATED w/ CARBOYNE 191-HB TODAY. AT 1:30PM ONE-ONE GAL. KIL OF IMPERIAL NUTEC 1201 WAS MIXED. MATERIAL TEMPS. WERE: BASE 73° COUPON NEG-1 74° MIXED TEMP. 76°, DLGA UNIVERSAL SOLVENT 1-2815-EO-42

Attachment to: DBA-7

Page 3 of 19 Signature Joseph F. Adewich Date 9-16-81

REMARKS (CONT)

THE REMAINING 111 OZ. OF 1201 WAS NOT THINNED AND USED FOR TOP COAT.

1201 SEAL COAT APPLICATION BEGAN @ 2:30 PM. AND COMPLETED @ 2:40 PM. SEAL COAT APPLIED BY BRUSH BY L. JUDD. 1201 TOP COAT APPLICATION BEGAN @ 3:20 PM AND COMPLETED @ 3:40 PM. TOP COAT WAS APPLIED WITH AIRLESS SPRAY BY L. JUDD. (EDGES WERE BRUSHED)

AT 1:45 PM., ONE-TWO GAL. KIT OF CARBOLINE 191-HB WAS MIXED. MATERIAL TEMPS. WERE: PART A: 74° PART B: 74° #33 Thinner (167890M) 75° MIXED TEMP. 75°
NOTE: AFTER PART A & B WERE THOROUGHLY MIXED ONE QT. WAS POURED OFF AND THINNED 75% BY VOL. FOR SEAL COAT. THE REMAINING 7 QTS. WERE NOT THINNED.

191-HB SEAL COAT APPLICATION BEGAN @ 2:05 PM., AND COMPLETED @ 2:20 PM. SEAL COAT APPLIED BY L. JUDD USING BRUSH. TOP COAT APPLICATION BEGAN @ 2:45 PM. BY L. JUDD AND COMPLETED @ 3:05 PM. APPLICATION BY AIRLESS SPRAY (EDGES WERE BRUSHED)

NOTE: COUPONS WERE TOP COATED BY AIRLESS SPRAY. COUPONS WERE SPRAYED IN THE HORIZONTAL POSITION THEN HUNG IN THE VERTICAL POSITION RESULTING IN THE RUNS/SAG VISIBLE ON EDGES OF SOME COUPONS. AND FACES OF 1 SERIES

Attachment to: DBA-7Page 4 of 19 Signature Joseph F. PaluchDate 9-16-81

COUPON NUMBER	OPERATION PERFORMED	WFT	TOTAL DFT CZ-11 AND 1201	REMARKS
1-1	NUTEC #1201 SEAL COAT TOP COAT	A 12 B 10	A 8.5 8.8 B 8.7 9.3	→ SEE Page 6
1-2	NUTEC #1201 SEAL COAT TOP COAT	A 12 B 10	A 9.5 7.8 B 9.3 9.2	→ SEE Page 7
1-3	NUTEC #1201 SEAL COAT TOP COAT	A 10 B 10	A 8.5 8.7 B 8.8 7.0	→ SEE Page 8
3-1-3-2	NUTEC #1201 SEAL COAT TOP COAT	A 10 B 10	A 7.0 8.2 7.5 8.3 B 8.2 7.5 8.8 8.7	→ SEE Page 9
3-3-3-4	NUTEC #1201 SEAL COAT TOP COAT	A 10 B 8	A 8.7 7.7 8.8 8.8 B 6.2 7.0 7.0 7.5	→ SEE Page 10
3-5-3-6	NUTEC #1201 SEAL COAT TOP COAT	A 8 B 8	A 7.2 8.7 8.2 8.5 B 7.0 5.8 7.7 7.8	→ SEE Page 11

Attachment to: DBA-7Page 5 of 19

Signature

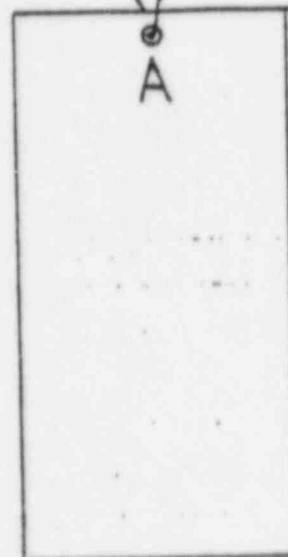
Joseph F. PaduchDate 9-16-81

COUPON NUMBER	OPERATION PERFORMED	WFT	TOTAL DFT CZ-11 AND 191-HB	REMARKS
4-1-4-2	191-HB SEAL COAT TOP COAT	A 10 B 12	9.8 8.5 A 9.3 9.2 8.3 8.2 B 7.5 7.3	→ SEE Page 12
4-3-4-4	191-HB SEAL COAT TOP COAT	A 12 B 10	8.8 8.8 A 8.3 9.0 9.2 8.0 B 9.2 8.2	→ SEE Page 13
4-5-4-6	191-HB SEAL COAT TOP COAT	A 10 B 8	9.8 7.5 A 8.8 7.3 6.7 8.5 B 6.3 8.2	→ SEE Page 14
4-1A-4-2A	191-HB SEAL COAT TOP COAT	A 12 B 10	6.3 8.0 A 7.5 7.8 8.5 9.7 B 8.5 9.0	→ SEE Page 15
4-3A-4-4A	191-HB SEAL COAT TOP COAT	A 12 B 12	7.0 7.2 A 9.2 9.5 9.3 7.8 B 9.3 8.5	→ SEE Page 16
4-5A-4-6A	191-HB SEAL COAT TOP COAT	A 8 B 10	8.2 8.8 A 8.8 9.2 9.7 8.5 B 9.5 9.0	→ SEE Page 17

Attachment to: DBA-7Page 6 of 19 Signature Joseph F. Paulin Date 9-16-81

*
DFTS
ON 1-1
FACE "A"

8.5 8.8
-6 10

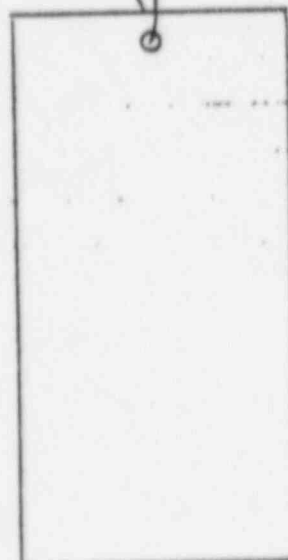


NOTE: CZ-11 DFTS ON 1-1 (FACE A)
PREVIOUSLY RECORDED WERE:
4.1 3.7
AVE CZ-11 DFT FOR FACE "A"
3.9 nil.

APPEARANCE OF FACE "A"
SOME PINHOLES & CRATERS OBSERVED

*
DFTS
ON 1-1
OPPOSITE FACE

8.7 9.3
4 5



NOTE: CZ-11 DFTS ON 1-1 (OPPOSITE F)
PREVIOUSLY RECORDED WERE:
4.2 3.8
AVE. CZ-11 DFT FOR OPPOSITE FA
4.0 nil.

APPEARANCE OF OPPOSITE FACE
PINHOLES, CRATERS, SHADOW-THROUGH

* DFTS INCLUDE CZ-11 AND NUTEC #1201

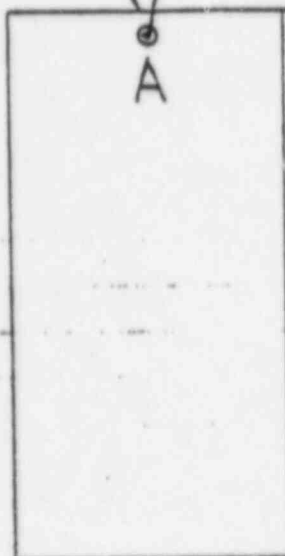
Attachment to: DBA-7

Page 7 of 19 Signature Joseph F. Pauline Date 9-16-81

1-2

*
DFTS
ON 1-2
FACE "A"

9.5 7.8
5.4 3.7



NOTE: CZ-11 DFTS ON 1-2 (FACE A)
PREVIOUSLY RECORDED WERE:
4.0 4.3

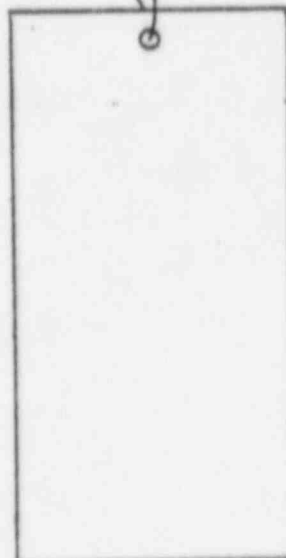
AVE. CZ-11 DFT ON FACE "A"
4.1 MIL

APPEARANCE OF FACE "A"
PINHOLES, CRATERS, SLIGHT SHADOW-
THROUGH

1-2

*
DFTS
ON 1-2
OPPOSITE FACE

9.3 9.2
5.0 5.9



NOTE: CZ-11 DFTS ON 1-2 OPPOSITE
FACE PREVIOUSLY RECORDED
2.9 3.7

AVE. CZ-11 DFT ON OPPOSITE FACE
3.3 MILS.

APPEARANCE OF OPPOSITE FACE
PINHOLES, CRATERS, SHADOW-THROUGH

* DFTS INCLUDE CZ-11 AND NUTEC # 1201

Attachment to: DBA-7

Page 8 of 19 Signature Joseph F. Palumbo

Date 9-16-81

1-3

A

*
DFTS
ON 1-3
FACE "A"

8.5 8.7

NOTE: CZ-11 DFTS ON 1-3
FACE "A" PREVIOUSLY RECORDED:
4.5 3.9

AVE. CZ-11 DFT ON FACE "A"
4.2 mils

APPEARANCE OF FACE "A"
PINHOLES & CRATERS

1-3

*
DFTS
ON 1-3
OPPOSITE FACE

8.8 7.0

NOTE: CZ-11 DFTS ON 1-3
OPPOSITE FACE PREVIOUSLY
RECORDED WERE:
2.3 4.7

AVE. CZ-11 DFT ON OPPOSITE
3.5 mils

APPEARANCE OF OPPOSITE FACE
PINHOLES, CRATERS, SHADOWS

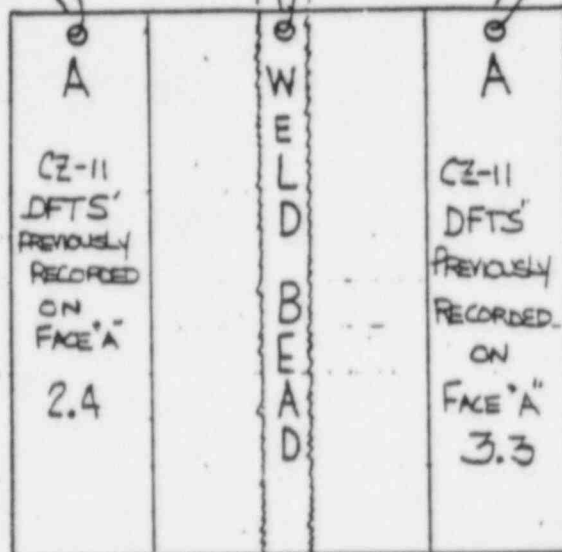
* DFTS INCLUDE CZ-11 AND 1201

Attachment to: DBA-7

Page 9 of 19 Signature Joseph F. Padanilam

Date 9-16-81

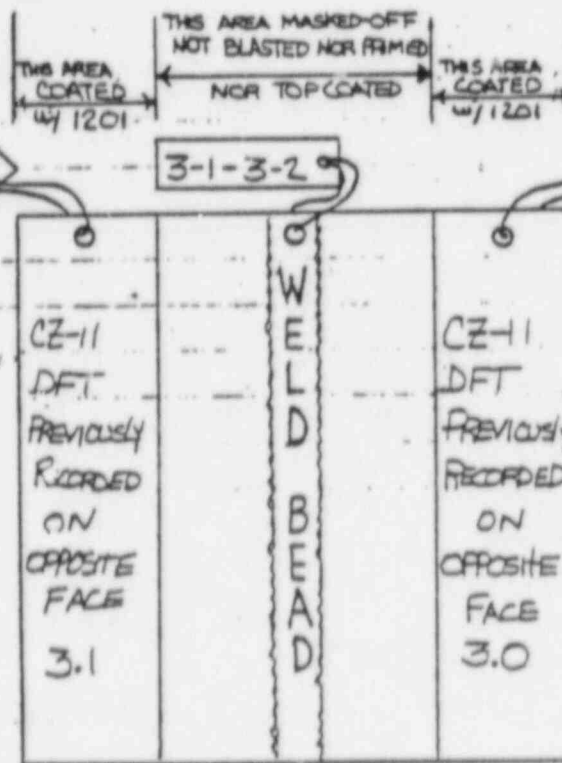
*
DFTS'
ON 3-1
FACE "A"
7.0 7.5
- - -



*
DFTS'
ON 3-2
FACE "A"
8.2 8.3
- - -

APPEARANCE OF FACE "A" (3-1-3-2)
GOOD OVERALL (MINOR RUN AT T)

*
DFTS'
ON 3-2
(OPPOSITE FACE)
7.5 8.7
- - -



*
DFTS'
ON 3-1
(OPPOSITE FACE)
8.2 8.8
- - -

APPEARANCE OF OPPOSITE FACE
(3-1-3-2)
SAME AS ABOVE

* DFTS' INCLUDE CZ-11 AND NUTEC #1201

Attachment to:

DBA-7

Page 10 of 19

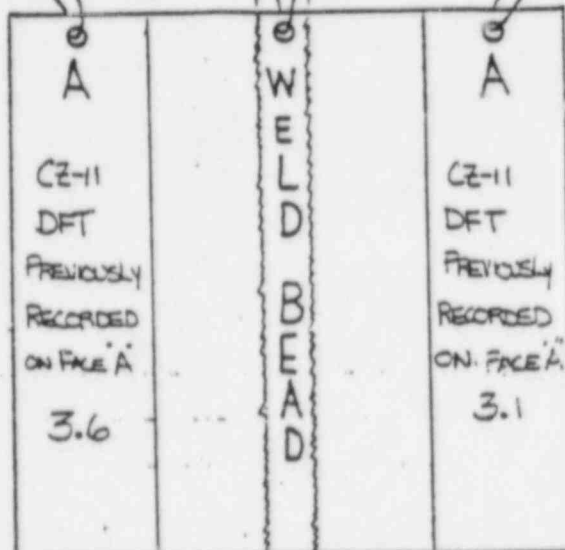
Signature

Joseph F. Sabatelli

Date 9-16-81

*
DFTS
ON 3-4
FACE "A"

7.7 8.8
1 5.2



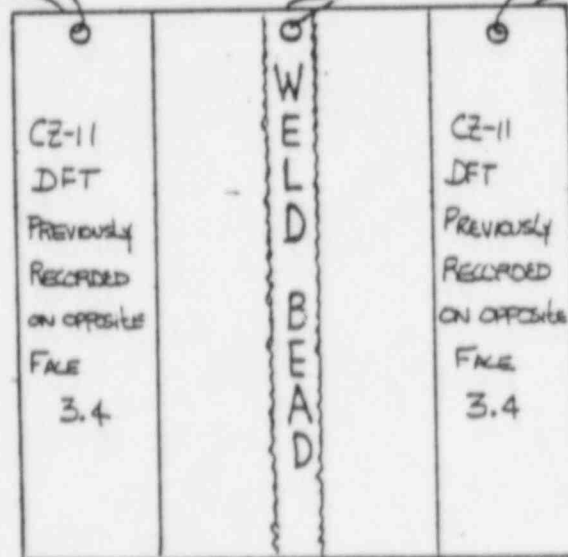
*
DFTS
ON 3-3
FACE "A"

8.7 8.8
5 5

THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA COATED
w/ 1201

*
DFTS
ON 3-3
OPPOSITE FACE

6.2 7.0
1.2 3.1



*
DFTS
ON 3-4
OPPOSITE FACE

7.0 7.5
5 1

THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA COATED
w/ 1201

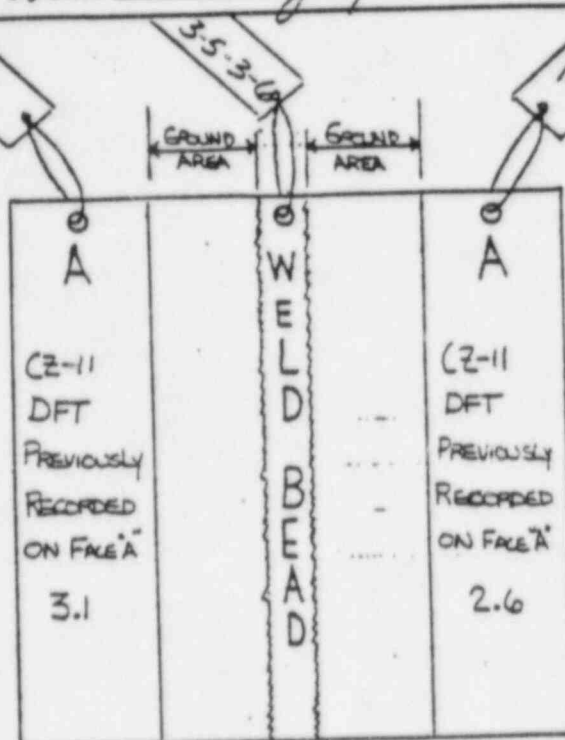
* DFTS INCLUDE CZ-11 & NUTEC # 1201

Attachment to: DBA-7

Page 11 of 19 Signature Joseph F. Padamir Date 9-16-81

*
DFTS
ON 3-5
FACE "A"

7.2 8.2

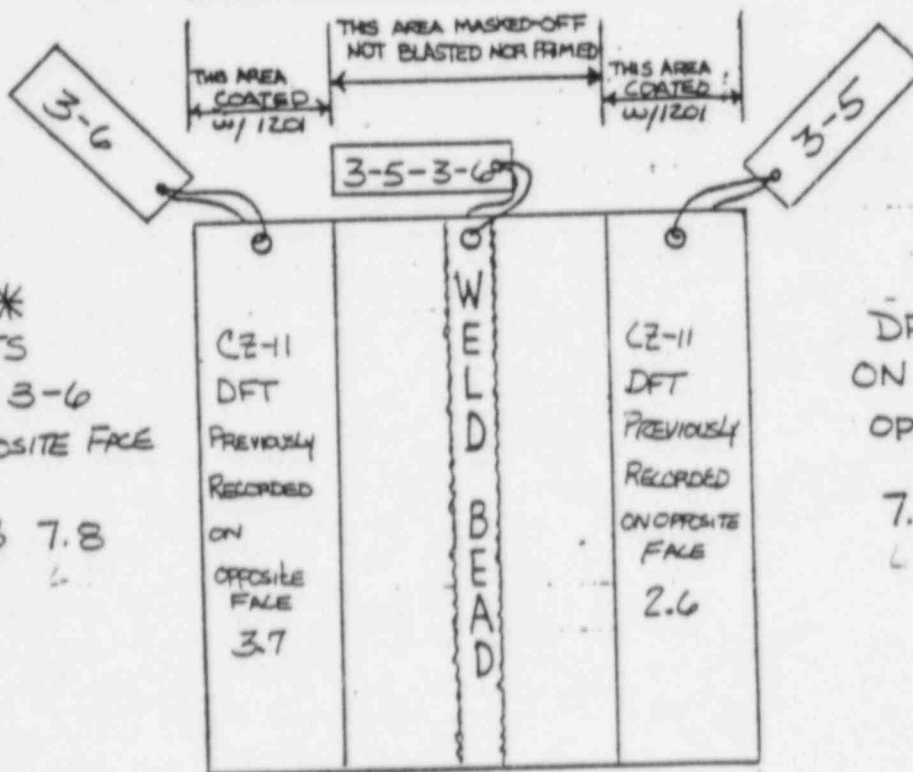


CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"
3.1

CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"
2.6

*
DFTS
ON 3-6
FACE "A"

8.7 8.5



CZ-11
DFT
PREVIOUSLY
RECORDED
ON
OPPOSITE
FACE
3.7

CZ-11
DFT
PREVIOUSLY
RECORDED
ON OPPOSITE
FACE
2.6

*
DFTS
ON 3-6
OPPOSITE FACE

5.8 7.8

*
DFTS
ON 3-5
OPPOSITE FACE

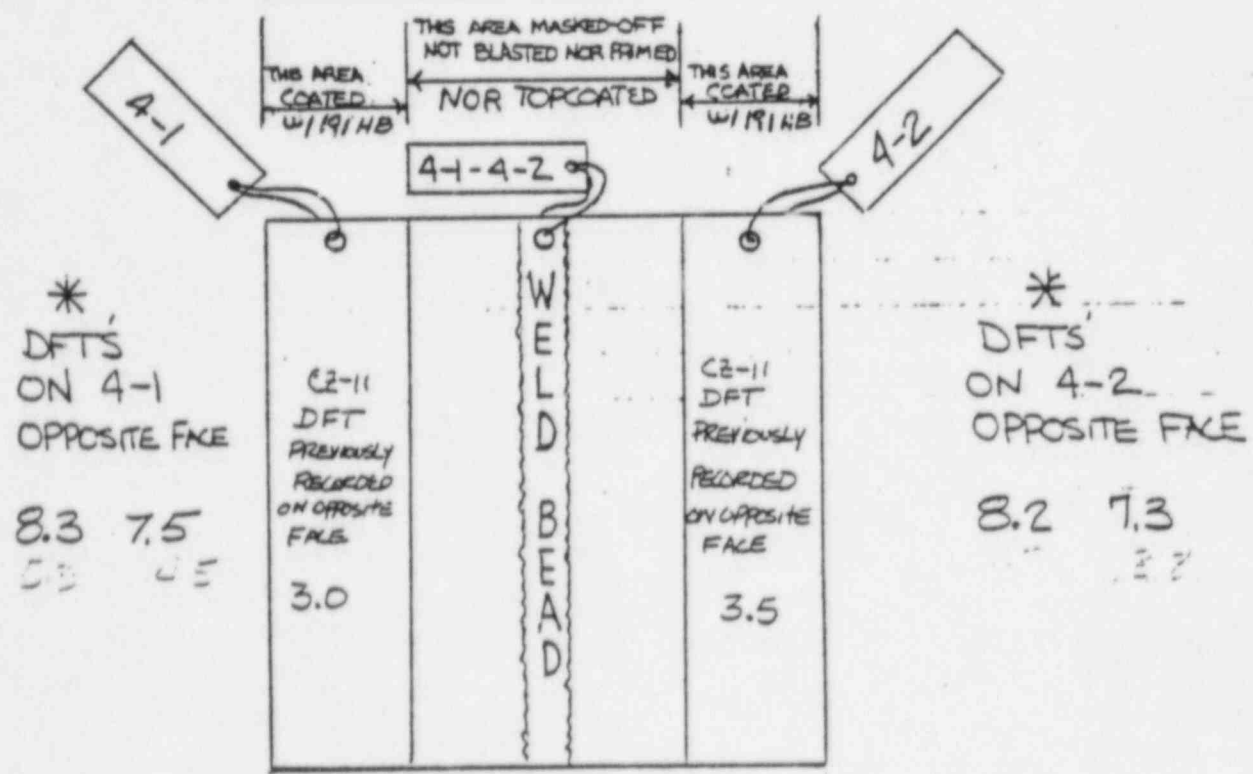
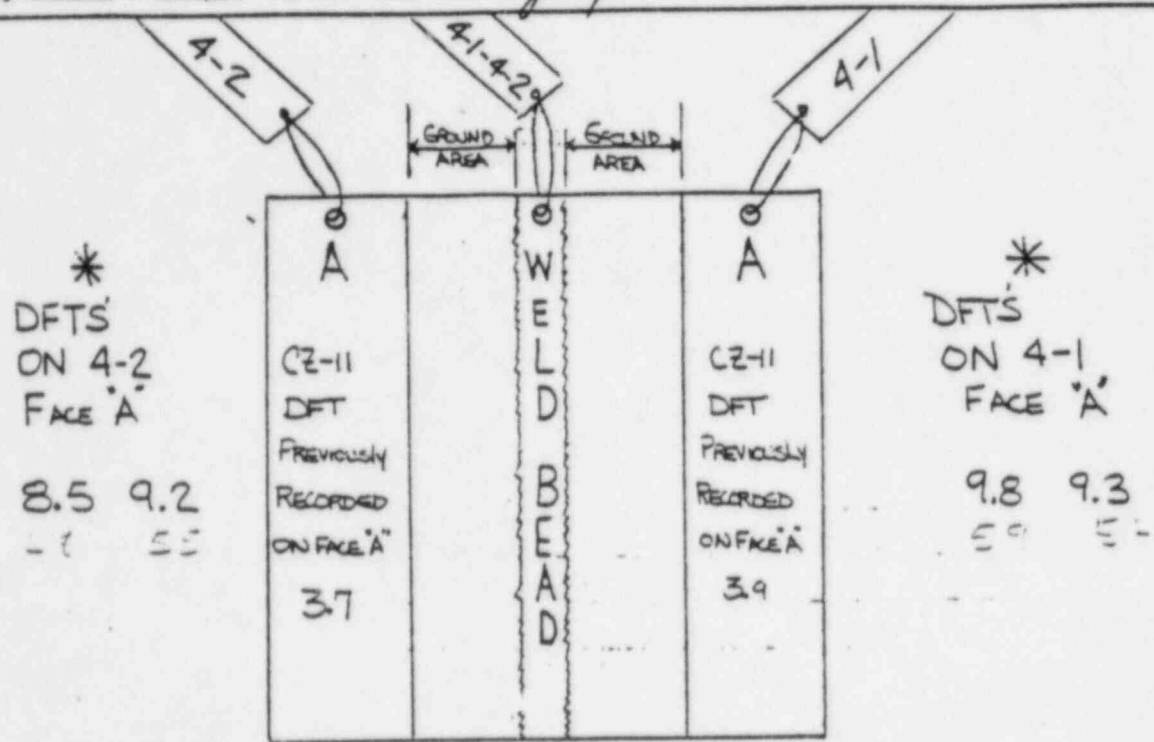
7.0 7.7

* DFTS INCLUDE CZ-11 AND NUTEC # 1201

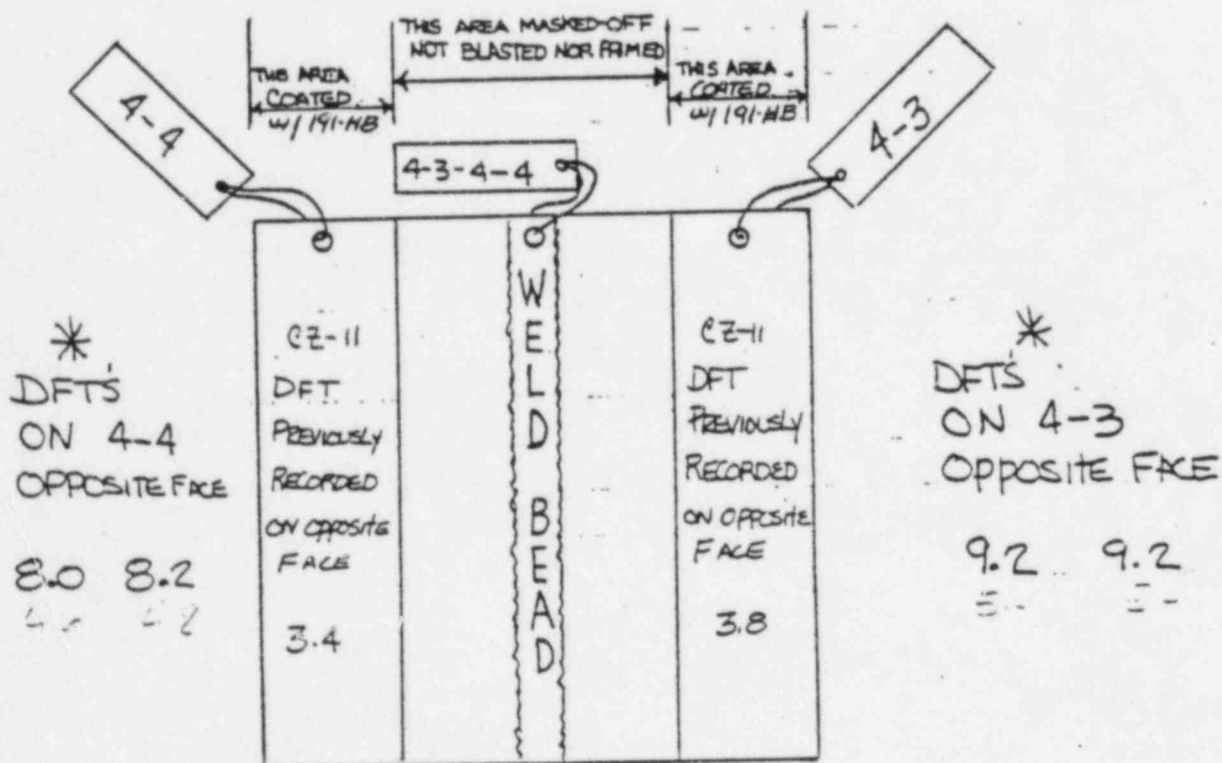
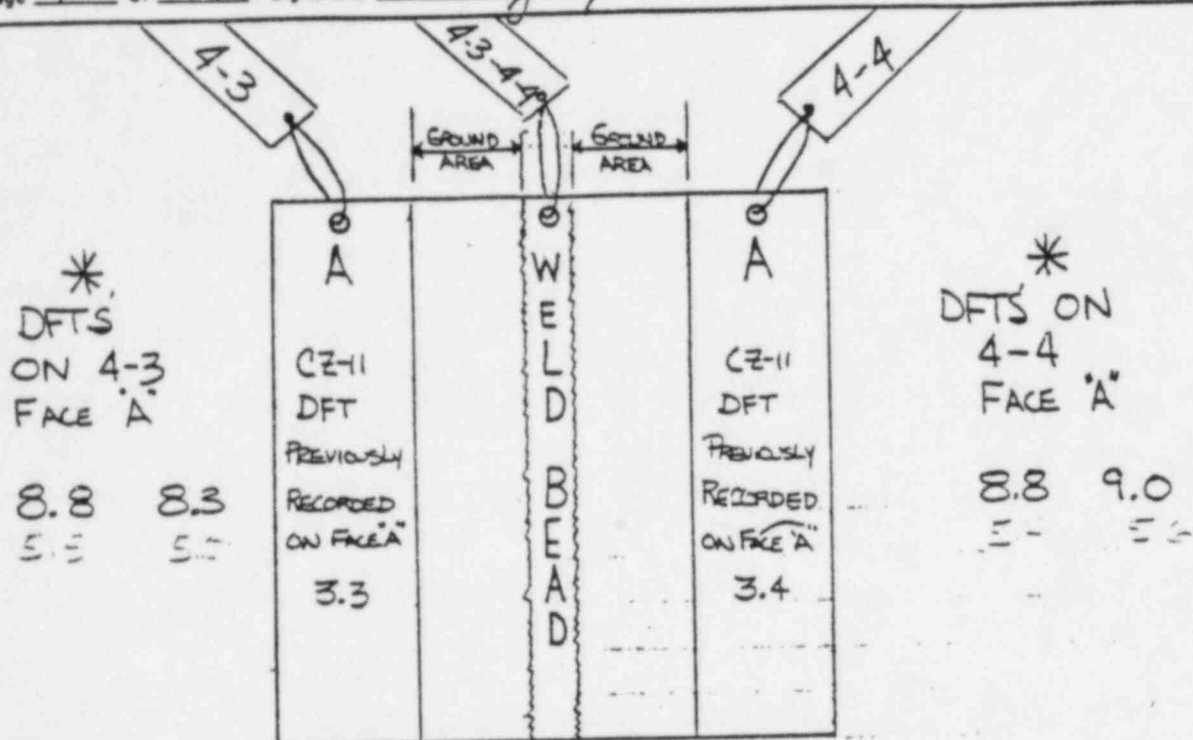
Attachment to: DBA-7

Page 12 of 19 Signature Joseph F. Salami

Date 9-16-81



* DFT'S INCLUDE CZ-11 AND 191-HB



* DFTS' INCLUDE CZ-11 AND 191-HB

Attachment to:

DBA-7

Page 14 of 19

Signature

Joseph A. Faldutik

Date 9-16-81

*
DFT'S
ON 4-5
FACE "A"

9.8 8.8

3.9

CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"
3.9

WELD BEAD

CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"
3.6

*
DFT'S
ON 4-6
FACE "A"

7.5 7.3

3.7 3.7

THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED

*
DFT'S
ON 4-6
OPPOSITE FACE

8.5 8.2

3.5 3.9

CZ-11
DFT
PREVIOUSLY
RECORDED
ON OPPOSITE
FACE
3.3

WELD BEAD

CZ-11
DFT
PREVIOUSLY
RECORDED
ON OPPOSITE
FACE
2.5

*
DFT'S
ON 4-5
OPPOSITE FACE

6.7 6.3

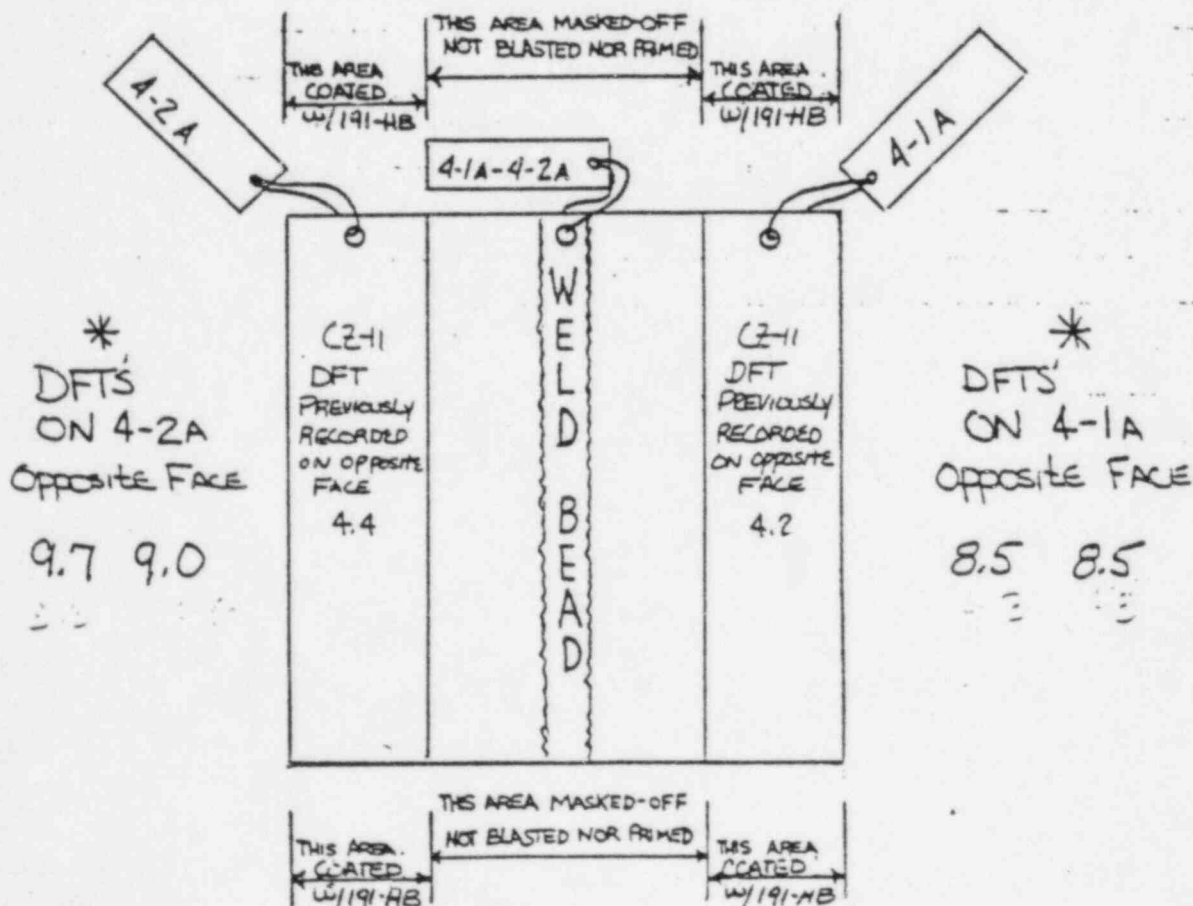
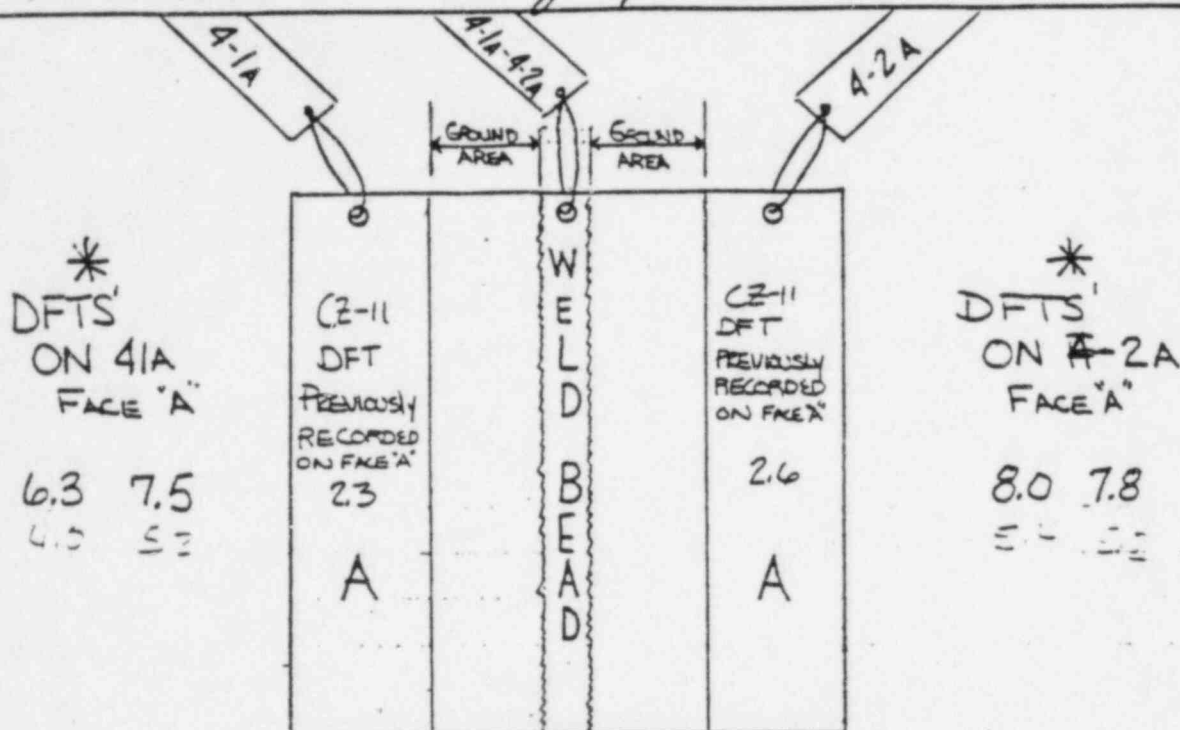
3.5 3.7

THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED
THIS AREA MASKED-OFF
NOT BLASTED NOR PRIMED
NOR TOP COATED

* DFT'S INCLUDE CZ-11 AND 191-HB

Attachment to: DBA-7Page 15 of 19

Signature

Joseph F. LelandDate 9-16-81

* DFTS' INCLUDE CZ-11 AND 191-HB

Attachment to: DBA-7

Page 16 of 19 Signature Joseph F. Padanilam

Date 9-16-81

*
DFTS
ON 4-3A
FACE "A"

7.0 7.2
6.5 6.7

CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"

2.5

D

W
E
L
D
B
E
A
D

CZ-11
DFT
PREVIOUSLY
RECORDED
ON FACE "A"

2.7

A

*
DFTS
ON 4-4A
FACE A

9.2 9.5
8.5 8.7

THIS AREA
COATED
WITH
191-HB

THIS AREA
MASKED-OFF

THIS AREA
COATED
WITH
191-HB

4-4A

4-3A-4-4A

4-3A

*
DFTS
ON 4-4A
OPPOSITE FACE

7.8 8.5
6.2 6.7

CZ-11
DFT
PREVIOUSLY
RECORDED
ON OPPOSITE
FACE

3.7

W
E
L
D
B
E
A
D

CZ-11
DFT
PREVIOUSLY
RECORDED
ON OPPOSITE
FACE

4.5

*
DFTS
ON 4-3A
OPPOSITE FACE

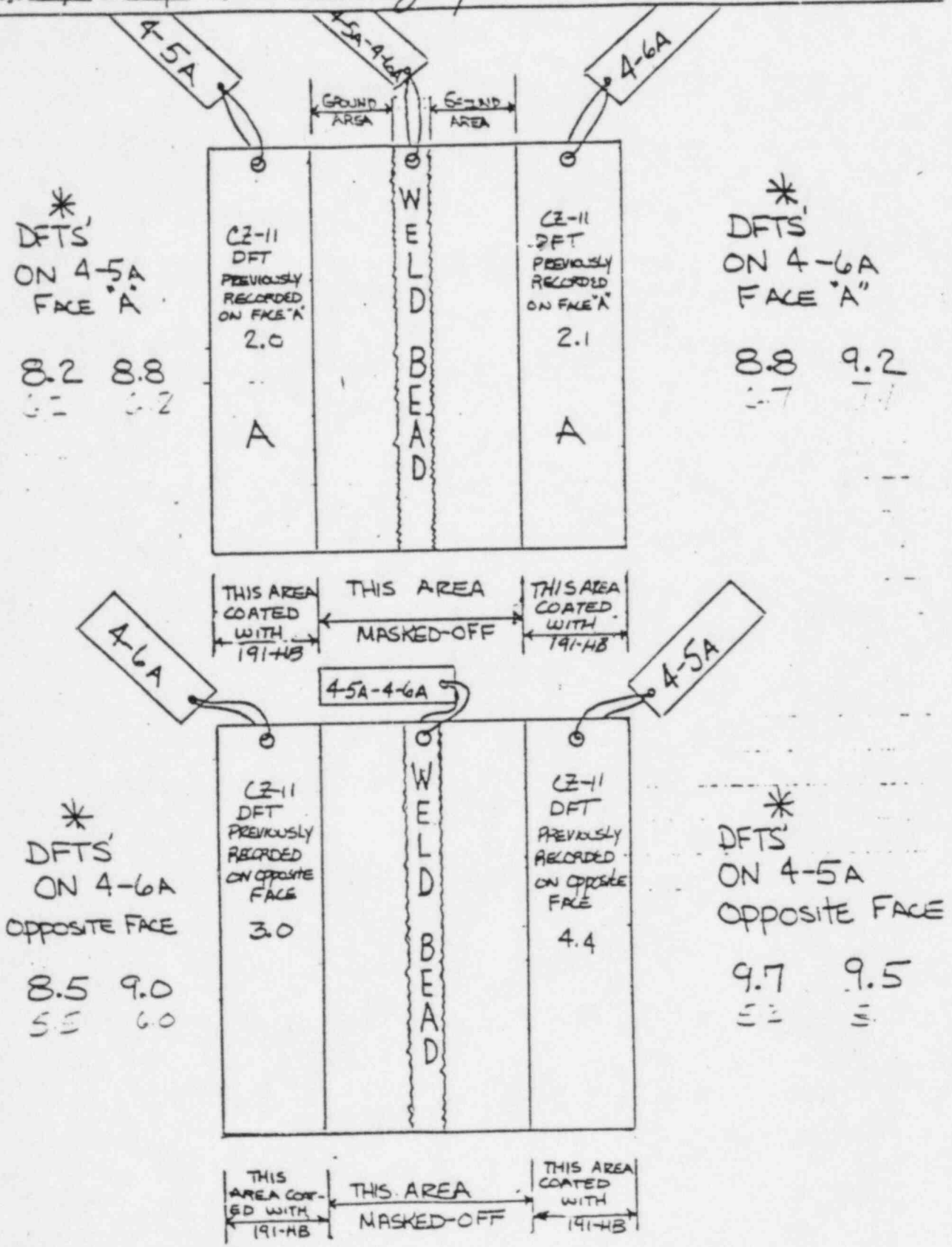
9.3 9.3
8.5 8.7

THIS AREA
COATED
WITH
191-HB

THIS AREA
MASKED-OFF

THIS AREA
COATED
WITH
191-HB

* DFTS INCLUDE CZ-11 AND 191-HB



* DFTS INCLUDE CZ-II AND 191-HB

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

Ag. 18 4/19

POT NUMBER ST 0986

DATE 9/16/81

SHIFT 7:30 - 300

MATERIAL Imperial NUTEC 1201

BATCH NOS. BASE LEVEL 1 285 1 D272

ACTIVATOR LEVEL 1 2854 D272

THINNER # NONE PERCENTAGE ADDED: 0 #1

THINNER # PERCENTAGE ADDED: 0 #2

- () SAT MIXING EQUIPMENT CLEAN AND OPERABLE
() SAT MATERIAL CANS INSPECTED AND NOT LEAKING
() SAT COMPLETE KIT MIXED ^{*} (1-1 GAL KIT)
() 1:45 O'CLOCK COATING THOROUGHLY MIXED
() 2:05 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

73° PART A
74° PART B
THINNER #
THINNER #
ADDITIVE
76° MIXED - #1
MIXED - #2

* NOTE:

1702 MIXED WITH
502 THINNER FOR
SEAL COAT.

DL6A 75°
MIXED 75°

Louis Nicolaud
COATING SUPERVISOR (OR. DESIGNEE)

Pg 19 of 29

BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

POT NUMBER ST- 0985

DATE 9/16/81

SHIFT 7:30 - 3:00

MATERIAL CARBOLINE 191 HB WHITE

BATCH NOS. A 1C 0341M

B 1D0272M

THINNER # NONE PERCENTAGE ADDED: 0 #1

THINNER # PERCENTAGE ADDED: 0 #2

() SAT MIXING EQUIPMENT CLEAN AND OPERABLE

() SAT MATERIAL CANS INSPECTED AND NOT LEAKING

() SAT COMPLETE KIT MIXED (1-1 GAL KIT)

() 1:45 O'CLOCK COATING THOROUGHLY MIXED

() O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

74° PART A

74° PART B

THINNER #

THINNER #

ADDITIVE

74° MIXED - #1

MIXED - #2

NOTE: 1qt. MIXED

70% THINNER

#33 75°

MIXED 75°

Larry Nicol
COATING SUPERVISOR (OR DESIGNEE)

FCPF-004 (0130)
Rev. 1
Type No. A4.404E
Control Level 2

APPLICATION OF 1201
(Panel: 2 SERIES, 4 SERIES, 4A SERIES)
APPLICATION 191
(Panel: 3 SERIES)

TIME		LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:20 AM		JOB SITE PAINT SHOP/PAINTING AREA	74°	60°	43%	50°	76°	P&PD	ALL
9:40 AM		" " " " / " "	82°	63°	33%	50°	76°	P&PD	ALL
12:25 PM		" " " " / " "	72°	58°	42%	47°	73°	P&PD	ALL
2:45 PM		" " " " / " "	70°	57°	44%	47°	73°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS				
					SPEC	ACTL	PROF	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	METH	
1	DBA COUPONS	PAINTING AREA	MIX & APPLY 191-HB (TOPCOAT)	OK	N/A				191 HB	A	1C0341M 1D0272M	2	N/A				
2	DBA COUPONS	" "	MIX & APPLY 1201 TOPCOAT	OK	N/A				1201	A	2851 D272 2854 D272	1	N/A				

STEEL SUBSTRATE

Report Number

Page 2 of 17

78

COMMENTS:

A. GENERAL

1. Compressed Air WHITE BLOTTER TEST @ 8:05 AM. AIR QUALITY SAT.

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. PREVIOUSLY

2. Presurface conditions of steel BLASTED

3. Grease/oil removal

4. Protective Coatings

AND

PRINED AND COATED w/ EPOXY TOP COATINGS

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type NO

2. Nozzle Pressures BLASTING

3. Appearance PERFORMED

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN PRIOR TO SECOND TOP COATING

2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NONE PRESENT

2. Zinc Salt Test N/A

3. Cure PROPER RECOAT TIMES OBSERVED (REF. FCP-809 & 815)

4. Adhesion N/A

5. Appearance A-44A

KEY

Instrument	Symbol No.
S - Sling Psychrometer	B18-881
PD - Pycro-Dyne	B17-1032
P - Pyrometer	N/A
C - Keane-Tator Comparator	N/A
W - Wet Film Gage	B15-500
I - Inspector	N/A
M - Microtest	N/A
T - Tooke Gage	N/A

A - Airless Spray
B - Brush
H - Roller
I - Trowel

1 and 2 Series

REMARKS: DBA COUPONS OF 4 SERIES' 3 SERIES AND 4A SERIES WERE

COATED TODAY w/ SECOND TOP COAT. (SEE Pgs

3 SERIES WAS PREVIOUSLY BLASTED, PRIMED AND COATED w/ NUTEC # 1201

4 SERIES AND 4A SERIES WERE PREVIOUSLY BLASTED, PRIMED AND TOP COATED

w/ 191-HB. 2 SERIES WAS PREVIOUSLY BLASTED, PRIMED, COATED w/ NUTEC # 115

11/11

Attachment to: DBA - 8

Page 3 of 17

Signature Joseph F. Falevich

Date 9-17-81

REMARKS (CONT)

AT 10:15 AM., ONE - ONE GAL KIT OF IMPERIAL NUTEC #1201 WAS MIXED. MATERIAL TEMPS. WERE: EPOXY TOPCOAT 74° CURING AGENT 74° (NO THINNER WAS ADDED) COMBINED MIXTURE OF TWO COMPONENTS: 76°

APPLICATION BEGAN @ 10:50 AM. BY L. JUDD. EDGES OF 2 SERIES, 4 SERIES AND 4A SERIES WERE BRUSH COATED. FACE "A" AND OPPOSITE FACE OF 2 SERIES, 4 SERIES AND 4A SERIES WERE SPRAYED (AIRLESS)
(SEE Pgs.

AT 10:30 AM., ONE - TWO GAL. KIT OF CARBOXYLINE 191-HB WAS MIXED. MATERIAL TEMPS. WERE: PART A: 73° PART B: 73° (NO THINNER WAS ADDED) COMBINED MIXTURE OF PART A AND B WAS: 75°

APPLICATION BEGAN @ 1:00 PM BY L. JUDD. EDGES OF 3 SERIES WERE BRUSH COATED, FACE "A" AND OPPOSITE FACE OF 3 SERIES WERE SPRAYED (AIRLESS)
(SEE Pgs.

Attachment to: DBA-8Page 4 of 17 Signature J. Pelamich JrDate 9-17-81

COUPON NUMBER	OPERATION PERFORMED	WFT	TOTAL DFT'S	REMARKS
2-1	NUTEC 1201 TOPCOAT	A N/ B A	17.0 16.0 21.0 20.0	→ FACE "A" AND "B" CAN NO LONGER BE DISTINGUISHED
2-2	NUTEC 1201 TOPCOAT	A N/ B A	18.0 25.0 22.0 24.0	→ FACE "A" AND "B" CAN NO LONGER BE DISTINGUISHED
2-3	NUTEC 1201 TOPCOAT	A N/ B A	19.0 17.0 20.0 17.0	→ FACE "A" AND "B" CAN NO LONGER BE DISTINGUISHED
3-1-3-2	CARBOLINE 191-HB	A 10.0 B 10.0	11.0 10.0 A 12.0 12.0 9.0 12.0 B 15.0 15.0	→ SEE Pg.
3-3-3-4	CARBOLINE 191-HB	A 12.0 B 10.0	12.0 15.0 A 14.0 14.0 10.0 9.0 B 12.0 12.0	→ SEE Pg.
3-5-3-6	CARBOLINE 191-HB	A 10.0 B 12.0	16.0 17.0 A 13.0 14.0 14.0 15.0 B 15.0 15.0	→ SEE Pg.

Attachment to: DBA-8Page 5 of 17 Signature J. Padonish jrDate 9-17-81

COUPON NUMBER	OPERATION PERFORMED	WFT	TOTAL DFTS	REMARKS
4-1-4-2	NUTEC 1201	A 12.0 B 12.0	A 11.0 10.0 14.0 13.0 B 11.0 14.0 12.0 12.0	→ CZ-11, 191-HB & 1201 SEE Pg.
4-3-4-4	NUTEC 1201	A 8.0 B 10.0	A 9.0 14.0 10.0 13.0 B 13.0 12.0 11.0 11.0	→ CZ-11, 191-HB & 1201 SEE Pg.
4-5-4-6	NUTEC 1201	A 8.0 B 10.0	A 13.0 10.0 11.0 13.0 B 9.0 11.0 11.0 10.0	→ CZ-11, 191-HB & 1201 SEE Pg.
4-1A-4-2A	NUTEC 1201	A 12.0 B 12.0	A 10.0 12.0 10.0 10.0 B 12.0 13.0 12.0 13.0	→ CZ-11, 191-HB & 1201 SEE Pg.
4-3A-4-4A	NUTEC 1201	A 12.0 B 8.0	A 11.0 8.0 11.0 9.0 B 10.0 12.0 10.0 12.0	→ CZ-11, 191-HB & 1201 SEE Pg.
4-5A-4-6A	NUTEC 1201	A 12.0 B 10.0	A 11.0 13.0 12.0 13.0 B 14.0 13.0 14.0 12.0	→ CZ-11, 191-HB & 1201 SEE Pg.

Attachment to: DBA-8

Page 6 of 17 Signature J. Padavich jr

Date 9-17-81

*
DFTS
ON 2-1
★ (FIRST SIDE)

16.0 17.0

★ • FACE "A" AND OPPOSITE FACE
CAN NOT BE DISTINGUISHED

*
DFTS
ON 2-1
★ (SECOND SIDE)

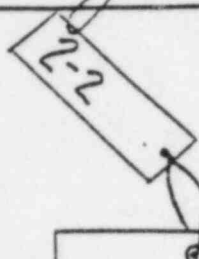
21.0 20.0

* DFTS INCLUDE: CZ-11, NUTEC #11S AND 11 AND NUTEC #1201

Attachment to: DBA-8

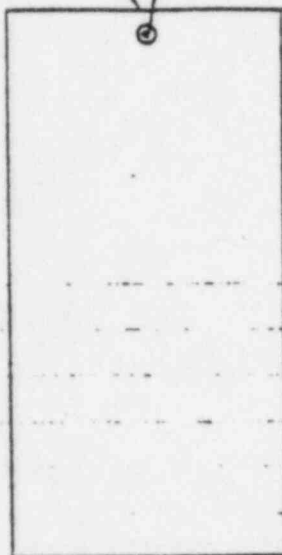
Page 7 of 17 Signature J. Palawich jr

Date 9-17-81

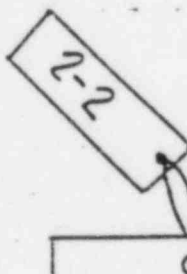


*
DFTS
ON 2-2
★ (FIRST SIDE)

18.0 25.0



* = FACE "A" & OPPOSITE
FACE CAN NOT BE
DISTINGUISHED



*
DFTS
ON 2-2
★ (SECOND SIDE)

22.0 24.0



* = DFTS INCLUDE: CZ-11, NUTEC 11S AND 11, AND NUTEC # 1201

Attachment to: DBA-8

Page 8 of 17 Signature J. Palovich jr

Date 9-17-81

2-3

*
DFTS
ON 2-3
★ (FIRST SIDE)

19, 17

★ = FACE "A" & OPPOSITE
FACE CAN NOT
BE DISTINGUISHED

2-3

*
DFTS
ON 2-3
★ (SECOND SIDE)

20, 17

* = DFTS INCLUDE: CZ-11, NUTEC 11S & 11 AND NUTEC #1201

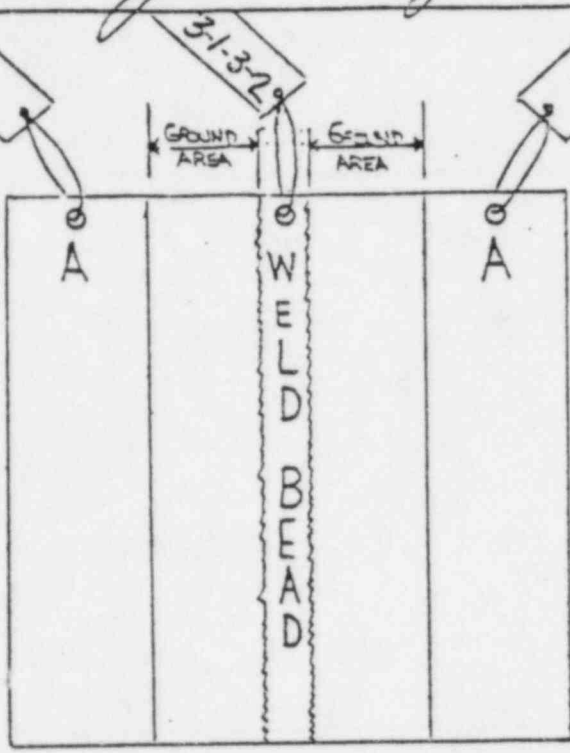
Attachment to: DBA-8

Page 9 of Signature J. Palanich Jr

Date 9-17-81

*
DFTS
ON 3-1
FACE 'A'

11, 10,
MIL.

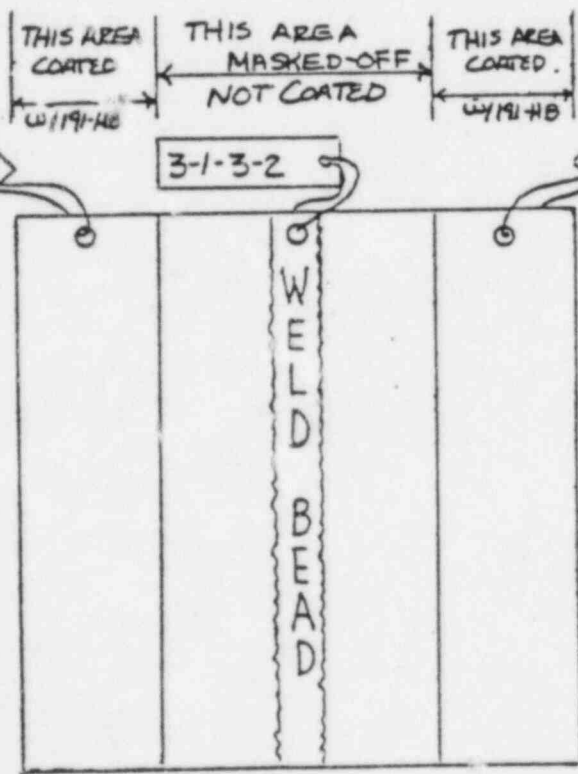


*
DFTS
ON 3-2
FACE 'A'

12, 12
MIL.

*
DFTS
ON 3-2
OPPOSITE FACE

9, 12
MIL.



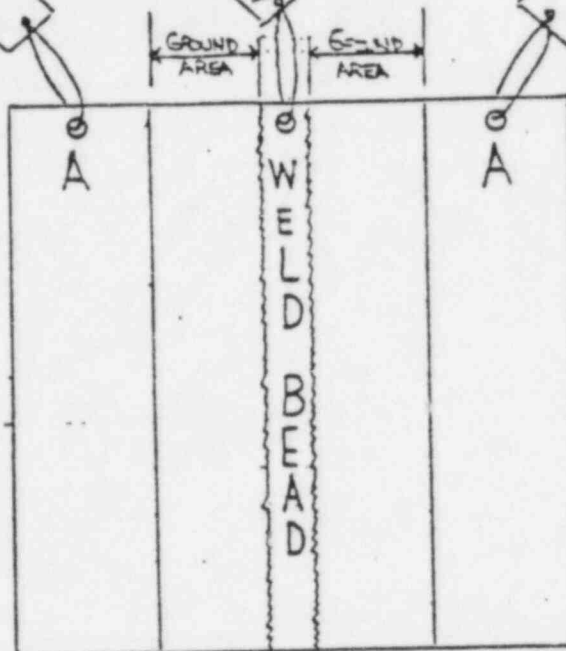
*
DFTS
ON 3-1
OPPOSITE FACE

15, 15
MIL.

* DFTS - INTERFERED 13-11 NISTEC 1701 AND 191-HB

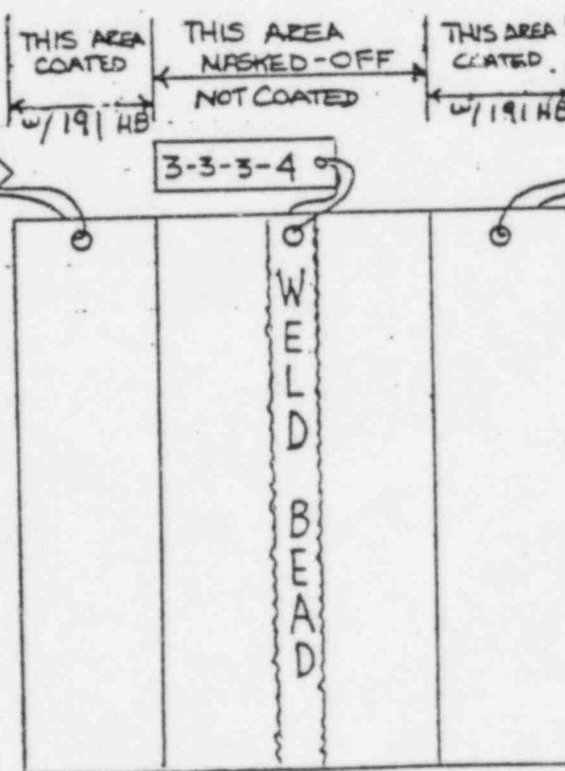
Attachment to: DBA-8Page 10 of 17 Signature G. Patonich jr Date 9-17-81

*
DFTS
ON 3-4
FACE "A"
12, 15
MIL.

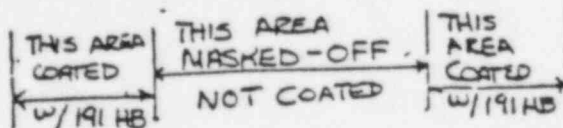


*
DFTS
ON 3-3
ON FACE "A"
14, 14
MIL

*
DFTS
ON 3-3
OPPOSITE FACE
10, 9
MIL.



*
DFTS
ON 3-4
OPPOSITE FACE
12, 12
MIL.



* DFTS INCLUDE: CZ-11, NUTEC #1201 AND 191-HB

Attachment to: DBA-8

Page 11 of 17 Signature J. Padawich jr

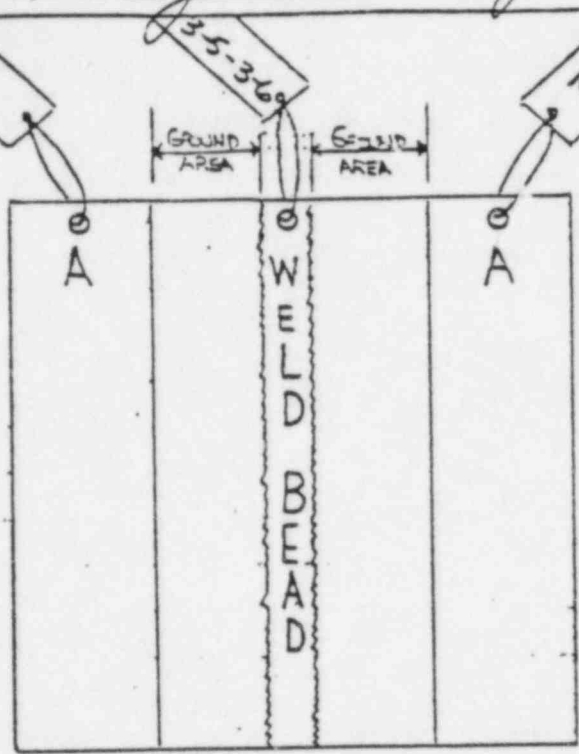
Date 9-17-81

*
DFTS'
ON 3-5
FACE "A"

16, 17
MILS.

*
DFTS'
ON 3-6
FACE "A"

13, 14
MILS.

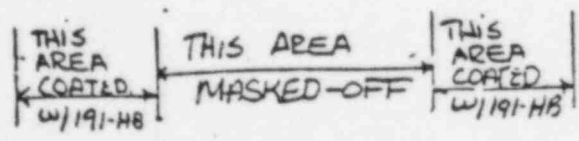
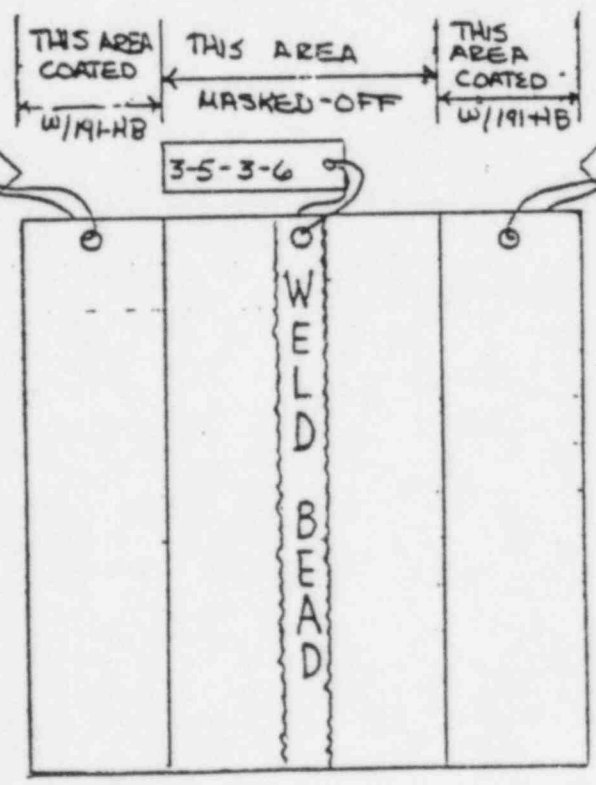


*
DFTS'
ON 3-6
OPPOSITE FACE

14, 15
MILS.

*
DFTS'
ON 3-5
OPPOSITE FACE

15, 15
MILS.

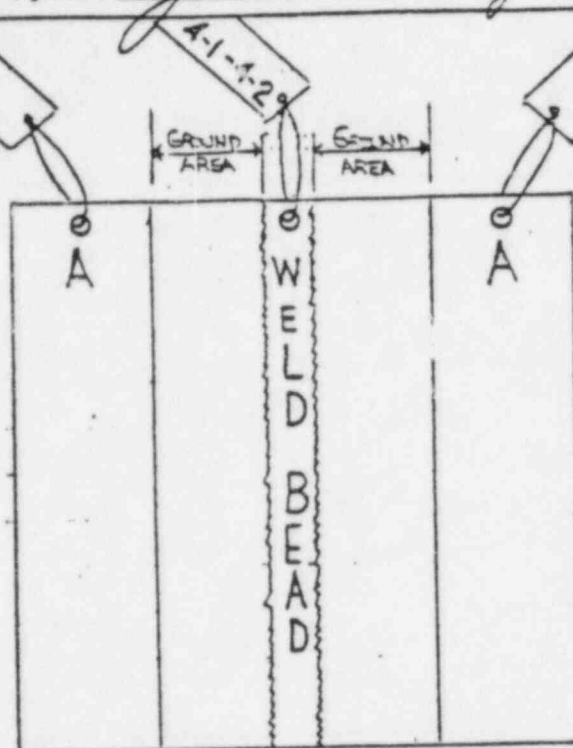


* = DFTS' INCLUDE: C-41, NUTEC 1201 & 191-HB

Attachment to: DBA-8Page 12 of 17 Signature J. Padawich jr Date 9-17-81

*
DFTS
ON 4-2
FACE "A"

11, 10
MILS

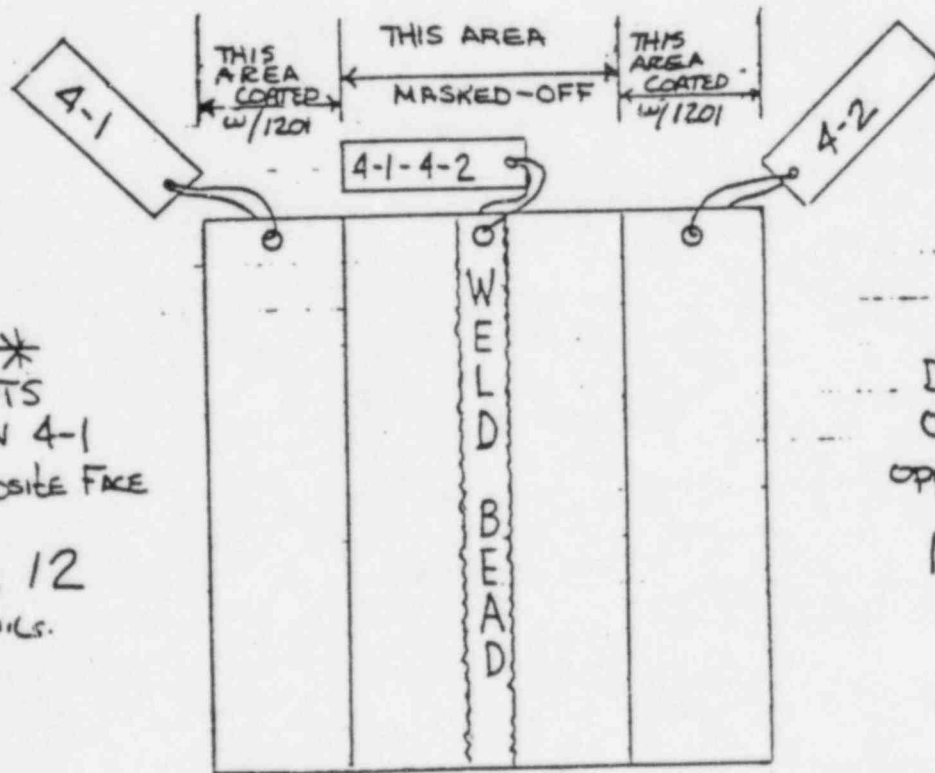


*
DFTS
ON 4-1
FACE "A"

14, 13
MILS.

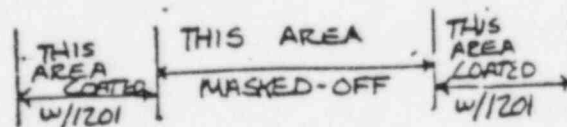
*
DFTS
ON 4-1
OPPOSITE FACE

11, 12
MILS.



*
DFTS
ON 4-2
OPPOSITE FACE

14, 12
MILS



* DFTS INCLUDE: CZ-11, 191-HB AND NOTE: 1201

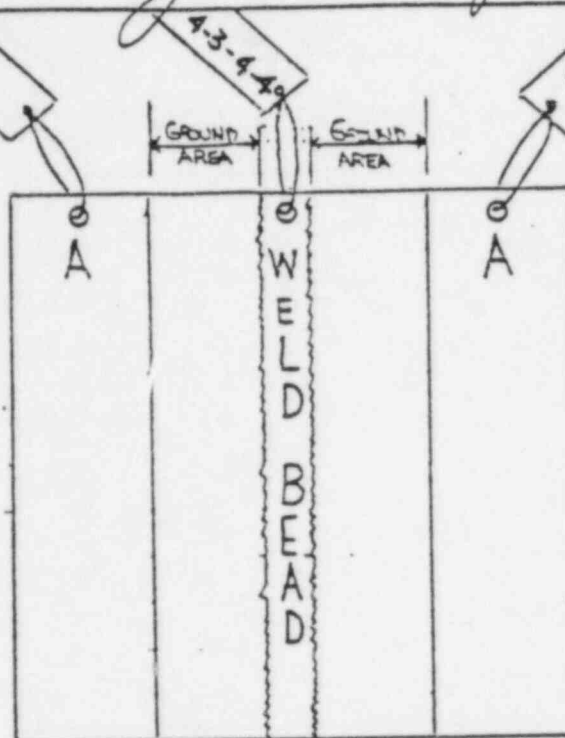
Attachment to: DEA-8

Page 13 of 17 Signature gladwin jr

Date 9-17-81

*
DFTS
ON 4-3
FACE "A"

9, 10
MILS.

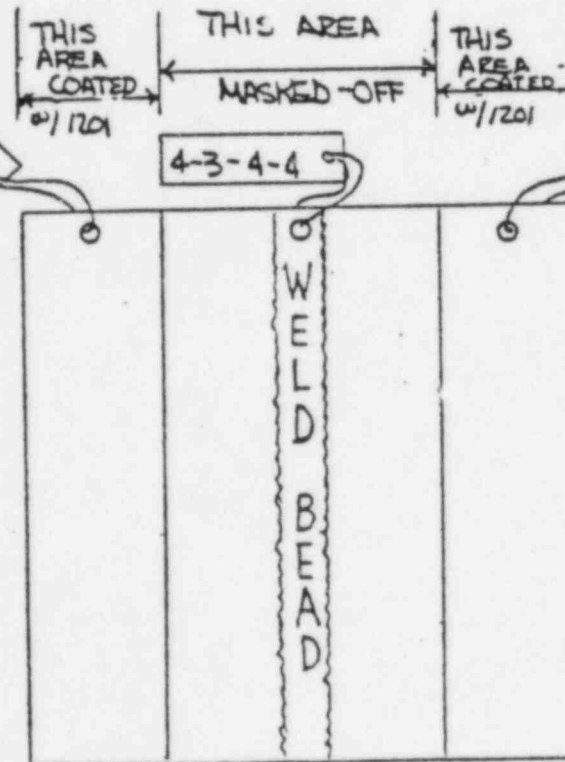


*
DFTS
ON 4-4
FACE "A"

14, 13
MILS.

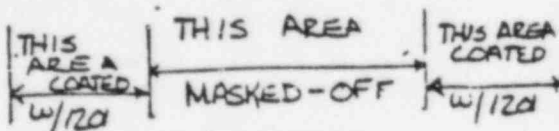
*
DFTS
ON 4-4
OPPOSITE FACE

13, 11
MILS



*
DFTS
ON 4-3
OPPOSITE FACE

12, 11
MILS



* = DFTS INCLUDE: C2-11, 191-HB AND NUTEL 1201

Attachment to: DBA-8

Page 14 of 17 Signature J. Padanilam Jr

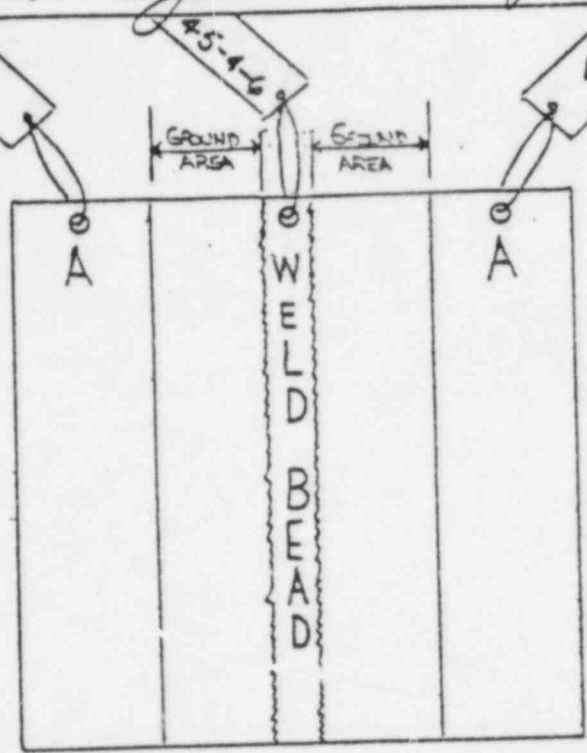
Date 9-17-91

*
DFTS
ON 4-5
FACE "A"

13, 11
MILS

*
DFTS
ON 4-6
FACE "A"

10, 13
MILS

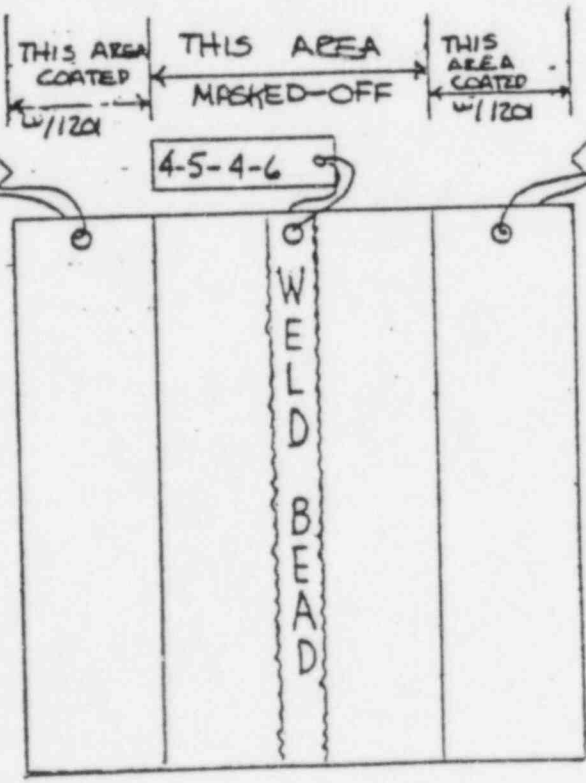


*
DFTS
ON 4-6
OPPOSITE FACE

9, 11
MILS

*
DFTS
ON 4-5
OPPOSITE FACE

11, 10
MILS



* NOTE INCLUDES: 7-11, 191-HB AND NUTEC 1201

Attachment to:

DBA-8

Page 15 of 17

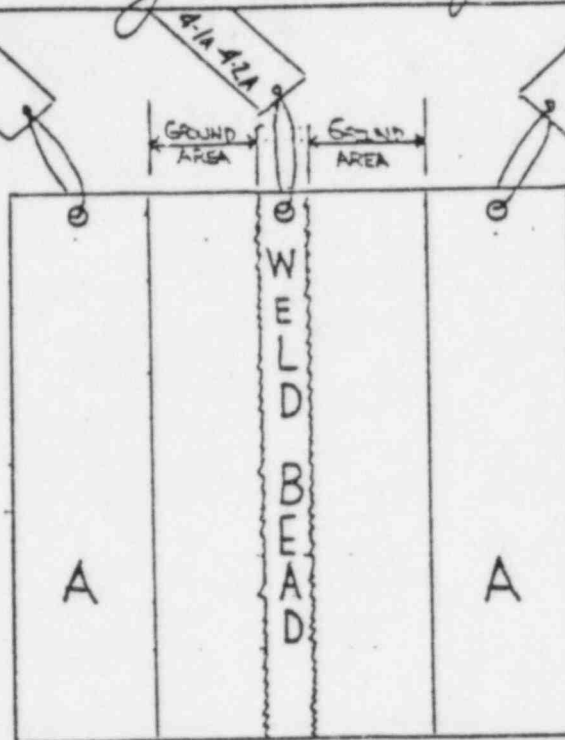
Signature

J. Palawich Jr.

Date 9-17-81

*
DFTS
ON 4-1A
FACE "A"

10, 10
MILS

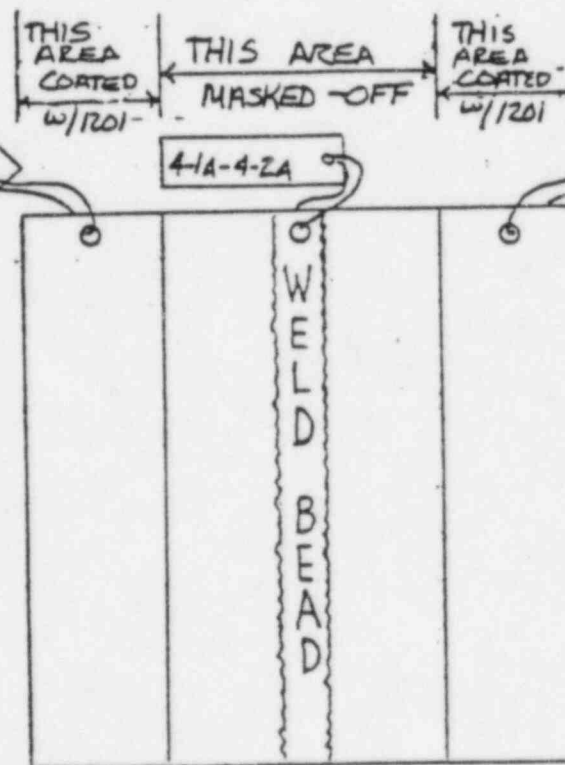


*
DFTS
ON 4-2A
FACE "A"

12, 10
MILS

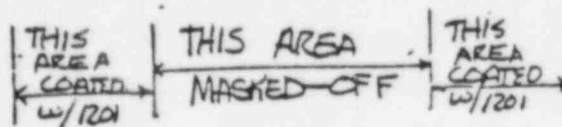
*
DFTS
ON 4-2A
OPPOSITE FACE

12, 12
MILS



*
DFTS
ON 4-1A
OPPOSITE FACE

13, 13
MILS



* - DFTS INCLUDE: C2-11, 191-HB & NUTEC 1201

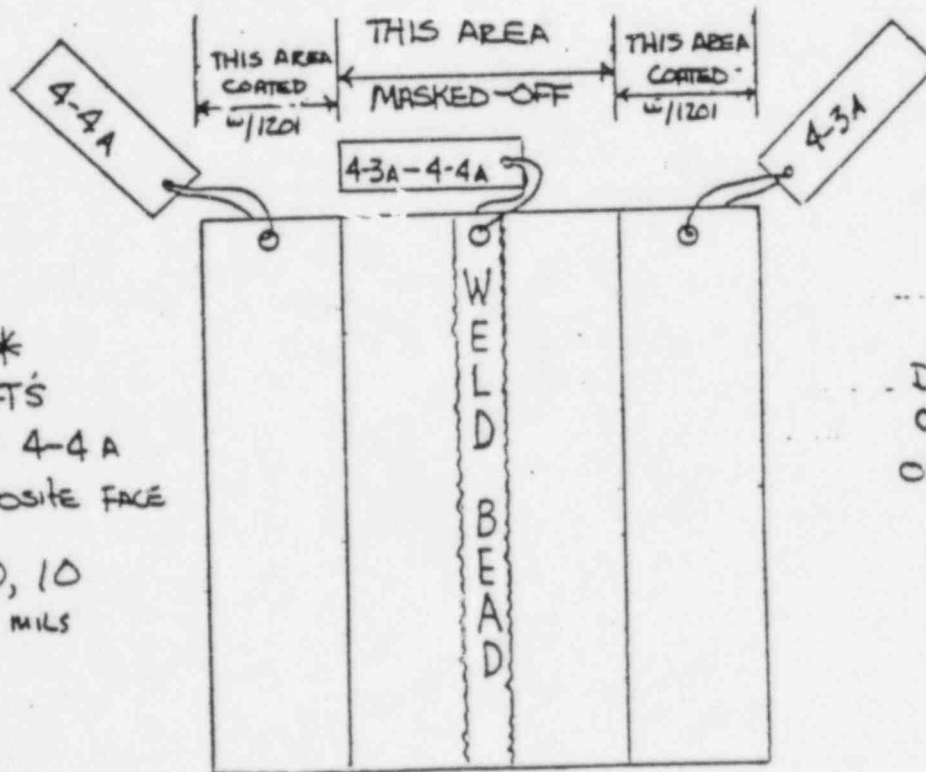
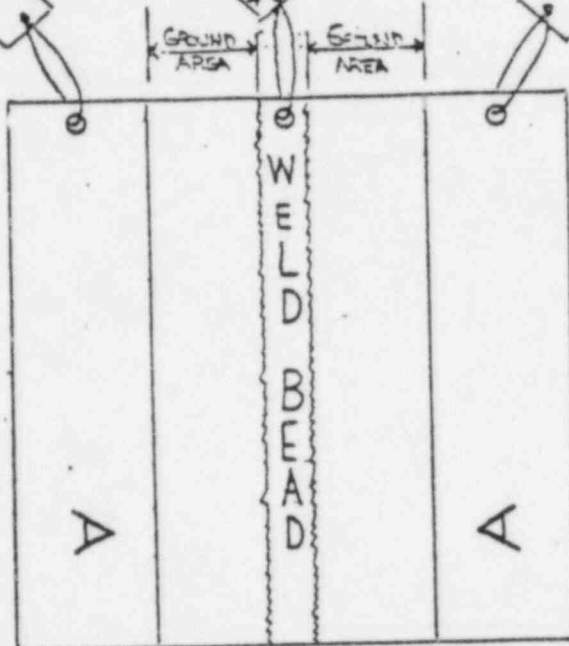
Attachment to: DBA-8Page 16 of 17 Signature J. Padavich jr Date 9-17-81

*
DFTS
ON 4-3A
FACE A

11, 11
MILS

*
DFTS
ON 4-4A
FACE A

8, 9
MILS



*
DFTS
ON 4-4A
OPPOSITE FACE

10, 10
MILS

*
DFTS
ON 4-3A
OPPOSITE FACE

12, 12
MILS

* DFTS INCLUDE C3-11 191-112 & WINTER 1201

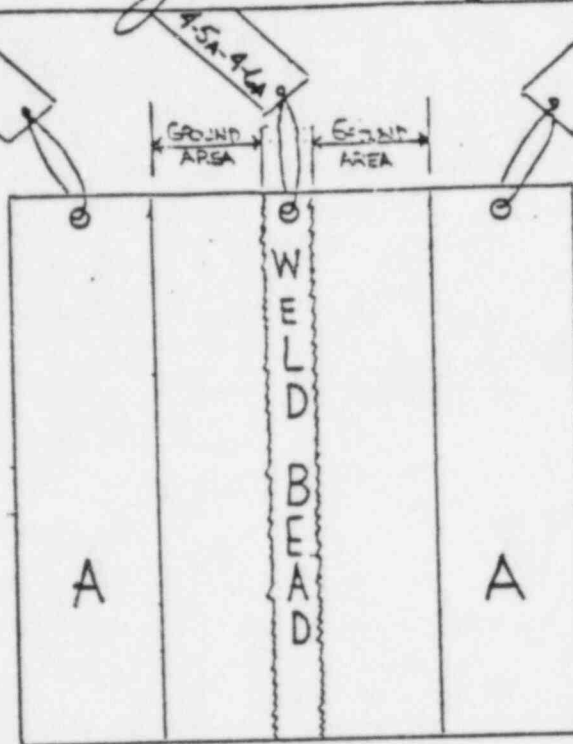
Attachment to: DPA-8

Page 17 of 17 Signature J. Palovich jr

Date 9-17-81

*
DFTS
ON 4-5A
FACE "A"

11, 12
MILS

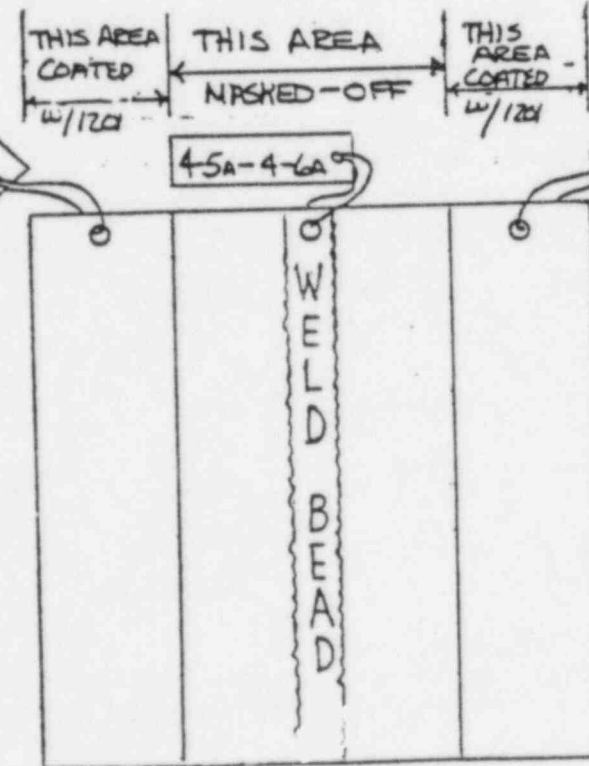


*
DFTS
ON 4-6A
FACE "A"

13, 13
MILS

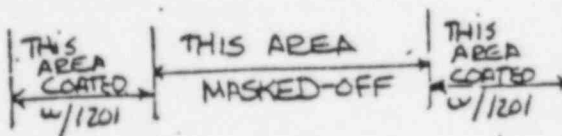
*
DFTS
ON 4-6A
OPPOSITE FACE

14, 14
MILS



*
DFTS
ON 4-5A
OPPOSITE FACE

13, 12
MILS



* = DFTS INCLUDE: CZ-1, 191-HB & NOTES 1201

(REPAIR AREAS 3 SERIES, 4 SERIES, 4A SERIES)

DLC/SQC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. I)		Sheet 1 of 15 Date SEPT. 18, 1981 Day FRIDAY Shift 7:30A - 4:00P Foreman S. Rogowski Contractor STUART PAINTING Co., INC. Approved DLC/SQC _____ Date _____	No. DBA-9
<i>John Warner</i> DLC/SQC Inspector	Coating Contractor Supervisor/Designee		

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SUR- FACE	INST.	OPERATIONS PERMITTED
7:15 AM	JOB SITE PAINT SHOP / PAINTING AREA	71°	56°	37%	43°	73°	P&PD	ALL
10:05 AM	" " " " / " "	65°	55°	52%	47°	68°	P&PD	ALL
12:20 PM	" " " " / " "	69°	56°	45%	43°	71°	P&PD	ALL
2:40 PM	" " " " / " "	71°	56°	37%	43°	72°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS			
					SPEC	ACTL	PROP	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	METH
1	DBA COUPONS	PAINTING AREA	POWER-TOOL CLEAN	OK	SP-3	SP-3	N/A	N/A	N/A				N/A			
2	DBA COUPONS	" "	MIX & APPLY PRIMER	OK	N/A				CZ 11	B	1E5636M 1B22712	3	N/A			
3	DBA COUPONS	" "	DFT OF PRIMER	OK	N/A				N/A				20 50	22	54	38 I

COMMENTS:

A. GENERAL

1. Compressed Air WHITE BLOTTER TEST @ 8:00 AM - AIR OK.

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. NO IRREGULARITIES

2. Presurface conditions of steel PREVIOUSLY COATED, WELDED & GROUND (NO COATING REMAINED)

3. Grease/oil removal WELD & GROUND AREA SOLVENT CLEANED (SSPC-SP-1) w/ ALCOHOL

4. Protective Coatings AREAS PREVIOUSLY COATED WERE MASKED-OFF

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type NO

2. Nozzle Pressures BLASTING

3. Appearance PERFORMED

D. COATING APPLICATION

1. Surface Cleanliness AIR BLOWN & DUSTED

2. Airborne Dust Cleanliness NONE VISIBLE

E. INORGANIC ZINC TESTS

1. Dry Spray NO SPRAYING

2. Zinc Salt Test N/A

3. Cure GOOD CURE / COIN TEST

4. Adhesion N/A

5. Appearance GOOD - OVERALL

4 SERIES, 4A SERIES, 3 SERIES

KEY	
Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pyro-Dyne	B18-881
P - Pyrometer	B17-1032
C - Keane-Tator Comparator	N/A
W - Wet Film Gage	N/A
I - Inspector	B15-502
M - Microtest	N/A
T - Tootle Gage	N/A

A - Airless Spray
CS - Conventional Spray

REMARKS: THE WELD & GROUND SURFACES OF THE FOLLOWING COUPONS WERE SOLVENT CLEANED w/ ALCOHOL AND POWER TOOL CLEANED USING A NEEDLE GUN. AT 11:30 AM 3-1 GAL KILS OF C2-11 WERE MIXED. MATERIAL TEMPS WERE: BASE 71° #33 THINER (197890M) 72° MATERIAL WAS THINNED 12% BY VLD, MIXED TEMP, 72°. C2-11 PRIMER WAS THEN APPLIED BY BRUSH @ 1:50 PM. NOTE: 3 COATS WERE APPLIED TO BUILD

100% COAT. FROM TEST WERE: 100% TO 100% - 100% WAST, APPROX. 100% WAST.

Attachment to: DBA-9Page 3of 15

Signature

Joseph F. PadavillDate 9-18-81

COUPON NUMBER	OPERATION PERFORMED	WFT	DFT	REMARKS
3-1-3-2	SOLVENT CLEAN NEEDLE GUN FEATHER EDGE W/80 GRIE EMERY CLOTH PRIME	A" N/ B" A	A" B"	→ SEE Pg. 6
3-3-3-4	SAME	A" N/ B" A	A" B"	→ SEE Pg. 7
3-5-3-6	SAME	A" N/ B" A	A" B"	→ SEE Pg. 8
4-1-4-2	SAME	A" N/ B" A	A" B"	→ SEE Pg. 9
4-3-4-4	SAME	A" N/ B" A	A" B"	→ SEE Pg. 10
4-5-4-4	SAME	A" N/ B" A	A" B"	→ SEE Pg. 11

Attachment to:

DBA-9

Page

4

of

15

Signature

Joseph F. Adams

Date

9-18-81

COUPON NUMBER	OPERATION PERFORMED	WFT	DFT	REMARKS
4-1A-4-2A	SOLVENT CLEAN NEEDLE GUN FEATHER EDGE w/80 GRIT EMERY CLOTH PRIME	A [•] N/ B [•] A	A [•] B [•]	→ SEE Pg. 12
4-3A-4-4A	SAME	A [•] N/ B [•] A	A [•] B [•]	→ SEE Pg. 13
4-5A-4-6A	SAME	A [•] N/ B [•] A	A [•] B [•]	→ SEE Pg. 14
N/ A	N/ A	A [•] N/ B [•] A	A [•] N/ B [•] A	
N/ A	N/ A	A [•] N/ B [•] A	A [•] N/ B [•] A	
N/ A	N/ A	A [•] N/ B [•] A	A [•] N/ B [•] A	
N/ A	N/ A	N/ A	N/ A	

Attachment to: DBA-9Page 5 of 15

Signature

Joseph F. PaluchDate 9-18-81REMARKS (Cont.)

THE COUPONS SHOWN ON THE FOLLOWING PAGES
WERE PREPARED & PRIMED IN THE AREAS SHOWN.
THE AREA WORKED WERE SOLVENT CLEANED
WITH ALCOHOL; PREPARED W/ NEEDLE GUN; EDGES
FEATHERED BY HAND SANDING; SOLVENT CLEANED AGAIN
AND THEN PRIMED W/ CZ-11.

NOTE: PRIOR TO CZ-11 APPLICATION A BASE
READING ON THE BARE STEEL WAS
NOT TAKEN.

Attachment to: DBA-9

Page 6 of 15

Signature Joseph F. Palumbo

Date 9-18-81

*
DFTS
ON
FACE "A"
3.4 3.6

AVE.
C2-11
3.5

*
DFTS
ON
FACE "A"
3.6 3.7

AVE.
C2-11
3.6

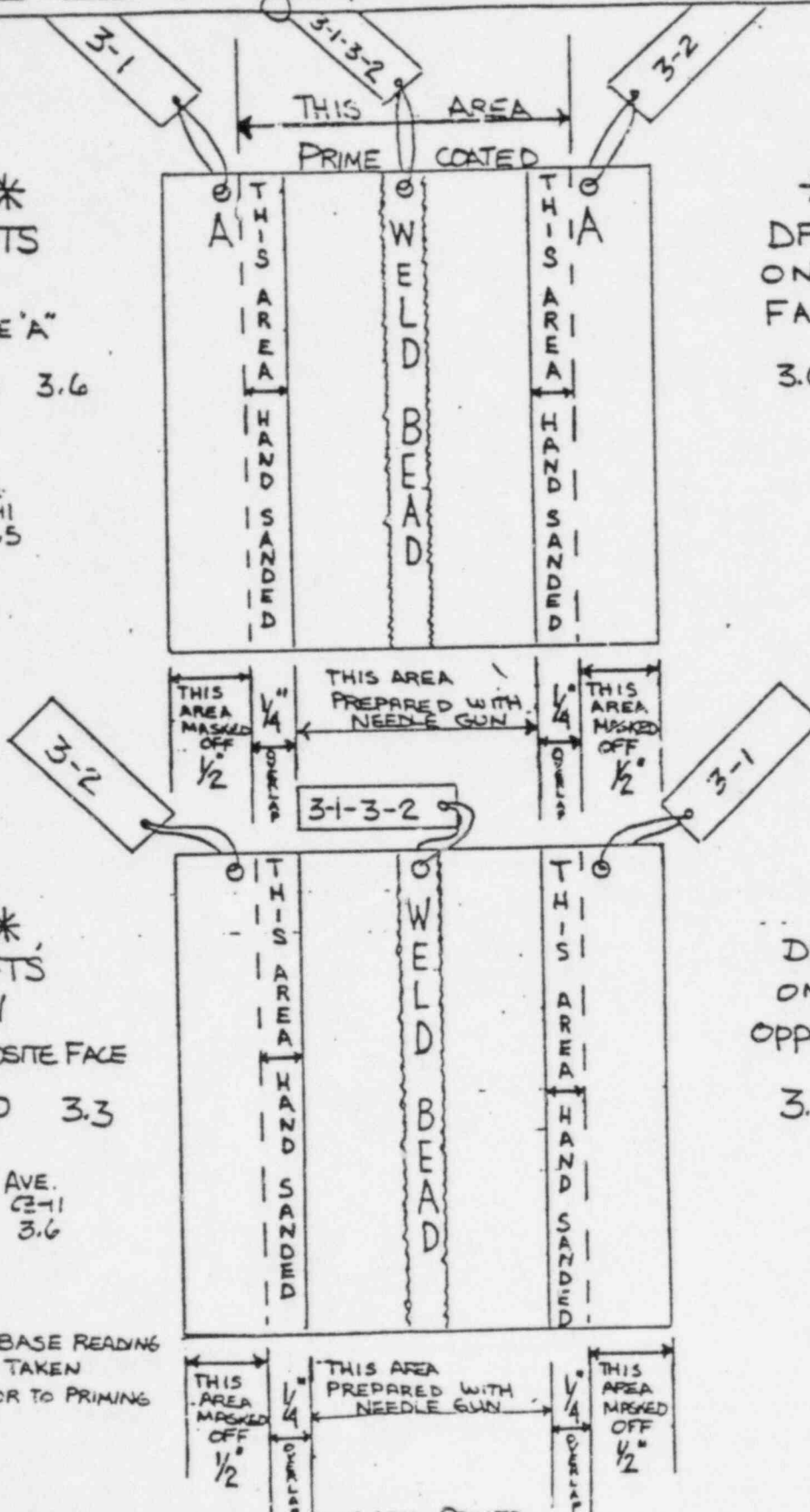
*
DFTS
ON
OPPOSITE FACE
4.0 3.3

AVE.
C2-11
3.6

*
DFTS
ON
OPPOSITE FACE
3.2 4.4

AVE
C2-11
3.8

* = NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



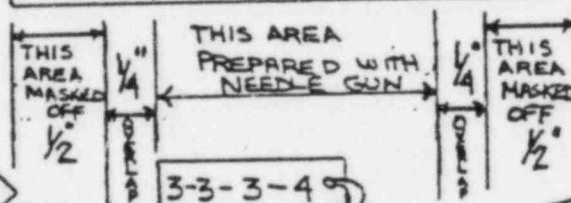
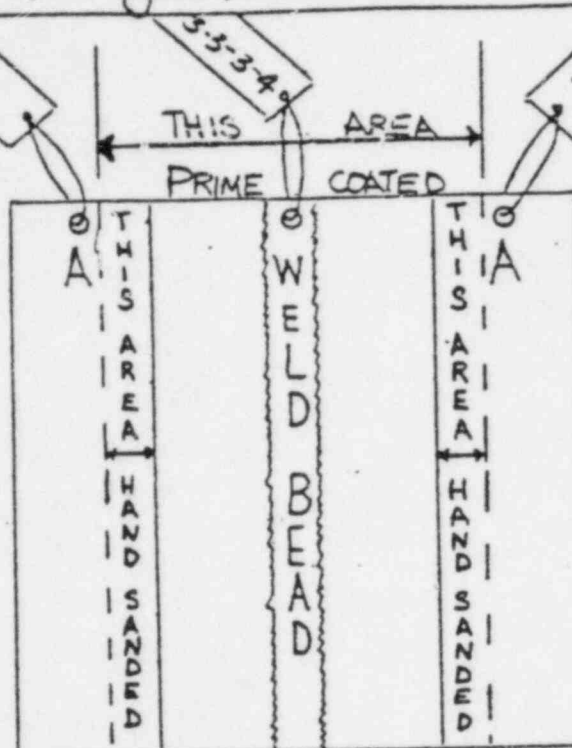
Attachment to: DBA-9Page 7 of 15Signature Joseph F. PadanilDate 9-18-81

*
DFTS
ON
FACE "A"
4.5 4.5

AVE.
CZ-11
4.5

*
DFTS
ON
FACE "A"
4.6 3.4

AVE.
CZ-11
4.0

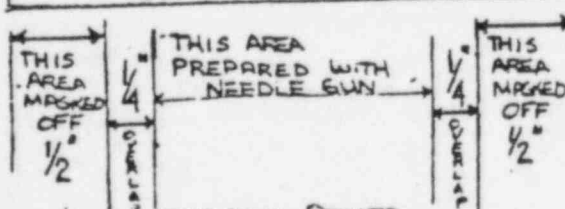
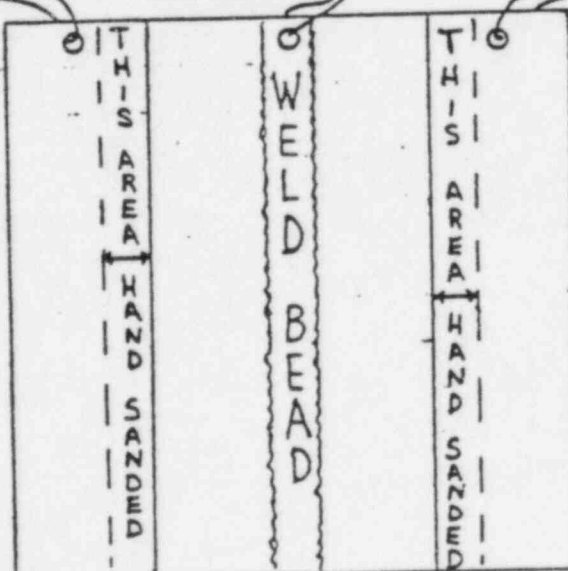


*
DFTS
ON
OPPOSITE FACE
3.7 3.8

AVE.
CZ-11 3.7

*
DFTS
ON
OPPOSITE FACE
4.2 3.2

AVE
CZ-11
3.7



*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING

Attachment to: DBA-9

Page 8 of 15

Signature Joseph T. Padanil

Date 9-18-81

*
DFTS
ON
FACE "A"

3.0 5.3

AVE.
CZ-11
4.1

*
DFTS
ON
FACE "A"

3.5 4.2

AVE.
CZ-11
3.8

*
DFTS
ON
OPPOSITE FACE

3.9 4.8

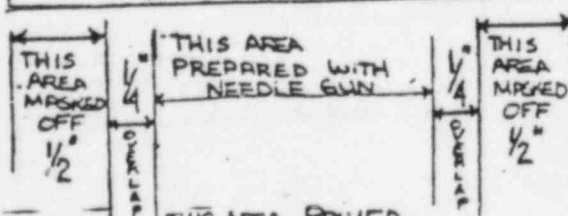
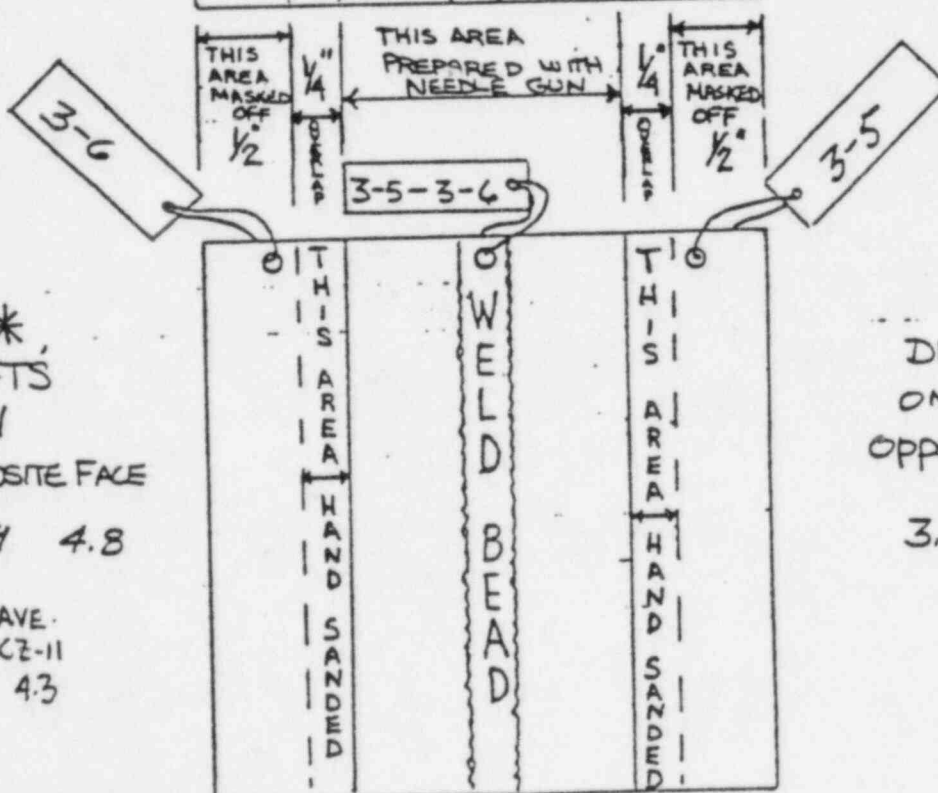
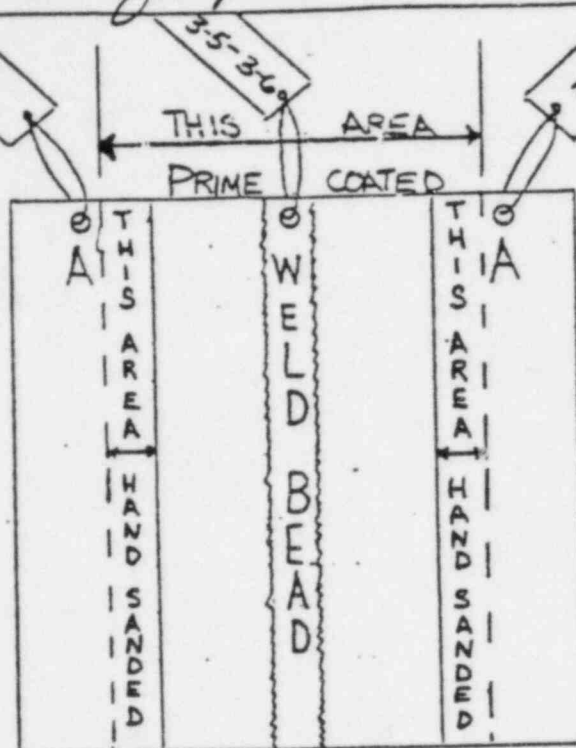
AVE.
CZ-11
4.3

*
DFTS
ON
OPPOSITE FACE

3.7 3.8

AVE.
CZ-11
3.7

* = NO BASE READING
WAS TAKEN
PRIOR TO PRIMING

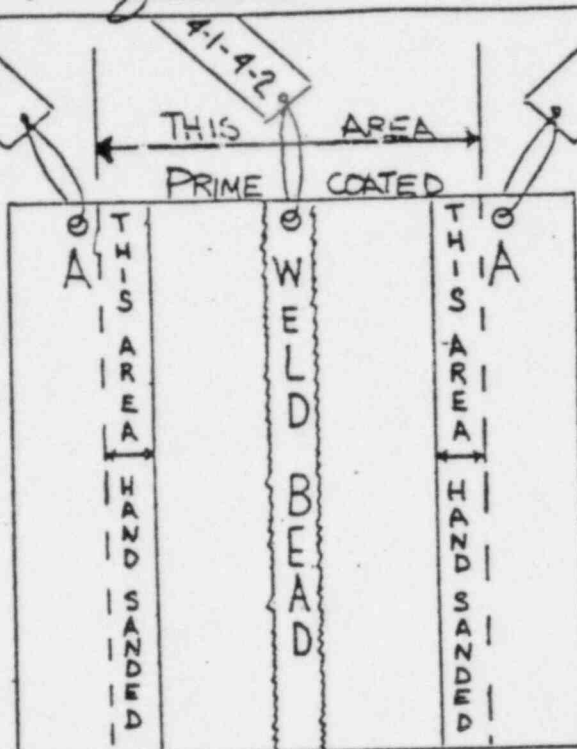


Attachment to: DBA-9Page 9 of 15

Signature

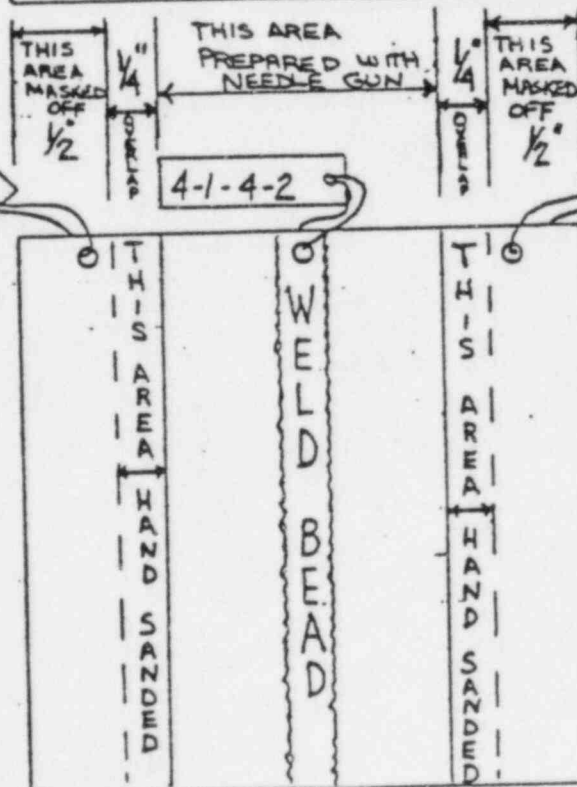
Joseph F. SalavichDate 9-18-81

*
DFTS
ON
FACE "A"
4.8 4.8
AVE.
CZ-11
4.8



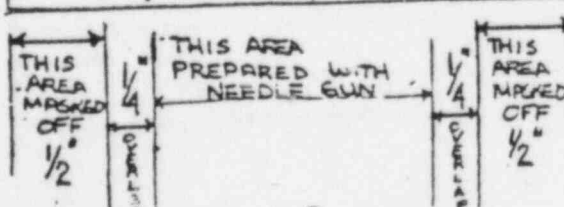
*
DFTS
ON
FACE "A"
4.8 4.7
AVE.
CZ-11
4.7

*
DFTS
ON
OPPOSITE FACE
3.3 3.8
AVE.
CZ-11
3.5



*
DFTS
ON
OPPOSITE FACE
3.6 2.9
AVE.
CZ-11
3.2

*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



Attachment to: DBA-9Page 10 of 15 Signature Joseph F. PalamukDate 9-18-81

*
DFTS
ON
FACE 'A'

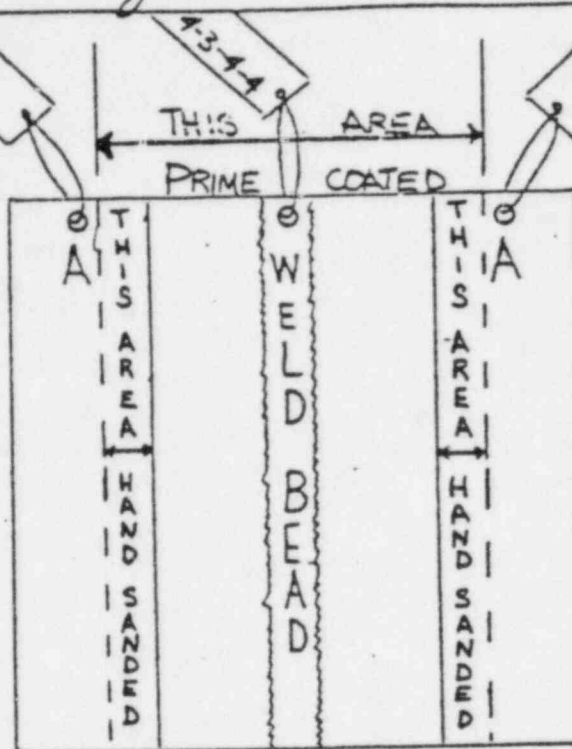
2.6 3.6

AVE.
CZ-11
3.1

*
DFTS
ON
FACE 'A'

3.7 4.4

AVE.
CZ-11
4.0



*
DFTS
ON
OPPOSITE FACE

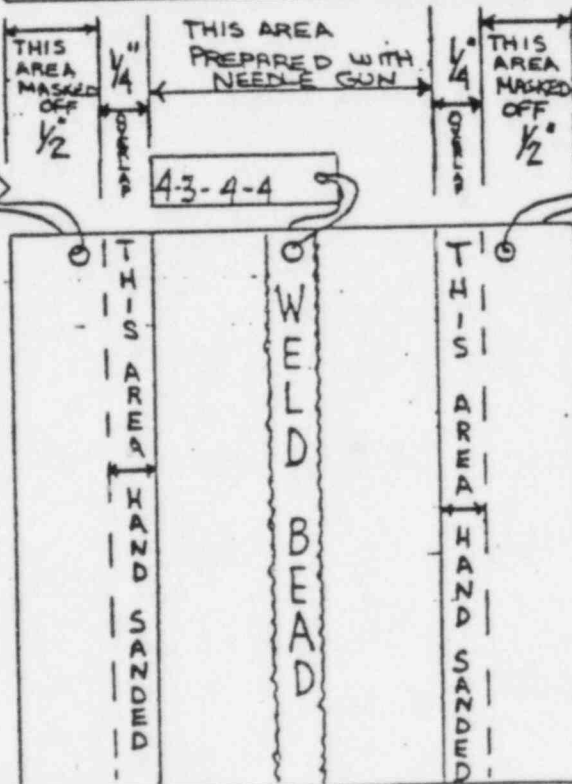
3.5 2.3

AVE.
CZ-11
2.9

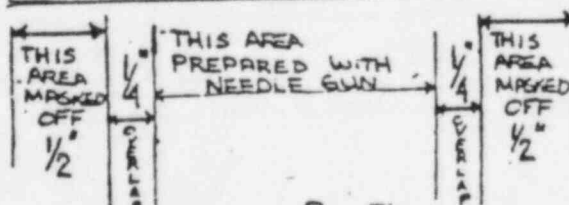
*
DFTS
ON
OPPOSITE FACE

5.3 4.8

AVE.
CZ-11
5.0



*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING

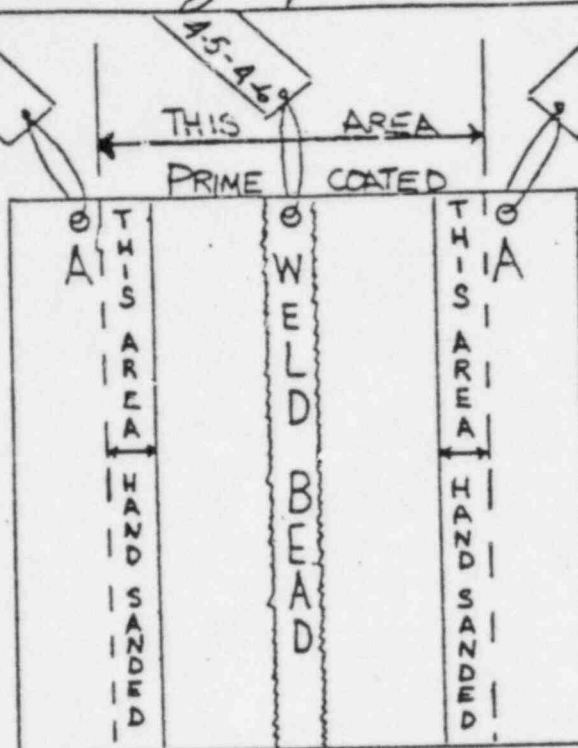


Attachment to: DBA-9Page 11 of 15 Signature Joseph F. Padanil Date 9-18-81

*
DFTS
ON
FACE "A"

2.2 3.8

AVE.
CE-11
3.0



*
DFTS
ON
FACE "A"

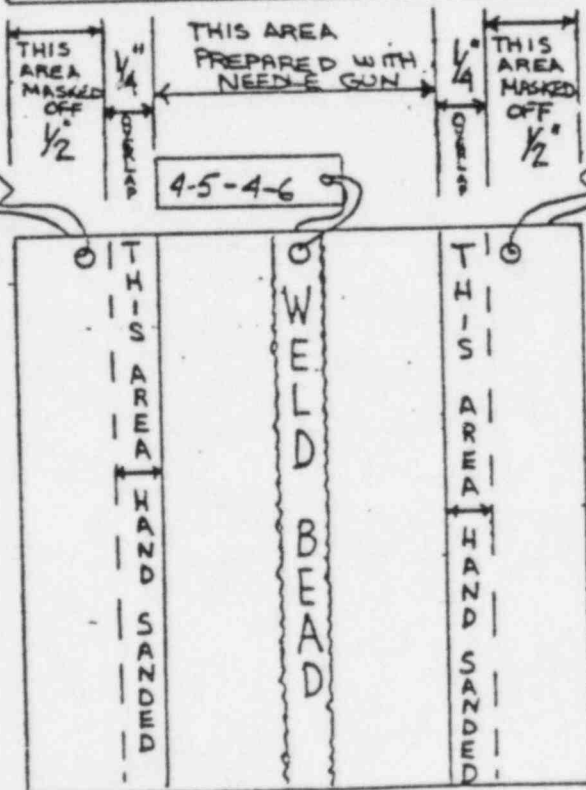
4.9 4.6

AVE.
CE-11
4.7

*
DFTS
ON
OPPOSITE FACE

3.5 4.3

AVE.
CE-11
3.9

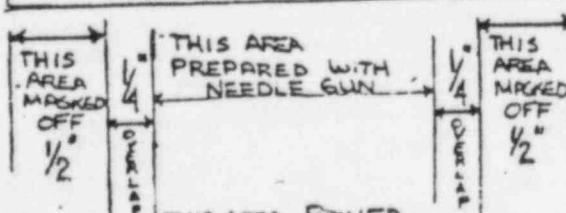


*
DFTS
ON
OPPOSITE FACE

4.7 5.4

AVE.
CE-11
5.0

*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



Attachment to:

DBA-9

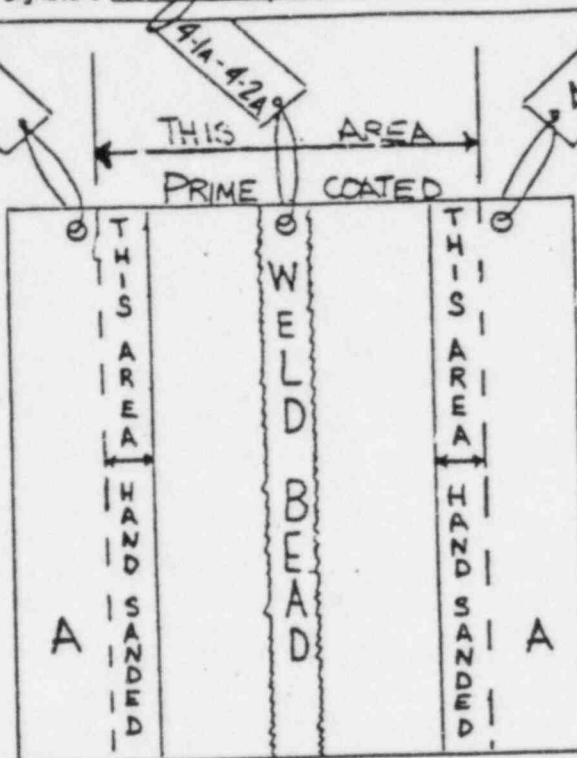
Page 12 of 15

Signature

Joseph F. Salas

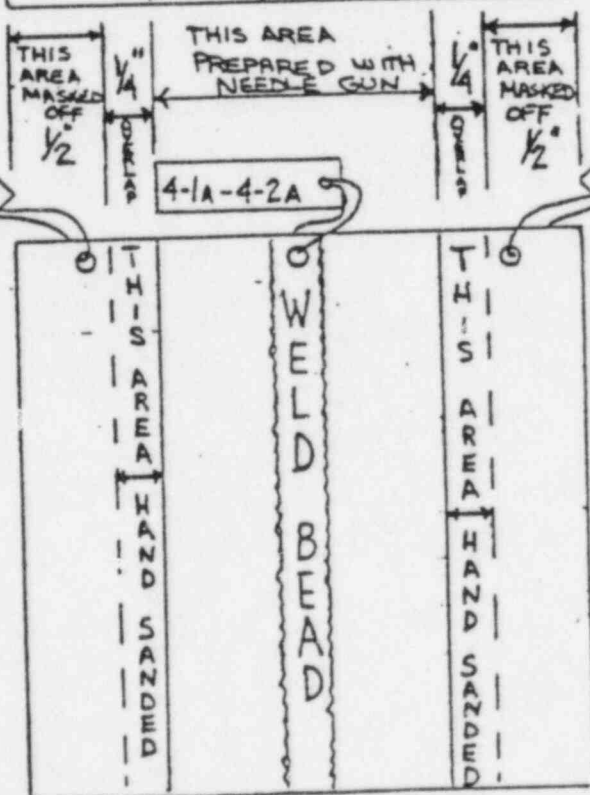
Date 9-18-81

*
DFTS
ON
FACE "A"
4.3 4.4
AVE.
CZ-11
4.3



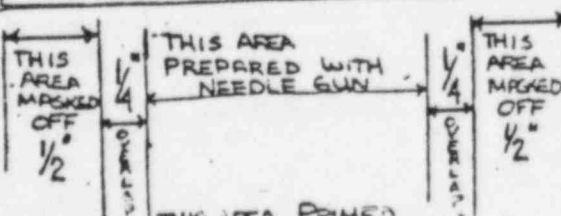
*
DFTS
ON
FACE "A"
3.9 3.8
AVE.
CZ-11
3.8

*
DFTS
ON
OPPOSITE FACE
4.5 5.2
AVE.
CZ-11
4.8



*
DFTS
ON
OPPOSITE FACE
5.3 5.3
AVE.
CZ-11
5.3

*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



Attachment to: DBA-9

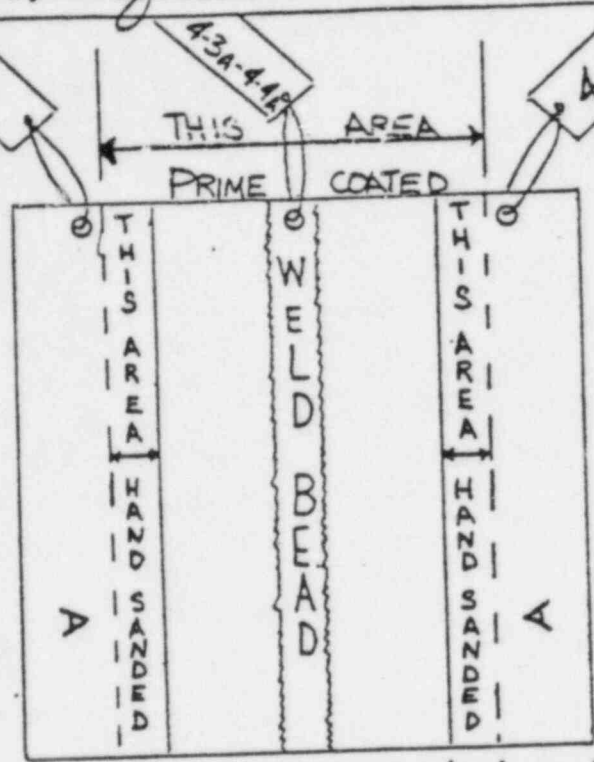
Page 13 of 15

Signature Joseph A. Paduano

Date 9-18-81

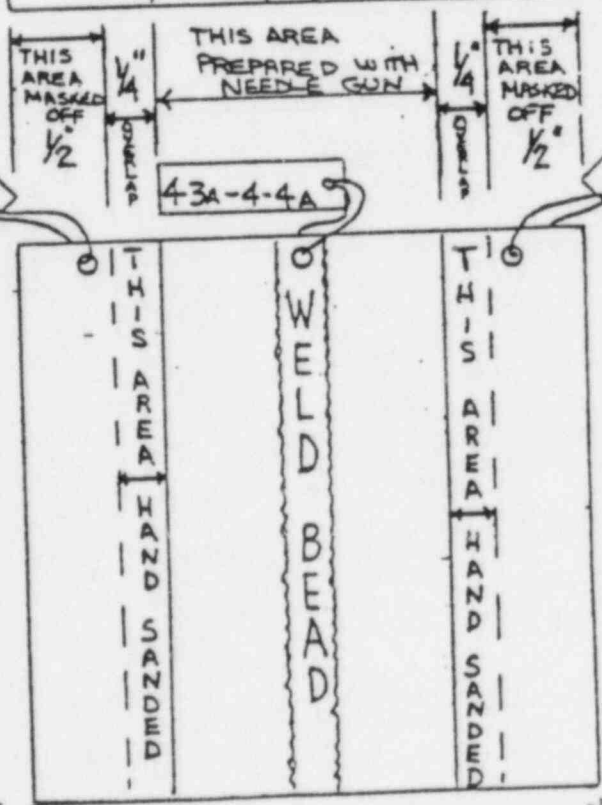
*
DFTS
ON
FACE "A"
2.3 4.8
AVE.
CZ-11
3.5

*
DFTS
ON
FACE "A"
5.4 4.7
AVE
CZ-11
5.0

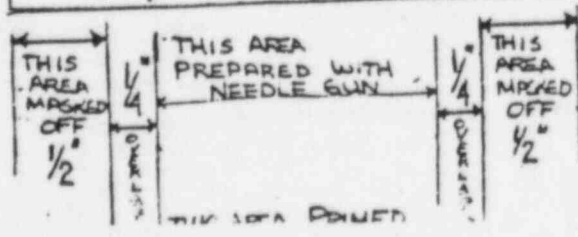


*
DFTS
ON
OPPOSITE FACE
4.5 3.6
AVE.
CZ-11
4.0

*
DFTS
ON
OPPOSITE FACE
2.9 4.1
AVE.
CZ-11
3.5



*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



Attachment to: DBA-9

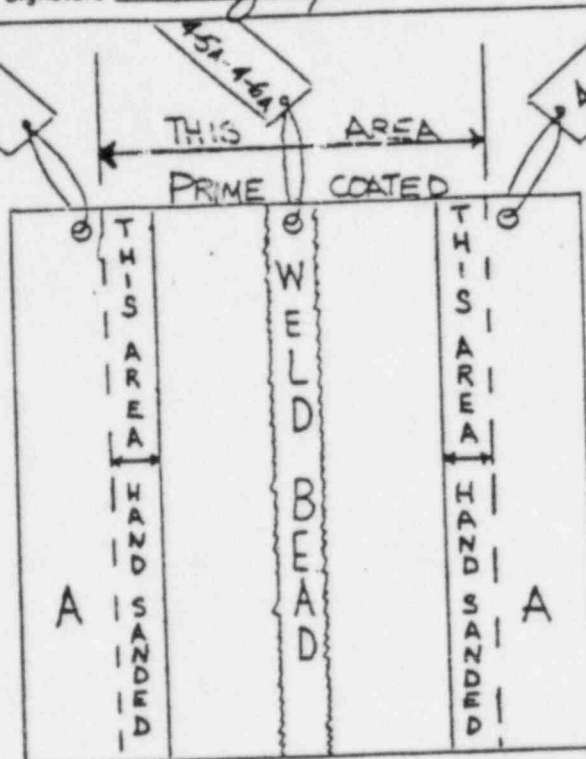
Page 14 of 15 Signature Joseph A. Delaville

Date 9-18-81

*
DFTS
ON
FACE "A"

4.7 4.1

AVE.
CE-11
4.4



*
DFTS
ON
FACE "A"

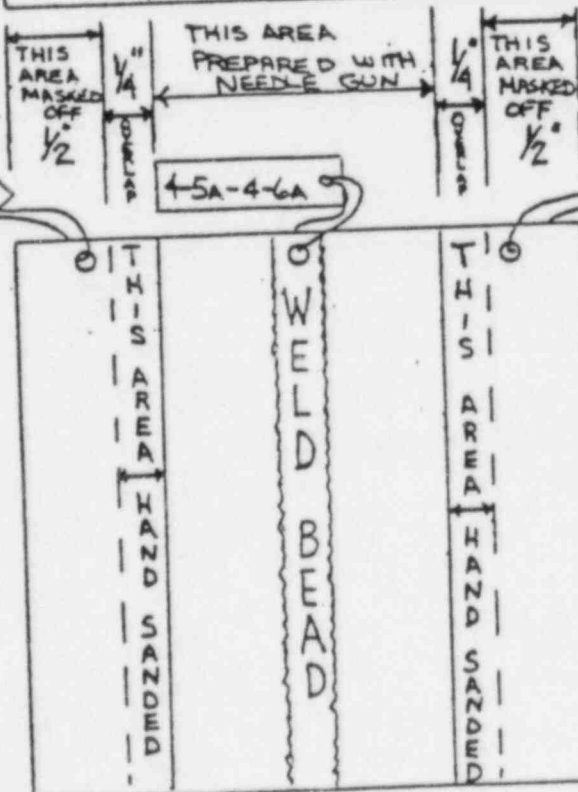
4.2 3.1

AVE.
CE-11
3.6

*
DFTS
ON
OPPOSITE FACE

3.9 3.4

AVE.
CE-11
3.6

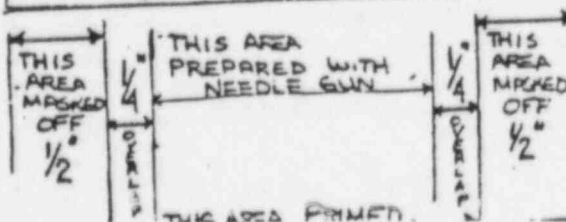


*
DFTS
ON
OPPOSITE FACE

3.4 3.3

AVE.
CE-11
3.3

*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING



BEAVER VALLEY POWER STATION - UNIT II
POT MIXING RECORD

100
DBA-9
Pg. 15 OF 15

POT NUMBER ST-0995

DATE 9-18-81

SHIFT 7:30 To 3:00

MATERIAL Carboline Canbo Zinc II + Thinner 33

BATCH NOS. 244-1E5636M

" 1B2271Z

AC 1 Kit 105629M

THINNER # 102341Z PERCENTAGE ADDED: 8 #1

THINNER # 33-167890M PERCENTAGE ADDED: 12 #2

- () SaT. MIXING EQUIPMENT CLEAN AND OPERABLE
() SaT. MATERIAL CANS INSPECTED AND NOT LEAKING
() SaT. COMPLETE KIT MIXED (3, 1 Gal. kits)
() 11:30 O'CLOCK COATING THOROUGHLY MIXED
() 12:45 O'CLOCK COATING RELEASED FOR PAINTING
(NOTE: SOME COATINGS REQUIRE AN INDUCTION PERIOD)

TEMPERATURES

244 71° PART A

144 71° PART B

72° THINNER # 33

THINNER # _____

ADDITIVE

72° MIXED - #1

MIXED - #2

Robert J. Burdette
COATING SUPERVISOR (OR) DESIGNEE

(8 SERIES)

APPLICATION OF 191
(4, 4A SERIES)

DLC/SQC BVPS UNIT 2 CONTRACT # COATING INSPECTION REPORT (CAT. II)				Sheet 1 of 7		No. DBA-10	
John Warner DLC/SQC Inspector				Date SEPT. 21, 1981		Day MONDAY Shift 7:30A-4:00P Foreman S. Rogowski	
				Contractor STUART PAINTING Co, Inc.		Date	
Coating Contractor Supervisor/Designer				Approved DLC/SQC			

TIME	LOCATION	DRY BULB	WET BULB	REL. HUM.	DEW POINT	SURFACE	INST.	OPERATIONS PERMITTED
7:20A	JOB SITE Paint SHOP / PAINTING AREA	73°	58°	39%	46°	74°	P&PD	ALL
10:00A	" " " " / " "	72°	58°	39%	46°	72°	P&PD	ALL
12:25A	" " " " / " "	75°	60°	40%	49°	76°	P&PD	ALL
2:10P	" " " " / " "	76°	62°	44%	52°	78°	P&PD	ALL

NO.	ITEM	LOCATION	OPERATION	OK FOLLOW	SURFACE PREPARATION				MATERIAL				COATING THICKNESS				
					SPEC	ACTL	PROP	METH	SPEC	APPL	BATCH NOS.	GAL	SPEC	MIN	MAX	ACTUAL	MET II
1	DBA COUPONS	PAINTING AREA	MIX & APPLY NUTEC 1201	OK	N/A				NUTEC 1201	B	2851 D272	1	N/A				
2	DBA COUPONS	" "	MIX & APPLY 191-HB	OK	N/A				191 HB	B	2854 D272 1C0391M 1D0272M	2	N/A				

STEEL SUBSTRATE

COMMENTS:

A. GENERAL

1. Compressed Air **NONE EMPLOYED**

B. PRESURFACE PREPARATION - STEEL SUBSTRATES

1. Condition of Edges, Weldspatter, etc. **PREVIOUSLY**
2. Pre-surface conditions of steel **POWER - TOOL CLEANED**
3. Grease/oil removal **AND**
4. Protective Coatings **PRIMED w/ CZ-11**

C. SURFACE PREPARATIONS - STEEL SUBSTRATES

1. Abrasive Size/Type **NO**
2. Nozzle Pressures **BLASTING**
3. Appearance **PERFORMED**

D. COATING APPLICATION

1. Surface Cleanliness **DATED PRIOR TO EPOXY TOPCOAT APPLICATION**
2. Airborne Dust Cleanliness **NONE VISIBLE**

E. INORGANIC ZINC TESTS

1. Dry Spray **NO SPRAYING PERFORMED**
2. Zinc Salt Test **NONE PRESENT**
3. Cure **GOOD**
4. Adhesion **N/A**
5. Appearance **OVERALL - GOOD**

REMARKS: TODAY THE COMPOUNDS LISTED THE FOLLOWING TAGS WERE SEAL COATED AND TOP COATED WITH EITHER NUTEC 1201 OR ORBOLINE 191-HB, AT 9:30AM ONE - TWO GAL. KIL OF 191-HB WAS MIXED, MATERIAL TEMPS. WERE: PART A: 72° PART B: 72° #33 THINNER (167890M) 72° COMBINED MIX: 73° NOTE: 1/2 GAL. THINNED 75% by VOL FOR SEAL COAT. REMINDER WAS NOT THINNED. 191-HB SEAL COAT & TOP COAT APPLIED w/ BRUSH BY L. JORD, ONLY A SERIES

KEY

Instrument	Serial No.
S - Sling Psychrometer	N/A
PD - Pycro Dyne	B18-881
P - Pyrometer	B17-1032
C - Keane-Tator Comparator	N/A
W - Wet Film Gauge	N/A
I - Inspector	B15-502
M - Microtest	N/A
T - Tooke Gauge	N/A
B - Brush	A - Airless Spray
H - Roller	CS - Conventional Spray

Attachment to: DBA - 10

Page 3 of 7

Signature

Joseph F. Palumbo

Date 9-21-81

REMARKS (Cont.)

AT 9:00 AM, ONE-ONE GAL. KIT OF IMPERIAL NUTEC[®] 1201
WAS MIXED. MATERIAL TEMPS. WERE: EPOXY TOP COAT 71°
CURING AGENT 72° MIXED TEMP. 72° NOTE: UNIVERSAL SOLVENT
DL GA TEMP: 72°. ONLY ONE PINT WAS THINNED (30% BY VOL.)
FOR SEAL COAT. REMAINDER WAS NOT THINNED.
APPLICATION w/BRUSH BY L. JUDD. 12:00 NOON.

NOTE: 1201 WAS APPLIED TO 3 SERIES ONLY.

Attachment to: DBA-10Page 4 of 7 Signature Joseph F. Ladumak Date 9-21-81

COUPON NUMBER	OPERATION PERFORMED	TOTAL DFTS (Z-11 & EPOXY)	REMARKS
3-1-3-2	NUTEC #1201 SEAL COAT TOP COAT	7.1, 8.7, 9.2, 8.8 7.8, 9.5, 9.7, 10.0	FACE "A" AND OPPOSITE FACE CAN NO LONGER BE DETERMINED. NOTE: DFTS INCLUDE: BASE READING, CZ-11 AND 1201 EPOXY
3-3-3-4	NUTEC #1201 SEAL COAT TOP COAT	7.3, 8.5, 7.6, 9.1 9.7, 6.7, 7.3, 9.1	
3-5-3-6	NUTEC #1201 SEAL COAT TOP COAT	8.8, 9.5, 9.8, 9.1 8.0, 8.3, 9.3, 8.6	
4-1-4-2	CARBOLINE 191-HB SEAL COAT TOP COAT	10.7, 10.0, 10.0, 11.7 8.5, 8.2, 8.7, 7.9	FACE "A" AND OPPOSITE FACE CAN NO LONGER BE DETERMINED. NOTE: DFTS INCLUDE: BASE, CZ-11, AND 191-HB
4-3-4-4	CARBOLINE 191-HB SEAL COAT TOP COAT	8.5, 7.6, 10.2, 8.3 6.8, 8.5, 10.7, 9.5	
4-5-4-6	CARBOLINE 191-HB SEAL COAT TOP COAT	7.2, 8.7, 9.3, 10.3 9.0, 7.8, 7.6 8.0	

Attachment to: DBA-10Page 5 of 7

Signature

Joseph R. PaduaDate 9-21-81

COUPON NUMBER	OPERATION PERFORMED	TOTAL DFTS CZ-11 & EPOXY	REMARKS
41A-4-2A	CARBOLINE 191-HB SEAL COAT TOP COAT	103, 9.1, 9.2, 8.9 10.2, 11.0, 10.6, 11.0	FACE "A" AND OPPOSITE FACE CAN NO LONGER BE DETERMINED NOTE: DFTS INCLUDE: BASE, CZ-11 & 191-HB.
43A-4-4A	CARBOLINE 191-HB SEAL COAT TOP COAT	8.0, 8.5, 9.3, 7.2 7.6, 6.6, 8.2, 8.2	
45A-4-6A	CARBOLINE 191-HB SEAL COAT TOP COAT	7.5, 8.1, 8.6, 9.0 10.1, 9.2, 9.9, 8.5	

Attachment 10: DBA-10

Page 6 of 7 Signature Joseph F. Padavich

Date 9-21-81

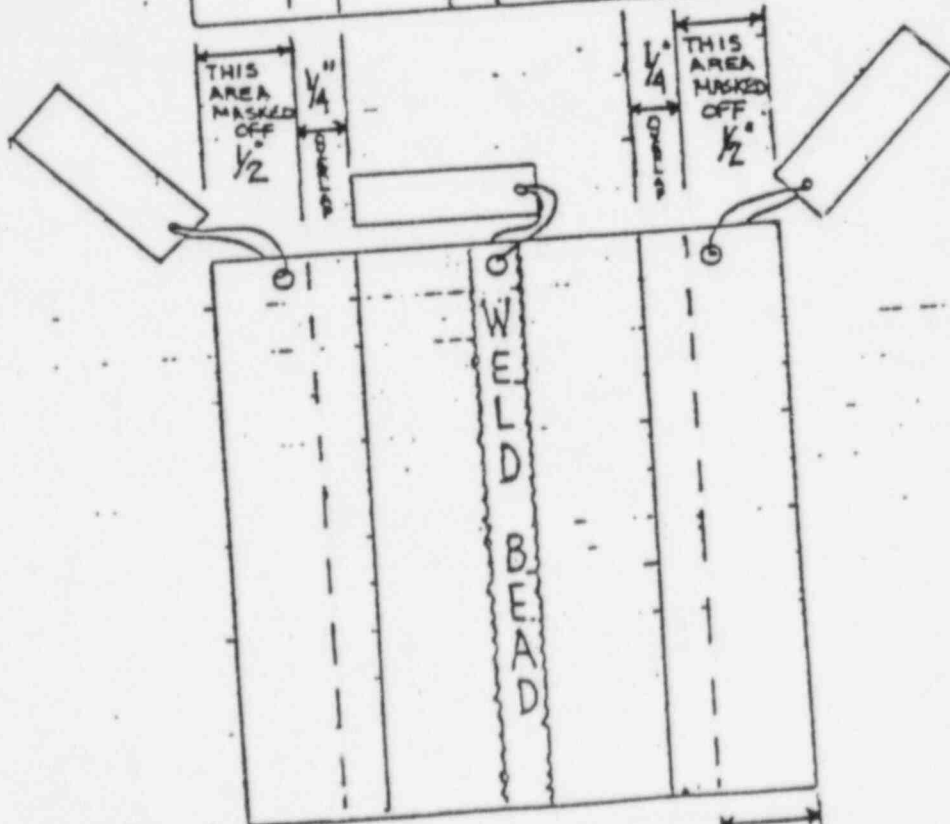
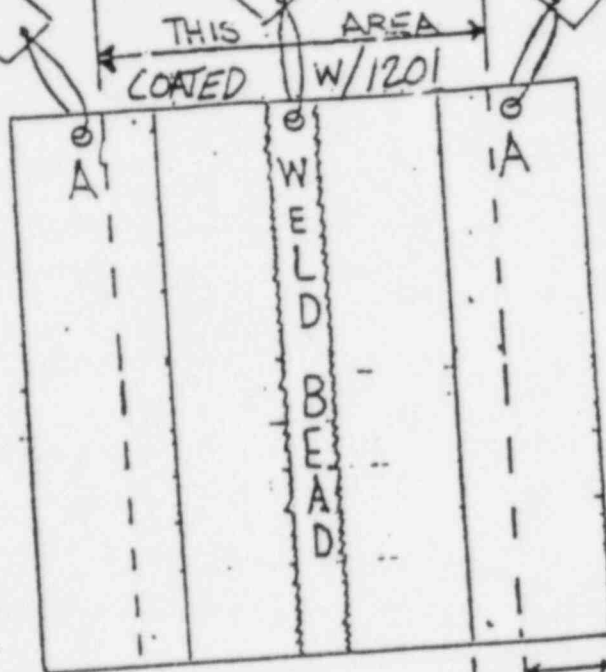
THE FOLLOWING
COUPONS
(ALL SIDES)
WERE SEAL
COATED AND TOP
COATED W/ 1201

3-1-3-2

3-3-3-4

3-5-3-6

FACE "A"
CAN NOT
LONGER BE
DETERMINED



* = NO BASE READING
WAS TAKEN
PRIOR TO PRIMING.
THEREFORE DFTS
INITIAL BASE.



Attachment to: DBA-10

Page 7 of 7 Signature Joseph F. Paduina

Date 9-21-81

THE FOLLOWING
COUPONS
(ALL SIDES)
WERE SEAL
COATED & TOP
COATED WITH
191-HB

4-1-4-2

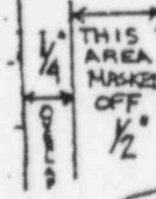
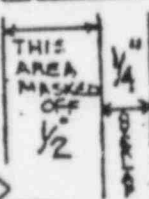
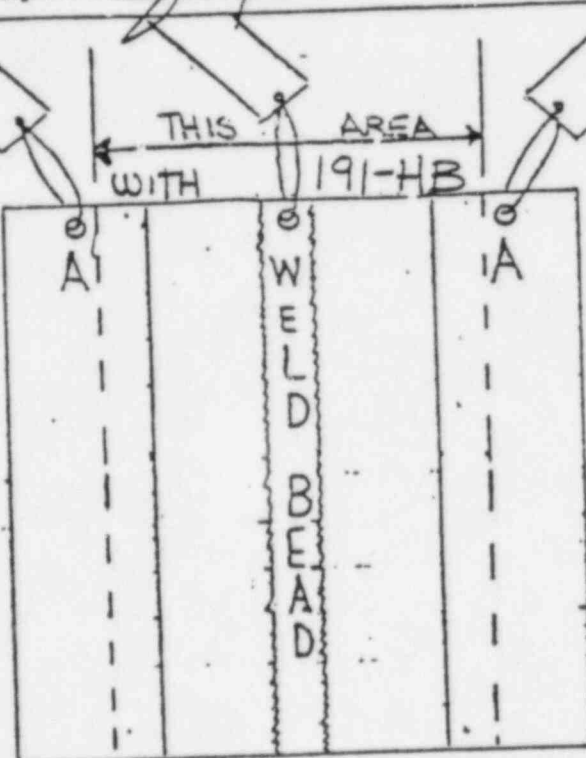
4-3-4-4

4-5-4-6

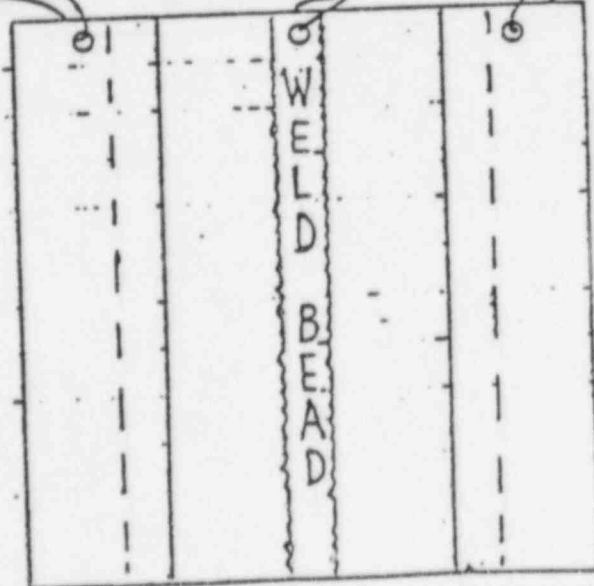
4-1A-4-2A

4-3A-4-4A

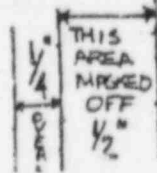
4-5A-4-6A



FACE "A"
CAN NO
LONGER BE
DETERMINED



*: NO BASE READING
WAS TAKEN
PRIOR TO PRIMING.
THEREFORE, DFTS
INCLUDE BASE,
PPH1 AND EDHVV



SECTION 4

ORNL
RADIATION/DBA
PROCEDURES

SECTION 5

RADIATION AND DBA
RESULTS
FROM
OAK RIDGE NATIONAL LABORATORY

RECEIVED
12/4/81
OAK RIDGE NUCLEAR

OAK RIDGE NATIONAL LABORATORY

OPERATED BY
UNION CARBIDE CORPORATION
NUCLEAR DIVISION



POST OFFICE BOX X
OAK RIDGE, TENNESSEE 37830

December 1, 1981

Mr. Gerald E. Arnold
Technical Representative
Imperial Professional Coatings;
P. O. Box 29077
New Orleans, Louisiana 70189

Dear Jerry:

Enclosed are combined reports describing test results recently obtained on Imperial protective coatings. Your attention is called to the temperature-pressure anomalies of A9675, A10-8-1.

If we can be of further assistance, please feel free to call on us.

Sincerely,

L. T. Corbin, Section Head
Analytical Chemistry Division

LTC:dmw

Enclosures

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

REPORT OF IRRADIATION AND DBA TESTING

The irradiation and design basis accident (DBA) tests are conducted, respectively, in accordance with Bechtel Corporation specifications CP-951 and CP-956 in Standard Specification Coatings for Nuclear Power Plants (or with modifications as noted in Table 2, DBA test conditions). The tests are designed to meet specifications set in both ANSI report N 101.2-1972, Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities, and N 5.12-1974, Protective Coatings (Paints) for the Nuclear Industry. The DBA test spray solution and the test conditions are listed in Tables 1 and 2. After both the DBA and irradiation tests, coatings are examined for signs of chalking, blistering, cracking, peeling, delamination, and flaking, according to ASTM standards where applicable. All test panels are returned to the coating manufacturer.

The irradiation tests are run using a spent fuel assembly, removed from the High-Flux Isotope Reactor at ORNL, as the source of radiation. These fuel assemblies are stored under 20 ft of demineralized water. The fuel is 93% enriched U-235 as U_3O_8 combined with aluminum. The spent fuel assemblies are removed after each 23-megawatt-day period. Irradiation is done using the gamma energy from accumulated mixed fission products. This more readily simulates conditions around a reactor than does a cobalt source. Also, the higher gamma activity affords shorter irradiation time to achieve accumulated doses. The dose rate four days after removal of a fuel assembly from the reactor is 1×10^8 rad/h.

The fuel assembly is 20 in. high. A 20-ft-long, 3-1/2-in.-diameter pipe, with one end capped, is used for air irradiation tests. The capped end is lowered into a 4-in. opening at the center of the fuel assembly. The open end, above water level, is covered with an O-ring-sealed flange to which is attached a steel cable and an air outlet hose. The air inlet is located at the bottom of the pipe. Test specimens are connected to the bottom of the cable and lowered into the radiation field. Also at the center of the fuel assembly is a stainless steel-clad cadmium tube used as a neutron absorber. This prevents contamination of the test specimens by induced radiation.

Evaluated

Ray L. Apple

Approved

L. T. Kirkman

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

ORNL Log Book No. A9675, A10-8-1

Table 1. DBA solution composition, distilled water

Reagent	Concentration
Boric acid, H_3BO_3	2000 ppm
Sodium hydroxide, NaOH	Required to adjust pH to 9.5

Table 2. DBA test conditions

Time	Temperature (°F)	Pressure (psig)	Comments
Start	164	—	Autoclave preheated.
20 s	285	48	Solution added at 290°F.
1.5 min	340	70	*
1.5-5 min	285	48	Pressure maintained by relief valve.
5-7 min	285-267	48	Pressure adjusted with N_2 .
13 min	267	48	
13-53 min	267-220	48	Pressure adjusted with N_2 .
53-58 min	220-210	48-0	Pressure released at 0.15 psig/s.
58-167 min	210-150	0	
2.8-27.8 h	150-135	0	End of first part of test.
11 d	135	0	Specimens immersed in a constant-temperature bath.
End of test			

*Gas that evolved from the specimens upon addition of the hot chemical solution resulted in a pressure and subsequent temperature increase exceeding the specifications of the designed temperature-pressure curves.

Evaluated

Ralph L. Rye

Approved

L. T. Carlson

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/1201

RADIATION TOLERANCE TEST

ORNL Master Analytical Manual Method No. 2 0921; Bechtel Corporation
Specification No. CP-951; ORNL Log Book No. A9675, A9-30-1.

Initial dose rate: 0.9 x 10⁷ rad/h

Test conducted in: x air water

<u>Sample No.</u>	<u>Cumulative dose</u>	<u>Test results</u>
1/1	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
1/2	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
1/3	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.

Evaluated

Ralph L. Apple

Approved

L. T. Arkin

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel

Concrete block

CZ-11/1201

DBA TEST

ORNL Master Analytical Manual Method No. 2 0922.
ORNL Log Book No. A9675, A10-8-1.

<u>Sample No.</u>	<u>DBA phase</u>	<u>Test results</u>
1/1	spray*	Coatings intact, no defects all areas.
1/2	spray*	Coatings intact, no defects all areas.
1/3	spray*	Coatings intact, no defects all areas.

*Irradiated.

Evaluated

Ronald L. Apple

Approved

L. T. Cochran

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/11S/11/1201

RADIATION TOLERANCE TEST

ORNL Master Analytical Manual Method No. 2 0921; Bechtel Corporation
Specification No. CP-951; ORNL Log Book No. A9675, A9-30-1.

Initial dose rate: 0.9 x 10⁷ rad/h

Test conducted in: x air water

<u>Sample No.</u>	<u>Cumulative dose</u>	<u>Test results</u>
2/1	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
2/2	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
2/3	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.

Evaluated

Ray L. Apple

Approved

W. T. Collier

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel

 Concrete block

CZ-11/11S/11/1201

DBA TEST

ORNL Master Analytical Manual Method No. 2 0922.
ORNL Log Book No. A9675, A10-8-1.

<u>Sample No.</u>	<u>DBA phase</u>	<u>Test results</u>
2/1	spray*	Coatings intact, no defects after one day. Blisters, #8 medium, at end of test.
2/2	spray*	Coatings intact, no defects after one day. Blisters, #8 medium, at end of test.
2/3	spray*	Coatings intact, no defects after one day. Blisters, #8 medium, at end of test.

*Irradiated.

Evaluated

Paul L. Apple

Approved

L. F. Collier

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/1201/191
CZ-11/1201

RADIATION TOLERANCE TEST

ORNL Master Analytical Manual Method No. 2 0921; Bechtel Corporation
Specification No. CP-951; ORNL Log Book No. A9675, A10-1-1.

Initial dose rate: 0.9 x 10⁷ rad/h

Test conducted in: x air water

<u>Sample No.</u>	<u>Cumulative dose</u>	<u>Test results</u>
3-1-3-2	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
3-3-3-4	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
3-5-3-6	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.

Evaluated

Paul F. Apple

Approved

L. T. Corbin

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/1201/191
CZ-11/1201

DBA TEST

ORNL Master Analytical Manual Method No. 2 0922.
ORNL Log Book No. A9675, A10-8-1.

<u>Sample No.</u>	<u>DBA phase</u>	<u>Test results</u>
3-1-3-2	spray*	Front: Coatings intact, no defects after one day. Blisters, #6 few, at coating interphase and weld area at end of test. Rear: Coatings intact no defects after one day. Blisters, #6 few, at coating interphase and weld area at end of test.
3-3-3-4	spray*	Front: Coatings intact, no defects after one day. Blisters, #6 few, at weld area at end of test. Rear: Coatings intact, no defects after one day. Blisters, #6 few, insert area at end of test.
3-5-3-6	spray*	Front: Coatings intact, no defects after one day. Blisters, #4 few, weld area and coating interphase at end of test. Rear: Coatings intact, no defects all areas.

*Irradiated.

Evaluated

Paul L. Apple

Approved

L. T. Corbin

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/191/1201
CZ-11/191

RADIATION TOLERANCE TEST

ORNL Master Analytical Manual Method No. 2 0921; Bechtel Corporation
Specification No. CP-951; ORNL Log Book No. A9675, A9-30-1.

Initial dose rate: 0.9 x 10⁷ rad/h

Test conducted in: x air water

<u>Sample No.</u>	<u>Cumulative dose</u>	<u>Test results</u>
4-1-4-2	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
4-3-4-4	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
4-5-4-6	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.

Evaluated

Raymond L. Apple

Approved

L. T. Cochran

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel

Concrete block

CZ-11/191/1201
CZ-11/191

DBA TEST

ORNL Master Analytical Manual Method No. 2 0922.
ORNL Log Book No. A9675, A10-8-1.

<u>Sample No.</u>	<u>DBA phase</u>	<u>Test results</u>
4-1-4-2	spray*	Coatings intact, no defects after one day. Minor separation at layer interface, side B, at end of test.
4-3-4-4	spray*	Coatings intact, no defects after one day. Single large blister, 4-3A, at end of test. No other defects.
4-5-4-6	spray*	Coatings intact, no defects all areas.

*Irradiated.

Evaluated

Ralph F. Apple

Approved

John C. Carlson

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel Concrete block

CZ-11/191/1201
CZ-11/191

RADIATION TOLERANCE TEST

ORNL Master Analytical Manual Method No. 2 0921; Bechtel Corporation
Specification No. CP-951; ORNL Log Book No. A9675, A9-30-1.

Initial dose rate: 0.9 x 10⁷ rad/h

Test conducted in: x air water

<u>Sample No.</u>	<u>Cumulative dose</u>	<u>Test results</u>
4-1A-4-2A	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
4-3A-4-4A	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.
4-5A-4-6A	2.66 x 10 ⁷ rad	Coatings intact, no defects all areas.

Evaluated

Ralph L. Apple

Approved

L. T. Corbin

Manufacturer: Imperial
New Orleans, Louisiana

Analytical Chemistry Division
Oak Ridge National Laboratory
Date: October 29, 1981

SYSTEM IDENTIFICATION

x Steel panel

Concrete block

CZ-11/191/1201
CZ-11/191

DBA TEST

ORNL Master Analytical Manual Method No. 2 0922.
ORNL Log Book No. A9675, A10-8-1.

<u>Sample No.</u>	<u>DBA phase</u>	<u>Test results</u>
4-1A-4-2A	spray*	Coatings intact, no defects all areas.
4-3A-4-4A	spray*	Coatings intact, no defects all areas.
4-5A-4-6A	spray*	Coatings intact, no defects all areas.

*Irradiated.

Evaluated

Ralph L. Apple

Approved

L. T. Corliss

SUMMARY OF RESULTS

Panel No.	System	DBA Results
1/1	CZ-11/1201	No Defects
1/2	CZ-11/1201	No Defects
1/3	CZ-11/1201	No Defects
2/1	CZ-11/11S/11/1201	#8M
2/2	CZ-11/11S/11/1201	#8M
2/3	CZ-11/11S/11/1201	#8M
3-1-3-2	CZ-11/1201, CZ-11/1201/191	#6 at coating interphase and weld are
3-3-3-4	CZ-11/1201, CZ-11/1201/191	#6F weld area
3-5-3-6	CZ-11/1201, CZ-11/1201/191	#4F weld area (front only)
4-1-4-2	CZ-11/191, CZ-11/191/1201	Minor separation at coating interphas
4-3-4-4	CZ-11/191, CZ-11/191/1201	One large blister on 4-3
4-5-4-6	CZ-11/191, CZ-11/191/1201	No Defects
4-1A-4-2A	CZ-11/191, CZ-11/191/1201	No Defects
4-3A-4-4A	CZ-11/191, CZ-11/191/1201	No Defects
4-5A-4-6A	CZ-11/191, CZ-11/191/1201	No Defects