

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000052**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Jan-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0051**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006 L/R
Joint fit-up	Coating	Other	Component: Tower-89m Mockup
Procedural	Procedural	Descriptor:	Skin Plate D to Skin Plate E

Description of Non-Conformance:

ABF allowed ZPMC to weld Skin Plate 'D' to 'E' identified as weld joint number MUB-MA21 D/J-5 with an excessive root opening measuring 4.2mm. Drawing MU-WDT-07 Weld Joint Detail MWT92 shows 0 mm root opening on this non-standard joint design and AWS D1.5 2002 Figure 2.4 only gives a +2/-0mm tolerance. Lu Jian Hua, ZPMC and Gang Jiao, ABF stated that they felt this would be approved and were going to continue. QA Inspector Bruce Berger stated that if they continue with the welding it would be at their own risk, both Mr. Lu and Gang stated that they understood.

Applicable reference:

AWS D1.5 Figure 2.4 (mm) & Drawing MU-WDT-7

Who discovered the problem: Scott Croff**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Ching Chao**Time and method of notification:** 1/22/08, Verbal**QC Inspector's Name:** Fu Yu Hong**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:****Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Croff,Scott

Quality Assurance Inspector

Reviewed By: Cuellar,Robert

QA Reviewer



DEPARTMENT OF TRANSPORTATION
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Fluor Enterprises, a JV
375 Burma Road
Oakland CA 94607

Date: 08-Feb-2008

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000012

Subject: NCR No. ZPMC-0051

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0051

Remarks:

Please see the attached NCR for details.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Balan, Chin

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000012

Subject: NCR No. ZPMC-0051

Dated: 03-Jul-2008

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000034 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC did not think that it was necessary to include the use of hydraulic jacks on an as-needed basis in their fabrication and respectfully requests the withdrawal of the NCR.

Please see the attached response from ZPMC. ABFJV has reviewed and concurs with this response.

Submitted by: Kanapicki, Charles

Attachment(s): ABF-NPR-000034R00; ;

Caltrans' comments:

Status: REJ

Date: 10-Sep-2008

This NPR references the use of jacks in the text of the resolution, but is referenced to and has documents attached for NCR-ZPMC-0051. This response is for NCR-ZPMC-0051, welding joint MUB-MA21D/J-5 with an excessive root opening.

The Contractor's response is not acceptable.

When being assembled for welding, the joint may vary from the details shown on the approved shop drawings within the limits of the 'As Fit-Up Tolerances' provided in Figure 2.4 for standard joints, or 3.3.4 and Figure 3.2 for other groove welded joints.

For this non-standard joint, 3.3.4 and Figure 3.2 require a +2/-3mm root opening tolerance from the detailed dimension. Mockup weld detail MUWDT-07 specifies a 0mm root gap, thus the fit-up root gap dimension could only be a maximum of 2mm. If the detailed root gap dimension were specified as 3mm, then the fit-up dimension could be up to 5mm.

Submitted by: Wright, Doug

Date: 10-Sep-2008

Attachment(s):

DEPARTMENT OF TRANSPORTATION

CHINA FABRICATION TEAM

506 Shangcheng Rd., Pudong New District
Shanghai 200120, PRC

REVIEW OF CONTRACTOR'S TRANSMITTAL

To: Dave Williams, American Bridge – Fluor, a Joint Venture
Gary Pursell, Resident Engineer

Review Date: 05-19-2008From: Bob McReynolds, Structural Materials RepresentativeContract No.: 04-0120F4Date/Time Submittal Received: 04-23-2008/ 0900
 China Standard Time
(GMT+08:00)
Contractor's Transmittal #: TL-08-1052 Rev. # 0

<input type="checkbox"/> substantially complies with contract requirements and is approved			
<input type="checkbox"/> substantially complies with contract requirements and is approved as noted.			
<input checked="" type="checkbox"/> Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmittal			
Verbal Notification		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Date:		Time:	
Name of individual from Contractor Notified:			
This submittal is a:	<input type="checkbox"/> Welding Report	<input type="checkbox"/> Critical Weld Repair	
	<input type="checkbox"/> Request for Information	<input type="checkbox"/> Heat Straightening Request	
	<input type="checkbox"/> Fabrication Procedures	<input checked="" type="checkbox"/> Other: <u>Response to NCRs</u>	
Submitting Contractor: <u>ABF</u>			
ITEMS REVIEWED	COMPLIES		COMMENTS
1. ZPMC-0051 LOR (Letter of Response)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<p>ABF allowed ZPMC to weld skin plate 'D' to 'E' identified as weld MUB-MA21 D/J-5 with excessive root gap measurement of 4.2mm. ZPMC claims that TC-U4b-GF and the WPS-B-T-2232-TC-U4b-F allow a 0-3mm root opening and a tolerance of +2/-0, so they can have a 0-5mm root opening. ZPMC's understanding of the Code requirements is incorrect.</p> <p>AWS D1.5-2002, C2.12.1 'Dimensional Tolerances' states "When the standard joints of Figure 2.4 are being detailed, they may be adjusted using the 'As Detailed Tolerances' provided in Figure 2.4. When being assembled for welding, the joint may vary from the details shown on the approved shop drawings within the limits of the 'As Fit-Up Tolerances' provided in Figure 2.4 for standard joints, or 3.3.4 and Figure 3.2 for other groove welded joints. The fit-up provisions of Figure 2.4 are derived from 3.3.4."</p> <p>For this non-standard joint with backgouging and without steel backing, 3.3.4 and Figure 3.2 require a +2/-3mm root opening tolerance from the detailed dimension. Mockup weld detail MU-WDT-07 specifies a 0mm root gap, thus the fit-up root gap dimension could only be a maximum of 2mm. If the detailed root gap dimension were specified as 3mm, then the fitup dimension could be up to 5mm.</p>
2. ZPMC-0074 LOR	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<p>ZPMC used a 10-ton hydraulic jack to fitup the bolt connection plates on skin 'D' of 114m mockup. The plates were 6mm out of alignment between the internal bolted connection plate and the interior longitudinal stiffener. ZPMC's explanation that the mockup was in the pre-assembly stage when the misalignment was noted and the hydraulic jack were applied is not acceptable. The mockup procedure must include all processes that will be applied in production. This NCR can only be closed when the Contractor has fabricated a mockup with a procedure that includes all processes that will be used in production and that meets Caltrans acceptance criteria.</p>

OFFICE OF STRUCTURAL MATERIALS - REVIEW OF CONTRACTOR'S SUBMITTAL

[Empty rectangular box]

Remarks:

OTI FOR

Reviewer: Bob McReynolds

Date: 05-19-08

Construction Concurrence: KL Initial 5/27/08 Date

Received by (ABVJV): PZ Date: 5/27/08 Time: 1400

Page 1 of 1

Date: 22 April 2008

To: Gary Pursell

From: Steve Lawton

Contract No. 04-0120F4

Dear Gary Pursell

<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input checked="" type="checkbox"/>	NOT APPROVED
Pursuant to Section 5-1.02 of the Standard Specifications State of California DEPARTMENT OF TRANSPORTATION	
Signed	
	Structure Representative
Date	5/27/08

This letter is issued to provide formal response addressing the proposed resolution to each of the mentioned NCR's for Engineer's review and approval.

NCR's

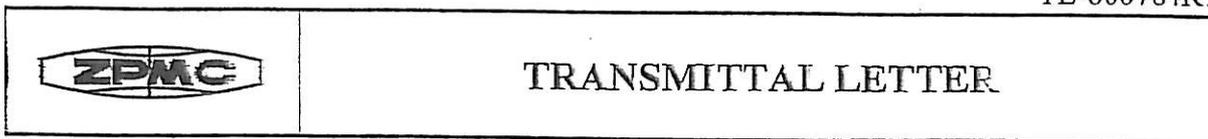
ZPMC-0033
ZPMC-0051 *
ZPMC-0071
ZPMC-0074 *

ZPMC has summarized the above listed NCR's and has generated an internal NCR for each occurrence.

ABFJV considers the NCR's mentioned as closed.

If further clarifications are needed, please contact me.


Steve Lawton
Foreign Quality Assurance Manager
American Bridge Fluor Joint Venture



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 03/17/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: LETTER OF RESPONSE

REQUEST FOR REVIEW & SUBMITTAL TO CALTRANS FOR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.CT-096, CT-086, CT-087, CT-093, CT-088
- (2) COPY OF NCR-000019, NCR-000059, NCR-000064, NCR-000065, NCR-000068.

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

Ruby

PLAN HOLDER

3/19/08 1050

DATE

ABFJV

COMPANY

PHONE NO.

PLAN NUMBER: N/A
 #R787-QCP-102



No. CT-120

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2007-4-8

REGARDING: NCR-000052 (ZPMC-0051)

ZPMC received CT NCR-000052 on 21-Feb-2008, it mentioned ABF allowed ZPMC to weld skin plate "D" to "E" identified as weld joint number MUB-MA21 D/J-5 with an excessive root opening measuring 4.2mm. Drawing MU-WDT-07 weld joint detail MWT92 shows 0mm root opening on this non-standard joint design and AWS D1.5 2002 figure 2.4 only gives a +2/-0mm tolerance.

ZPMC take exception to receive this Non-conformance report. Here's the explanation as follows:

According to AWS D1.5 2002 figure 2.4 for TC-U4b-GF joint type, and the proper approved WPS no. WPS-B-T-2232-TC-U4b-F, the root opening is allowed from 0~3mm, and the tolerance is +2/-0, so ZPMC understood that the root opening for this joint type could vary from 0~5mm. So ZPMC proceeded the FCAW welding over the 4.2mm gap. Finally, ZPMC finished the 100%UT, no defects. See attached UT report.

ZPMC requests Caltrans can Close the NCR-000052 (ZPMC-0051).

ATTACHMENT:

NCR-000052 (ZPMC-0051)
CT-UT-106

Lu Jianhua
2008-04-08

PAR 3.3.A

REVIEWED
J. Jianhua
ABF QEM
22 APRIL 08



DEPARTMENT OF TRANSPORTATION
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Fluor Enterprises, a JV
375 Burma Road
Oakland CA 94607

Date: 08-Feb-2008

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000012

Subject: NCR No. ZPMC-0051

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0051

Remarks:

Please see the attached NCR for details.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Balan
File: 05.03.06

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000052

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Jan-2008

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-00:

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006 L/R
 Joint fit-up Coating Other Component: Tower-89m Mockup
 Procedural Procedural Description: Skin Plate D to Skin Plate E

Description of Non-Conformance:

ABF allowed ZPMC to weld Skin Plate 'D' to 'E' identified as weld joint number MUB-MA21 D/J-5 with an excessive root opening measuring 4.2mm. Drawing MU-WDT-07 Weld Joint Detail MWT92 shows 0 mm root opening on this non-standard joint design and AWS D1.5 2002 Figure 2.4 only gives a +2/-0mm tolerance. Lu Jian Hua, ZPMC and Gang Jiao, ABF stated that they felt this would be approved and were going to continue. QA Inspector Bruce Berger stated that if they continue with the welding it would be at their own risk, both Mr. Lu and Gang stated that they understood.

Applicable reference:

AWS D1.5 Figure 2.4 (mm) & Drawing MU-WDT-7

Who discovered the problem: Scott Croff

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1/22/08, Verbal

QC Inspector's Name: Fu Yu Hong

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 CT-UT-106 DATE 2008.02.18 PAGE 1 OF 1 Revision No: 1

PROJECT NO.: 工程编号 ZP06-787 CONTRACTOR: CALTRANS

ITEMS NAME: 89M BOX DE ANGLE DRAWING NO.: MUB-MA21 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 FCAW CORNER JOINT Jan. 1ST, 2009

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH-4B 071565311,061488510

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709-50T-2 / 60/75 mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70 °	2.5 MHz	18x18 mm	Changchao	60 °	2.5 MHz	18x18 mm
Changchao	0 °	2.5 MHz	20 mm	Reference Level 参考灵敏度			20dB

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0 ° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS 分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
MUB-MA21D/J-5A/5B		68.5					32								ACC.	
		59.5					31								ACC.	

BLANK

EXAMINED BY 主探: L. Liming 2008.02.18 REVIEWED BY 审核: Zshuqin
 LEVEL-II SIGN / DATE LEVEL-II SIGN / DATE 2008.02.18

质量经理 / QCM: Hufang 2008.2.26 用户CUSTOMER: _____
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000012

Subject: NCR No. ZPMC-0051

Dated: 19-Jan-2009

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000034 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC requests closure of this NCR based on attached documentation
Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000034R01;

Caltrans' comments:

Status: CLO

Date: 19-Jan-2009

Per State Letter 05.03.01-003087 dated December 8, 2008, the 77m and 89m Tower Section Mock-ups were successfully completed. The Department concurs that Non-Conformance ZPMC-0051 is closed.

Submitted by: Wright, Doug

Date: 21-Jan-2009

Attachment(s):



TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 01/06/2009

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CALTRANS NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.CT-120 R1 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000052 (ZPMC-0051)
- (3) COPY OF CT-UT-106

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



 PLAN HOLDER

RECEIVED 03 JAN 2009
 1410

 DATE



COMPANY

PHONE NO.

PLAN NUMBER: N/A
#R787-QCP-102



No. CT-120 R1

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-1-6

REGARDING: NCR-000052 (ZPMC-0051)

ZPMC received CT NCR-000052 on 21-Feb-2008, it mentioned ABF allowed ZPMC to weld skin plate "D" to "E" identified as weld joint number MUB-MA21 D/J-5 with an excessive root opening measuring 4.2mm. Drawing MU-WDT-07 weld joint detail MWT92 shows 0mm root opening on this non-standard joint design and AWS D1.5 2002 figure 2.4 only gives a +2/-0mm tolerance.

ZPMC take exception to receive this Non-conformance report. Here's the explanation as follows:

According to AWS D1.5 2002 figure 2.4 for TC-U4b-GF joint type, and the proper approved WPS no. WPS-B-T-2232-TC-U4b-F, the root opening is allowed from 0~3mm, and the tolerance is +2/-0, so ZPMC understood that the root opening for this joint type could vary from 0~5mm. So ZPMC proceeded the FCAW welding over the 4.2mm gap. Finally, ZPMC finished the 100% UT and the UT report showed the weld was qualified according to the acceptance criteria. See attached UT report.

Further more, the 89m Mockup has been wholly accepted by Caltrans. ZPMC here resubmit this letter and request Caltrans can close the NCR-000052 (ZPMC-0051).

ATTACHMENT:

NCR-000052 (ZPMC-0051)

CT-UT-106

2009-1-6

Handwritten signature and stamp: "ABF QCM 1A STAS. 09"



DEPARTMENT OF TRANSPORTATION
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Fluor Enterprises, a JV
375 Burma Road
Oakland CA 94607
Date: 08-Feb-2008

Attention: Dave Williams Consultant
Contract No: 04-0120F4
Job Name: SAS Superstructure
Document No: 05.03.06-000012

Subject: NCR No. ZPMC-0051

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NCR No: ZPMC-0051

Remarks:

Please see the attached NCR for details.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, Kannu Ba
File: 05.03.06

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
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Contract #: 04-0120F4
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000052

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Jan-200

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006 L/R
 Joint fit-up Coating Other Component: Tower-89m Mockup
 Procedural Procedural Descripton: Skin Plate D to Skin Plate E

Description of Non-Conformance:

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Applicable reference:

AWS D1.5 Figure 2.4 (mm) & Drawing MU-WDT-7

Who discovered the problem: Scott Croff

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1/22/08, Verbal

QC Inspector's Name: Fu Yu Hong

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 CT-UT-106

DATE 2008.02.18

PAGE 1 OF 1

Revision No: 1

PROJECT NO.: 工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: 89M BOX DE ANGLE
部件名称DRAWING NO.: MIB-MA21
图号CALTRANS CONTRACT NO.: 04-0120F4
加州工程编号REFERENCING CODE 参考规范
AWS D1.5-2002ACCEPTANCE STANDARD 接受标准
AWS D1.5-2002(Table 6.3)PROCEDURE NO. 程序编号
ZPQC-UT-01WELDING PROCESS 焊接方法
FCAWJOINT TYPE 焊缝类型
CORNER JOINTCALIBRATION DUE DATE 仪器校正有效期
Jan. 1ST, 2009EQUIPMENT 设备
UT SCOPEMANUFACTURER 制造商
PANAMETRICSMODEL NO. 样式编号
EPOCH-4BSERIAL NO. 序列编号
071565311,061488510CALIBRATION BLOCK 试块
AWS IIV BLOCK TYPE IICOUPLANT 耦合剂
C.M.CMATERIAL/THICKNESS 材料厚度
A709-50T-2 / 60/75 mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
Changchao	70 °	2.5 MHz	18x18 mm	Changchao	60 °	2.5 MHz	18x18 mm
Changchao	0 °	2.5 MHz	20 mm	Reference Level 参考灵敏度			20dB

Base metal inspected per AWS D1.5-2002 Section 6.19.5

0 ° UT OK

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS 分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From X 距X	From Y 距Y		
MIB-MA21D/J-5A/5B		68.5				32									ACC.
		59.5				31									ACC.
BLANK															

EXAMINED BY 主探

REVIEWED BY 审核:

L. Liming 2008.02.18
LEVEL-II SIGN / DATE

Zshuqin
LEVEL-II SIGN / DATE 2008.02.18

质量经理 / QCM-

用户CUSTOMER

Huikang 2008.2.26

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
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(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, PRC**Report No:** NCS-000177**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Jan-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0051**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006 L/R
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 16-Jan-2008**Description of Non-Conformance:**

ABF allowed ZPMC to weld Skin Plate 'D' to 'E' identified as weld joint number MUB-MA21 D/J-5 with an excessive root opening measuring 4.2mm. Drawing MU-WDT-07 Weld Joint Detail MWT92 shows 0 mm root opening on this non-standard joint design and AWS D1.5 2002 Figure 2.4 only gives a +2/-0mm tolerance. Lu Jian Hua, ZPMC and Gang Jiao, ABF stated that they felt this would be approved and were going to continue. QA Inspector Bruce Berger stated that if they continue with the welding it would be at their own risk, both Mr. Lu and Gang stated that they understood.

Contractor's proposal to correct the problem:

ZPMC takes exception to this NCR. According to AWS D1.5 2002, Figure 2.4, the weld joint has an "As Detailed Tolerance" of +2/-0 mm. The WPS used, WPS-B-T-22232-TC-U4b-F, allows a root gap opening of 0-3 mm. ZPMC understood that a 0-5 mm root gap is allowed for this joint type and proceeded with FCAW welding over the 4.2 mm root gap.

Corrective action taken:

ZPMC submitted a Ultrasonic Testing (UT) report indicating an acceptable weld at weld joint number MUB-MA21 D/J-5. Letter No. 05.03.01-003087 concluded the successful completion of 77m and 89m mock-ups.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, (86) 134-8257-0045, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Sinevod,Serge

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer