

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, China**Report No:** NCR-000906**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0868**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Crossbeam 19, CB3003A-019
Procedural	Procedural	Description:	

Reference Description: New Welding Procedure Not Followed (Rager/McQuaid)**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of CB3003A-019 (Crossbeam CB19) this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

3. Preparation for welding (3M)
4. Welding (4A, 4C, 4D, 4E)

NOTE: The above references are relative to sections 3 ~ 4 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The welds are identified as follows: CB3003A-019-005, CB3003A-019-017, DP3179-001-039

The welding processes used was: FCAW

The area was being preheated using electric strip heater on weld CB3003-019-005.

The weld is a complete joint penetration weld joining stiffener to stiffener, side plate to deck plate and side plate to top plate.

The welds are SPCM

CB3003A-019 is located in Bay Number 7 northeast side.

Reference attached photos below:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

NEW WELD PROCEDURE (Rager/McQuaid)

3) Preparation for welding

M. Preheat shall utilize the use of electric heaters and blankets and be applied in such a manner to provide a minimum temperature in the area of the weld of 140°C at all times until the weld joint is post weld thermal treated. (This includes applying preheat for CJP welds made from both sides and backgouged.)

4) Welding.

- A. All welding shall be performed in accordance with an approved WPS and as amended by this procedure.
- C. The CWI shall verify that the welder understands that all starts and stops are to be ground before an arc is struck on them to remove weld craters and provide a means to tie the next weld pass into the end of the weld.
- D. Before welding over previously deposited metal, all slag shall be removed and the weld and adjacent base metal shall be brushed clean.
- E. Preheat shall be maintained in accordance with Section 3.k.~ 3.n. of this procedure.

Who discovered the problem: Rene Hernandez

Name of individual from Contractor notified: Huang Wehguang

Time and method of notification: 10:30, 11/24/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 13:00hrs, Email, 11/25/10

QC Inspector's Name: Liu Fa Wen

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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 Mazen Wahbeh,(818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Devey,Jim

SMR

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Reviewed By: Wahbeh,Mazen

SMR

NCT

(Continued Page 2 of 2)

Attachments: ZPMC-0868

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000863

Subject: NCR No. ZPMC-0868

Dated: 01-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000861 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: As this NCR was written without a contractual basis it should be withdrawn.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contract document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without a contractual basis it should be withdrawn.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000861R00

Caltrans' comments:

Status: REJ

Date: 03-Dec-2010

CT acknowledges contractor's response. However, successful NDT will close this NCR.

Submitted by: Chao, Ching

Attachment(s):

Date: 03-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000863

Subject: NCR No. ZPMC-0868

Dated: 08-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000861 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000861R01

Caltrans' comments:

Status: REJ

Date: 09-Dec-2010

Normal NCR closure package with NDT reports shall be submitted with the NPR to close out the NCR.

Submitted by: Woo, Laraine

Attachment(s):

Date: 09-Dec-2010

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000863

Subject: NCR No. ZPMC-0868

Dated: 01-Mar-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000861 **Rev:** 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing NDT to show the welds are acceptable.

ZPMC is providing NDT to show the welds are acceptable. The weld identified as DP3179-001-039, was misidentified and should be DP 3179-1-001-039. Based on the acceptable NDT, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000861R02;

Caltrans' comments:

Status: CLO

Date: 02-Mar-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0868 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 02-Mar-2011



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-17777 DATE 2010.12.10 PAGE 1 OF 3 Revision No: 0

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

ITEMS NAME: 部件名称 CB19 STRUT	DRAWING NO.: 图号 DP3182-1/DP3178DP3179-1/DP3179-2/DP3180/DP3181	CALTRANS CONTRACT NO.: 04-0120F4 加州工程编号
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REFERENCING CODE 参考规范 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002(Table 6.3)	PROCEDURE NO. 程序编号 ZPQC-UT-01
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WELDING PROCESS 焊接方法 FCAW	JOINT TYPE 焊缝类型 CORNER-JOINT	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010
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EQUIPMENT 设备 UT SCOPE	MANUFACTURER 制造商 OLYMPUS	MODEL NO. 样式编号 EPOCH 4B	SERIAL NO. 序列编号 081610708
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CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II	COUPLANT 耦合剂 C.M.C	MATERIAL/THICKNESS 材料厚度 A709M-345F2-X 25/16mm
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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
AMERICA	70°	2.25MHz	0.75×0.625 in				
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
DP3182-1-001-009	1	70	A	1	50	40	1	+9	30	44	15	0	0	REJ.	100%	
DP3182-1-001-010		70				40								ACC.	100%	
DP3178-001-010		70				40								ACC.	100%	
DP3178-001-009		70				40								ACC.	100%	
DP3178-001-011	1	70	A	1	50	40	0	+10	30	29	10	-15	30	REJ.	100%	
DP3178-001-012		70				40								ACC.	100%	
DP3178-001-017		70				40								ACC.	100%	
DP3178-001-018		70				40								ACC.	100%	

EXAMINED BY 主探 <i>Dai Liang Sheng</i> 12/10/10	REVIEWED BY 审核 <i>Li Li Ming</i> 12/10/10
LEVEL - II SIGN / DATE	LEVEL - II SIGN / DATE

质量经理 / QCM <i>Li J'anhua</i>	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



REPORT OF ULTRASONIC EXAMINATION

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REPORT NO. 报告编号 B787-UT-17777 DATE 2010.12.10 PAGE 2 OF 3 Revision No: 0

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	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y			
DP3178-001-019		70				40									ACC.	100%
DP3178-001-020		70				40									ACC.	100%
DP3179-1-001-039		70				40									ACC.	100%
DP3179-1-001-040	1	70	A	1	48	40	1	+7	30	44	15	-15	0	REJ.	100%	
DP3179-1-001-041	1	70	A	1	53	40	3	+10	30	64	22	0	0	REJ.	100%	
DP3179-1-001-042		70				40									ACC.	100%
DP3179-1-001-043		70				40									ACC.	100%
DP3179-1-001-044		70				40									ACC.	100%
DP3179-1-001-045		70				40									ACC.	100%
DP3179-2-001-029	1	70	A	1	48	40	1	+7	30	44	15	-20	30	REJ.	100%	
DP3179-2-001-030		70				40									ACC.	100%
DP3179-2-001-031		70				40									ACC.	100%
DP3179-2-001-032		70				40									ACC.	100%
DP3179-2-001-033		70				40									ACC.	100%
DP3179-2-001-034		70				40									ACC.	100%
DP3179-2-001-035	1	70	A	1	51	40	2	+9	30	53	18	-25	40	REJ.	100%	
DP3180-001-027		70				40									ACC.	100%
DP3180-001-013		70				40									ACC.	100%
DP3180-001-014		70				40									ACC.	100%
DP3180-001-015		70				40									ACC.	100%
DP3180-001-030		70				40									ACC.	100%
DP3180-001-016		70				40									ACC.	100%

EXAMINED BY 主探 <i>Pai Gang Sheng</i> 12/10/10 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>Li Liming</i> 12/10/10 LEVEL - II SIGN / DATE
质量经理 / QCM <i>[Signature]</i> 签字 SIGN / 日期 DATE	用户CUSTOMER _____ 签字 SIGN / 日期 DATE



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-17777 DATE 2010.12.10 PAGE 3 OF 3 Revision No: 0

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	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
DP3180-001-017	1	70	A	1	50	40	2	+8	30	56	19	-10	70	REJ.	100%
DP3180-001-018		70				40								ACC.	100%
DP3180-001-033		70				40								ACC.	100%
DP3180-001-034		70				40								ACC.	100%
DP3180-001-035	1	70	A	1	52	40	2	+10	30	53	15	-5	0	REJ.	100%
DP3180-001-036		70				40								ACC.	100%
DP3180-001-037		70				40								ACC.	100%
DP3180-001-038		70				40								ACC.	100%
DP3180-001-039		70				40								ACC.	100%
DP3180-001-040		70				40								ACC.	100%
DP3181-001-064		70				40								ACC.	100%
DP3181-001-065		70				40								ACC.	100%
DP3181-001-066		70				40								ACC.	100%
DP3181-001-067	1	70	A	1	52	40	2	+10	210	49	17	0	0	REJ.	100%
DP3181-001-068		70				40								ACC.	100%
DP3181-001-069		70				40								ACC.	100%
DP3181-001-070		70				40								ACC.	100%

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EXAMINED BY 主探 <i>Dai Geng Sheng</i> 12/10/10 LEVEL - II SIGN / DATE	REVIEWED BY 审核 <i>Li Li Ming</i> 12/10/10 LEVEL - II SIGN / DATE
质量经理 / QCM <i>Lu Jianhua</i> 签字 SIGN / 日期 DATE	用户 CUSTOMER 签字 SIGN / 日期 DATE

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

Location: Changxing Island, Shanghai, China**Report No:** NCS-000901**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0868**Type of problem:**

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

Date the Non-Conformance Report was written: 24-Nov-2010**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of CB3003A-019 (Crossbeam CB19) this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

3. Preparation for welding (3M)
4. Welding (4A, 4C, 4D, 4E)

NOTE: The above references are relative to sections 3 ~ 4 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The welds are identified as follows: CB3003A-019-005, CB3003A-019-017, DP3179-001-039

The welding processes used was: FCAW

The area was being preheated using electric strip heater on weld CB3003-019-005.

The weld is a complete joint penetration weld joining stiffener to stiffener, side plate to deck plate and side plate to top plate.

The welds are SPCM

CB3003A-019 is located in Bay Number 7 northeast side.

Reference attached photos below:

Contractor's proposal to correct the problem:

Contractor will provide the NDT report to prove the weld is acceptable.

Corrective action taken:

Contractor provided the NDT report to prove the weld is acceptable. The Weld referenced ID DP3179-001-039 should actually be DP 3179-1-001-039.

