

**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, P.R. China

**Report No:** NCR-000512

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 17-Nov-2009

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

**NCR #:** ZPMC-0485

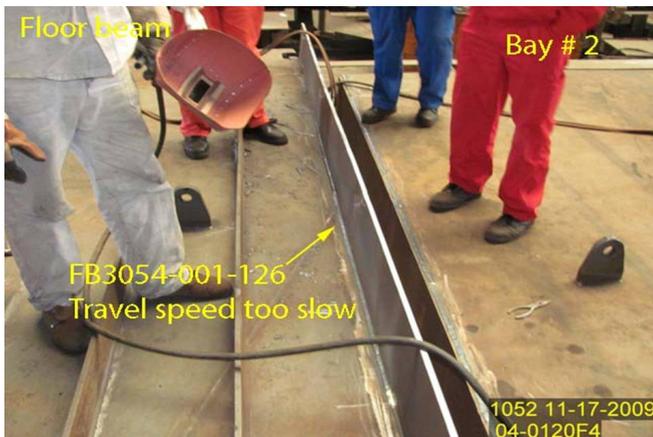
### Type of problem:

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Lift 12 OBG Floor Beam FB3054-001
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** ZPMC welder was welding outside of the allowable parameters on a floorbeam in OBG Lift 12

### Description of Non-Conformance:

This Quality Assurance Inspector (QA) observed ZPMC personnel performing Flux Cored Arc Welding (FCAW) of weld joint 126, located on PCMK FB3054-001. The welder identified as #045227 was observed to be welding with a 60mm (mm/min) travel speed. This does not comply with the applicable WPS-B-T-2231-TC-U4b-F which requires a travel speed of 182.6 - 442.4 (mm/min). Welding amp & volts were found to be in compliance with the mentioned Welding Procedure Specification (WPS).



### Applicable reference:

Approved Welding Procedure Specification: WPS-B-T2231-TC-U4b-F

**Who discovered the problem:** Dhanasingh Sukanthan

**Name of individual from Contractor notified:** Larry Lao

**Time and method of notification:** 1100 hours, Verbal

**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Time and method of notification:** 1200 hours, Verbal

**QC Inspector's Name:** Zhai Hai Feng

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

N/A

**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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

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**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 11-Dec-2009

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000475

**Subject:** NCR No. ZPMC-0485

**Reference Description:** ZPMC welder was welding outside of the allowable parameters on a floorbeam in OBG Lift 12

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

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG **Lift:** 12

**Remarks:**

This Quality Assurance Inspector (QA) observed ZPMC personnel performing Flux Cored Arc Welding (FCAW) of weld joint 126, located on PCMK FB3054-001. The welder identified as #045227 was observed to be welding with a 60mm (mm/min) travel speed. This does not comply with the applicable WPS-B-T-2231-TC-U4b-F which requires a travel speed of 182.6 - 442.4 (mm/min). Welding amp & volts were found to be in compliance with the mentioned Welding Procedure Specification (WPS).

**Action Required and/or Action Taken:**

Submit a repair procedure to the engineer for approval.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0485

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000475

**Subject:** NCR No. ZPMC-0485

**Dated:** 25-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000545 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC will provide explanation of measures that they took to correct the issue documented in the NCR. In addition, NDT documentation will be provided to show the weld is acceptable.

ZPMC will provide explanation of measures that they took to correct the issue documented in the NCR. In addition, NDT documentation will be provided to show the weld is acceptable. Based on this ZPMC requests that this course of action be approved with action pending. When documents become available ZPMC will request closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000545R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 26-Jan-2010

The proposed resolution provided by the contractor is accepted. The NCR will be closed once the required preventative measures are taken and repair documentation are submitted for the Engineer's review and acceptance.

**Submitted by:** Chao, Ching

**Attachment(s):**

**Date:** 26-Jan-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000475

**Subject:** NCR No. ZPMC-0485

**Dated:** 07-Apr-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000545 Rev: 01

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**Contractor's Proposed Resolution:**

**Reference Resolution:** Refer to ZPMC's letter of response for comments.

Refer to ZPMC's letter of response for comments.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000545R01;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 20-Apr-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0485 is closed

**Submitted by:** Ku, Stanley

**Date:** 20-Apr-2010

**Attachment(s):**



No. B-723

## LETTER OF RESPONSE

**TO:** American Bridge/Flour

**DATE:** 2010-4-6

**REGARDING:** NCR-000512(ZPMC-0485)

Welding was been performing at an exceeding welding speed on FB3045-001-126. ZPMC acknowledged this issue and has written an internal NCR. ZPMC has removed the affected weld by gouging and the subsequent weld was finished under the proper welding control by ZPMC CWI. This weld has been tested and was found to be acceptable. Please also be noticed that this panel has achieved the green tag under the efforts from three parities. ZPMC is providing the NDT record and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000512(ZPMC-0485)

B787-UT-10060

A handwritten signature in black ink, appearing to be 'J. W. ...', is located below the attachment list.

4/16/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
333 Burma Road  
Oakland CA 94607  
Tel: Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 11-Dec-2009

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

**Dear:** Mr. Charles Kanapicki  
**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Document No:** 05.03.06-000475

**Subject:** NCR No. ZPMC-0485

**Reference Description:** ZPMC welder was welding outside of the allowable parameters on a floorbeam in OBG Lift 12

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

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** 12

**Remarks:**

This Quality Assurance Inspector (QA) observed ZPMC personnel performing Flux Cored Arc Welding (FCAW) of weld joint 126, located on PCMK FB3054-001. The welder identified as #045227 was observed to be welding with a 60mm (mm/min) travel speed. This does not comply with the applicable WPS-B-T-2231-TC-U4b-F which requires a travel speed of 182.6 - 442.4 (mm/min). Welding amp & volts were found to be in compliance with the mentioned Welding Procedure Specification (WPS).

**Action Required and/or Action Taken:**

Submit a repair procedure to the engineer for approval.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0485

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao  
**File:** 05.03.06

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 File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Changxing Island, Shanghai, P.R. China

**Report No:** NCR-000512

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 17-Nov-2009

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

**NCR #:** ZPMC-0485

### Type of problem:

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

**Bridge No:** 34-0006

**Component:** Lift 12 OBG Floor Beam FB3054-001

**Reference Description:** ZPMC welder was welding outside of the allowable parameters on a floorbeam in OBG Lift 12

### Description of Non-Conformance:

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### Applicable reference:

Approved Welding Procedure Specification: WPS-B-T2231-TC-U4b-F

**Who discovered the problem:** Dhanasingh Sukanthan

**Name of individual from Contractor notified:** Larry Lao

**Time and method of notification:** 1100 hours, Verbal

**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Time and method of notification:** 1200 hours, Verbal

**QC Inspector's Name:** Zhai Hai Feng

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

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**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR

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# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-10060      DATE 2009.12.09      PAGE 1 OF 2      Revision No: 0

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

ITEMS NAME: OBG FLOOR BEAM 12 LIFTING      DRAWING NO.: FB3054      CALTRANS CONTRACT NO.: 04-0120F4  
 部件名称      图号      加州工程编号

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

WELDING PROCESS 焊接方法 FCAW      JOINT TYPE 焊缝类型 BUTT CORNER-JOINT      CALIBRATION DUE DATE 仪器校正有效期 Dec. 28<sup>ST</sup>, 2009

EQUIPMENT 设备      MANUFACTURER 制造商 PANAMETRICS      MODEL NO. 样式编号 EPOCH-4B      SERIAL NO. 序列编号 071565311, 061488510, 061495811, 070152011

CALIBRATION BLOCK 试块 AWS IIV BLOCK TYPE II      COUPLANT 耦合剂 C.M.C      MATERIAL/THICKNESS 材料厚度 A709M-345T2-X/ A709M-345F2-X      14/ 20/18/30 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°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm				

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		
FB3054-001-021	1	70	A	1	40	32	1	+7	20	37	15	-4	30	REJ.	100%
FB3054-001-148		70				32								ACC.	100%
FB3054-001-146	1	70	A	1	39	32	1	+6	30	41	15	-3	400	REJ.	100%
FB3054-001-126		70				32								ACC.	100%
FB3054-001-127	1	70	A	1	42	32	3	+7	4900	60	7	-2	4900	REJ.	100%
	2	70	A	1	42	32	3	+7	20	60	7	-2	5300	REJ.	100%
	3	70	A	1	42	32	3	+7	20	60	7	-2	5430	REJ.	100%
	4	70	A	1	42	32	3	+7	20	60	7	-2	5500	REJ.	100%

EXAMINED BY 主探 Han Feng

REVIEWED BY 审核 Huang Jing

LEVEL - II SIGN / DATE 09.12.09

LEVEL - II SIGN / DATE 09.12.09

质量经理 / QCM

用户 CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE



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(707) 649-5453  
(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, P.R. China**Report No:** NCS-000590**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0485**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 17-Nov-2009**Description of Non-Conformance:**

This Quality Assurance Inspector (QA) observed ZPMC personnel performing Flux Cored Arc Welding (FCAW) of weld joint 126, located on PCMK FB3054-001. The welder identified as #045227 was observed to be welding with a 60mm (mm/min) travel speed. This does not comply with the applicable WPS-B-T-2231-TC-U4b-F which requires a travel speed of 182.6 - 442.4 (mm/min). Welding amp & volts were found to be in compliance with the mentioned Welding Procedure Specification (WPS).

**Contractor's proposal to correct the problem:**

Remove said weld, reweld and perform NDT required to verify weld quality.

**Corrective action taken:**

Weld was removed and subsequent welding was performed under the supervision of CWI to ensure welding was performed in accordance with the provisions set forth by the approved WPS. Contractor supplied NDT documentation verifying weld is now in conformance with Contract weld quality requirements. An internal NCR was also issued by the Contractor in regards to this matter.

**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 Jim Simonis 152.1675.3703, who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer