

**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-000704

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

**Date:** 26-Mar-2010

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

**NCR #:** ZPMC-0671

### 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>Description:</b>	

**Reference Description:** No CWI/QC present during welding of exterior FL3 stiffeners to EP on Segment 9BE

### Description of Non-Conformance:

During random Quality Assurance visual observations of OBG segment 9BE in the yard between bay 17 and blast shop #2 this Quality Assurance Inspector (QA) observed the following issues:

- ZPMC welder 54013 was welding stiffener plates on the exterior of OBG Segment 9BE, between panel point PP75 and PP76, Cross Beam side, without a ZPMC Quality Control (QC) Inspector / CWI being present.
- This QA Inspector observed said welder performing work on weld SEG052E-092 and other adjacent deck plate stiffener welds.
- The weld is a Complete Joint Penetration (CJP) joining deck panel stiffener X8E to edge panel EP145A.
- Edge panel EP145A is designated as a Seismic Performance Critical Member (SPCM) on the approved shop drawings.
- This QA Inspector was present in the area of this welding from the hours of 19:30 to 20:15 on this date. During this time, QC representatives were not observed near this location.



### Applicable reference:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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Caltrans Special Provision Section 8-3.01: QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes.

**Who discovered the problem:** Paul Dawson

**Name of individual from Contractor notified:** Peter Shaw (no ABF QA available at time of incident)

**Time and method of notification:** 08:30\_03/27/10\_Email

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** 13:00, 03/27/2010, e-mail

**QC Inspector's Name:** Mr. Wang Xu (CWI)

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

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<b>Inspected By:</b>	Simonis,Jim	QA Inspector
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<b>Reviewed By:</b>	Wahbeh,Mazen	SMR
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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
 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, A JV  
 375 BURMA ROAD  
 OAKLAND CA 95607

**Date:** 29-Mar-2010

**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:** 05.03.06-000661

**Subject:** NCR No. ZPMC-0671

**Reference Description:** No CWI/QC present during welding of exterior FL3 stiffeners to EP on Segment 9BE

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:** 09

**Remarks:**

During random Quality Assurance visual observations of OBG segment 9BE in the yard between bay 17 and blast shop #2 this Quality Assurance Inspector (QA) observed the following issues:

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- This QA Inspector was present in the area of this welding from the hours of 19:30 to 20:15 on this date. During this time, QC representatives were not observed near this location.

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

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0671

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

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000661

**Subject:** NCR No. ZPMC-0671

**Dated:** 04-May-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000649 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has written an internal NCR to document this issue and prevent a future lapse in CWI coverage. To show the welds are acceptable ZPMC is providing NDT documentation.

ZPMC has written an internal NCR to document this issue and prevent a future lapse in CWI coverage. To show the welds are acceptable ZPMC is providing NDT documentation. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000649R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 05-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0671 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 05-May-2010



No. B-744

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-5-4**

**REGARDING: NCR-000704(ZPMC-0671)**

An internal NCR has been written to warn the coverage issue on QC/CWI's duty. ZPMC is providing the NDT record shows these affected welds' soundness. Based on this, ZPMC is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000704(ZPMC-0671)

B787-UT-12116

A handwritten signature in black ink, appearing to be "Jey" followed by a flourish.

5/4/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

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**Dear:** Mr. Charles Kanapicki  
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**File:** 05.03.06

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**Report No:** NCR-000704

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

**Date:** 26-Mar-2010

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

**NCR #:** ZPMC-0671

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural  Bridge No: 34-0006

Joint fit-up  Coating  Other  Component:

Procedural  Procedural  Description:

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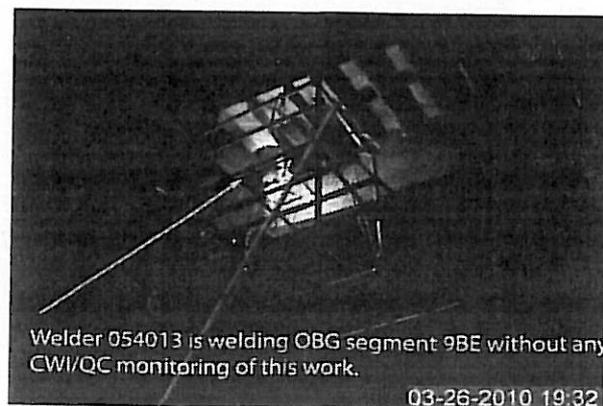
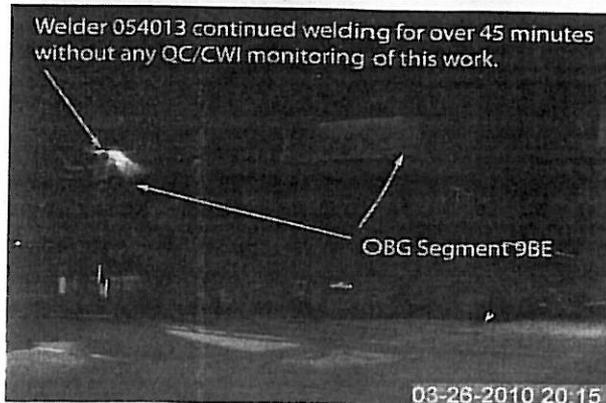
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**Applicable reference:**

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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Caltrans Special Provision Section 8-3.01: QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes.

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**Time and method of notification:** 08:30\_03/27/10\_Email

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** 13:00, 03/27/2010, e-mail

**QC Inspector's Name:** Mr. Wang Xu (CWI)

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

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**Inspected By:** Simonis,Jim

QA Inspector

**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-12116      DATE 2010.04.13      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: 9BE X8E      DRAWING NO.: SEG52E      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 SMAW      JOINT TYPE 焊缝类型 CORNER-JOINT      CALIBRATION DUE DATE 仪器校正有效期 Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备 UT SCOPE      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 IIW BLOCK TYPE II      COUPLANT 耦合剂 C.M.C      MATERIAL/THICKNESS 材料厚度 A709M-345T2/F2-X 25/18mm

### 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			Sound Path 声程
SEG052E-074		70					32								ACC.	100%
SEG052E-092		70					32								ACC.	100%
SEG052E-101		70					32								ACC.	100%
SEG052E-110		70					32								ACC.	100%
SEG052E-119		70					32								ACC.	100%
SEG052E-042		70					32								ACC.	100%
SEG052E-128		70					32								ACC.	100%

AFTER B-WR11013

EXAMINED BY 主探 <i>Azeng Jim</i>	REVIEWED BY 审核 <i>Wu chao</i>
LEVEL - II SIGN / DATE <i>12.04.17</i>	LEVEL - II SIGN / DATE <i>12.04.13</i>
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

**DEPARTMENT OF TRANSPORTATION**

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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, P.R. China**Report No:** NCS-000669**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0671**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>Description:</b>	

**Date the Non-Conformance Report was written:** 26-Mar-2010**Description of Non-Conformance:**

During random Quality Assurance visual observations of OBG segment 9BE in the yard between bay 17 and blast shop #2 this Quality Assurance Inspector (QA) observed the following issues:

-ZPMC welder 54013 was welding stiffener plates on the exterior of OBG Segment 9BE, between panel point PP75 and PP76, Cross Beam side, without a ZPMC Quality Control (QC) Inspector / CWI being present.

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-Edge panel EP145A is designated as a Seismic Performance Critical Member (SPCM) on the approved shop drawings.

-This QA Inspector was present in the area of this welding from the hours of 19:30 to 20:15 on this date.

During this time, QC representatives were not observed near this location.

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

Issue an internal NCR in regards to this issue and perform NDT required to verify weld quality.

**Corrective action taken:**

The Contractor has issued an internal NCR in regards to this issue and has submitted NDT records verifying the weld is in conformance with Contract weld quality requirements.

**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:**

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer