

**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, PR China **Report No:** NCR-000699  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 18-Mar-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0666

**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> OBG Lift 7E
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** OBG 7BE/ 7CE, Trial Assembly

**Description of Non-Conformance:**

During random Quality Assurance visual observations of the Lift 7E, this Quality Assurance Inspector (QA) discovered the following issue:

- ZPMC Quality Control Inspector (QC) was absent for a period of over 30 minutes while ZPMC personnel welded Side Plate to Edge Plate hold back welds between Segments 7BE and 7CE on the E6 Line.
- The welds are designated as SEG36A-028 (7BE) and CA039-001 (7CE).
- This QA was present from 21:45 to 22:30 hours. This time frame exceeds the allowable maximum time for QC Inspection coverage as required by Caltrans Special Provision Section 8-3.01.
- Lift 7 East is located in the OGB Trial Assembly Area.



**Applicable reference:**

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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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welding location, shall not lapse for a period exceeding 30 minutes.

**Who discovered the problem:** Mike Hasler

**Name of individual from Contractor notified:** Mr. CK Chen

**Time and method of notification:** 07:40 hours, 03/19/10, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 08:40 hours, 03/19/10, Verbal

**QC Inspector's Name:** Mr. Wang Lu

**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
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000656

**Subject:** NCR No. ZPMC-0666

**Dated:** 12-May-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000654 **Rev:** 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC providing the NDT records to show the welds are acceptable despite the lapse in QC coverage. An internal NCR has been written by ZPMC to prevent future occurrences.

ZPMC providing the NDT records to show the welds are acceptable despite the lapse in QC coverage. An internal NCR has been written by ZPMC to prevent future occurrences. ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000654R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 13-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0666 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 13-May-2010



No. B-752

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-5-12**

**REGARDING: NCR-000699(ZPMC-0666)**

ZPMC has written an internal NCR regarding to this issue. ZPMC QA personnel have emphasized the requirement of 30 minutes' QC coverage during welding to ZPMC QC/CWI. ZPMC is providing the NDT records what show the welded welds are acceptable and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000699(ZPMC-0666)

B787-MT-22733

B787-MT-22734

B787-UT-12712

B787-UT-12713

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

5/12/10



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:** 21-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:** 05.03.06-000656

**Subject:** NCR No. ZPMC-0666

**Reference Description:** OBG 7BE/ 7CE, Trial Assembly

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:** 07

### Remarks:

During random Quality Assurance visual observations of the Lift 7E, this Quality Assurance Inspector (QA) discovered the following issue:

- ZPMC Quality Control Inspector (QC) was absent for a period of over 30 minutes while ZPMC personnel welded Side Plate to Edge Plate hold back welds between Segments 7BE and 7CE on the E6 Line.
- The welds are designated as SEG36A-028 (7BE) and CA039-001 (7CE).
- This QA was present from 21:45 to 22:30 hours. This time frame exceeds the allowable maximum time for QC Inspection coverage as required by Caltrans Special Provision Section 8-3.01.
- Lift 7 East is located in the OGB Trial Assembly Area.

### 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:** Bill Howe Sr. Transportation Engineer  
**Attachments:** ZPMC-0666

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

**DEPARTMENT OF TRANSPORTATION**  
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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, PR China

**Report No:** NCR-000699

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

**Date:** 18-Mar-2010

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

**NCR #:** ZPMC-0666

### Type of problem:

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

**Bridge No:** 34-0006

**Component:** OBG Lift 7E

**Reference Description:** OBG 7BE/ 7CE, Trial Assembly

### Description of Non-Conformance:

During random Quality Assurance visual observations of the Lift 7E, this Quality Assurance Inspector (QA) discovered the following issue:

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-Lift 7 East is located in the OGB Trial Assembly Area.



### Applicable reference:

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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Name of individual from Contractor notified:** Mr. CK Chen

**Time and method of notification:** 07:40 hours, 03/19/10, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 08:40 hours, 03/19/10, Verbal

**QC Inspector's Name:** Mr. Wang Lu

**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 MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-22733      DATE日期 2010.05.04      PAGE OF页码 1/1      Revision No: 0

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

DRAWING NO. 图号: OBE7 STRUT PLATE CORNER ASSEMBLY      CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

REFERENCING CODE 参考规范编码: AWS D1.5-2002      ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002      PROCEDURE NO. 程序编号: ZPQC-MT-01      CALIBRATION DUE DATE 仪器校正有效期: Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备: MT YOKE      MANUFACTURER 制造商: PARKER      MODEL NO. 样式编号: B310S      SERIAL NO. 连续编号: 5395 5617 5620

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法      CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉      YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料:  WELDING 焊接件      Material & thickness 母材,厚度: A709M-345  
 CASTING 铸件      16/18 mm  
 FORGING 锻造

WELDING PROCESS 焊接方法: SMAW      TYPE OF JOINT 焊缝类型: CORNER JOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
CA039-001				ACC.		100%MT

AFTER NCR-462

NCR-B-462 (ZPMC-0666)

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EXAMINED BY 主探: Fu Zhiqiang      12.05.04  
LEVEL - II SIGN 签名 / DATE日期  
质量经理 / QCM

REVIEWED BY 审核: Wang Wei      12.05.04  
LEVEL-II SIGN / DATE日期  
用户CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-22734      DATE日期 2010.05.04      PAGE OF页码 1/1      Revision No: 0

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

DRAWING NO. 图号: OBE7 STRUT PLATE CORNER ASSEMBLY      CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

REFERENCING CODE 参考规范编码: AWS D1.5-2002      ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002      PROCEDURE NO. 程序编号: ZPQC-MT-01      CALIBRATION DUE DATE 仪器校正有效期: Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备: MT YOKE      MANUFACTURER 制造商: PARKER      MODEL NO. 样式编号: B310S      SERIAL NO. 连续编号: 5395 5617 5620

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法      CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉      YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料:  WELDING 焊接件      Material & thickness 母材,厚度: A709M-345  
 CASTING 铸件      16/18 mm  
 FORGING 锻造

WELDING PROCESS 焊接方法: SMAW      TYPE OF JOINT 焊缝类型: CORNER JOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SEG036A-028				ACC.		100%MT

AFTER NCR-462      NCR-B-462 (ZPMC-0666)

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EXAMINED BY 主探: Fu Zhiqiang      LEVEL - II SIGN 签名 / DATE日期: 12.05.04  
质量经理 / QCM

REVIEWED BY 审核: Wangwei      LEVEL-II SIGN / DATE日期: 12.05.04  
用户CUSTOMER



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-12712      DATE 2010.05.04      PAGE 1 OF 1      Revision No: 0

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

ITEMS NAME: 7BE CORNER ASSEMBLY 部件名称	DRAWING NO.: OBE7 图号	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 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
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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,
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CALIBRATION BLOCK 试块 AWS IIW BLOCK TYPE II	COUPLANT 耦合剂 C.M.C	MATERIAL/THICKNESS 材料厚度 A709M-345      16/18mm
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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
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
SEG036A-028		70					32								ACC.	100%

AFTER NCR-462

*NCR-B-462 (ZPMC-0666)*

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EXAMINED BY 主探  
*Tang Xi-jian*  
LEVEL - II SIGN / DATE 10.07.04

REVIEWED BY 审核  
*Lin Sheng-jun*  
LEVEL - II SIGN / DATE 10.07.04

质量经理 / QCM  
\_\_\_\_\_  
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, PR China**Report No:** NCS-000671**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0666**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:** 18-Mar-2010**Description of Non-Conformance:**

During random Quality Assurance visual observations of the Lift 7E, this Quality Assurance Inspector (QA) discovered the following issue:

- ZPMC Quality Control Inspector (QC) was absent for a period of over 30 minutes while ZPMC personnel welded Side Plate to Edge Plate hold back welds between Segments 7BE and 7CE on the E6 Line.
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- This QA was present from 21:45 to 22:30 hours. This time frame exceeds the allowable maximum time for QC Inspection coverage as required by Caltrans Special Provision Section 8-3.01.
- Lift 7 East is located in the OGB Trial Assembly Area.

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

Issue internal NCR regarding 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:**

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 , who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer