

**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-000998

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

**Date:** 22-Apr-2011

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

**NCR #:** ZPMC-0956

### Type of problem:

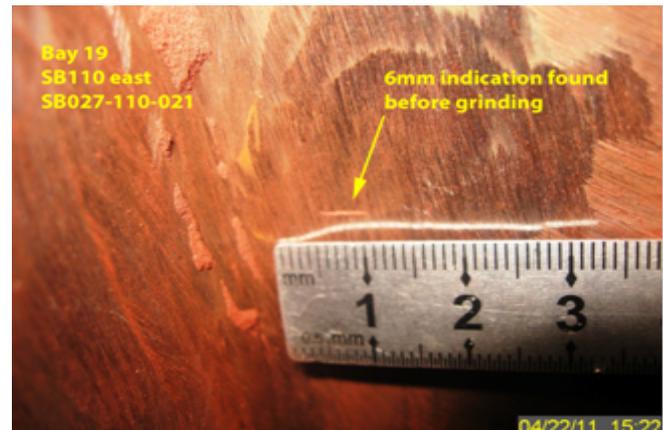
<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> OBG Suspender Bracket 110E
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT transverse indication	

**Reference Description:** QA found a missed MT transverse indication after ZPMC had tested and accepted the weld at Suspender Bracket 110 East

### Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic particle Testing (MT) review of welds located on OBG Suspender bracket SB110 East, this QA Inspector discovered the following issues:

- One transverse indication measuring approximately 6mm was found in weld ID SB027-110-021.
- In grinding the surface of the weld, the transverse indication is also present, measuring about 15mm.
- The weld is a 12mm Partial joint penetration (PJP) T joint, joining the Edge plate (X65W) to the Side plate (X64DD).
- The Y Location is 670mm from the edge of side plate
- The OBG Suspender bracket is located in BAY#19.
- This indication is clearly marked on the material on/near the weld.
- This weld joint is Non-Seismic performance critical (Non-SPCM).
- The Notice of Witness Inspection Number (NWIT) is 8899.
- The indication is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC).



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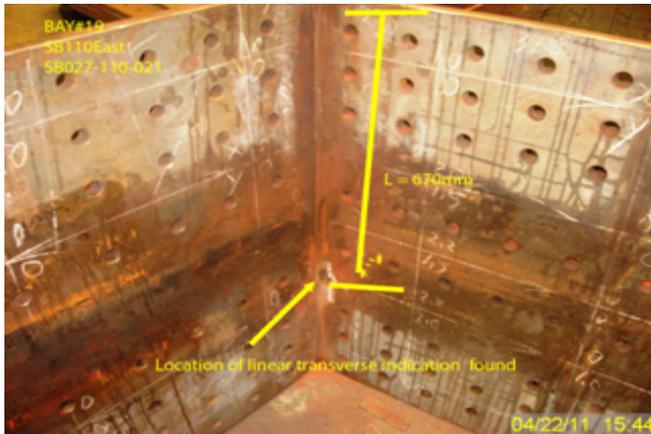
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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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### Applicable reference:

Applicable reference: Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (02) Table 6.8 – Specifies the maximum length indication allowed is approximately 3mm for a 12mm weld.

**Who discovered the problem:** Chandra Sudalaimuthu

**Name of individual from Contractor notified:** Peng Wen Jun

**Time and method of notification:** 16:00 hours, Verbal

**Name of Caltrans Engineer notified:** Sean Eagen

**Time and method of notification:** 19:00 hours, Email

**QC Inspector's Name:** Guo Xing Hui

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

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<b>Inspected By:</b>	Tsang, Eric	SMR
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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:** 25-Apr-2011

**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:** 05.03.06-000955

**Subject:** NCR No. ZPMC-0956

**Reference Description:** QA found a missed MT transverse indication after ZPMC had tested and accepted the weld at Suspender Bracket 110 East

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:**

- During the Quality Assurance (QA) Magnetic particle Testing (MT) review of welds located on OBG Suspender bracket SB110 East, this QA Inspector discovered the following issues:
- One transverse indication measuring approximately 6mm was found in weld ID SB027-110-021.
  - In grinding the surface of the weld, the transverse indication is also present, measuring about 15mm.
  - The weld is a 12mm Partial joint penetration (PJP) T joint, joining the Edge plate (X65W) to the Side plate (X64DD).
  - The Y Location is 670mm from the edge of side plate
  - The OBG Suspender bracket is located in BAY#19.
  - This indication is clearly marked on the material on/near the weld.
  - This weld joint is Non-Seismic performance critical (Non-SPCM).
  - The Notice of Witness Inspection Number (NWIT) is 8899.
  - The indication is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC).

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

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0956

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

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# NCT

( Continued Page 2 of 2 )

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**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000955

**Subject:** NCR No. ZPMC-0956

**Dated:** 04-May-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000948 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:**

Please see ZPMC response comments for NCR closure and provide the subject attached documents documenting objective evidence for NCR closure.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000948R00;

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**Caltrans' comments:**

**Status:** CLO

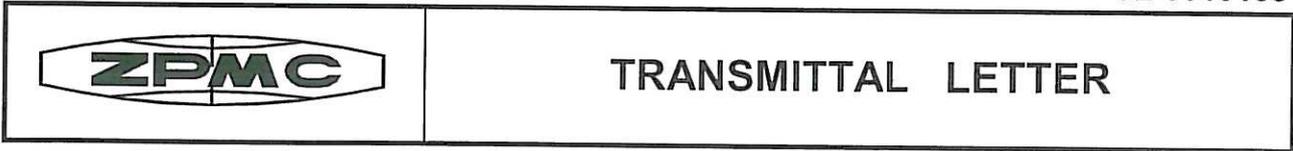
**Date:** 04-May-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0956 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 04-May-2011



PROJECT: S.F.O.B.B.

DATE:2011-05-02

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: OBG NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

(01) LR: No. B-992

(02) NCR-000998(ZPMC-0956)

B787-MT-38372 R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

*Jane*

RECEIVED 02 MAY 2011

DATE:

*14:38*

COMPANY:



PHONE NO.

PLAN NUMBER:N/A

#R787-QCP-102



No. B-992

## LETTER OF RESPONSE

**TO:** American Bridge/Flour

**DATE:** 2011-5-2

**REGARDING:** NCR-000998(ZPMC-0956)

ZPMC acknowledged this problem and has issued an internal NCR. This indication has been removed, repaired and re-tested to be acceptable. ZPMC is providing the NDT record and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000998(ZPMC-0956)

B787-MT-38372 R1

*Zhangwei*

*5/2/11*



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
666 Feng Bin Road Room 708, Changxing Island  
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## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
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**Date:** 25-Apr-2011

**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:** 05.03.06-000955

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

### Remarks:

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**Transmitted by:** Sean Eagen Transportation Engineer  
**Attachments:** ZPMC-0956

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

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NCT

( Continued Page 2 of 2 )

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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-000998  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 22-Apr-2011  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0956

**Type of problem:**

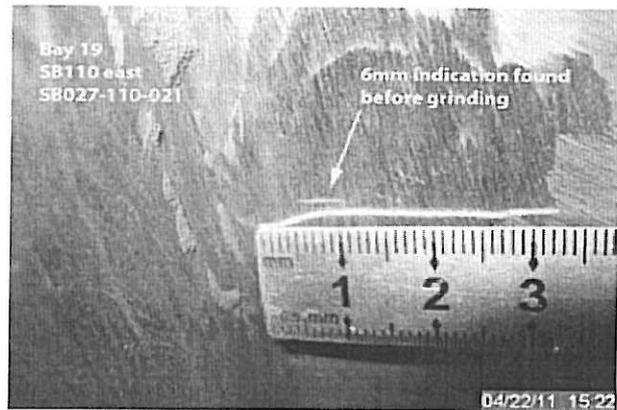
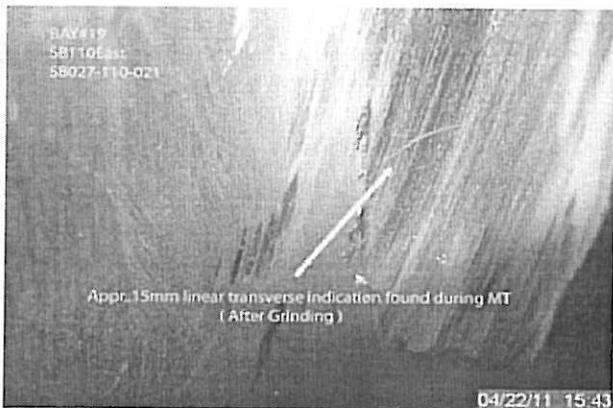
- Welding  Concrete  Other
- Welding  Curing  Procedural  Bridge No: 34-0006
- Joint fit-up  Coating  Other  Component: OBG Suspender Bracket 110E
- Procedural  Procedural  Description: Missed MT transverse indication

**Reference Description:** QA found a missed MT transverse indication after ZPMC had tested and accepted the weld at Suspender Bracket 110 East

**Description of Non-Conformance:**

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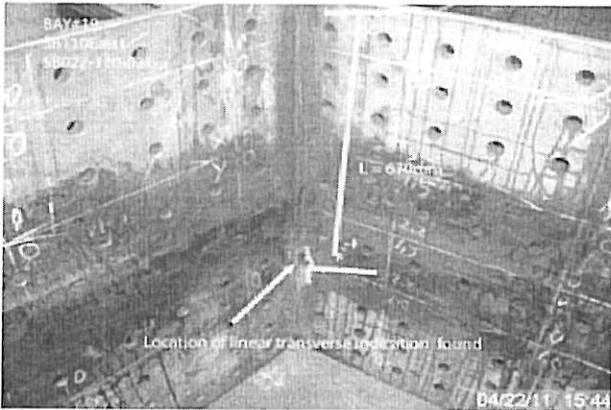
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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 2 of 2)



**Applicable reference:**

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**Name of individual from Contractor notified:** Peng Wen Jun  
**Time and method of notification:** 16:00 hours, Verbal  
**Name of Caltrans Engineer notified:** Sean Eagen  
**Time and method of notification:** 19:00 hours, Email  
**QC Inspector's Name:** Guo Xing Hui  
**Was QC Inspector aware of the problem:**  Yes  No  
**Contractor's proposal to correct the problem:**

**Comments:**

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<b>Inspected By:</b>	Tsang, Eric	SMR
<b>Reviewed By:</b>	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-38372R1		DATE日期 2011.04.26		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: SB110E support beam		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> , 2011			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17365			
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	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 30/28/50/29/20/75/25mm			
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T- 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			
SB027-110-021	1R1			ACC.		100%MT
AFTER B-CWR2939REV0						
BLANK						
EXAMINED BY主探 Fu Zhiqiang <i>Fu Zhiqiang</i>			REVIEWED BY 审核 <i>Wang Wei</i>			
LEVEL - II SIGN 签名 / DATE日期 2011.04.26			LEVEL-II SIGN / DATE日期 2011.04.26			
质量经理 / QCM <i>[Signature]</i>			用户CUSTOMER			
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  
(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-000964**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-May-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0956**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:** 22-Apr-2011**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic particle Testing (MT) review of welds located on OBG Suspender bracket SB110 East, this QA Inspector discovered the following issues:

- One transverse indication measuring approximately 6mm was found in weld ID SB027-110-021.
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- This weld joint is Non-Seismic performance critical (Non-SPCM).
- The Notice of Witness Inspection Number (NWIT) is 8899.
- The indication is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC).

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

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

**Corrective action taken:**

Contractor repaired the weld, and provided the NDT report. The NDT report proved the weld is acceptable. Internal NCR issued.

**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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of Structural Materials for your project.

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**Inspected By:** Ng,Michael

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer

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