

**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, P.R. China**Report No:** NCR-000968**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0927**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> SEG3014L (Segment 13BW), PP121
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT indication	

**Reference Description:** QA found 1 missed MT crack in Segment 13BW that has been tested and accepted by the Contractor's QC

**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 13BW, this QA Inspector discovered the following issues:

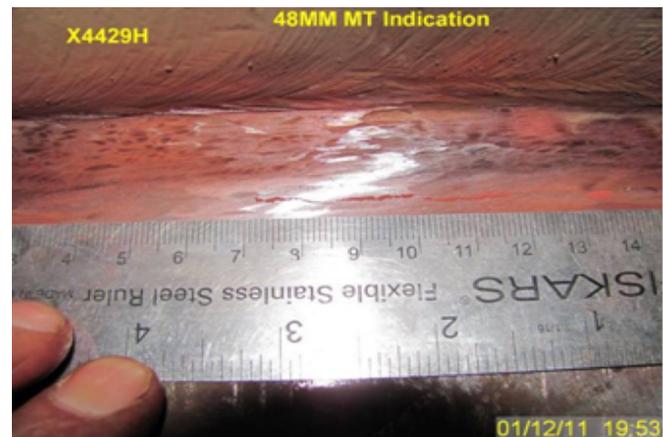
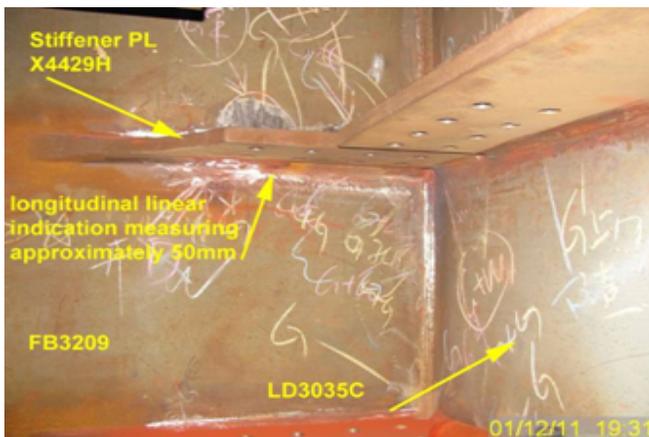
-One (1) Longitudinal Crack measuring approximately 50mm in length at the toe of the weld identified as FB3209-001-115.

-This weld is fillet weld joining horizontal floor beam stiffener (X4429H) to the floor beam web (X4475A).

-This OBG floor beam is located in Bay 14.

The Notice of Witness Inspection Number (NWIT) is 08148

-The Contractor's Quality Control (QC) personnel performed 100% MT of these welds. The crack is located within an area that has been previously tested and accepted by the QC personnel.

**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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

**Who discovered the problem:** Robert DeArmond

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** 07:20\_01/13/2011\_Verbal

**Name of Caltrans Engineer notified:** Sean Eagen, Roman Granados

**Time and method of notification:** 19:00\_01/13/11\_Email

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

**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:** 14-Jan-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:** 05.03.06-000925

**Subject:** NCR No. ZPMC-0927

**Reference Description:** QA found 1 missed MT crack in Segment 13BW that has been tested and accepted by the Contractor's QC

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:** 13

**Remarks:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 13BW, this QA Inspector discovered the following issues:

- One (1) Longitudinal Crack measuring approximately 50mm in length at the toe of the weld identified as FB3209-001-115.
- This weld is fillet weld joining horizontal floor beam stiffener (X4429H) to the floor beam web (X4475A).
- This OBG floor beam is located in Bay 14.

The Notice of Witness Inspection Number (NWIT) is 08148

- The Contractor's Quality Control (QC) personnel performed 100% MT of these welds. The crack is located within an area that has been previously tested and accepted by the QC personnel.

**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-0927

**cc:** Rick Morrow, 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:** 05.03.06-000925

**Subject:** NCR No. ZPMC-0927

**Dated:** 23-Feb-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000919 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000919R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 23-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0927 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 23-Feb-2011



TRANSMITTAL LETTER

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

DATE:2011-02-21

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-971

(02) NCR-000968(ZPMC-0927)

B787-MT-36736 R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

*Rosemary*

DATE: *13:26*  
RECEIVED 21 FEB 2011

COMPANY:



PHONE NO.

PLAN NUMBER:N/A

#R787-QCP-102



No. B-971

## LETTER OF RESPONSE

**TO:** American Bridge/Flour

**DATE:** 2011-2-21

**REGARDING:** NCR-000968(ZPMC-0927)

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-000968(ZPMC-0927)

B787-MT-36736 R1

*Zhang Wei*  
*2/21/11*



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:** 14-Jan-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:** 05.03.06-000925

**Subject:** NCR No. ZPMC-0927

**Reference Description:** QA found 1 missed MT crack in Segment 13BW that has been tested and accepted by the Contractor's QC

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:** 13

### Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 13BW, this QA Inspector discovered the following issues:

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The Notice of Witness Inspection Number (NWIT) is 08148

-The Contractor's Quality Control (QC) personnel performed 100% MT of these welds. The crack is located within an area that has been previously tested and accepted by the QC personnel.

### 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-0927

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

**File:** 05.03.06

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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, P.R. China

**Report No:** NCR-000968

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

**Date:** 12-Jan-2011

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

**NCR #:** ZPMC-0927

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural  **Bridge No:** 34-0006

Joint fit-up  Coating  Other  **Component:** SEG3014L (Segment 13BW), PP121

Procedural  Procedural  **Description:** Missed MT indication

**Reference Description:** QA found 1 missed MT crack in Segment 13BW that has been tested and accepted by the Contractor's QC

**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 13BW, this QA Inspector discovered the following issues:

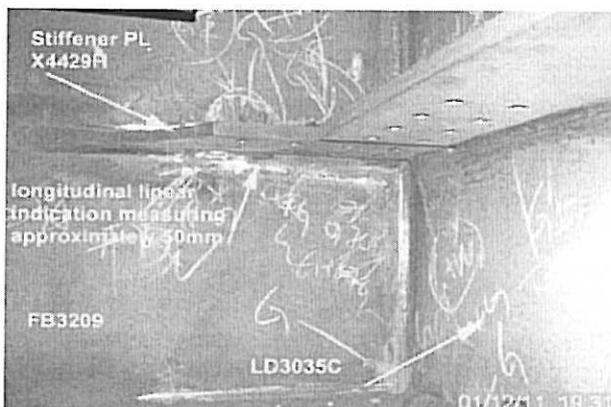
-One (1) Longitudinal Crack measuring approximately 50mm in length at the toe of the weld identified as FB3209-001-115.

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The Notice of Witness Inspection Number (NWIT) is 08148

-The Contractor's Quality Control (QC) personnel performed 100% MT of these welds. The crack is located within an area that has been previously tested and accepted by the QC personnel.



**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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

**Who discovered the problem:** Robert DeArmond

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** 07:20\_01/13/2011\_Verbal

**Name of Caltrans Engineer notified:** Sean Eagen, Roman Granados

**Time and method of notification:** 19:00\_01/13/11\_Email

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

**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
<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-36736R1		DATE日期 2011.01.26		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: FB3209 13BW floor beam splice			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
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 USA	MODEL NO. 样式编号 #ES-X	SERIAL NO. 连续编号 14236			
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-X 25/14mm			
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			
FB3209-001-115	1R1			ACC.		100%MT
AFTER B-CWR2758REV0						
BLANK						
EXAMINED BY主探 Zhong Shenglong <u>zhong sheng long</u>				REVIEWED BY 审核 <u>Yao Chun ping</u>		
LEVEL - II SIGN 签名 / DATE日期 <u>2011.01.26</u>				LEVEL-II SIGN / DATE日期 <u>2011.01.26</u>		
质量经理 / QCM <u>[Signature]</u>				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-000915**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0927**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:** 12-Jan-2011**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on segment 13BW, this QA Inspector discovered the following issues:

-One (1) Longitudinal Crack measuring approximately 50mm in length at the toe of the weld identified as FB3209-001-115.

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-This OBG floor beam is located in Bay 14.

The Notice of Witness Inspection Number (NWIT) is 08148

-The Contractor's Quality Control (QC) personnel performed 100% MT of these welds. The crack is located within an area that has been previously tested and accepted by the QC personnel.

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

Contractor will remove the indication and repair the weld. NDT will be performed on the repaired area and report will be submitted. ZPMC will issue an internal NCR to the QC personnel involved and will monitor his performance. Disciplinary action will be taken if he continues missing indications.

**Corrective action taken:**

Contractor removed the indication and complete the weld repair. NDT testing was performed and the NDT report submitted confirmed the welds are acceptable. Contractor issued an internal NCR to the QC personal.

Contractor is monitoring his performance as well as all inspector performance.

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

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Inspected By:** Ng,Michael

Quality Assurance Inspector

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**Reviewed By:** Wahbeh,Mazen

QA Reviewer