

**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-000827

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

**Date:** 24-Aug-2010

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

**NCR #:** ZPMC-0789

### 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>	South Tower Lift-3

**Reference Description:** Longitudinal Crack on Cross Bracing Gusset Plate

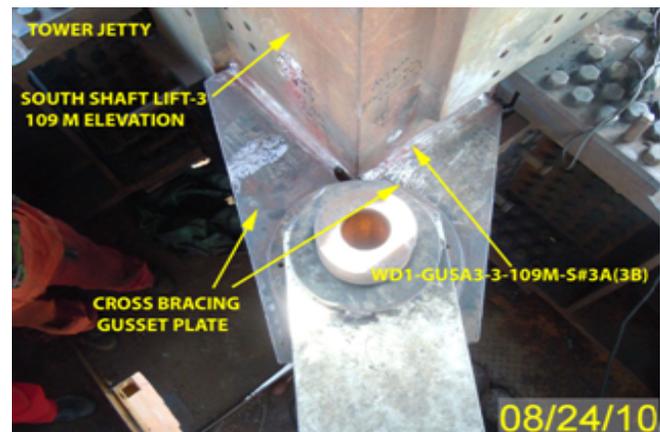
### Description of Non-Conformance:

During Magnetic Particle Testing (MT) review of welds on Cross Bracing Gusset Plate, 109 M elevation South Tower Lift-3, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) longitudinal crack measuring approximately 8 mm in length.
- The member is identified as Cross Bracing Gusset Plate.
- The weld is identified as WD1 – GUSA3 – 3 – 109M – S # 3B.
- The weld is a Complete Joint Penetration (CJP) T-joint joining the Cross Bracing Gusset Plate to South Tower Lift-3 at 109 M elevation.
- The member is Seismic Performance critical Member (SPCM).
- The member is located in Tower Trial Assembly, Heavy Dock.

The Notice of Witness Inspection Number (NWIT) is 006469. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

For further information, please see the attached photos and applicable reference below.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**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) Section 6.2.6.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks”.

**Who discovered the problem:** Naddi Sandeep Kumar

**Name of individual from Contractor notified:** Mr. Bi Diwei

**Time and method of notification:** 10:30 / 08/24/10 / Verbal

**Name of Caltrans Engineer notified:** Mr. Jim Reid

**Time and method of notification:** 0810/ 0825/10 Verbal

**QC Inspector's Name:** Mr. Zhao Chen Sun

**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 Mr. Thomas Ho, who represents the Office of Structural Materials for your project.

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**Inspected By:** Ng,Michael

QA Inspector

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**Reviewed By:** Devey,Jim

SMR



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
 333 Burma Road  
 Oakland CA 94607  
 Tel: 510-286-0539 Fax: 510-286-0550

**NON-CONFORMANCE REPORT TRANSMITTAL**

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

**Date:** 26-Aug-2010

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

**Dear:** Mr. Charles Kanapicki  
**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Subject:** NCR No. ZPMC-0789

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000784

**Reference Description:** Longitudinal Crack on Cross Bracing Gusset Plate

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:** Tower **Lift:** 03

**Remarks:**

During Magnetic Particle Testing (MT) review of welds on Cross Bracing Gusset Plate, 109 M elevation South Tower Lift-3, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) longitudinal crack indication measuring approximately 8 mm in length.
- The member is identified as Cross Bracing Gusset Plate.
- The weld is identified as WD1-GUSA3-3-109M-S#3B.
- The weld is a Complete Joint Penetration (CJP) T-joint joining the Cross Bracing Gusset Plate to South Tower Lift-3 at 109 M elevation.
- The member is Seismic Performance critical Member (SPCM).
- The member is located in Tower Trial Assembly, Heavy Dock.

The Notice of Witness Inspection Number (NWIT) is 006469. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

References:

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

**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 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.

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# NCT

( Continued Page 2 of 2 )

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**Transmitted by:** Gina Rizzardo      Transportation Engineer

**Attachments:**    ZPMC-0789

**cc:**    Rick Morrow, Gary Pursell, Mark Woods

**File:**    05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000784

**Subject:** NCR No. ZPMC-0789

**Dated:** 20-Sep-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000775 **Rev:** 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired this missed indication and is providing NDT to show that the repair was successful.

ZPMC has repaired this missed indication and is providing NDT to show that the repair was successful. The inspector involved with this missed indication has been reprimanded and is fully aware of the consequences of future missed indications. Based on these actions ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000775R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 20-Sep-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0789 is closed.

**Submitted by:** Eagen, Sean

**Date:** 20-Sep-2010

**Attachment(s):**



No. T-164

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2010-09-17**

**REGARDING: NCR-000827(ZPMC-0789)**

ZPMC received NCR-000827(ZPMC-0789), it mentioned that CT inspector found a 8 mm length indication during the MT Inspection.

For this position, ZPMC took the immediate repairing work. Finally these welds were checked and green tagged by CT, here attached related NDT reports show the welds are sound finally.

Basing on above information, ZPMC hope CT could take a review and close the NCR.

**ATTACHMENT:**

**NCR-000827(ZPMC-0789)**

**T787-MT-10890**

*Zhao jia neng*  
*2010-9-17*



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
 333 Marina Road  
 Oakland CA 94607  
 (415) 785-9539

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE BUILDER  
 375 BURNHAM ROAD  
 OAKLAND CA 95607

From: 26-Aug-2004

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

Job Name: SAS Superstructure

Document No: 05.03.06-000784

Dear: Mr. Charles Kanapicki  
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager  
 Subject: NCR No. ZPMC-0789

Reference Description: Longitudinal Crack on Cross Bracing Gusset Plate

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: Tower Lift: 03

Remarks:

During Magnetic Particle Testing (MT) review of welds on Cross Bracing Gusset Plate, 109 M elevation South Tower Lift-3, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) longitudinal crack indication measuring approximately 8 mm in length.
  - The member is identified as Cross Bracing Gusset Plate.
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  - The member is Seismic Performance critical Member (SPCM).
  - The member is located in Tower Trial Assembly, Heavy Dock.
- The Notice of Witness Inspection Number (NWIT) is 006469. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

References:

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

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 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.

02.02.15.04  
 05.03.06-000784.NCT

Received  
 NCT-000784 26 Aug 10 Page 1 of 2

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NCT

*(Continued Page 2 of 2)*

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Submitted by: [Redacted] [Redacted]

Attachments: ZP...89

cc: Rick Morrow, Gary Pursell, Mark Woods

File: 05.03.06

DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES

Bay Area Branch  
1500 California Street  
San Francisco, CA 94109-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-012011  
City: SEATTLE Date: 20 PM 13.2/13.9  
File #: 09.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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

Report No: NCR-000827

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 24-Aug-2010

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

NCR #: ZPMC-0789

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component:  
 Procedural  Procedural  Description: South Tower Lift-3

Reference Description: Longitudinal Crack on Cross Bracing Gusset Plate

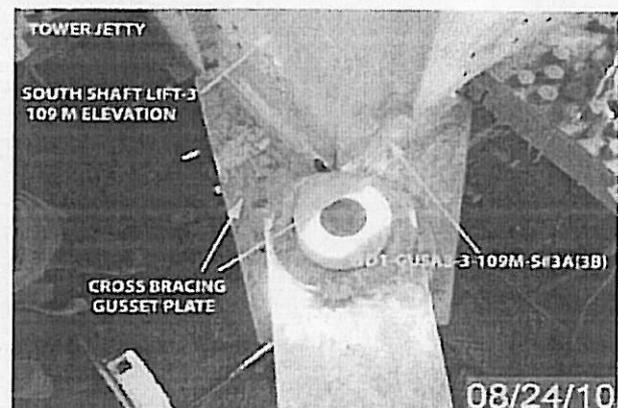
### Description of Non-Conformance:

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- The member is identified as Cross Bracing Gusset Plate.
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- The member is Seismic Performance critical Member (SPCM).
- The member is located in Tower Trial Assembly, Heavy Dock.

The Notice of Witness Inspection Number (NWIT) is 006469. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

For further information, please see the attached photos and applicable reference below.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 2 of 2)

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Special Provision Section 8.01 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 for materials and workmanship conforming 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:** Naddi Sandeep Kumar

**Name of individual from Contractor notified:** Mr. Bi Diwei

**Time and method of notification:** 10:30 / 08/24/10 / Verbal

**Name of Caltrans Engineer notified:** Mr. Jim Reid

**Time and method of notification:** 0810/ 0825/10 Verbal

**QC Inspector's Name:** Mr. Zhao Chen Sun

**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 Mr. Thomas Ho, who represents the Office of Structural Materials for your project.

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**Inspected By:** Ng, Michael

QA Inspector

**Reviewed By:** Devey, Jim

SMR

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**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-000855**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0789**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:** 24-Aug-2010**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) review of welds on Cross Bracing Gusset Plate, 109 M elevation South Tower Lift-3, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) longitudinal crack measuring approximately 8 mm in length.
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- The member is located in Tower Trial Assembly, Heavy Dock.

The Notice of Witness Inspection Number (NWIT) is 006469. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of these welds.

For further information, please see the attached photos and applicable reference below.

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

Contractor will repair the weld and perform NDT after repair. Contractor will educate the inspector involved to ensure he is fully aware of the consequences of missing indications.

**Corrective action taken:**

Contractor repaired the weld and NDT report provided which showed the weld is acceptable. Contractor reprimanded the inspector involved.

**Did corrective action require Engineer's approval?**      **Yes**      **No**

**If so, name of Engineer providing approval:**

**Date:**

**Is Engineer's approval attached?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**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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**Inspected By:**    Ng,Michael

Quality Assurance Inspector

**Reviewed By:**    Devey,Jim

QA Reviewer

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