

**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, China**Report No:** NCR-000816**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 27-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0778**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> Deck Panel Diaphragm to U-Rib in Seg 11CE
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT transverse crack by QC	

**Reference Description:** Transverse Crack discovered with MT after ZPMC had tested and accepted this weld in Segment 11CE

**Description of Non-Conformance:**

During random Quality Assurance (QA) of Magnetic Particle Testing (MT) review of welds located on segment 11CE, this Caltrans (CT) QA Inspector discovered One Transverse Crack on the following weld:

- One (1) Transverse crack measuring approximately 10mm in length.
- The weld is identified as DP456-001-089 at panel point (PP) 103.
- Weld is a Fillet Weld joining the Deck Panel Diaphragm to the U-Rib.
- The weld is designated as Non-Seismic Performance Critical Member (Non-SPCM).
- The Deck Panel Diaphragm is identified as X1G (Non-SPCM)
- The Closed U-Rib is identified as RS20D (Non-SPCM).
- OBG Segment 11CE is located in the outside yard, west of OBG Blast Shop 1.
- The indication is clearly marked on the material near the weld.

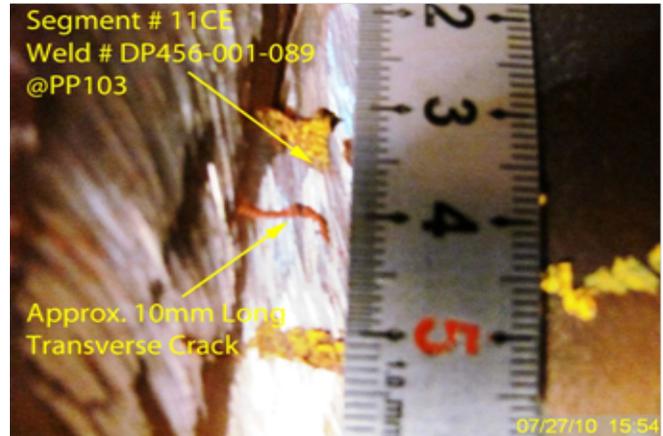
The Notice of Witness Inspection (NWIT) No. is 006285. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld.

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

**Who discovered the problem:** Vikram Singh

**Name of individual from Contractor notified:** Wang Heng

**Time and method of notification:** 1600 hours, 07-27-10, Verbal

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 0700 hours, 07-28-10, Verbal

**QC Inspector's Name:** Wang Xiang Pin

**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:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR

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**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:** 28-Jul-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:** 05.03.06-000773

**Subject:** NCR No. ZPMC-0778

**Reference Description:** Transverse Crack discovered with MT after ZPMC had tested and accepted this weld in Segment 11CE

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:** 11

**Remarks:**

During random Quality Assurance (QA) of Magnetic Particle Testing (MT) review of welds located on segment 11CE, this Caltrans (CT) QA Inspector discovered One Transverse Crack on the following weld:

- One (1) Transverse crack measuring approximately 10mm in length.
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- The Closed U-Rib is identified as RS20D (Non-SPCM).
- OBG Segment 11CE is located in the outside yard, west of OBG Blast Shop 1.
- The indication is clearly marked on the material near the weld.

The Notice of Witness Inspection (NWIT) No. is 006285. The indication is located within an area 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 this weld.

**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:** Laraine Woo Transportation Engineer

**Attachments:** ZPMC-0778

**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:** 05.03.06-000773

**Subject:** NCR No. ZPMC-0778

**Dated:** 07-Sep-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000766 Rev: 00

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### Contractor's Proposed Resolution:

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

ZPMC has repaired this crack and is providing the NDT performed after to show that the repair was successful. In order to decrease missed indications, ZPMC QA will conduct refresher training with its inspectors and continue to monitor inspector performance. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000766R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 14-Sep-2010

The proposed resolution is acceptable. This NCR is considered closed.

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 14-Sep-2010



No. B-867

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-09-06**

**REGARDING: NCR-000816(ZPMC-0778)**

ZPMC is providing the NDT record to show this indication has been repaired and tested to be acceptable. ZPMC QA personnel have talked with the head of NDT department to address this issue. An internal refresh training will be taken, in order to stop the increasing of missed MT indication. Based on this, ZPMC is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000816(ZPMC-0778)

B787-MT-27043 R1

A handwritten signature in black ink, appearing to be "Jen W", is located below the attachment list.

9/6/10

007 友薛



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: 28-Jul-2010  
Contract No: 04-0120F4  
04-SF-80-13.2 / 13.9  
Job Name: SAS Superstructure  
Document No: 05.03.06-000773  
Dear: Mr. Charles Kanapicki  
Attention: Mr. Thomas Nilsson Project/Fabrication Manager  
Subject: NCR No. ZPMC-0778

Reference Description: Transverse Crack discovered with MT after ZPMC had tested and accepted this weld in Segment 11CE

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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- 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: 11

**Remarks:**

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**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: Laraine Woo Transportation Engineer  
Attachments: ZPMC-0778

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, 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, China

**Report No:** NCR-000816

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

**Date:** 27-Jul-2010

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

**NCR #:** ZPMC-0778

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural  Bridge No: 34-0006

Joint fit-up  Coating  Other  Component: Deck Panel Diaphragm to U-Rib in Seg 11CE

Procedural  Procedural  Description: Missed MT transverse crack by QC

**Reference Description:** Transverse Crack discovered with MT after ZPMC had tested and accepted this weld in Segment 11CE

**Description of Non-Conformance:**

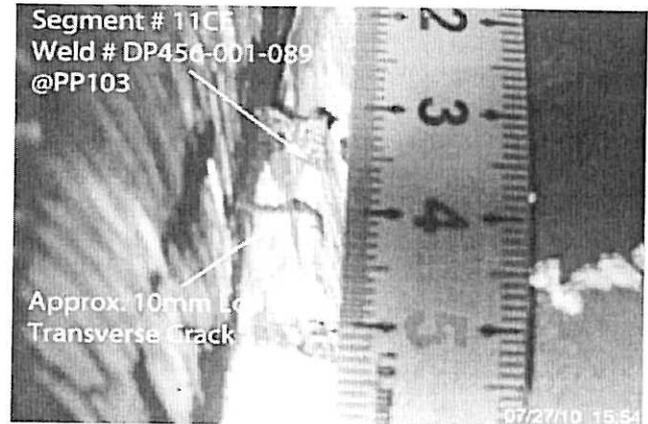
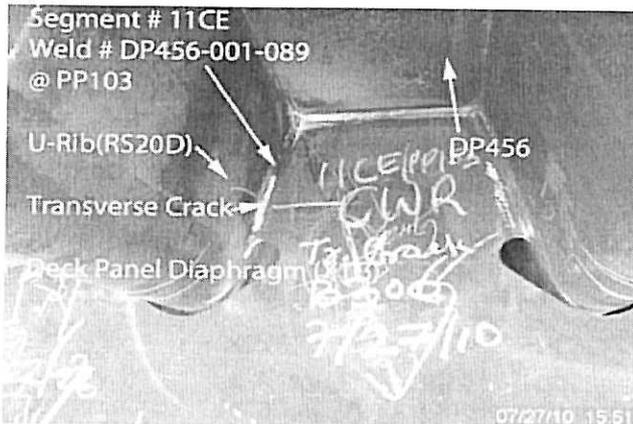
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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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

Who discovered the problem: Vikram Singh

Name of individual from Contractor notified: Wang Heng

Time and method of notification: 1600 hours, 07-27-10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 0700 hours, 07-28-10, Verbal

QC Inspector's Name: Wang Xiang Pin

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.

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

SMR



**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, China**Report No:** NCS-000761**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0778**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:** 27-Jul-2010**Description of Non-Conformance:**

During random Quality Assurance (QA) of Magnetic Particle Testing (MT) review of welds located on segment 11CE, this Caltrans (CT) QA Inspector discovered One Transverse Crack on the following weld:

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

Repair said indication and perform NDT required to verify weld quality.

**Corrective action taken:**

Contractor supplied post repair NDT documentation verifying weld conforms with Contract weld quality requirements. An internal NCR was also issued by ZPMC in regards to this issue, and refresher training was provided to NDT technicians.

**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:**

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<b>Inspected By:</b>	Simonis,Jim	Quality Assurance Inspector
<b>Reviewed By:</b>	Wahbeh,Mazen	QA Reviewer

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