

**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-000705

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

**Date:** 02-Apr-2010

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

**NCR #:** ZPMC-0672

### 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> Segment 9BE U-Rib to Diaphragm Weld
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT transverse indication by QC	

**Reference Description:** Missed MT Transverse Indications by QC on Segment 9BE Deck Panel Diaphragm to U-rib CJP weld joints

### Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9BE, this QA Inspector discovered the following issues:

- Three (3) Transverse linear indications measuring approximately from 4 mm to 17 mm in length.
- The welds are identified as: DP393-001-053 (17mm in length), DP447-001-053 and (4mm in length) and DP447-001-031 (4mm in length) @ Panel Point (PP)-076 west side.
- These welds are Complete Joint Penetration welds joining the U-rib to the Deck Panel diaphragm.
- The Notice of Witness Inspection Number (NWIT) is 005442.
- ZPMC Quality Control (QC) personnel have previously performed 100% Magnetic Particle Testing of these welds and have accepted them.

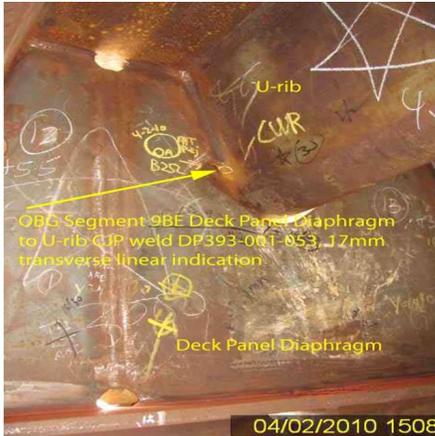


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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( 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:** Larry Viars

**Name of individual from Contractor notified:** Man Kit Li

**Time and method of notification:** 1500 hours, 4/02/10, Verbal

**Name of Caltrans Engineer notified:** Sean Eagen, Stanley Ku

**Time and method of notification:** 1400 hours, 4/03/10, Email

**QC Inspector's Name:** Zhang Wei

**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, +(86) 134.7247.7571, 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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**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:** 05-Apr-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:** 05.03.06-000662

**Subject:** NCR No. ZPMC-0672

**Reference Description:** Missed MT Transverse Indications by QC on Segment 9BE Deck Panel Diaphragm to U-rib CJP weld joints

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:** 09

### Remarks:

- During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9BE, this QA Inspector discovered the following issues:
- Three (3) Transverse linear indications measuring approximately from 4 mm to 17 mm in length.
  - The welds are identified as: DP393-001-053 (17mm in length), DP447-001-053 and (4mm in length) and DP447-001-031 (4mm in length) @ Panel Point (PP)-076 west side.
  - These welds are Complete Joint Penetration welds joining the U-rib to the Deck Panel diaphragm.
  - The Notice of Witness Inspection Number (NWIT) is 005442.
  - ZPMC Quality Control (QC) personnel have previously performed 100% Magnetic Particle Testing of these welds and have accepted them.

### 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:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0672

**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:** 05.03.06-000662

**Subject:** NCR No. ZPMC-0672

**Dated:** 20-Apr-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000645 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** The originally reported weld ID was incorrect, and ZPMC is providing the NDT documentation to show that the welds are acceptable after repair.

ZPMC has written an internal NCR on this issue and has repaired the missed indications. The originally reported weld ID was incorrect, and ZPMC is providing the NDT documentation to show that the welds are acceptable after repair. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000645R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 25-Apr-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0672 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 25-Apr-2010



No. B-731

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-4-18**

**REGARDING: NCR-000705(ZPMC-0672)**

ZPMC acknowledged that these indications were missed and has written an internal NCR. B-CWR1369, 1370, 1371 were written reflecting to these indications. Please be noticed that DP447-001-031 was incorrect and this weld ID should be DP447-001-032. ZPMC is providing NDT record which shows that these welds are now acceptable after repair and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000705(ZPMC-0672)

B787-MT-21686 R1

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

4118110



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
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## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
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**Date:** 05-Apr-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:** 05.03.06-000662

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- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** 09

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**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0672

**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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**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**

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

**Report No:** NCR-000705

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

**Date:** 02-Apr-2010

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

**NCR #:** ZPMC-0672

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural  Bridge No: 34-0006

Joint fit-up  Coating  Other  Component: Segment 9BE U-Rib to Diaphragm Weld

Procedural  Procedural  Description: Missed MT transverse indication by QC

**Reference Description:** Missed MT Transverse Indications by QC on Segment 9BE Deck Panel Diaphragm to U-rib CJP weld joints

**Description of Non-Conformance:**

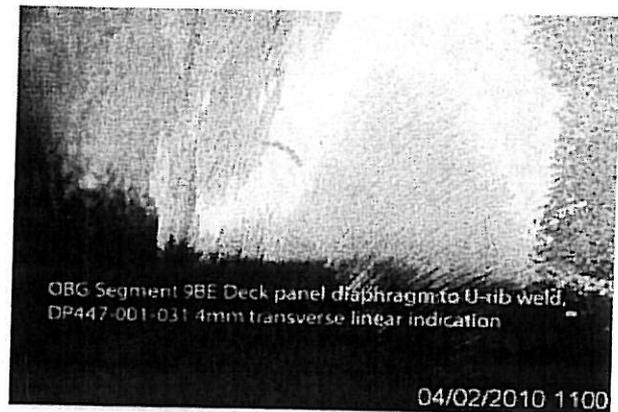
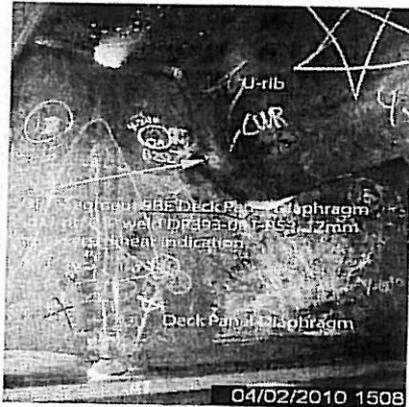
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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



### Applicable reference:

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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:** Larry Viars  
**Name of individual from Contractor notified:** Man Kit Li  
**Time and method of notification:** 1500 hours, 4/02/10, Verbal  
**Name of Caltrans Engineer notified:** Sean Eagen, Stanley Ku  
**Time and method of notification:** 1400 hours, 4/03/10, Email  
**QC Inspector's Name:** Zhang Wei  
**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, +(86) 134.7247.7571, 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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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-000668**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0672**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:** 02-Apr-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9BE, this QA Inspector discovered the following issues:

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

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

**Corrective action taken:**

Contractor submitted post repair NDT report verifying the weld is now 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

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Reviewed By:** Wahbeh,Mazen

QA Reviewer