

**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-000792**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0754**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> BP3033A, SEG 13AE
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Missed UT Indication**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of weld located on Segment 13AE, QA discovered the following:

- One Class "B" rejectable indication using a 70° transducer.
- The rating is +5dB and length approximately 25mm.
- The Thickness of the plate is 60mm and depth of the indication approximately 52mm.
- The weld joint is identified as BP3033-001-001.
- The "Y" location for this indication approximately 1050mm from one edge of this Bottom plate.
- The weld is a Complete Joint Penetration (CJP) butt weld joining the bottom plate BP3033 (PL3217D) to bottom plate BP3033 (PL3218D).
- The indication is clearly marked by the QA near the weld.
- OBG Segment 13AE Bottom Plates are located in East Side of fabrication bay 14.

The Notice of Witness Inspection Number (NWIT) is 006166. The indication is located within 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% UT inspection of this weld.

**Applicable reference:**

AWS D1.5-2002, Section 6, Table 6.3; "Specifies a class B indication as having a db rating of +5/+6 for weld thicknesses 38mm through 60mm."

Class "B": Any indication in this category having a length greater than 20mm [3/4in] shall be rejected.

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."

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Who discovered the problem:** Vibin Kumar  
**Name of individual from Contractor notified:** Li Man Kit  
**Time and method of notification:** 1730 hours, 07/10/10, Email  
**Name of Caltrans Engineer notified:** Laraine Woo  
**Time and method of notification:** 9:53\_7/12/10\_Email  
**QC Inspector's Name:** Zhang Wei  
**Was QC Inspector aware of the problem:** Yes No  
**Contractor's proposal to correct the problem:**

NA

**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>	Devey,Jim	SMR
<b>Reviewed By:</b>	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:** 13-Jul-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-0754

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000749

**Reference Description:** Missed UT Indication

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 Ultrasonic Testing (UT) review of weld located on Segment 13AE, QA discovered the following:

- One Class "B" rejectable indication using a 70° transducer.
- The rating is +5dB and length approximately 25mm.
- The Thickness of the plate is 60mm and depth of the indication approximately 52mm.
- The weld joint is identified as BP3033-001-001.
- The "Y" location for this indication approximately 1050mm from one edge of this Bottom plate.
- The weld is a Complete Joint Penetration (CJP) butt weld joining the bottom plate BP3033 (PL3217D) to bottom plate BP3033 (PL3218D).
- The indication is clearly marked by the QA near the weld.
- OBG Segment 13AE Bottom Plates are located in East Side of fabrication bay 14.

The Notice of Witness Inspection Number (NWIT) is 006166. The indication is located within 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% UT inspection of this weld.

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

Proposed 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-0754

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# NCT

( Continued Page 2 of 2 )

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**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:** 05.03.06-000749

**Subject:** NCR No. ZPMC-0754

**Dated:** 22-Jul-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000732 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has issued an internal NCR and has discussed preventative measures with the ABF QCM. ZPMC has attached the acceptable UT report after repair. ZPMC requests closure of this NCR.

ZPMC has issued an internal NCR and has discussed preventative measures with the ABF QCM. ZPMC has attached the acceptable UT report after repair. ZPMC requests closure of this NCR.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000732R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 29-Jul-2010

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

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 29-Jul-2010



No. B-832

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-7-21**

**REGARDING: NCR-000792(ZPMC-0754)**

ZPMC has issue an internal NCR to address this issue and ZPMC QA personnel have talked with the head of the NDT department. The missed indications have been repaired and were tested to be acceptable. ZPMC is providing the NDT records and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000792(ZPMC-0754)

B787-UT-13779 R1

*Jay*  
*7/21/10*



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:** 13-Jul-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-0754

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000749

**Reference Description:** Missed UT Indication

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 Ultrasonic Testing (UT) review of weld located on Segment 13AE, QA discovered the following:

- One Class "B" rejectable indication using a 70° transducer.
- The rating is +5dB and length approximately 25mm.
- The Thickness of the plate is 60mm and depth of the indication approximately 52mm.
- The weld joint is identified as BP3033-001-001.
- The "Y" location for this indication approximately 1050mm from one edge of this Bottom plate.
- The weld is a Complete Joint Penetration (CJP) butt weld joining the bottom plate BP3033 (PL3217D) to bottom plate BP3033 (PL3218D).
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### Action Required and/or Action Taken:

Proposed 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-0754

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**NCT**

*( Continued Page 2 of 2 )*

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**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey  
**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
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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-000792

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

**Date:** 10-Jul-2010

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

**NCR #:** ZPMC-0754

### Type of problem:

Welding  Concrete  Other

Welding  Curing  Procedural  Bridge No: 34-0006

Joint fit-up  Coating  Other  Component: BP3033A, SEG 13AE

Procedural  Procedural  Description:

**Reference Description:** Missed UT Indication

### Description of Non-Conformance:

During the Quality Assurance Ultrasonic Testing (UT) review of weld located on Segment 13AE, QA discovered the following:

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AWS D1.5-2002, Section 6, Table 6.3; "Specifies a class B indication as having a db's rating of +5/+6 for weld thicknesses 38mm through 60mm."

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Who discovered the problem:** Vibin Kumar  
**Name of individual from Contractor notified:** Li Man Kit  
**Time and method of notification:** 1730 hours, 07/10/10, Email  
**Name of Caltrans Engineer notified:** Laraine Woo  
**Time and method of notification:** 9:53\_7/12/10\_Email  
**QC Inspector's Name:** Zhang Wei  
**Was QC Inspector aware of the problem:**  Yes  No  
**Contractor's proposal to correct the problem:**

NA

**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>	Devey,Jim	SMR
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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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, China**Report No:** NCS-000691**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0754**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:** 10-Jul-2010**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of weld located on Segment 13AE, QA discovered the following:

- One Class "B" rejectable indication using a 70° transducer.
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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.

**Did corrective action require Engineer's approval?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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Yes    No

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

**Date:**

**Is Engineer's approval attached?**            Yes    No

**Comments:**

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**Inspected By:**    Simonis,Jim

Quality Assurance Inspector

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**Reviewed By:**    Wahbeh,Mazen

QA Reviewer