

**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


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


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**Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000529**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0502**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> OBG 5AW Deck Plate to Floor Beam
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT indication	

**Reference Description:** MT indications discovered after the contractor has tested and accepted the welds in Segment 5AW

**Description of Non-Conformance:**

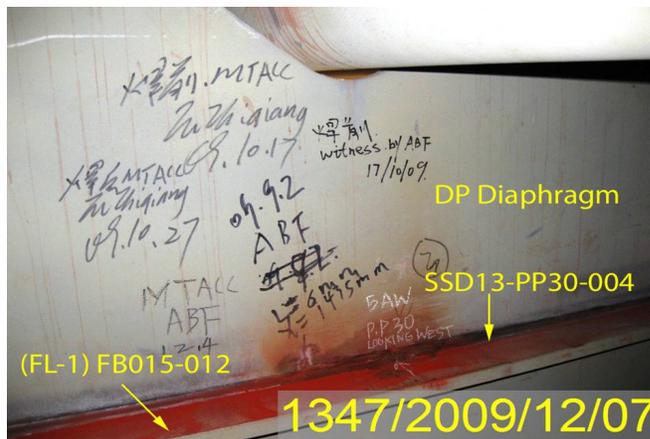
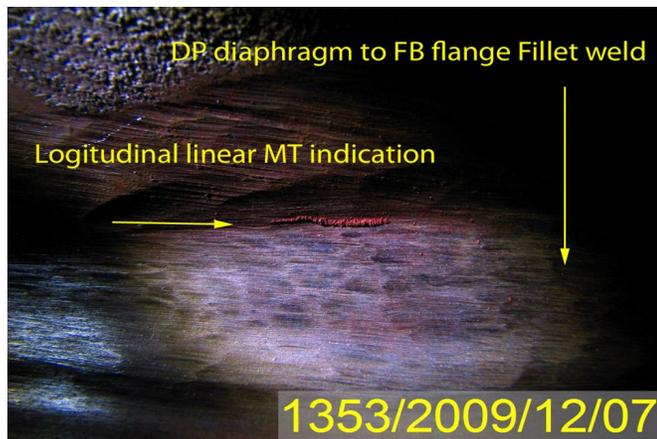
During the Quality Assurance Magnetic Particle Testing (MT) review of welds located in Segment 5AW on the Deck Plate (DP) diaphragm to Floor Beam (FB) flange repair areas, this Quality Assurance Inspector (QA) discovered the following issues:

- Two (2) longitudinal linear indications measuring approximately between 8mm to 11mm in length respectively.
- The welds are identified as: Weld # SSD13-PP30-004 and SSD14-PP31-005.
- The welds are Fillet welds joining the DP diaphragm web to the FB flange member.
- The member is located in the OBG Trial Assembly yard.

The Notice of Witness Inspection Number (NWIT) is ABF repair areas over check per MT report 12-05-09. 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% inspection of this weld.

# 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:** Joe Alaniz

**Name of individual from Contractor notified:** Ping Zeng Jian Ding

**Time and method of notification:** 0800 hours, Verbal

**Name of Caltrans Engineer notified:** Ching Chao and Bill Howe

**Time and method of notification:** 0900 hours, Verbal

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

**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.

**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

<b>To:</b>	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	<b>Date:</b>	24-Dec-2009
<b>Dear:</b>	Mr. Charles Kanapicki	<b>Contract No:</b>	04-0120F4 04-SF-80-13.2 / 13.9
<b>Attention:</b>	Mr. Thomas Nilsson Project/Fabrication Manager	<b>Job Name:</b>	SAS Superstructure
<b>Subject:</b>	NCR No. ZPMC-0502	<b>Document No:</b>	05.03.06-000490

**Reference Description:** MT indications discovered after the contractor has tested and accepted the welds in Segment 5AW

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:** 05

**Remarks:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located in Segment 5AW on the Deck Plate (DP) diaphragm to Floor Beam (FB) flange repair areas, this Quality Assurance Inspector (QA) discovered the following issues:

- Two (2) longitudinal linear indications measuring approximately between 8mm to 11mm in length respectively.
- The welds are identified as: Weld # SSD13-PP30-004 and SSD14-PP31-005.
- The welds are Fillet welds joining the DP diaphragm web to the FB flange member.
- The member is located in the OBG Trial Assembly yard.

The Notice of Witness Inspection Number (NWIT) is ABF repair areas over check per MT report 12-05-09. 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% inspection of this weld.

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

Submit a repair procedure to the engineer for approval. Missed MT indications are a chronic problem. Provide training for ZPMC MT technicians to improve competency and submit documentation of training. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0502

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

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000490

**Subject:** NCR No. ZPMC-0502

**Dated:** 11-Jan-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000464 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** The indication was removed by slight grinding and inspected and verified by CT as removed. ZPMC requests closure of this NCR.

ZPMC acknowledges the indication was missed by MT. The indication was removed by slight grinding and inspected and verified by CT as removed. As for the missed indications by MT, the ABF QCM has conducted MT training and discussed the several NCR's of missed indications with both the NDT operators and the ZPMC QA department. ZPMC requests closure of this NCR.

**Submitted by:** Lawton, Steve

**Attachment(s):** ABF-NPR-000464R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 12-Jan-2010

METS has performed a recheck. This NCR is closed.

**Submitted by:** Howe, Bill

**Date:** 12-Jan-2010

**Attachment(s):**



No. B-567

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-1-9**

**REGARDING: NCR-000529(ZPMC-0502)**

With this letter of response, ZPMC requests closure of CT NCR-000529(ZPMC-0502), what mentioned that CT Inspector observed missed MT indication.

This CT inspector was confirmed to perform MT exceed the repaired area and the referenced picture in NCR's description was took from the repair area. These two indications were removed by slight grinding. After then, this CT inspector has confirmed the removal of these indications with ZPMC QA.

Based on this, ZPMC requests closure of this NCR.

**ATTACHMENT:**

NCR-000529(ZPMC-0502)

*By [signature]*

*1/9/10*



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 Date: 24-Dec-2009  
 375 BURMA ROAD  
 OAKLAND CA 95607 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: 05.03.06-000490  
 Subject: NCR No. ZPMC-0502

Reference Description: MT indications discovered after the contractor has tested and accepted the welds in Segment 5AW

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: 85

Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located in Segment 5AW on the Deck Plate (DP) diaphragm to Floor Beam (FB) flange repair areas, this Quality Assurance Inspector (QAI) discovered the following issues:

- Two (2) longitudinal linear indications measuring approximately between 8mm to 11mm in length respectively.
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- The welds are Fillet welds joining the DP diaphragm web to the FB flange member.
- The member is located in the OBG Trial Assembly yard.

The Notice of Witness Inspection Number (NWI) is AB repair areas over check per MT report 12-05-09. 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% inspection of this weld.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Missed MT indications are a chronic problem. Provide training for ZPMC MT technicians to improve competency and submit documentation of training. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0502

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

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Contract #: 04-0120F4  
City: 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-000529

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 07-Dec-2009

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

NCR #: ZPMC-0502

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural  Bridge No: 34-0006

Joint fit-up  Coating  Other  Component: OBG 5AW Deck Plate to Floor Beam

Procedural  Procedural  Description: Missed MT indication

Reference Description: MT indications discovered after the contractor has tested and accepted the welds in Segment 5AW

**Description of Non-Conformance:**

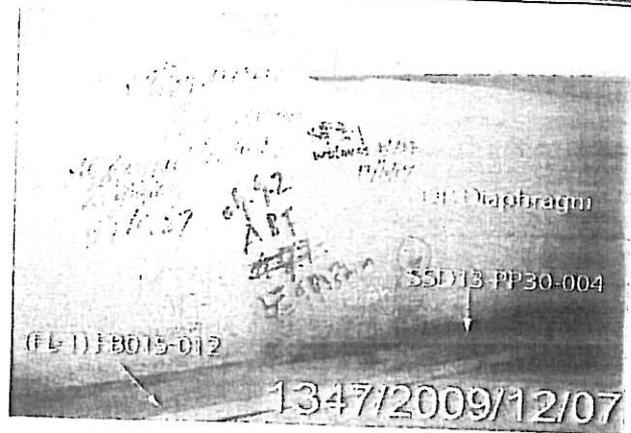
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- The welds are Fillet welds joining the DP diaphragm web to the FB flange member.
- The member is located in the OBG Trial Assembly yard.

The Notice of Witness Inspection Number (NWIT) is ABF repair areas over check per MT report 12-05-09. 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% inspection of this weld.

# 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.”

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Who discovered the problem: Joe Alaniz

Name of individual from Contractor notified: Ping Zeng Jian Ding

Time and method of notification: 0800 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 0900 hours, Verbal

QC Inspector's Name: Wang Lu

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.

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

SMR

**DEPARTMENT OF TRANSPORTATION**

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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-000454**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0502**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:** 07-Dec-2009**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located in Segment 5AW on the Deck Plate (DP) diaphragm to Floor Beam (FB) flange repair areas, this Quality Assurance Inspector (QA) discovered the following issues:

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The Notice of Witness Inspection Number (NWIT) is ABF repair areas over check per MT report 12-05-09.

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% inspection of this weld.

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

Remove indications by grinding, provide training for NDT technicians.

**Corrective action taken:**

The indications were removed by grinding which was witnessed by QA Inspector. The Contractor submitted documentation of training provided to MT Technicians in regards to missed indications.

**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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