

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-000817**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-Jul-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0779**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Suspender Bracket SB88W
Procedural	Procedural	Description: Missed MT cracks were repaired without CWR	

Reference Description: Fifteen (15) Transverse Cracks were discovered by MT testing after ZPMC had accepted and tested this weld; Subsequent repairs made without Engineer's approval

Description of Non-Conformance:

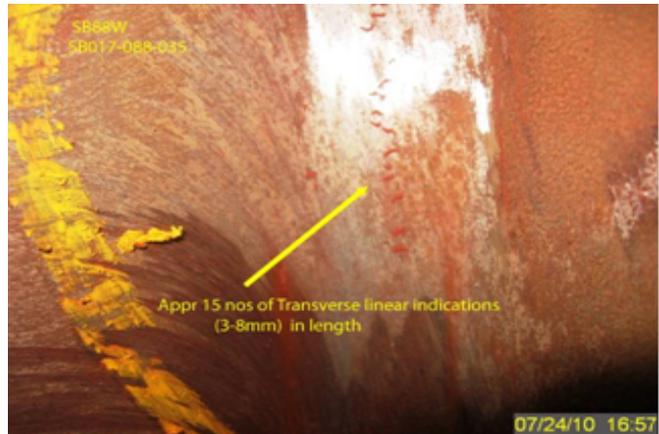
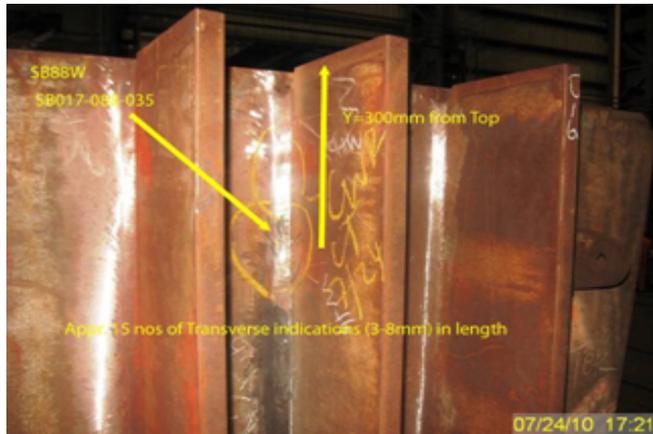
During the Quality Assurance (QA) of Magnetic particle Testing (MT) review of welds located on OBG Suspender bracket SB88W for Segment 10AW, this QA Inspector discovered the following issue on July 24, 2010.

- Fifteen (15) transverse cracks that measured approximately 3mm to 8mm in length.
- The weld is identified as SB017-088-035.
- The weld is a fillet weld connecting the Centre web plate to the Stiffener.
- These cracks are located Y=300mm from top of the centre web plate.
- The OBG Suspender Bracket is located in BAY#19.
- These cracks are clearly marked on the material on/near the weld.
- This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
- The Notice of Witness Inspection Number (NWIT) is 006272.
- These cracks are located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

Subsequently, on July 28, 2010, QA observed that the repairs were made without prior Engineer's approval or an approved Critical Weld Repair (CWR).

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.

AWS D1.5 2002 section 3.7.4 specifies “Prior approval of the Engineer shall be obtained for repairs to base metal (other than those required by 3.2), repair of major or delayed cracks, repairs to ESW and EGW welds with internal defects, or for a revised design to compensate for deficiencies.”

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Pen We Jun

Time and method of notification: 0930 hours, 07-28-10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1000 hours, 07-28-10, Email

QC Inspector's Name: Xu Tao

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

To: AMERICAN BRIDGE/FLUOR, A JV **Date:** 28-Jul-2010
 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:** 05.03.06-000774
Subject: NCR No. ZPMC-0779

Reference Description: Fifteen Transverse Cracks discovered by MT after ZPMC accepted and tested this weld; repairs made without Engineer's approval

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:** 10

Remarks:

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- The Notice of Witness Inspection Number (NWIT) is 006272.
- These cracks are located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

Subsequently, on July 28, 2010, QA observed that the repairs were made without prior Engineer's approval or an approved Critical Weld Repair (CWR).

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-0779

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: 05.03.06-000774

Subject: NCR No. ZPMC-0779

Dated: 07-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000767 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired these cracks and is providing the NDT performed after to show that the repair was successful. ZPMC has repaired these cracks 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-000767R00;

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-868

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-09-06

REGARDING: NCR-000817(ZPMC-0779)

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-000817(ZPMC-0779)

B787-MT-25504 R1

A handwritten signature in black ink, appearing to be 'J. [unclear]' followed by a flourish.

9/6/10



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: 28-Jul-2010

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

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Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0779

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Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0779

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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 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-000817

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 28-Jul-2010

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

NCR #: ZPMC-0779

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural** **Bridge No:** 34-0006

Joint fit-up **Coating** **Other** **Component:** Suspender Bracket SB88W

Procedural **Procedural** **Description:** Missed MT cracks were repaired without CWR

Reference Description: Fifteen (15) Transverse Cracks were discovered by MT testing after ZPMC had accepted and tested this weld; Subsequent repairs made without Engineer's approval

Description of Non-Conformance:

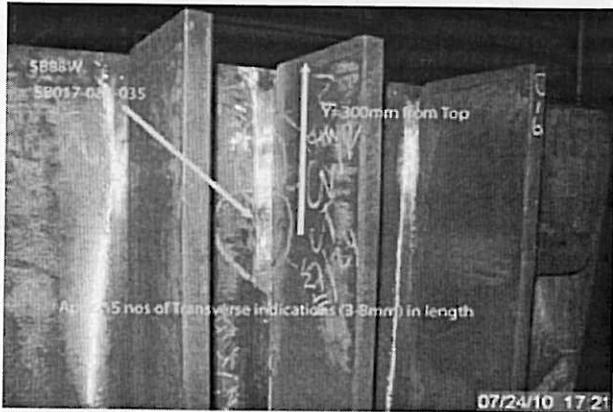
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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Time and method of notification: 0930 hours, 07-28-10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1000 hours, 07-28-10, Email

QC Inspector's Name: Xu Tao

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

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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, China**Report No:** NCS-000760**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0779**Type of problem:**

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

Date the Non-Conformance Report was written: 28-Jul-2010**Description of Non-Conformance:**

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Contractor's proposal to correct the problem:

Repair said cracks 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?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

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

Reviewed By: Wahbeh,Mazen

QA Reviewer