

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, PRC**Report No:** NCR-000254**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Apr-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0228**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** OBG Segments 3AW, 3BW**Procedural****Procedural****Description:****Reference Description:** Buttering of Bottom Panel Faces to Correct Distortion, Segment Splice 3AW - 3BW**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed weld buttering of base metal to compensate for out of tolerance flatness. The repair area is located on the bottom panels at the transverse splice of Segments 3AW and 3BW, Working Point W3 (bottom panel to side panel, counterweight side). The previously noted distortion at this location was 10mm in 1000mm. An approved WPS for this repair was not available for QA Inspector review.

**Applicable reference:**

AWS D1.5 (2002) Section 3.1.5 – “Welds shall be prohibited on the work except as follows:

- (1) Base-metal repair performed in conformance with AASHTO M160/M160M (ASTM A 6/A 6M), Specification for General Requirements for Rolled Steel Plates, Shapes, Sheet Piling, and Bars for Structural Use, Article 9, by the mill or fabricator
- (2) All welds detailed on approved shop drawings
- (3) Repair welds authorized by this code

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

(4) Other welds approved by the Engineer”

AWS D1.5 (2002) Section 3.4.3 – “The Contractor shall prepare a welding sequence for a member or structure which, in conjunction with the WPSs and overall fabrication methods, will produce members or structures meeting the quality requirements specified. The welding sequence and distortion control program shall be submitted to the Engineer, for information and comment, before the start of welding on a member or structure in which shrinkage or distortion is likely to affect the adequacy of the member or structure.”

Who discovered the problem: Rory O’Kane

Name of individual from Contractor notified: Ding Xingchi

Time and method of notification: 04/29/09, 14:00, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 04/29/09, 14:30, Verbal

QC Inspector's Name: Wu Zhicheng

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

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 Skyler Guest, +(86) 1500 042 2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest,Skyler	SMR
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Reviewed By:	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: 30-Apr-2009

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: 05.03.06-000220

Subject: NCR No. ZPMC-0228

Reference Description: Buttering of Bottom Panel Faces to Correct Distortion, Segment Splice 3AW - 3BW

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:** 03

Remarks:

Caltrans Quality Assurance (QA) Inspector observed weld buttering of base metal to compensate for out of tolerance flatness. The repair area is located on the bottom panels at the transverse splice of Segments 3AW and 3BW, Working Point W3 (bottom panel to side panel, counterweight side). The previously noted distortion at this location was 10mm in 1000mm. An approved WPS for this repair was not available for QA Inspector review.

Please see the attached NCR report #ZPMC-228 for more details.

Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0228

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Doug Wright, 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: 05.03.06-000220

Subject: NCR No. ZPMC-0228

Dated: 20-May-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000224 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC will provide inspection documentation of this weld buttering at a later date as objective evidence to close this NCR.

ZPMC will provide inspection documentation of this weld buttering at a later date as objective evidence to close this NCR.

Submitted by:

Attachment(s): ABF-NPR-000224R00

Caltrans' comments:

Status: AAP

Date: 24-Jun-2009

The response is acceptable, but the Non-Conformance is not closed. RFI-1758 details the steps to be taken to address the out-of-tolerance areas.

In the areas that received weld build-up (buttering) to correct for misalignment, please provide documentation of the buttering that was performed and MT testing of the buttered areas. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0228 at that time.

Submitted by: Wright, Doug

Date: 24-Jun-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000220

Subject: NCR No. ZPMC-0228

Dated: 27-Jul-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000224 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

ZPMC has responded to this NCR and has attached documents as evidence of completion. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000224R01;

Caltrans' comments:

Status: CLO

Date: 10-Aug-2009

The proposed resolution is acceptable. The inspection documents requested in Rev 0 of NPR-0224 have been provided. The Department concurs that Non-Conformance ZPMC-0228 is closed.

Submitted by: Wright, Doug

Date: 10-Aug-2009

Attachment(s):



No. B- 410

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-7-21

REGARDING: NCR-000254 (ZPMC-0228)

With this letter of response, ZPMC requests closure for Caltrans **NCR-000254 (ZPMC-0228)**. As the comments of the NPR "please provide the documentation of the butting that was performed and that the repairs were acceptable by MT", therefore we provide the attached MT final inspection report to support the good quality of the base metal corrected surface.

So base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report **NCR-000254 (ZPMC-0228)**.

Please reference attached documentation for acceptance and closure the **NCR-000254 (ZPMC-0228)**.

ATTACHMENT:

NCR-000254 (ZPMC-0228)

The final MT report

Zhao Shuangbao

2009. 7. 21

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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, PRC

Report No: NCR-000254

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 29-Apr-2009

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

NCR #: ZPMC-0228

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: OBG Segments 3AW, 3BW

Procedural Procedural Description:

Reference Description: Buttering of Bottom Panel Faces to Correct Distortion, Segment Splice 3AW - 3BW

Description of Non-Conformance:

Caltrans Quality Assurance (QA) Inspector observed weld buttering of base metal to compensate for out of tolerance flatness. The repair area is located on the bottom panels at the transverse splice of Segments 3AW and 3BW, Working Point W3 (bottom panel to side panel, counterweight side). The previously noted distortion at this location was 10mm in 1000mm. An approved WPS for this repair was not available for QA Inspector review.



Applicable reference:

AWS D1.5 (2002) Section 3.1.5 -- "Welds shall be prohibited on the work except as follows:

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- (2) All welds detailed on approved shop drawings
- (3) Repair welds authorized by this code

WRR + MJ

reports

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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, PRC**Report No:** NCS-000260**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0228**Type of problem:**

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

Date the Non-Conformance Report was written: 29-Apr-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed weld buttering of base metal to compensate for out of tolerance flatness. The repair area is located on the bottom panels at the transverse splice of Segments 3AW and 3BW, Working Point W3 (bottom panel to side panel, counterweight side). The previously noted distortion at this location was 10mm in 1000mm. An approved WPS for this repair was not available for QA Inspector review.

Contractor's proposal to correct the problem:

Perform NDT on area in question.

Corrective action taken:

Contractor submitted MT report verifying base metal repairs were done in accordance with Contract specifications.

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

Reviewed By: Wahbeh, Mazen

QA Reviewer