

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, P.R. China**Report No:** NCR-000298**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Jun-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0272**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment Splice 1AE/1BE
Procedural	Procedural	Description:	

Reference Description: Unconfirmed Linear Indication Removal Prior to Repair Welding, Weld Joint OBE1A-008

Description of Non-Conformance:

During random visual inspection of OBG segment 1AE to 1BE bottom panel complete joint penetration weld root pass (OBE1A-008), four linear indications were observed by Caltrans Quality Assurance (QA) Inspector. The four indications ranged in length from 5 to 20 mm. The linear indications were shown to ZPMC Quality Control (QC). The welders removed the visible indications and proceeded to weld over the excavated areas using FCAW. QC did not confirm by NDT that the indications were fully removed prior to welding.

**Applicable reference:**

AWS D1.5 2002, Section 3.7.2.4: "The extent of the crack shall be ascertained by the use of MT, PT or other equally positive means; the metal shall be removed for the full length of the crack plus 50 mm beyond each end of the crack, and rewelded."

Who discovered the problem: Larry Viars**Name of individual from Contractor notified:** Wang Chuang

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 06/01/09, 20:30, Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 06/03/09, 14:00, Verbal

QC Inspector's Name: Wu Zhi Cheng

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, 1500.042.2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
----------------------	---------------	-----

Reviewed By:	Wahbeh, Mazen	SMR
---------------------	---------------	-----



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: 08-Jun-2009

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-0272

Job Name: SAS Superstructure
Document No: 05.03.06-000261

Reference Description: Unconfirmed Linear Indication Removal Prior to Repair Welding, Weld Joint OBE1A-008

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:**

Remarks:

During random visual inspection of OBG segment 1AE to 1BE bottom panel complete joint penetration weld root pass (OBE1A-008), four linear indications were observed by Caltrans Quality Assurance (QA) Inspector. The four indications ranged in length from 5 to 20 mm. The linear indications were shown to ZPMC Quality Control (QC). The welders removed the visible indications and proceeded to weld over the excavated areas using FCAW. QC did not confirm by NDT that the indications were fully removed prior to welding.

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance to prevent future occurrences. The extent of the crack shall be ascertained by the use of MT, PT or other equally positive means

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0272

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Brian Boal, Doug Coe, Jason Tom, 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: 05.03.06-000261

Subject: NCR No. ZPMC-0272

Dated: 07-Aug-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000281 **Rev:** 00

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-000281R00;

Caltrans' comments:

Status: CLO

Date: 18-Aug-2009

The proposed resolution is acceptable. Training has been provided to the welding inspectors, and there has not been a recurrence of this issue. Also, the weld in question has been accepted by VT and MT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0272 is closed.

Submitted by: Wright, Doug

Date: 18-Aug-2009

Attachment(s):



No. B-438

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-8-6

REGARDING: NCR-000298 (ZPMC-0272)

With this letter of response, ZPMC requests closure for Caltrans **NCR-000298 (ZPMC-0272)**. We agree what describe in the non-conformance report, and have instructed QC guy who in charge of the weld process. We have issued that if find the liner indication in the weld process for example root pass, should be confirm by MT method after grinding or the other way to complete removed the defects prior the cover pass on top of the indication location.

By the way we have conduct the final VT and NDT inspection to confirm the good quality of the corresponding weld in the NCR , so base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report **NCR-000298 (ZPMC-0272)**.

Please reference attached documentation for acceptance and closure the **NCR-000298 (ZPMC-0272)**

ATTACHMENT:

NCR-000298 (ZPMC-0272)

The final VT/MT inspection report

A handwritten signature in black ink, reading 'Shao Shuangbao', is written in a cursive style.

2009. 8. 6

Prevention of Re-occurrence:

预防措施:

加强现场管理 对缺陷区域进行 MT 控制
 Enhance supervision on-site, and perform MT of indication area.
 教育施工人员 加强缺陷管理
 Educate worker and inspection.

Approved by/批准: _____

Technical Justification for Use-As-Is/Repair:

Attachment

Non-attachment

回用或返修的技术依据:

附件

无附件

Reviewed /批准: _____

Verification:

Acceptable

Unacceptable

确认:

可接受

不可接受

Verified by QCI/质检确认: _____

Reviewed by QCA/质检主任审核: _____

#R787-QCP-1300



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 Date: 08-Jun-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: 05.03.06-000261
 Subject: NCR No. ZPMC-0272

Reference Description: Unconfirmed Linear Indication Removal Prior to Repair Welding, Weld Joint OBE1A-008

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:

Remarks:

During random visual inspection of OBG segment 1AE to 1BE bottom panel complete joint penetration weld root pass (OBE1A-008), four linear indications were observed by Caltrans Quality Assurance (QA) Inspector. The four indications ranged in length from 5 to 20 mm. The linear indications were shown to ZPMC Quality Control (QC). The welders removed the visible indications and proceeded to weld over the excavated areas using FCAW. QC did not confirm by NDT that the indications were fully removed prior to welding.

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance to prevent future occurrences. The extent of the crack shall be ascertained by the use of MT, PT or other equally positive means

Transmitted by: Stanley Ku Sr. Bridge Engineer
 Attachments: ZPMC-0272

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Brian Boal, Doug Coe, Jason Tom, Doug Wright, Ching Chao
 File: 05.03.06

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-000298

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 01-Jun-2009

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

NCR #: ZPMC-0272

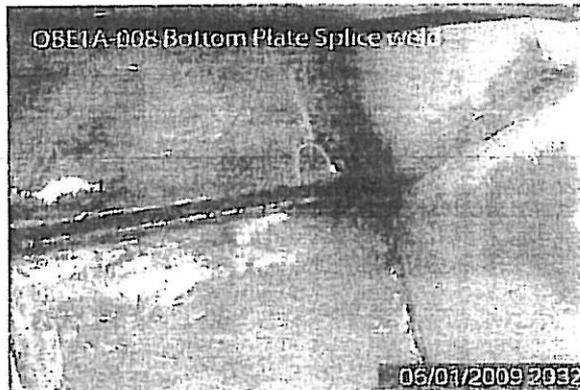
Type of problem:

Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: OBG Segment Splice IAE/1BEProcedural Procedural Description:

Reference Description: Unconfirmed Linear Indication Removal Prior to Repair Welding, Weld Joint
OBE1A-008

Description of Non-Conformance:

During random visual inspection of OBG segment IAE to 1BE bottom panel complete joint penetration weld root pass (OBE1A-008), four linear indications were observed by Caltrans Quality Assurance (QA) Inspector. The four indications ranged in length from 5 to 20 mm. The linear indications were shown to ZPMC Quality Control (QC). The welder's removed the visible indications and proceeded to weld over the excavated areas using FCAW. QC did not confirm by NDT that the indications were fully removed prior to welding.



Applicable reference:

AWS D1.5 2002, Section 3.7.2.4: "The extent of the crack shall be ascertained by the use of MT, PT or other equally positive means; the metal shall be removed for the full length of the crack plus 50 mm beyond each end of the crack, and rewelded."

Who discovered the problem: Larry Viars

Name of individual from Contractor notified: Wang Chuang

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 06/01/09, 20:30, Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 06/03/09, 14:00, Verbal

QC Inspector's Name: Wu Zhi Cheng

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, 1500.042.2360, who represents the Office of Structural Materials for your project.

Inspected By:	Guest, Skyler	SMR
---------------	---------------	-----

Reviewed By:	Wahbeh, Mazen	SMR
--------------	---------------	-----

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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000346**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0272**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: 01-Jun-2009**Description of Non-Conformance:**

During random visual inspection of OBG segment 1AE to 1BE bottom panel complete joint penetration weld root pass (OBE1A-008), four linear indications were observed by Caltrans Quality Assurance (QA) Inspector. The four indications ranged in length from 5 to 20 mm. The linear indications were shown to ZPMC Quality Control (QC). The welders removed the visible indications and proceeded to weld over the excavated areas using FCAW. QC did not confirm by NDT that the indications were fully removed prior to welding.

Contractor's proposal to correct the problem:

Inform QC that the removal of defects must be confirmed by NDT prior to continuing with welding.

Corrective action taken:

ZPMC submitted NDT records showing that the welds in question are in conformance with the Contract requirements. Furthermore, the welds have been reevaluated and repaired since the non conformance was issued.

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