

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-000864**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0826**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 12 AW Deck Panel Splice Butt Joint
Procedural	Procedural	Description: Missed UT Indication by QC	

Reference Description: QA found a missed UT indication after ZPMC had tested and accepted the weld in Segment 12AW Deck Panel Splice

Description of Non-Conformance:

During Quality Assurance (QA) Ultrasonic Testing (UT) on OBG Segment 12AE Deck Panel long seam weld, this QA discovered a longitudinal linear indication which did not meet the minimum acceptance criteria of AWS D1.5/2002 Table 6.3. A detail of the indication is as follows.

Class 'A' one (1) longitudinal linear indication measuring approximately 10 mm in length.

Indication dB rating is +8dB.

Material thickness is 14 mm and depth of the indication is approximately 6 mm.

The weld is identify as SEG3001*-022 of the Deck Panel.

The indication is clearly marked on or near the weld.

The 'Y' location of indication is 3390 mm from weld termination end on the East side.

Segment 12AE is located near Paint Shop # 2.

The notice of witness inspection (NWIT) no. is 006956. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.

Applicable reference:

-Special Provision 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 Section 6.26.3.1: "Welds that are subject to UT in addition to visual inspection shall be acceptable if they meet the following requirements:

(i) Welds subject to tensile stress under any condition of loading shall conform to the requirements of Table 6.3.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Ramesh Gade
Name of individual from Contractor notified: Wang Heng
Time and method of notification: 1630 hours, 10-16-10, Verbal
Name of Caltrans Engineer notified: Laraine Woo, Ching Chao
Time and method of notification: 0700 hours, 10-17-10, Email
QC Inspector's Name: Li Ping
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:	Tsang, Eric	SMR
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
375 BURMA ROAD
OAKLAND CA 95607

Date: 18-Oct-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-0826

Job Name: SAS Superstructure
Document No: 05.03.06-000821

Reference Description: QA found a missed UT indication after ZPMC had tested and accepted the weld in Segment 12AW Deck Panel Splice

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:** 12

Remarks:

During Quality Assurance (QA) Ultrasonic Testing (UT) on OBG Segment 12AE Deck Panel long seam weld, Caltrans QA discovered a longitudinal linear indication which did not meet the minimum acceptance criteria of AWS D1.5/2002 Table 6.3. A detail of the indication is as follows:

- Class 'A' one (1) longitudinal linear indication measuring approximately 10 mm in length.
- Indication dB rating is +8dB.
- Material thickness is 14 mm and depth of the indication is approximately 6 mm.
- The weld is identify as SEG3001*-022 of the Deck Panel.
- The indication is clearly marked on or near the weld.
- The 'Y' location of indication is 3390 mm from weld termination end on the East side.
- Segment 12AE is located near Paint Shop # 2.

The notice of witness inspection (NWIT) no. is 006956. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.

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-0826

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: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000821

Subject: NCR No. ZPMC-0826

Dated: 25-Oct-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000811 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000811R00;

Caltrans' comments:

Status: CLO

Date: 27-Oct-2010

The proposed resolution is acceptable. This NCR is closed.

Submitted by: Woo, Laraine

Date: 27-Oct-2010

Attachment(s):



No. B-915

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-10-25

REGARDING: NCR-000864(ZPMC-0826)

ZPMC acknowledged one indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired this indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000864(ZPMC-0826)

B787-UT-16170 R1

A handwritten signature in black ink, appearing to be 'J. W.' or similar, written in a cursive style.

10/25/2010



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: 18-Oct-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-0826

Job Name: SAS Superstructure
Document No: 05.03.06-000826

Reference Description: QA Found, missed UT indication on SEG3001*-022 of the Deck Panel. As per contract documents, ZPMC's QC personnel are required to perform

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract documents 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:** 12

Remarks:

During Quality Assurance (QA) Ultrasonic Testing (UT) on OBG Segment 12AE Deck Panel long seam weld, Caltrans QA personnel found a longitudinal linear indication which did not meet the minimum acceptance criteria of AWS D1.5/2002 Table 6.3. A detail of the indication is as follows:

- Class 'A' one (1) longitudinal linear indication measuring approximately 10 mm in length.
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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-0826

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey
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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-000864**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0826**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: Segment 12 AW Deck Panel Splice Butt JointProcedural Procedural Description: Missed UT Indication by QC**Reference Description:** QA found a missed UT indication after ZPMC had tested and accepted the weld in Segment 12AW Deck Panel Splice**Description of Non-Conformance:**

During Quality Assurance (QA) Ultrasonic Testing (UT) on OBG Segment 12AE Deck Panel Long seam weld, this QA discovered a longitudinal linear indication which did not meet the minimum acceptance criteria of AWS D1.5/2002 Table 6.3. A detail of the indication is as follows.

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Segment 12AE is located near Paint Shop # 2.

The notice of witness inspection (NWIT) no. is 006956. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.

Applicable reference:

-Special Provision 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)

Who discovered the problem: Ramesh Gade
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Time and method of notification: 1630 hours, 10-16-10, Verbal
Name of Caltrans Engineer notified: Laraine Woo, Ching Chao
Time and method of notification: 0700 hours, 10-17-10, Email
QC Inspector's Name: Li Ping
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: Tsang, Eric	SMR
Reviewed By: Wahbeh, Mazen	SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-16170R1 DATE 2010.10.23 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787 CONTRACTOR: CALTRANS

ITEMS NAME: 12AE DECK PLATE DRAWING NO.: SEG3001* CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW BUTT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE AMERICA EPOCH 4B 071565511

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-345T2-X 14mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
SEG3001*-022	1R1	70.5				51								ACC.	100%

AFTER B-WR16071

BLANK

EXAMINED BY 主探 Xiell... REVIEWED BY 审核 Lili...
 LEVEL - II SIGN / DATE 20/10.23 LEVEL - II SIGN / DATE 20/10.23

质量经理 / QCM L.V. ... 用户CUSTOMER _____
 签字 SIGN / 日期 DATE 20/10.23 签字 SIGN / 日期 DATE _____

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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, P.R. China**Report No:** NCS-000858**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0826**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: 16-Oct-2010**Description of Non-Conformance:**

During Quality Assurance (QA) Ultrasonic Testing (UT) on OBG Segment 12AE Deck Panel long seam weld, this QA discovered a longitudinal linear indication which did not meet the minimum acceptance criteria of AWS D1.5/2002 Table 6.3. A detail of the indication is as follows.

Class 'A' one (1) longitudinal linear indication measuring approximately 10 mm in length.

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The notice of witness inspection (NWIT) no. is 006956. The indication is located within the area which was previously tested and accepted by ZPMC Quality Control (QC) personnel. As per contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.

Contractor's proposal to correct the problem:

Contractor proposes to repair the missed UT indication and provide NDT documentation showing weld is acceptable. Contractor will monitor the inspector who missed the indication, and take disciplinary action should be continuously making similar mistakes.

Corrective action taken:

Contractor repaired the indications, and provided the NDT documentation. Contractor identified the inspector who missed the indications. Contractor is monitoring the inspector performance.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(*Continued Page 2 of 2*)

Yes No

Comments:

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Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Devey,Jim

QA Reviewer
