

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-000863**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0825**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment 12BW
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 12BW Deck Diaphragm

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of weld located on Orthotropic Box Girder (OBG) segment 12BW, this QA Inspector discovered the following issue:

- One (1) longitudinal linear indication measuring approximately 10mm in length.
- The indication dB rating is a +2.
- The Material thickness is 14mm.
- The depth of the indication is approximately 6mm.
- The Y distance for this indication is 650 mm from top Cope hole.
- The weld is identified as SEG3005J-001 at Cross Beam Side, Panel Point PP113.
- This weld is Butt weld joining Deck Panel Diaphragm (X3202F) to Deck Panel Diaphragm (X3202C).
- This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
- The indication is clearly marked on or near the weld.
- The Segment 12BW is located at near trial assembly Yard.
- The Notice of Witness Inspection (NWIT) No. is 006916. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

Applicable reference:

-AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 10dbs and under for material thicknesses 8mm through 20mm.

-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."

Who discovered the problem: Nagalingam Pandaram Pillai

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of individual from Contractor notified: Wei Jian Bao
Time and method of notification: 1600 hours, 10/13/10, Verbal
Name of Caltrans Engineer notified: Laraine Woo, Ching Chao
Time and method of notification: 0730 hours, 10/14/10, Email
QC Inspector's Name: Wu Shi Guo
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: 15-Oct-2010

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: 05.03.06-000820

Subject: NCR No. ZPMC-0825

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

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 the Quality Assurance (QA) Ultrasonic Testing (UT) review of weld located on Orthotropic Box Girder (OBG) segment 12BW, Caltrans QA Inspector discovered the following issue:
- One (1) longitudinal linear indication measuring approximately 10mm in length.
 - The indication dB rating is a +2.
 - The Material thickness is 14mm.
 - The depth of the indication is approximately 6mm.
 - The Y distance for this indication is 650 mm from top Cope hole.
 - The weld is identified as SEG3005J-001 at Cross Beam Side, Panel Point PP113.
 - This weld is Butt weld joining Deck Panel Diaphragm (X3202F) to Deck Panel Diaphragm (X3202C).
 - This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
 - The indication is clearly marked on or near the weld.
 - The Segment 12BW is located at near trial assembly Yard.
 - The Notice of Witness Inspection (NWIT) No. is 006916. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

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-0825

cc: Rick Morrow, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey

NCT

(Continued Page 2 of 2)

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000820

Subject: NCR No. ZPMC-0825

Dated: 25-Oct-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000810 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-000810R00;

Caltrans' comments:

Status: CLO

Date: 27-Oct-2010

The proposed resolution is acceptable. This NCR is closed.

Submitted by: Woo, Laraine

Attachment(s):

Date: 27-Oct-2010



No. B-916

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-10-25

REGARDING: NCR-000863(ZPMC-0825)

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-000863(ZPMC-0825)

B787-UT-16139 R1

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

10/25/20 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: 15-Oct-2010

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

Dear: Mr. Charles Kanapicki
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure
 Document No: 05.03.06-000820

Subject: NCR No. ZPMC-0825

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

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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- Quality Control (QC) not performed in conformance with contract documents.
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Material Location: OBG

Lift: 12

Remarks:

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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-0825

cc: Rick Morrow, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey

02 02 15 04 05.03.06-000820.NCT

Received Page 1 of 2
 NCT-000820 15 Oct 10

NCT

(Continued Page 2 of 2)

File: 05.03.06

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Bay Area Branch
 690 Walnut Ave. St. 150
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 (707) 649-6453
 (707) 649-5493

Contract #: 04-0120F4
 Cty: SF/ALArte: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000863

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Oct-2010

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

NCR #: ZPMC-0825

Type of problem:

- Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: OBG Segment 12BW
 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 12BW Deck Diaphragm

Description of Non-Conformance:

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Who discovered the problem: Nagalingam Pandaram Pillai

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of individual from Contractor notified: Wei Jian Bao

Time and method of notification: 1600 hours, 10/13/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo, Ching Chao

Time and method of notification: 0730 hours, 10/14/10, Email

QC Inspector's Name: Wu Shi Guo

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 to test 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-16139R1 DATE 2010.10.23 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 12BW SIDE PLATE SPLICE DRAWING NO.: SEG3005J CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号 ZP06-787

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		
SEG3005J-001	1R1	70.5				51								ACC.	100%

AFTER B-WR15970

BLANK

EXAMINED BY 主探 <i>X. J. Han</i> LEVEL - II SIGN <input checked="" type="checkbox"/> DATE 20/10/23	REVIEWED BY 审核 <i>L. Li</i> LEVEL - II SIGN <input checked="" type="checkbox"/> DATE 20/10/23
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质量经理 / QCM <i>W. Jianhua</i> 签字 SIGN / 日期 DATE 20/10/23	用户 CUSTOMER _____ 签字 SIGN / 日期 DATE
---	---

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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-000857**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0825**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: 13-Oct-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of weld located on Orthotropic Box Girder (OBG) segment 12BW, this QA Inspector discovered the following issue:

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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 to prove the weld is acceptable. Contractor also identified the inspector who missed the indications. Contractor is monitoring his performance.

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:

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Devey,Jim

QA Reviewer