

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, China **Report No:** NCR-000823
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 02-Aug-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0785

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 13, FB3127A
Procedural	Procedural	Description:	

Reference Description: Backing bar not continuous for Lift 13 member FB3217A

Description of Non-Conformance:

During the Quality Assurance Ultrasonic Testing (UT) and Visual Testing (VT) review of welds located on OBG Floor Beam FB3217-001 this Quality Assurance Inspector (QA) discovered the following issues:

- Backing bar attached with intermittent tack welds.
- AWS requires the backing to be welded continuously for its entire length.
- The weld is identified as FB3217-100-136.
- The weld is a Complete Joint Penetration (CJP) T-joint, joining stiffener plate identified as X4495J to floor beam web plate identified as X4243A.
- The OBG Floor Beam FB3217-001 is located in Bay 2.

The NDT Inspection Notification Sheet is Document No. 06305. The backing strip is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform 100% VT inspection of this weld.

For further information, please see the attached pictures below.



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 3.13.3.2 – “Where the steel backing of longitudinal welds is externally attached to the base metal by welding, such welding shall be continuous for the length of the backing.”

Who discovered the problem: Rene Hernandez

Name of individual from Contractor notified: Chen Ji Wei

Time and method of notification: 1530 hours_08/02/10_Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 1530 hours_08/02/10_Verbal

QC Inspector's Name: Chen Xi

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

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 Devey, 150.0002.6784, who represents the Office of Structural Materials for your project.

Inspected By:	Devey,Jim	SMR
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Reviewed By:	Wahbeh,Mazen	SMR
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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: 04-Aug-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-0785

Job Name: SAS Superstructure
Document No: 05.03.06-000780

Reference Description: Backing bar not continuous for Lift 13 member FB3217A

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:** 13

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) and Visual Testing (VT) review of welds located on OBG Floor Beam FB3217-001 this Quality Assurance Inspector (QA) discovered the following issues:

- Backing bar attached with intermittent tack welds.
- AWS requires the backing to be welded continuously for its entire length.
- The weld is identified as FB3217-100-136.
- The weld is a Complete Joint Penetration (CJP) T-joint, joining stiffener plate identified as X4495J to floor beam web plate identified as X4243A.
- The OBG Floor Beam FB3217-001 is located in Bay 2.

The NDT Inspection Notification Sheet is Document No. 06305. The backing strip is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform 100% VT 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-0785

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: 05.03.06-000780

Subject: NCR No. ZPMC-0785

Dated: 07-Sep-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000771 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has completely welded the backing bar to the floorbeam and is providing the VT to show that it is complete. Also included it the UT report for the completed weld.

ZPMC has completely welded the backing bar to the floorbeam and is providing the VT to show that it is complete. Also included it the UT report for the completed weld, whose correct weld ID has been noted in the NDT report. To prevent this in the future ZPMC has issued an internal NCR to the QC department, ZPMC QC reported back that the Production worker performed this action despite the warning from the QC. The worker has been counseled on his behavior and to listen to the instructions of the QC. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000771R00;

Caltrans' comments:

Status: CLO

Date: 14-Sep-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Date: 14-Sep-2010

Attachment(s):



No. B-871

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-09-06

REGARDING: NCR-000823(ZPMC-0785)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC has complete the weld on the attached backing bar by continuous welding. ZPMC is providing the VT report for the weld on backing bar and the UT report for the affected splice weld for engineer's reviewal. Please be noticed, the correct number of splice weld should be FB3217-001-137 as showing in UT record. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000823(ZPMC-0785)

B787-UT-14849

VT FOR BACKING BAR WELD

Jay W
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: 04-Aug-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: 05.03.06-000780

Subject: NCR No. ZPMC-0785

Reference Description: Backing bar not continous for Lift 13 member FB3217A

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:** 13

Remarks:

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Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0785

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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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, China

Report No: NCR-000823

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 02-Aug-2010

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

NCR #: ZPMC-0785

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural**

Joint fit-up **Coating** **Other**

Procedural **Procedural** **Description:**

Bridge No: 34-0006

Component: Lift 13, FB3127A

Reference Description: Backing bar not continuous for Lift 13 member FB3217A

Description of Non-Conformance:

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-Backing bar attached with intermittent tack welds.

-AWS requires the backing to be welded continuously for its entire length.

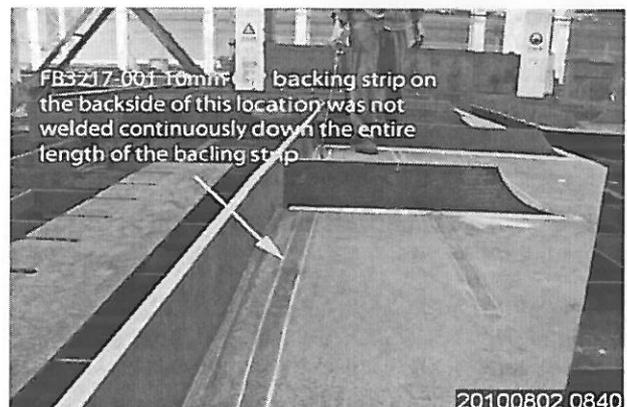
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

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Time and method of notification: 1530 hours_08/02/10_Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 1530 hours_08/02/10_Verbal

QC Inspector's Name: Chen Xi

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

NA

Comments:

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Inspected By:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-14849 DATE 2010.08.29 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 13TH LIFTING FLOOR BEAM DRAWING NO.: FB3217 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
 FCAW T JOINT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH-4B 071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIW BLOCK TYPE II C.M.C A709M-345T2-X 14/22mm

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
Changchao	70°	2.5MHz	18×18mm				
Changchao	0°	2.5MHz	20mm	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		
FB3217-001-137		70				41								ACC.	100%

BLANK

EXAMINED BY主探 Kuang Jian REVIEWED BY 审核 Tanyd Johar
 LEVEL - II SIGN / DATE 12.08.29 LEVEL - II SIGN / DATE 12.08.29

质量经理 / QCM 用户CUSTOMER
 签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

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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-000764**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0785**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: 02-Aug-2010**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) and Visual Testing (VT) review of welds located on OBG Floor Beam FB3217-001 this Quality Assurance Inspector (QA) discovered the following issues:

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The NDT Inspection Notification Sheet is Document No. 06305. The backing strip is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform 100% VT inspection of this weld.

For further information, please see the attached pictures below.

Contractor's proposal to correct the problem:

Attach backing bar to the member as required by Contract specifications and perform NDT to verify quality of weld joint.

Corrective action taken:

The backing has been attached to the base material by a continuous weld as required by Contract specifications and AWS D1.5 Section 3.13.4. NDT reports have been submitted verifying the weld in question meets Contract weld quality requirements. An internal NCR was issued in regards to this matter and the welder responsible was counseled on his work practices.

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:

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
