

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-000177**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Aug-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0160**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: DP116-002
Procedural	Procedural	Descriptor:	Deck Panel

Reference Description: Closed Rib Weld One Stem at a Time**Description of Non-Conformance:**

The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #-007 on OBG Deck Panel DP-116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.

Applicable reference:

Special Provisions, Section 10-1.59 Steel Structures, Subsection Welding of Closed Ribs to Box Shell Plate (p. 328): "Closed ribs shall be clamped or tack welded in place, and both stems welded to the deck plate simultaneously."

Who discovered the problem: QA Inspector Tim McClendon**Name of individual from Contractor notified:** ABFJV QC Man Kit Li**Time and method of notification:** 900 hour, Verbal on August 13, 2008.**Name of Caltrans Engineer notified:** Kannu Balan**Time and method of notification:** 22-Aug-2008, E-mail**QC Inspector's Name:** APMC QC Sun Wei**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 Abifhram Velasco, who represents the Office of Structural Materials for your project.

Inspected By: Velasco, Abifhram

SMR

Reviewed By: Velasco, Abifhram

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: 510-622-5151 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 25-Aug-2008

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Charles Kanapicki Quality Control Manager

Document No: 05.03.06-000151

Subject: NCR No. ZPMC-0160

Reference Description: Closed Rib Weld One Stem at a Time

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:** 07

Remarks:

The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #-007 on OBG Deck Panel DP-116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.

Action Required and/or Action Taken:

Provide a resolution for the identified non-conformance and the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Kannu Balan Sr. Engineer

Attachments: ZPMC-0160

cc: Rick Morrow, Gary Pursell, Doug Coe, Kannu Balan, 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: 05.03.06-000151

Subject: NCR No. ZPMC-0160

Dated: 11-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000148 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ABFJV has instructed ZPMC that if this incident recurs to stop both weld heads as welding both sides of the stem simultaneously is a contract requirement.

ZPMC production personnel did not stop the weld head on the opposite side of the stem thinking they would cause more damage than already occurred during the machine malfunction, however, ABFJV has instructed ZPMC that if this incident recurs to stop both weld heads as welding both sides of the stem simultaneously is a contract requirement.

Submitted by:

Attachment(s): ABF-NPR-000148R00

Caltrans' comments:

Status: AAP

Date: 01-Oct-2008

The response is acceptable, but the Non-Conformance is not closed.

Please describe any actions taken to prevent recurrence of the issue. Also, provide documentation of repairs or unacceptable distortion that occurred, and confirm that the associated welds are otherwise in conformance to the contract specifications. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0160 at that time.

Submitted by: Wright, Doug

Date: 01-Oct-2008

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000151

Subject: NCR No. ZPMC-0160

Dated: 19-Jan-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000148 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC requests closure of this NCR based on attached documentation
Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000148R01;

Caltrans' comments:

Status: CLO

Date: 29-Jan-2009

The proposed resolution is acceptable. The welders received additional training, and the welds in question have been accepted by VT and MT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0160 is closed.

Submitted by: Wright, Doug

Date: 30-Jan-2009

Attachment(s):



TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 01/06/2009

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CALTRANS NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-331 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000177 (ZPMC-0160)
- (3) COPY OF THE FINAL VT AND MT REPORTS
- (4) COPY OF ZPMC INTERNAL NCR

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

PLAN HOLDER



RECEIVED 03 JAN 2009

DATE 1410

COMPANY

PHONE NO.

PLAN NUMBER: N/A

#R787-QCP-102



No. B-331

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-1-6

REGARDING: NCR-000177(ZPMC-0160)

With this letter of response, ZPMC requests closure for Caltrans NCR-000177(ZPMC-0160). We have prepared an internal NCR to the fabrication department and trained the work staff that must weld both stems of closed rib to box shell plate simultaneously. Even to there is an incident recurs for the machine malfunction, they should stop both weld heads as welding both sides of the stem simultaneously as the contract requirement.

In additional we provide the final VT and MT inspection report to prove the acceptable quality for the corresponding panel.

So ZPMC considers NCR-000177(ZPMC-0160) can be closed.

Please check the attached documentation for acceptance and close the NCR-000177(ZPMC-0160).

ATTACHMENT:

NCR-000177(ZPMC-0160)

The final VT and MT reports

ZPMC internal NCR

Chao Shuang Zhai
2009. 1. 6.

Thomas W. Lambert
ABX GCM
14 JAN. 09



Nonconformance Report

不符合项报告

Project Name: S.F.O.B.B 项目名称: 美国加州海湾大桥		NCR Number: NCR-B-105 (NCR-000177) NCR 编号:	
Item: 焊接问题 名称描述: welding problem		Item Number: DP116-002 件号:	Drawing Number: DP116-002 图号:
Location: OBG Bottom Shop 位置: 桥面底板车间		Date: 2008-9-3 日期:	

Description of Nonconformance:
不符合项状态描述:
The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #007 on OBG Deck Panel DP116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.
Applicable reference: Special Provision, Section 10-1.59 Steel Structures, Subsection Welding of Close Ribs to Box Shell Plate(p.328): Closed ribs shall be clamped or tack welded in place, and both stems welded to the deck plate simultaneously.
ZPMC 在进行 U 肋焊接至底板的过程中, 肋板的两侧并不是同时进行焊接。产生原因是枪头 3 在对 DP116-002-007 焊缝进行 GMAW 打底时发生故障。在焊接进行到一半时, GMAW 停止送丝导致。
参考: 标书章节 10-1.59, 钢结构规范中 U 肋焊接部分 (328 页): U 肋应紧固或点焊在钢板上, 并且肋板两侧的焊接需同时进行。

Work By: Wang Liqun. Prepared by: Lu Lei. Reviewed by QCE: Zhao Shuangbao
施工方: 2008-9-3 准备: 2008-9-3 质量工程师批准:

Drawing Error 图纸错误 Material Defect 材料缺陷 Fabrication Error 制作错误 Other, 2008-9-3 其他原因

Disposition: Use as is 回用 Repair 返修 Reject 拒收
处理措施:

Recommendation: 1. Enhance equipment examination and maintain and supervision during welding.
建议 1. 加强对设备的检修和保养工作; 焊接时, 加强监督。
2. Educate and guide welder to improve responsibility.
2. 同时对电焊工的责任心, 加强引导教育。

Prepared by: Li Haifei 2008-9-3. Approved by QCA: _____
准备 质量经理批准

Reason for Nonconformance:
不符合原因: It didn't weld both stems of closed rib to box shell plate simultaneously for equipment malfunction.
因机用在焊接过程中出现故障导致机用没有两边同时焊接。
预防措施: Enhance equipment examine, repair, and maintain, and perform operation according to Special Provision requirement.
加强对设备的检修和保养; 严格按照规范操作。

Approved by/批准: Li Haifei 2008-9-3

Technical Justification for Use-As-Is/Repair: Attachment 附件 Non-attachment 无附件
回用或返修的技术依据: 回用, 加强设备检修并过附件
设备有不定期检测, 和结束此问题再次发生。
It's be accepted. Strengthen the equipment maintain and inspection schedule.
Avoid the same thing appearing again.

Reviewed/批准: Tang Yongbo 2008-9-3

Verification: Acceptable 可接受 Unacceptable 不可接受
确认:

Verified by QCI/质检确认: _____ Reviewed by QCA/质检主任审核: _____



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333 Burma Road
Oakland CA 94607
Tel: 510-622-5151 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 25-Aug-2008

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

Job Name: SAS Superstructure

Document No: 05.03.06-000151

Dear: Mr. Charles Kanapicki

Attention: Mr. Charles Kanapicki Quality Control Manager

Subject: NCR No. ZPMC-0160

Reference Description: Closed Rib Weld One Stem at a Time

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: 07

Remarks:

The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #-007 on OBG Deck Panel DP-116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.

Action Required and/or Action Taken:

Provide a resolution for the identified non-conformance and the steps taken by the Quality Control Manager to prevent future occurrences.

Transmitted by: Kannu Balan Sr. Engineer

Attachments: ZPMC-0160

cc: Rick Morrow, Gary Pursell, Doug Coe, Kannu Balan, Ching Chao

File: 05.03.06

02.02;15.04

05.03.06-000151,NCT

Received
NCT-000151 28 Aug 08

DEPARTMENT OF TRANSPORTATION
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690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
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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-000177

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Aug-2008

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

NCR #: ZPMC-0160

Type of problem:

Welding Concrete Other
Welding Curing Procedural Bridge No: 34-0006
Joint fit-up Coating Other Component: DP116-002
Procedural Procedural Description: Deck Panel

Reference Description: Closed Rib Weld One Stem at a Time

Description of Non-Conformance:

The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #-007 on OBG Deck Panel DP-116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.

Applicable reference:

Special Provisions, Section 10-1.59 Steel Structures, Subsection Welding of Closed Ribs to Box Shell Plate (p. 328): "Closed ribs shall be clamped or tack welded in place, and both stems welded to the deck plate simultaneously."

Who discovered the problem: QA Inspector Tim McClendon

Name of individual from Contractor notified: ABFJV QC Man Kit Li

Time and method of notification: 900 hour, Verbal on August 13, 2008.

Name of Caltrans Engineer notified: Kannu Balan

Time and method of notification: 22-Aug-2008, E-mail

QC Inspector's Name: APMC QC Sun Wei

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

Inspected By: Velasco, Abifhiram

SMR

Reviewed By: Velasco, Abifhiram

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-5396 DATE日期 2008.12.05 PAGE OF页码 1/1 Revision No: 0

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

DRAWING NO. 图号: DP116 OBG U-RIB CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

REFERENCING CODE 参考规范编码: AWS D1.5-2002 ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002 PROCEDURE NO. 程序编号: ZPQC-MT-01 CALIBRATION DUE DATE 仪器校正有效期: Dec. 28ST, 2008

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: B310S SERIAL NO. 连续编号: 5395 5617 5620

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法 CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉 YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料: WELDING 焊接件 Material & thickness 母材, 厚度: A709M-345T2-X-S 12/14 mm
 CASTING 铸件
 FORGING 锻造

WELDING PROCESS 焊接方法: GMAW+SAW TYPE OF JOINT 焊缝类型: T-JOINT

WELD I.D. 焊缝编号	'DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
DP116-002-001				ACC.		10%MT
DP116-002-002				ACC.		10%MT
DP116-002-003				ACC.		10%MT
DP116-002-004				ACC.		10%MT
DP116-002-005				ACC.		10%MT
DP116-002-006				ACC.		10%MT
DP116-002-007				ACC.		10%MT
DP116-002-008				ACC.		10%MT

BLANK

EXAMINED BY 主探: Wangwei REVIEWED BY 审核: Cai Xinxin

LEVEL - II SIGN 签名 / DATE 日期: 08/25 LEVEL-II SIGN / DATE 日期: 08-12-05

质量经理 / QCM: H. Gary 用户 / CUSTOMER:

签字 SIGN / 日期 DATE: 签字 SIGN / 日期 DATE:

DEPARTMENT OF TRANSPORTATION

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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-000186**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0160**Type of problem:**

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

Date the Non-Conformance Report was written: 13-Aug-2008**Description of Non-Conformance:**

The Contractor did not weld both stems of closed rib to box shell plate simultaneously. This occurred due to an equipment malfunction on weld head number 3 during the GMAW root pass for weld joint #-007 on OBG Deck Panel DP-116-002. The GMAW electrode discontinued feeding approximately mid-way through the weld.

Contractor's proposal to correct the problem:

ZPMC prepared an internal NCR to the fabrication department and trained the workers to weld both stems of closed rib to box shell plate simultaneously. If the machine malfunction, they should stop both weld heads.

ZPMC performed weld repair and provided the final VT and MT inspection report.

Corrective action taken:

The welders received additional training. ZPMC performed weld repair and provided the final VT and MT inspection report. Gate to gate UT and PAUT, along with repair if necessary, will be performed to ensure the quality of the deck panel.

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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer