

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:** Shanghai, China**Report No:** NCR-000025**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Dec-2007**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0024**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Side Plate SP-030
Procedural	Procedural	Descriptor:	

Description of Non-Conformance:

American Bridge / Fluor (ABF) and ZPMC Quality Control (QC) accepted weld joint # 013 on side plate panel # SP-030 after visual inspection. The Contractor did not identify an undersized fillet weld. The fillet weld was joined a WT stiffener to a side plate.

Applicable reference:

AWS D1.5 (2002) section 6.26.1.7: "A fillet weld in any single continuous weld may underrun the nominal fillet weld size specified by 2 mm [1/16 in.] without correction, provided that the underrun portion of the weld does not exceed 10 percent of the length of the weld."

Who discovered the problem: Alfredo Acuna**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Cheng Wen Liu**Time and method of notification:** 1600, VIA cell phone on 01-16-2008.**QC Inspector's Name:** Fu Yu Hong**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

Add an additional fillet weld pass.

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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry,Patrick

Quality Assurance Inspector

Reviewed By: Lowry,Patrick

QA Reviewer



DEPARTMENT OF TRANSPORTATION
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 Enterprises, a JV
375 Burma Road
Oakland CA 94607

Date: 08-Feb-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000015

Subject: NCR No. ZPMC-0024

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

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0024

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000015

Subject: NCR No. ZPMC-0024

Dated: 23-Apr-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000017 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC better control welding machine settings so that proper size welds are produced

Please see the attached response from ZPMC. ABF JV has reviewed and concurs with this response and considers this issue resolved. ABF JV believes, based on our understanding of the NCT process that this NCR was issued closed as the top (first) box on the NCT was checked. Please confirm.

Submitted by: Kanapicki, Charles

Attachment(s): ABF-NPR-000017R00;

Caltrans' comments:

Status: CLO
Date: 28-Jul-2008

The Contractor's response is acceptable. The Department concurs that Non-Conformance ZPMC-0024 is closed.

Submitted by: Wright, Doug

Attachment(s):

Date: 28-Jul-2008

NCT 151

TL-000968



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 03/28/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR(NCR-000025) FOR CLOSURE / ZPMC 2A ^{CRK} 4/22/08

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-073 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000025 . / ZPMC 2A ^{CRK} 4/22/08
- (3) COPY OF WR WITH NUMBER B-WR021
- (4) COPY OF VT REPORTS WITH NUMBER B-VT552

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

Ruby L.
 PLAN HOLDER

3/28/08 1106
 DATE

AN/TU
 COMPANY

PHONE NO.

PLAN NUMBER: N/A
 #R787-QCP-102



No. B-073

LETTER OF RESPONSE

DATE: 2008.03.27

To: AB/F Steve Lawton

From: ZPMC Xu Xianping

Subject: Response to CT NCR-000025 / ZPMC 24 ^{CSZ} 4/22/08

Mr. Lawton,

ZPMC has generated internal NCR-B-012 in response to CT NCR-000025, regarding that ABF and ZPMC QC accepted weld joint#13 on side plate panel #SP-030 after visual inspection and the contractor did not identify an undersized fillet weld, which was jointed a WT stiffener to a side plate. The current and voltage were a bit low within the range of WPS, which resulted in undersized fillet weld. We have repaired these defects according to B-WR021 and performed visual inspection, finding the size of fillet welds meet the requirements. In the future, we will control the current and voltage better and supervise more strictly to avoid such incidents.

Hereby we apply for the closure of this NCR. Thank you.

For further information, please contact me.

ATTACHMENTS:

- 1) ZPMC internal NCR-B-012 and CT NCR-000025 / ZPMC 24 ^{CSZ} 4/22/08
- 2) B-WR021
- 3) B-VT552

Yours sincerely,

Xu Xianping

Xu Xianping
2008-3-28

Reviewed
ABF QCM
10 APRIL 08



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-012 (NCR-000025) / ZPMC 24

Item: undersized fillet weld
名称描述: 焊角尺寸不足

Item Number:
件号:

Drawing Number: SP030
图号: SP030

9/22/08

Location: Bottom Plate
位置: 钢箱梁底板

Date: 2008-2-22
日期: 2008-2-22

Description of Nonconformance:

不符合项状态描述:

American Bridge / Flour (ABF) and ZPMC Quality Control (QC) accepted weld joint # 13 on side plate panel # SP-030 after visual inspection. The Contractor did not identify an undersized fillet weld. The fillet weld was jointed a WT stiffener to a side plate.

ABF 和 ZPMC 的质检部门接受了 SP030 焊缝#13 的目检。但合同方没有鉴别出焊角尺寸不足。

Work By: W. Hui Deng Prepared by: Du Wenlong Reviewed by QCE: Fu Kang
施工方: 2008.02.24 准备: 2008.02.22 质量工程师批准: 2008.02.22

Drawing Error Material Defect Fabrication Error Other
图纸错误 材料缺陷 制作错误 其他原因

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

Recommendation:

建议 加强检查力度

Improve the strength of inspection.

Prepared by: Xu Xianping 2008.02.23 Approved by QCA: Hu Gang 2008.2.3
准备 质量经理批准

Reason for Nonconformance:

不符合原因: 电流电压在符合WPS的范围内偏低导致焊角偏小。

The current and voltage is a little small in the range of WPS, which resulted in a little small size of weld.

Prevention of Re-occurrence:

预防措施: 控制好电流电压并加强检查力度

Control the current and voltage well and improve inspection strength.

Approved by/批准: Xu Xianping 2008.02.23

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

请参考焊缝返修报告 B-WR021...
please reference repair report B-WR021...

Reviewed/批准: Jiang Jiongbo

Verification: Acceptable Unacceptable
确认: 可接受 不可接受

Verified by QCI/质检确认: Xu Xianping 2008.02.24 Reviewed by QCA/质检主任审核: Hu Gang



DEPARTMENT OF TRANSPORTATION
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 Enterprises, a JV
375 Burma Road
Oakland CA 94607

Date: 08-Feb-2008

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

Attention: Dave Williams Consultant
Job Name: SAS Superstructure

Document No: 05.03.06-000015

Subject: NCR No. ZPMC-0024

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0024

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
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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: Shanghai, China

Report No: NCR-000025

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 25-Dec-2007

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

NCR #: ZPMC-0024

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: OBG Side Plate SP-030

Procedural Procedural Descripton:

Description of Non-Conformance:

American Bridge / Fluor (ABF) and ZPMC Quality Control (QC) accepted weld joint # 013 on side plate panel # SP-030 after visual inspection. The Contractor did not identify an undersized fillet weld. The fillet weld was joined a WT stiffener to a side plate.

Applicable reference:

AWS D1.5 (2002) section 6.26.1.7: "A fillet weld in any single continuous weld may underrun the nominal fillet weld size specified by 2 mm [1/16 in.] without correction, provided that the undersize portion of the weld does not exceed 10 percent of the length of the weld."

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Cheng Wen Liu

Time and method of notification: 1600, VIA cell phone on 01-16-2008.

QC Inspector's Name: Fu Yu Hong

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Add an additional fillet weld pass.

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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry, Patrick

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SP30	报告编号 Report No.	B-WR021
合同号 Contract No.:	04-0120F4	部件名称 Items Name	底板装配图-5型 底板Bottom asse mble-5 type plate	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

3B-C5东线箱梁底板SP30在完工报验时发现11处整条焊角不足。图纸要求8mm焊角，现实际测量7mm-6.5mm。具体见详图:

There are not the enough size in 11 welds of 3B-C5 east box bottom plate(SP30),The requirement of the drawings is 8mm,but it is only 7mm in maximum 6mm in minimum. The following drawings show the detail.

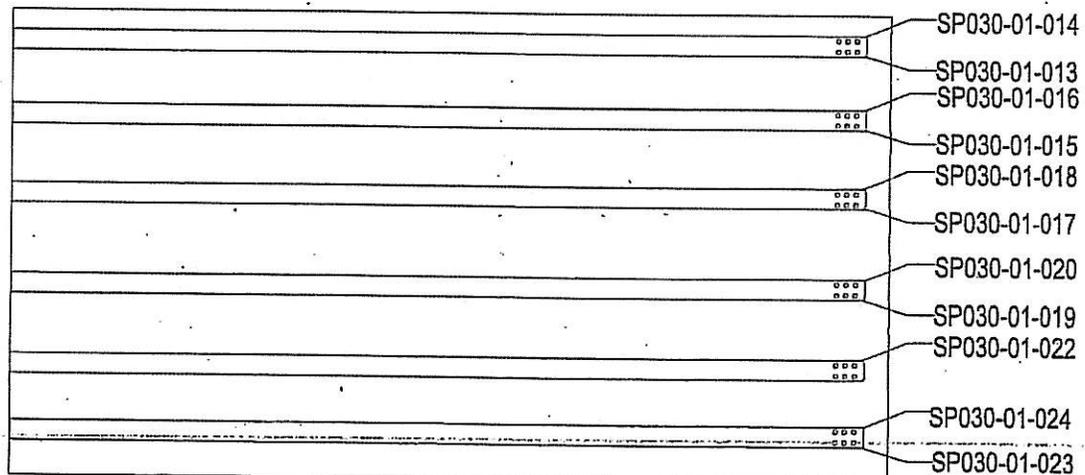
检验员 (Inspector): Li Yanhua 日期(Date): 2008-1-4

焊缝返修位置示意图:

Draft of welding discontinuity:

west

east



产生原因:

Caused:

焊缝成形较差打磨过度。

Not enough welding process and excessive grinding.

车间负责人(Foreman): *Lu Haidong*

日期(Date): 08.1.6

处理意见

Disposition:

1. 将焊缝打磨平齐, 并清理干净;
2. 根据相应WPS, 对焊缝进行焊接;
3. 根据施工图纸的要求, 打磨焊脚到所要求的大小;
4. 根据图纸要求, 对焊缝作NDT检查;
5. 预热温度不小于10°C.

1. The weld will be grinded flush and cleared.
2. Welding will be performed according to the relevant WPS (WPS-B-T-2132-1).
3. Grinding the weld according to the requirement of approved shop drawing.
4. Perform NDT of the weld according to the shop drawing..
5. Preheat prior to welding to a minimum temperature of 10°C

工艺: *Ling Shihua*

Technical engineer:

审核:

Approved by

Date :

日期 08.1.6.



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

项目名称 Project Name	英国海湾大桥 SFOBB	部件图号 Drawing No.	SP30	报告编号 Report No.	B-WR021
合同号 Contract No.:	04-0120F4	部件名称 Items Name	底板装配图-5型 底板Bottom asse mble-5 type plate	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

控制焊接成形, 提高打磨质量。

Control welding process and improve quality of grinding.

车间负责人(Foreman): Lu Haidong 日期(Date): 2008.1.6

参照的WPS编号 Repair WPS No.	WPS-B-T-2132-1	工艺员 technologist	Ling Shihua 1-6/08
返修(碳刨)前预热温度 Preheat temperature before gouging	NA	返修的缺陷 Description of discontinuity	Under size
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	67°C
最大碳刨深度 Max. depth of gouging	NA	碳刨总长 Total length of gouging	NA
焊工 welder Shi Yanhao 053605	焊接类型 welding type FCAW	焊接位置 position	2F
焊接电流 Current 278A	焊接电压 Voltage 28.8V	焊接速度 Speed	510 mm/min
返修后检查 Inspection After repairing:			
外观检查 VT result Acc	检验员 Inspector Xu Xiangping	日期 Date	2008-01-16
NDT复检 NDT result NT RES	探伤员 NDT person Cai Xin Xin	日期 Date	2008.01.18
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900

B-V1552



周数
日期

II#

2008.01.18

Visual Weld Inspection Report
焊缝目视检查报告

Girder/梁: OBG Bottom plate

Tower/塔: NA

Caltrans Contract No.
加州合同编号

04-0120F4

Project No.:
项目名称
San Francisco Oakland Bay Bridge
海湾大桥

Representative:
质检代表:
Lu Jianhua

CWI:
检验员:
Xun Xiangping 07/07/2011

Project No.:
项目编号:
ZP06-787

Quality Assurance Manager
~Approval
质量控制经理:
Hu Gang

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Over lap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 返修后接受
SP030-01-013	048801	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-014	048801	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-015	048801	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-016	048801	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-017	053742	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-018	053742	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-019	053742	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-020	053742	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-021	048810	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-022	048810	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-023	048810	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
SP030-01-024	048810	2F	Supercored 71H(Φ1.4)	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA

After root weld

After cover pass

After CWR or WRR No.: B-WR 021

After HSR No.: Others

B787-MT-081

"✓" is no defects. "X" is defects. "NA" is not applicable.

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:** Shanghai, China**Report No:** NCS-000023**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 08-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0024**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: 25-Dec-2007**Description of Non-Conformance:**

American Bridge / Fluor (ABF) and ZPMC Quality Control (QC) accepted weld joint # 013 on side plate panel # SP-030 after visual inspection. The Contractor did not identify an undersized fillet weld. The fillet weld was joined a WT stiffener to a side plate.

Contractor's proposal to correct the problem:

METS-OSM will track this issue as a Quality Management Issue and does not request a response from the Contractor at this time. If this issue becomes systemic, METS will elevate this issue to second-tier and request a response from the Contractor.

Corrective action taken:

N/A

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 Patrick Lowry, (858) 344-2712, who represents the Office of Structural Materials for your project.

Inspected By: Liu, Chengwen

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer