

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:** ZPMC's fabrication shop, Changxing Island, China**Report No:** NCR-000026**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 13-Jan-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0025**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: SP029-01 CJP Stiffener splice 002
Procedural	Procedural	Descriptor:	Attempted repair does not conform with AWS D1.5 20

Description of Non-Conformance:

ZPMC damaged the base metal while attempting to repair a non-conforming 3 mm deep undercut on a CJP splice of T-Stiffener SP029-01-002.

Applicable reference:

AWS D1.5 2002, section 3.7.1: "The removal of weld metal or portions of the base metal may be done by machining, air carbon arc cutting and gouging, thermal cutting, chipping, or grinding. It shall be done in such a manner that the remaining weld metal or base metal is not nicked or undercut."

Who discovered the problem: Caltrans Mets QA Inspector Scott Croff**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Peter Dautermann**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:**

Unknown at this time.

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: 05.03.06-000016

Subject: NCR No. ZPMC-0025

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-0025

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: 05.03.06-000016

Subject: NCR No. ZPMC-0025

Dated: 23-Apr-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000018 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC QC will better monitor weld repair process to ensure base metal not damaged

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-000018R00;

Caltrans' comments:

Status: CLO
Date: 26-Jul-2008

Contractor proposes to supervise the repairing process more strictly, and follow procedures to avoid such incidents. Also, the weld was ground smooth, and accepted by UT. The Department concurs that Non-Conformance ZPMC-0025 is closed.

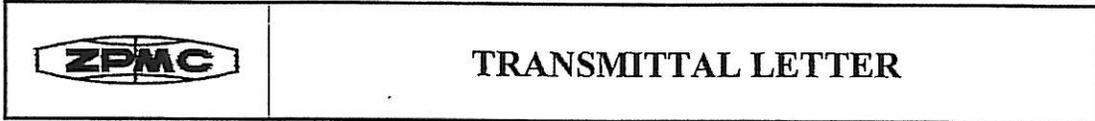
Submitted by: Wright, Doug

Attachment(s):

Date: 26-Jul-2008

NCR 16

TL-000963



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 03/27/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR(NCR-000026) FOR CLOSURE / ZPMC 25 ^{GET} 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-072 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000026 . / ZPMC 25 ^{GET} 4/22/08

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



 PLAN HOLDER

3/27/08 6:00

 DATE

 COMPANY

 PHONE NO.

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



No. B-072

LETTER OF RESPONSE

DATE: 2008.03.26

To: AB/F Steve Lawton

From: ZPMC Xu Xianping

Subject: Response to CT NCR-000026 / ZPMC 25

CHK 4/22/08

Mr. Lawton,

ZPMC has generated internal NCR-B-010 in response to CT NCR-000026, regarding that ZPMC damaged the base metal while attempting to repair a non-conforming 3mm deep undercut on a CJP splice of T-stiffener SP029-01-002. ZPMC didn't control the repairing course strictly, which caused the damage of base metal. We have repaired those welds according to Section 3.2.3 of AWS D1.5. We grinded the welds smoothly, making them flush to the adjacent base metal. They were accepted by UT, which can be shown on the attached UT report. In the future, we will supervise the repairing process more strictly and follow the procedures to avoid such incidents.

/ ZPMC 25

CHK 4/22/08

For further information, please contact me. Thank you.

ATTACHMENTS:

- 1) ZPMC internal NCR-B-010 and CT NCR-000026.
- 2) B-WR036
- 3) B-VT-800
- 4) B787-UT-317

/ ZPMC 25 CHK 4/22/08

Sincerely,
Xu Xianping

Xu Xianping
2008.03.26

Reviewed
AB/F Qcm
8 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-010 (NCR-000026) / ZPMC 25

Item: base metal damage
 名称描述: 母材损伤
 Item Number: 件号:
 Drawing Number: 图号: SP029-01 CJP Stiffener 002

Location: Bottom Plate
 位置: 钢箱梁底板
 Date: 2008-2-22

Description of Nonconformance:
 不符合项状态描述:
 ZPMC damaged the base metal while attempting to repair a non-conforming 3 mm deep undercut on a CJP splice of T-Stiffener SP029-01-002.
 ZPMC 在尝试返修 T 型肋 SP029-01-002 的 CJP 对接缝上 3mm 的咬边的时候损伤了母材。

Work By: Cao Guoqiang Prepared by: Du Wenlong Reviewed by QCE: Fu Yuhong
 施工方: 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: 严格控制返修过程, 严格执行返修工艺
 Strictly control repair process and perform repair procedure.
 Prepared by: Yang Guochun Approved by QCA: Hu Gang 2008.2.26
 准备 质量经理批准

Reason for Nonconformance:
 不符合原因:
 在返修过程中, 未加力控制, 导致母材损伤。
 It didn't control well, lead to damaged the base material during repairing.

Prevention of Re-occurrence:
 预防措施:
 ① 严格执行工艺. 1) Strictly perform procedure
 ② 加强返修过程控制. 2) Improve monitoring and controlling the process of repair.
 Approved by/批准: Yang Guochun

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
 参照 AWS D1.1 3.2.3 条款进行打磨, 并打磨至光滑平整, 与周边母材齐平. Repair according to AWS D1.1 Section 3.2.3. Grind smoothly the welds, making them flush to the adjacent base metal.
 Reviewed/批准: 2008.2.18

Verification: Acceptable Unacceptable
 确认: 可接受 不可接受

Verified by QCI/质检确认: Xu Xianping 2008.03.24 Reviewed by QCA/质检主任审核: Hu Gang



DEPARTMENT OF TRANSPORTATION
666 Feng Bln 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: 05.03.06-000016

Subject: NCR No. ZPMC-0025

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-0025

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

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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: ZPMC's fabrication shop, Changxing Island, China

Report No: NCR-000026

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Jan-2008

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

NCR #: ZPMC-0025

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: SP029-01 CJP Stiffener splice 002
 Procedural Procedural Description: Attempted repair does not conform with AWS D1.5 20

Description of Non-Conformance:

ZPMC damaged the base metal while attempting to repair a non-conforming 3 mm deep undercut on a CJP splice of T-Stiffener SP029-01-002.

Applicable reference:

AWS D1.5 2002, section 3.7.1: "The removal of weld metal or portions of the base metal may be done by machining, air carbon arc cutting and gouging, thermal cutting, chipping, or grinding. It shall be done in such a manner that the remaining weld metal or base metal is not nicked or undercut."

Who discovered the problem: Caltrans Mets QA Inspector Scott Croff

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Peter Dautermann

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:

Unknown at this time.

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

版本 Rev. No.

Welding Repair Report

0

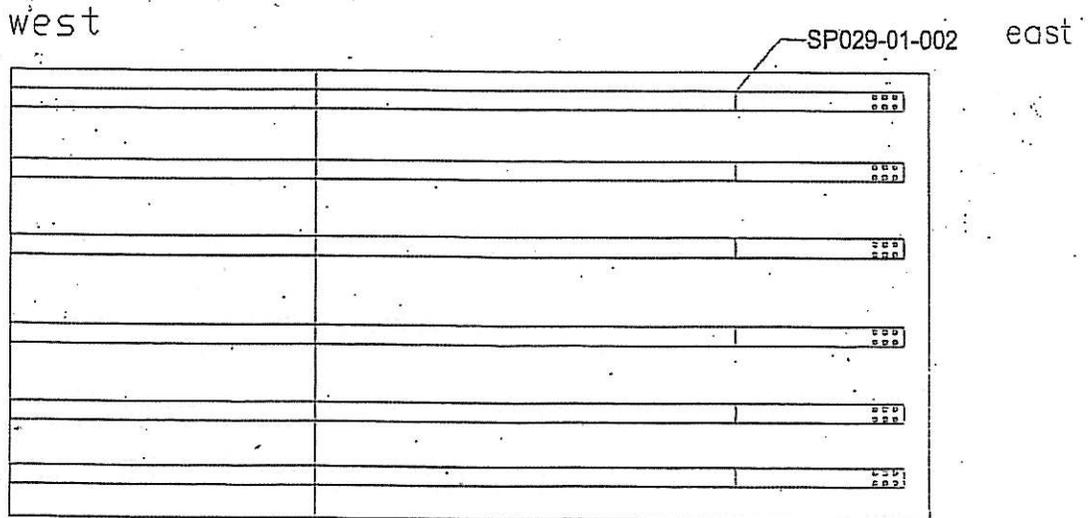
项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SP29	报告编号 Report No.	B-WR036
合同号 Contract No.:	04-0120F4	部件名称 Items Name	OBG H-RIB	NDT报告编号 Report No.of NDT	
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:**Description of welding discontinuity:**

检查发现RS17A/RS8BB两根工字钢对接处咬边3mm, 焊缝编号为SP029-01-002. 具体见下图。

At the welding joint of the two H-ribs RS17A and RS8BB we found one undercut, whose length was 3mm, and the weld number was SP029-01-002. Please see the draft below.

检验员 (Inspector): Guo Yanwei 日期(Date): 08.01.15

焊缝返修位置示意图:**Draft of welding discontinuity:**

产生原因:

Caused:

1. 焊工操作不当

1. The welder can not control very well.

车间负责人(Foreman): *Lu Handong*

日期(Date): 08.01.15

处理意见

Disposition:

1. 采用打磨的方法, 将咬边处缺陷去除;

2. 根据相应的返修WPS, 对缺陷处进行预热及补焊;

3. 将补焊处打磨到与邻近表面平齐;

4. 根据图纸要求, 对补焊处进行检查。

1. Remove the undercut area by means of grinding;

2. Preheating and welding according to the relevant repair WPS;

3. Grind the repaired area flush with the weld;

4. Relevant NDT will be performed according to the shop drawings.

工艺:
Technical engineer

Ling Shitua

审核:
Approved by

日期
Date

08.1.15



焊缝返修报告

版本 Rev. No.

Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	SP29	报告编号 Report No.	B-WR036
合同号 Contract No.:	04-0120F4	部件名称 Items Name	OBG H-RIB	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:

1. 加强焊工的专业水平。

1. Improve welders professional levels.

车间负责人(Foreman): *Lu Haidong*

日期(Date): 08.01.15.

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair	工艺员 technologist	<i>Lingshihua</i>
返修(碳刨)前预热温度 Preheat temperature before gouging	<i>N/A</i>	返修的缺陷 Description of discontinuity	<i>undercut</i>
焊前处理检查 Inspection before welding	<i>ACC</i>	焊前预热温度 Preheat temperature before welding	<i>103°C</i>
最大碳刨深度 Max. depth of gouging	<i>N/A</i>	碳刨总长 Total length of gouging	<i>N/A</i>
焊工 welder <i>Lizhaogang</i> <i>028810</i>	焊接类型 welding type <i>FCAW</i>	焊接位置 position <i>1G</i>	
焊接电流 Current <i>303</i>	焊接电压 Voltage <i>29.8</i>	焊接速度 Speed <i>380</i>	
返修后检查 Inspection After repairing:			
外观检查 VT result <i>ACC</i>	检验员 Inspector <i>XUXianping</i> <i>07072071</i>	日期 Date <i>08.3.13</i>	
NDT复检 NDT result <i>ACC</i>	探伤员 NDT person <i>Xuehaizhong</i>	日期 Date <i>2008.03.20</i>	
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900

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:** ZPMC's fabrication shop, Changxing Island, China**Report No:** NCS-000042**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 06-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0025**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-Jan-2008**Description of Non-Conformance:**

ZPMC damaged the base metal while attempting to repair a non-conforming 3 mm deep undercut on a CJP splice of T-Stiffener SP029-01-002.

Contractor's proposal to correct the problem:

Contractor proposes to supervise the repairing process more strictly and follow the procedures to avoid such incidents.

Corrective action taken:

Repaired those welds according to Section 3.2.3 of AWS D1.5. Ground the welds smoothly, making them flush to the adjacent base metal. They were accepted by UT.

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