

**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-000091**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 17-Mar-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0089**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> 89m Partial Mockup
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Description of Non-Conformance:**

ABF/ZPMC has deviated from the approved Partial Mockup Fabrication Procedure on the 89m mockup. Per the approved procedure, ZPMC was going to "remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B." Instead ZPMC has removed the fit lugs connecting both diaphragms with the longitudinal stiffeners on Skin B and Skin.

**Applicable reference:**

Special Provisions, Section 10-1.59 "Steel Structures", "Fabrication/Erection Procedure Mock-Ups", pg. 313.

"For each mock-up, the Contractor shall prepare a written fabrication and welding sequence. The fabrication and welding sequence shall be submitted for review by the Engineer, and approval shall be given before the mock-up is fabricated."

**Who discovered the problem:** Craig Hager, Quality Assurance Inspector**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Ching Chao, Structures Construction**Time and method of notification:** 0918, Verbal**QC Inspector's Name:** None present**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

None 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

**Inspected By:** Ishibashi, Josh

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

**To:** American Bridge/Fluor Enterprises, a JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 21-Mar-2008

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Dave Williams Consultant

**Document No:** 05.03.06-000057

**Subject:** NCR No. ZPMC-0089

**Reference Description:** 89m Partial Mockup / Fit Lugs Weld Cracking

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 - No Response Required.

**Remarks:**

**Material Location:** Tower **Lift:**

**Non-Conformance:**

ABF/ZPMC has deviated from the approved Partial Mockup Fabrication Procedure on the 89m mockup. Per the approved procedure, ZPMC was going to "remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B." Instead ZPMC has removed the fit lugs connecting both diaphragms with the longitudinal stiffeners on Skin B and Skin.

**Action Required and/or Action Taken:**

Please refer to the attached Non-Conformance Report for details.

**Transmitted by:** Scott Kennedy Sr. Bridge Engineer

**Attachments:** ZPMC-0089

**cc:** Rick Morrow, Gary Pursell, Mark Woods, Doug Coe, Jason Tom

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000057

**Subject:** NCR No. ZPMC-0089

**Dated:** 24-Apr-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000032 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC QC will ensure that tower fitting lugs are removed in the proper order per the approved procedures. Please see the attached response from ZPMC. ABF JV has reviewed and concurs with this response and considers this issue resolved.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000032R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 24-Jul-2008

ZPMC has issued internal NCR-CT-025 to address the subject, and claims that this problem was the result of a language interpretation error. Since these partial mockups have failed, additional partial mockup testing will continue and this problem is no longer technically relevant. New procedures have been submitted for review.

Therefore, the Department concurs that Non-Conformance ZPMC-0089 is closed.

**Submitted by:** Wright, Doug

**Attachment(s):**

**Date:** 24-Jul-2008

NCR 57

TL-000992



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 04/01/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: RESPONSE TO CT NCR-000091 / ZPMC 09 <sup>CHK</sup> 4/2/08

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.CT-117 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER CT NCR-000091 / ZPMC 09 <sup>CHK</sup> 4/2/08
- (3) COPY OF WR WITH NUMBER B-CWR018
- (4) COPY OF VT REPORT WITH NUMBER B-VT478
- (5) COPY OF MT REPORTS WITH NUMBER B787-MT-081, B787-MT-081R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

*Ruby C*

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PLAN HOLDER

*4/1/08* <sup>1543</sup>

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DATE




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COMPANY

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PHONE NO.

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



No. CT-117

# LETTER OF RESPONSE

DATE: 2008.04.01

To: AB/F Steve Lawton

From: Yan Xingla

Subject: Response to CT NCR-000091 / ZPMC 89 <sup>CR</sup> 4/22/08

Mr. Lawton:

ZPMC has generated internal NCR-CT-025 in Response to CT NCR-000091; / ZPMC 89 <sup>CR</sup> 4/22/08 regarding 89m mockup Partial Fabrication procedure. Per the approved procedure, it should remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B, instead of removing the fit lugs of the Skin B, the difference of the Chinese- English language, cause the misunderstanding of the approved technology, ZPMC has awaked this issue and perform according to the approved technology and improve monitoring and management the process.

Attached you will find a copy of ZPMC internal NCR-CT-025.

If further information is needed, Please contact me.

Sincerely

Yan Xingla

*Yan Xingla*

2008.04.01

*REVIEWED  
D. Hutchins  
ABF CCM  
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 编号: NCR-CT-025(NCR-000091) / ZPMC 89 <sup>08</sup> #22/00	
Item: The Nonconformance Between The Fabrication And The Procedure 名称描述: 未按制作工艺制作定位板焊接试验	Item Number: 件号:	Drawing: 图号:	
Location: 89M Partial Mock Up 位置: 89 米定位板焊接试验	Date: 2008-03-28 日期: 2008-03-28		

**Description of Nonconformance: 不符合项状态描述:**

ZPMC has deviated from the approved Partial Mockup Fabrication Procedure on the 89m mockup. Per the approved procedure, ZPMC was going to "remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B." Instead ZPMC has removed the fit lugs connecting both diaphragms with the longitudinal stiffeners on Skin B and Skin.

ZPMC 未按批准的制作工艺进行定位板的焊接试验。按照制作工艺要求, ZPMC 应当先去除 B 面一块隔板处的定位板, 但 ZPMC 一次去除了 B 面两侧横隔板处的定位板。

Work By: Meiya Cheng 3.28  
施工方: 08.3.28

Prepared by: Xu Jun 3.28.2008  
准备: 徐军 3.28.2008

Reviewed by QCE: Lu Jianhua  
质量工程师批准: 陆建华 03/28/08

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:

加强施工过程中的监督与管理, 严格按照批准的工艺进行施工。  
 Improve the construction process of the monitoring and management, and strictly perform according to the approved techniques.

Prepared by: YanYing 08.3.28                      Approved by QCA: HuGang 08.3.28  
 准备                      质量经理批准

Reason for Nonconformance:

不符合原因:

中英文语言的差异, 导致对批准的工艺理解有误差。  
 The difference of the chinese-English language, cause the misunderstanding of the approved technology.

Prevention of Re-occurrence:

预防措施:

严格按照批准的工艺进行施工, 并加强施工过程中的  
 监督与管理。  
 Strictly perform according to the approved technology, and improve monitoring and management the process.

Approved by/批准: Yan Xuyi 08.3.28

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

回用。严格按照批准的工艺进行施工, 并加强施工过  
 程中的监督与管理。  
 Use as it is. strictly perform the approved technology, and improve monitoring and management the process.

Reviewed /批准: Yan Xuyi 08.3.28

Verification:

Acceptable

Unacceptable

确认:

可接受

不可接受

Verified by QCI/质检确认: \_\_\_\_\_

Reviewed by QCA/质检主任审核: \_\_\_\_\_



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Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

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**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**


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Location: Changxing Island, Shanghai, PRC

Report No: NCR-000091

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 17-Mar-2008

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

NCR #: ZPMC-0089

**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural 

Bridge No: 34-0006

Joint fit-up  Coating  Other 

Component: 89m Partial Mockup

Procedural  Procedural  Description:**Description of Non-Conformance:**

ABF/ZPMC has deviated from the approved Partial Mockup Fabrication Procedure on the 89m mockup. Per the approved procedure, ZPMC was going to "remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B." Instead ZPMC has removed the fit lugs connecting both diaphragms with the longitudinal stiffeners on Skin B and Skin.

**Applicable reference:**

Special Provisions, Section 10-1.59 "Steel Structures", "Fabrication/Erection Procedure Mock-Ups", pg. 313. "For each mock-up, the Contractor shall prepare a written fabrication and welding sequence. The fabrication and welding sequence shall be submitted for review by the Engineer, and approval shall be given before the mock-up is fabricated."

Who discovered the problem: Craig Hager, Quality Assurance Inspector

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Ching Chao, Structures Construction

Time and method of notification: 0918, Verbal

QC Inspector's Name: None present

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

None 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ishibashi, Josh

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer

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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-000045**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 19-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0089**Type of problem:**

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

**Date the Non-Conformance Report was written:** 17-Mar-2008**Description of Non-Conformance:**

ABF/ZPMC has deviated from the approved Partial Mockup Fabrication Procedure on the 89m mockup. Per the approved procedure, ZPMC was going to "remove the fit lugs connecting ONE diaphragm with the longitudinal stiffeners on Skin B." Instead ZPMC has removed the fit lugs connecting both diaphragms with the longitudinal stiffeners on Skin B and Skin.

**Contractor's proposal to correct the problem:**

None at this time.

**Corrective action taken:**

ZPMC claims that this problem was the result of a language interpretation error and has issued internal NCR-CT-025 to address the subject. Since these partial mockups have failed, additional partial mockup testing will continue and this problem is no longer technically relevant. New procedures have been submitted for review.

**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:**

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**Inspected By:** McReynolds, Robert

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer