

**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-000046**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Jan-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0045**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 L/R
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Tower 114m Mockup
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b> Skin "E" and "B"	

**Description of Non-Conformance:**

ABF allowed ZPMC to utilize (manual) hydraulic 50 ton jacks to bring the upper and lower segments into alignment. Three manual hydraulic jacks are positioned within the interior of the segments for the purpose of jacking the skin plates outwards to achieve alignment of the skins of the upper and lower sections of the mockup. The original misalignment of between the skin "D" and "B" of the upper and lower section was approximately 11mm and 10mm respectively, prior to the use of the hydraulic jacks. The use of hydraulic jacks was not included in the ZPMC's approved mockup fabrication procedure.

**Applicable reference:**

ZPMC 114m Mockup Fabrication Procedure, page FP-MUC-57

**Who discovered the problem:** Alfredo Acuna**Name of individual from Contractor notified:****Time and method of notification:****Name of Caltrans Engineer notified:** Joshua Ishibashi, ISMR**Time and method of notification:** 1-22-08, 2200, E-mail**QC Inspector's Name:** Xu Jun**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Acuna, Alfredo

Quality Assurance Inspector

**Reviewed By:** Cuellar, Robert

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:** 05.03.06-000008

**Subject:** NCR No. ZPMC-0045

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-0045

**Remarks:**

Please see attached NCR # ZPMC-0045.

**Transmitted by:** Ching Chao

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Keith Devonport, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, K

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000008

**Subject:** NCR No. ZPMC-0045

**Dated:** 23-Apr-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000014 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** Hydraulic jack straightening not anticipated for actual production

Please see the attached response from ZPMC. ABFJV has reviewed and concurs with this response and considers this issue resolved. ABFJV 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-000014R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 08-Jan-2009

Per State Letter 05.03.01-003242 dated January 7, 2009, the 114m Tower Section Mock-up was successfully completed. The Department concurs that Non-Conformance ZPMC-0045 is closed. As noted in ABF-CAL-LTR-000766, the Department understands that the appropriate fabrication plans will be modified in accordance with Special Provision Section 10-1.59, "Steel Structures," subsection "Working Drawings" through the FCN process.

The use of hydraulic jacks to correct for shaft misalignment shall not be used in production unless it is shown in the fabrication procedure, and the Engineer has given prior approval in writing.

**Submitted by:** Wright, Doug

**Attachment(s):**

**Date:** 08-Jan-2009

NCR 90

TL-000783R1



TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 03/17/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR(NCR-000046) FOR CLOSURE / ZPMC 45 *CVL 4/23/08*

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE FOR CLOSURE NCR (NCR-000046).
- (2) COPY OF NCR WITH NUMBER NCR-000046 / ZPMC 45 *CVL 4/23/08*

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

*Ruby L.*  
PLAN HOLDER

*3/19/08 1050*  
DATE

*ABFJV*  
COMPANY

\_\_\_\_\_  
PHONE NO.

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



# LETTER OF RESPONSE

DATE: 2008.02.27

To: AB/F Steve Lawton

From: Gen Aijun

Subject: Response to CT NCR-000046 / ZPML 45 <sup>RJE</sup> 1/23/08

Mr. Lawton:

ZPMC has generated internal NCR-CT-016 in Response to CT NCR-000046, Regard that hydraulic 50 ton jacks utilize (manual) to bring the upper and lower segment into alignment. The use of the hydraulic jacks was not including in the ZPMC's approved mockup fabrication procedure, in the mock up, there is no diaphragm, when removing temporary diaphragm, the pentahedron shows instable, when fabricate the real job with many diaphragms, this problem will not happen.

ZPML 45 <sup>RJE</sup> 1/23/08

Attached you will find a copy of ZPMC internal NCR-CT-016.

If further information is needed, Please contact me.

Sincerely

Gen Aijun

Gen Aijun

2008.02.27

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-CT-016 NCR 编号: NCR-CT-016	
Item: 114M MOCK UP 名称描述: 114米模型段	Item Number: 件号:	Drawing: 图号: MUC-MA106A/C&MUC-MA107A/C	
Location: Tower shaft 位置: 塔柱		Date: 2008-02-20 日期: 2008-02-20	

ZPMC AS  
CSC  
1/23/08

**Description of Nonconformance: 不符合项状态描述:**  
 AB/F allowed ZPMC to utilize(manual) hydraulic 50 ton jacks to bring the upper and lower segments into alignment. Three manual hydraulic jacks are positions within the interior of the segments for the purpose of jacking the skin plates outwards to achieve alignment of the skins of the upper and lower sections of the mockup. The original misalignment of between the skin "D" and "B" of the upper and lower sections was approximately 11mm and 10mm respectively, prior to the use of the hydraulic jacks. The use of hydraulic jacks was not including in the ZPMC's approved mockup fabrication procedure.

AB/F 允许 ZPMC 在上下段箱体对中的时候使用千斤顶, 为了上下段外部能够完成对中, 三个千斤顶使用在箱体内部, 未使用千斤顶前 D 和 B 面的上下段错位为 11mm 和 10mm, 但是在模型段制作工艺中, 没有使用千斤顶对中这一点。

Work By: 施工方: <u>Sb bp</u>	Prepared by: 准备: <u>Du Wealing 2008.02.20</u>	Reviewed by QCE: 质量工程师批准: <u>Hu Gang 2008-2-20</u>
<input type="checkbox"/> Drawing Error 图纸错误	<input type="checkbox"/> Material Defect 材料缺陷	<input checked="" type="checkbox"/> Fabrication Error 制作错误
<input type="checkbox"/> Other 其他原因		

Disposition: 处理措施:	<input checked="" type="checkbox"/> Use as is 回用	<input type="checkbox"/> Repair 返修	<input type="checkbox"/> Reject 拒收
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**Recommendation: 建议:**  
 在以后的制作的过程中, 如果有类似情况请及时通知质检、工艺部门。  
 If the similar problems happen in the future fabrication, please notify the QC department and technology department timely.

Prepared by: <u>Geng aijun 08-2-21</u> 准备	Approved by QCA: <u>Hu Gang 2008.2.21</u> 质量经理批准
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Reason for Nonconformance:

不符合原因:

由于模型无横隔板, 所以当制作时的工艺隔板取出后, 五面体的不稳定性就体现出来。

Because there is no diaphragm in Mock up, when removing temporary diaphragm, the pentahedron shows instable.

Prevention of Re-occurrence:

预防措施:

当生产制作时, 得到多块横隔板对箱体进行支撑, 将不会出现这种情况。

When fabricate the real job with many diaphragms, this problem will not happen.

Approved by/批准: Goufaijun 08.02.21

Technical Justification for Use-As-Is/Repair:

回用或返修的技术依据:

Attachment  
附件

Non-attachment  
无附件

Reviewed /批准: Goufaijun 08.02.21

Verification:

确认:

Acceptable  
可接受

Unacceptable  
不可接受

Verified by QCI/质检确认: \_\_\_\_\_

Reviewed by QCA/质检主任审核: \_\_\_\_\_



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## 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

Subject: NCR No. ZPMC-0045  
Document No: 05.03.06-000008

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-0045

Remarks:

Please see attached NCR # ZPMC-0045.

Transmitted by: Ching Chao

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Keith Devonport, Mark Woods, Doug Coe, Jason Tom, Dave Williams, Contract Files, F

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, PRC

Report No: NCR-000046

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 22-Jan-2008

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

NCR #: ZPMC-0045

**Type of problem:**

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006 L/R  
 Joint fit-up  Coating  Other  Component: Tower 114m Mockup  
 Procedural  Procedural  Descriptor: Skin "E" and "B"

**Description of Non-Conformance:**

ABF allowed ZPMC to utilize (manual) hydraulic 50 ton jacks to bring the upper and lower segments into alignment. Three manual hydraulic jacks are positioned within the interior of the segments for the purpose of jacking the skin plates outwards to achieve alignment of the skins of the upper and lower sections of the mockup. The original misalignment of between the skin "D" and "B" of the upper and lower section was approximately 11mm and 10mm respectively, prior to the use of the hydraulic jacks. The use of hydraulic jacks was not included in the ZPMC's approved mockup fabrication procedure.

**Applicable reference:**

ZPMC 114m Mockup Fabrication Procedure, page FP-MUC-57

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Joshua Ishibashi, ISMR

Time and method of notification: 1-22-08, 2200, E-mail

QC Inspector's Name: Xu Jun

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

Inspected By: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

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-000151**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 08-Jan-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0045**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 L/R
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 22-Jan-2008**Description of Non-Conformance:**

ABF allowed ZPMC to utilize (manual) hydraulic 50 ton jacks to bring the upper and lower segments into alignment. Three manual hydraulic jacks are positioned within the interior of the segments for the purpose of jacking the skin plates outwards to achieve alignment of the skins of the upper and lower sections of the mockup. The original misalignment of between the skin "D" and "B" of the upper and lower section was approximately 11mm and 10mm respectively, prior to the use of the hydraulic jacks. The use of hydraulic jacks was not included in the ZPMC's approved mockup fabrication procedure.

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

ZPMC has generated internal NCR-CT-016 in response to the NCR, regarding the use of 50 ton hydraulic jacks to bring the upper and lower segments into alignment. The use of hydraulic jacks was not included in ZPMC's approved mock-up fabrication procedure. ZPMC states this problem will not occur during production.

**Corrective action taken:**

Fabrication procedure has been modified and the 114m mock-up has been fabricated successfully. Letter No. 05.03.01-003242 concluded the successful completion of the 114m mock-up on January 7, 2009.

**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 Serge Sinevod, who represents the Office of Structural Materials for your project.

**Inspected By:** Sinevod, Serge

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer