

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 #: 04-0120F4
 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-000155

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-Jul-2008

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

NCR #: ZPMC-0146

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: 89m Mock-up
Procedural	Procedural	Descriptor: 89m Fit Lug Partial Mock-up	

Reference Description: 04-0120F4 Special Provisions

Description of Non-Conformance:

Caltrans Quality Assurance Ken Riley observed the following deviation by ZPMC from the approved partial mock-up procedure (ABF-SUB101R2).

1) ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

Applicable reference:

Special Provisions, Section 10-1.59, "Steel Structures", subsection "Fabrication" page 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."; ABF-SUB101R2 dated June 3, 2008.



Who discovered the problem: Ken Riley, Quality Assurance Inspector

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of individual from Contractor notified: Kim Xiao Jun Peng, ABFJV Quality Control Inspector

Time and method of notification: 7/5/08; 1300; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 7/7/08; 1100; Verbal

QC Inspector's Name: Zhu Zhong Hai, ZPMC Quality Control Inspector

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 Josh Ishibashi, who represents the Office of Structural Materials for your project.

Inspected By: Ishibashi,Josh

SMR

Reviewed By: Ishibashi,Josh

SMR



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

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 11-Jul-2008

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Dave Williams Consultant
Subject: NCR No. ZPMC-0146

Job Name: SAS Superstructure
Document No: 05.03.06-000129

Reference Description: Failure to follow Approved Procedure / Weld Sequence / 89m Mock-up

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: Tower **Lift:**

Remarks:

Caltrans Quality Assurance observed the following deviation by ZPMC from the approved partial mock-up procedure (ABF-SUB101R2).

- 1) ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

Action Required and/or Action Taken:

Propose a resolution that ensures that this systematic non-conformance with regard to the failure to follow the approved procedures will not continue to occur and the steps taken by the welding Quality Control Manager to prevent future failures to follow the submitted and approved procedures. The previous failures by ZPMC Production and Quality Control to follow the approved procedures for the 89m Mock-up resulted in the issuance of NCR ZPMC-0089 and ZPMC-0097.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0146

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000129

Subject: NCR No. ZPMC-0146

Dated: 11-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000138 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC's QA/QC and Production personnel have been instructed on the importance to comply with approved procedures.

ZPMC acknowledges they deviated from the approved partial mock-up procedure (ABF-SUB101R2. ZPMC's QA/QC and Production personnel have been instructed on the importance to comply with approved procedures, if procedures cannot be complied with, they shall first be revised and approved prior to work being performed.

Submitted by:

Attachment(s): ABF-NPR-000138R00

Caltrans' comments:

Status: CLO

Date: 01-Jan-2009

Per State Letter 05.03.01-003087 dated December 8, 2008, the 77m and 89m Tower Section Mock-ups were successfully completed. The Department concurs that Non-Conformance ZPMC-0146 is closed.

As noted in ABF-CAL-LTR-000758, 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.

Submitted by: Wright, Doug

Date: 02-Jan-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000129

Subject: NCR No. ZPMC-0146

Dated: 01-Oct-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000160 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC acknowledges this mistake and has issued an internal NCR.

Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000160R00;

Caltrans' comments:

Status: CLO

Date: 01-Jan-2009

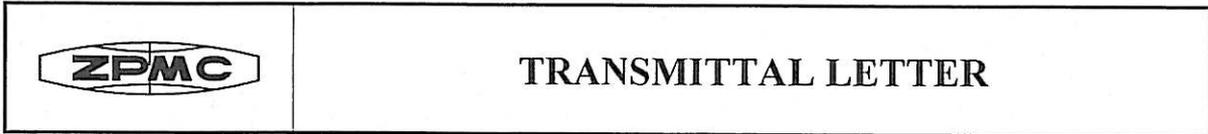
Per State Letter 05.03.01-003087 dated December 8, 2008, the 77m and 89m Tower Section Mock-ups were successfully completed. The Department concurs that Non-Conformance ZPMC-0146 is closed.

As noted in ABF-CAL-LTR-000758, 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.

Submitted by: Wright, Doug

Date: 02-Jan-2009

Attachment(s):



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 09/29/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000155(ZPMC-0146)FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.CT-148
- (2) COPY OF NCR WITH NUMBER NCR-000155(ZPMC-0146).

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



 PLAN HOLDER

9/29/08 0825

 DATE

ABFJV

 COMPANY

 PHONE NO.

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



No. CT-148

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2007-9-27

REGARDING: NCR-000155 (ZPMC-0146)

ZPMC received CT NCR-000156, it mentioned ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

ZPMC acknowledged this mistake. So ZPMC had issued out internal NCR-CT-026 to correct following fit lug welding. And now the worker and QC at worksite knew well about the procedure through full communicating with ZPMC technician. Further more, the 24H, 48H and 72H MT did not find the defects in the weld.

Here ZPMC requests Caltrans can close NCR-000155 (ZPMC-0146).

ATTACHMENT:

NCR-000155 (ZPMC-0146)

NCR-CT-026

origin 2008.9.28

[Signature]
ABF QCM
29 SEPT. 08



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

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 11-Jul-2008

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Dave Williams Consultant
Subject: NCR No. ZPMC-0146

Job Name: SAS Superstructure
Document No: 05.03.06-000129

Reference Description: Failure to follow Approved Procedure / Weld Sequence / 89m Mock-up

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: Tower

Lift:

Remarks:

Caltrans Quality Assurance observed the following deviation by ZPMC from the approved partial mock-up procedure (ABF-SUB101R2).

- 1) ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

Action Required and/or Action Taken:

Propose a resolution that ensures that this systematic non-conformance with regard to the failure to follow the approved procedures will not continue to occur and the steps taken by the welding Quality Control Manager to prevent future failures to follow the submitted and approved procedures. The previous failures by ZPMC Production and Quality Control to follow the approved procedures for the 89m Mock-up resulted in the issuance of NCR ZPMC-0089 and ZPMC-0097.

Transmitted by: Scott Kennedy Sr. Bridge Engineer

Attachments: ZPMC-0146

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe

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-000155

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 05-Jul-2008

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

NCR #: ZPMC-0146

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: 89m Mock-up
 Procedural Procedural Descripton: 89m Fit Lug Partial Mock-up

Reference Description: 04-0120F4 Special Provisions

Description of Non-Conformance:

Caltrans Quality Assurance Ken Riley observed the following deviation by ZPMC from the approved partial mock-up procedure (ABF-SUB101R2).

1) ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

Applicable reference:

Special Provisions, Section 10-1.59, "Steel Structures", subsection "Fabrication" page 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."; ABF-SUB101R2 dated June 3, 2008.



Who discovered the problem: Ken Riley, Quality Assurance Inspector

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of individual from Contractor notified: Kim Xiao Jun Peng, ABFJV Quality Control Inspector

Time and method of notification: 7/5/08; 1300; Verbal

Name of Caltrans Engineer notified: Scott Kennedy

Time and method of notification: 7/7/08; 1100; Verbal

QC Inspector's Name: Zhu Zhong Hai, ZPMC Quality Control Inspector

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 Josh Ishibashi, who represents the Office of Structural Materials for your project.

Inspected By: Ishibashi, Josh

SMR

Reviewed By: Ishibashi, Josh

SMR



Nonconformance Report

不符合项报告

Project Name: 项目名称:	S.F.O.B.B 美国加州海湾大桥	NCR Number: NCR 编号:	NCR-CT-026 (NCR-0155)
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: 位置:	89M Fit Lug Partial Mock Up 89 米定位板焊接试验	Date: 日期:	2008-07-15 2008-07-15

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

Caltrans Quality Assurance Ken Riley observed the following deviation by ZPMC from the approved partial mock-up procedure.(ABF-SUB101R2)

ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

加州检验员发现 ZPMC 未按 ABF-SUB101R2 制作流程返修定位板。根据此流程应当先将定位板与面板筋板处的焊缝完成然后焊接横隔板和定位板焊缝, 而 ZPMC 先完成了横隔板与定位板焊缝。

Work By: 施工方:	<u>zhongxi zhi 7-15</u>	Prepared by: 准备:	<u>sun 2008-7-15</u>	Reviewed by QCE: 质量工程师批准:	<u>zhu shuoyi hui 2008-7-15</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 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: ① 加强现场施工及现场质检与QA的沟通

Enhance communicate between workers, QC and QA.

Prepared by: 准备	<u>Lo Ke Tei 2008.7.15</u>	Approved by QCA: 质量经理批准	<u>Hu Gang 2008.7.20</u>
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Reason for Nonconformance:

不符合原因: 施工与现场的质检未将中文版返修工艺理解彻底, 导致
焊接顺序错误.

Workers and QC didn't understand repair technology completely
causing the welding sequence error.

Prevention of Re-occurrence:

预防措施: ① 现场施工时多询问QA, 避免类似情况发生.

Ask QA before fabrication, if it didn't understand repair technology
completely to avoid this issue happened again.

Approved by/批准: Lu Ye Fei; 2008.7.15

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

由于此块位板施焊顺序后, 经过 24h, 36h, 72h 检验,
均未发现缺陷, 且后来绝修约三块位板均按附件技术要求
作。The welds were inspected by NDT after 24h, 36h, 72h, and
didn't find any defects, and the following welds were welded
according to the fabrication requirement.

Reviewed/批准: Genqaijun

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: _____

DEPARTMENT OF TRANSPORTATION

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Office of Structural Materials

Quality Assurance and Source Inspection



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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-000138**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0146**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: 05-Jul-2008**Description of Non-Conformance:**

Caltrans Quality Assurance Ken Riley observed the following deviation by ZPMC from the approved partial mock-up procedure (ABF-SUB101R2).

1) ZPMC welded the fit lug to the diaphragm (MUB-MA21A/J-34) first which deviated from Step 3c of the procedure where the weld was to be welded second after the fit lug was welded to the longitudinal stiffener.

Contractor's proposal to correct the problem:

ZPMC acknowledges they deviated from the approved partial mock-up procedure (ABF-SUB101R2). ZPMC's QA/QC and production personnel have been instructed on the importance to comply with approved procedures, if procedures cannot be complied with, they shall first be revised and approved prior to work being performed.

Corrective action taken:

ZPMC has issued an internal NCR (NCR-CT-026) to correct the fit lug welding procedure. The workers and QC have been informed and understand the proper fit lug welding sequence. Letter No. 05.03.01-003087 concluded the successful completion of 77m and 89m mock-ups.

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: Sinevod, Serge

QA Reviewer