

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-000009**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Oct-2007**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0009**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Mock-up 114 M, Skin B upper Panel
Procedural	Procedural	Descriptor:	

Description of Non-Conformance:

ABF has allowed the Fabricator to proceed with the third time repair without approval of the Engineer at the Skin B upper panel, subassembly MA101, stiffener # mp-1006, joint # MUSC-MA101-8.

Applicable reference:

Special Provisions Section 8-3 Welding " In addition to the provisions in AWS D1.5, Section 3.7.4 and section 12.17, third time repairs of weld or base metal, regardless of NDT method, and all the repairs of cracks required prior approval of the Engineer".

Who discovered the problem: Quality Assurance, Alfredo Acuna**Name of individual from Contractor notified:** ABF Quality Assurance Manager, Steve Lawton,**Time and method of notification:** 03-October -07 at approximately 0830 hours via verbal notification.**Name of Caltrans Engineer notified:** Stanley Ku, Senior Bridge Engineer**Time and method of notification:** 03-October at approximately 0800 hours via verbal notification.**QC Inspector's Name:** ZPMC Quality Control Inspector, Fu Yu hong**Was QC Inspector aware of the problem:** Yes No**Contractor's proposal to correct the problem:**

None proposed 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: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: 510-622-5158 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 06-Nov-2007

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Michael Flowers Project Executive

Document No: 05.03.06-000071

Subject: NCR No. ZPMC-0009

Reference Description: Third time repairs to Skin B sub-assemblies on the 114m Mock-up without Engineer approval

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.

Material Location:

Lift:

Remarks:

Originally sent by State letter 05.03.01-000795

Action Required and/or Action Taken:

Transmitted by: Keith Osantowski Sr. Engineer

Attachments: ZPMC-0009

cc:

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000071

Subject: NCR No. ZPMC-0009

Dated: 12-Dec-2007

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000010 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has generated a CWR form and notified production and QC personnel of the requirements for CWR and engineer approval for 3rd time repairs.

ZPMC performed 3rd time repair without approval by the Engineer, contrary to contract requirements.

ZPMC has generated an internal NCR addressing this issue. ZPMC has since generated a CWR form and notified production and QC personnel of the requirements for CWR and engineer approval for 3rd time repairs. Attached is the ZPMC internal NCR.

Submitted by: Flowers, Michael

Attachment(s): ABF-NPR-000010R00; ABF-NPR-000010-01

Caltrans' comments:

Status: Approved
Date: 24-Mar-2008

See State Letter 05.03.01-001406

Submitted by: Pursell, Gary

Attachment(s): 05.03.01-001406; TC-20.9

Date: 22-Feb-2008

14-Feb-2008

ABF-CAL-LTR-000445

Mr. Gary Pursell
Resident Engineer
California Department of Transportation
333 Burma Road,
Oakland, CA 94607, USA

PROJECT: San Francisco Oakland Bay SAS Bridge Superstructure
Caltrans Contract No. 04-0120F4
ABF Job No. 660110

SUBJECT: RESPONSE TO NCR-0009 AND 0010

Gentlemen:

American Bridge / Fluor Enterprises Inc. a Joint Venture (ABFJV) acknowledges receipt of the Department's Letter No.05.03.01-000795 dated November 6, 2007 forwarding the Department's Non-Compliance Reports NCR-0009, 0010, 0011, 0012 and 0013

The attached documents the response to NCRs 0009 and 0010 and closure by the Engineer's China Fabrication Team. Based on the attached ABFJV is requesting written confirmation from the Engineer that NCR 0009 and 0010 are closed.

If you need any more information, please call Chuck Kanapicki at (510) 808-4609.

Sincerely,

AMERICAN BRIDGE/FLUOR ENTERPRISES, INC. A JOINT VENTURE



Michael Flowers
Project Director
MF/CK/cc

File: 02.01, 02.28.4
Enclos: Response to NCR 0009 and 0010

DEPARTMENT OF TRANSPORTATION

CHINA FABRICATION TEAM
 506 Shangcheng Rd., Pudong New District
 Shanghai 200120, PRC



REVIEW OF CONTRACTOR'S TRANSMITTAL

To: Dave Williams, American Bridge – Fluor, a Joint Venture
Gary Pursell, Resident Engineer

Review Date: 12/20/2007

From: Joshua Ishibashi, Structural Materials Representative

Contract No.: 04-0120F4

Date/Time Submittal Recieved: 12/12/2007 1026

China Standard Time
 (GMT+08:00)

Contractor's Transmittal #: TL-07-0752 Rev. # 0

<input checked="" type="checkbox"/>	substantially complies with contract requirements and is approved		
<input type="checkbox"/>	substantially complies with contract requirements and is approved as noted.		
<input type="checkbox"/>	Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmittal		
Verbal Notification		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	Date: <u>01/18/08</u> Time: <u>1200</u>
Name of individual from Contractor Notified: <u>Steve Lawton</u>			
This submittal is a:	<input type="checkbox"/> Welding Report	<input type="checkbox"/> Critical Weld Repair	
	<input type="checkbox"/> Request for Information	<input type="checkbox"/> Heat Straightening Request	
	<input type="checkbox"/> Fabrication Procedures	<input checked="" type="checkbox"/> Other: <u>NCR Closure</u>	
Submitting Contractor: <u>ZPMC</u>			
ITEMS REVIEWED	COMPLIES		COMMENTS
1. ABF-SL-07-0239 NCR Resolution for ZPMC 09 & 10	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Approved
2.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
4.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
5.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
6.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
7.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
8.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
9.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
10.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Remarks: METS has completed the review of ABF-TL-07-0752. This NCR was closed in PMIV on 12/20/07. At the request of ABF China METS is generating a TC20 to document this closure. METS recommends the aforementioned NCR be closed.

Reviewer: Joshua Ishibashi

Date: 01/18/2008

Construction Concurrence: ce Initial 1/18/08 Date

December 12, 2007

California Department of Transportation
666 Feng Bin Road, Room 708
Changxing Island, Shanghai China

Reply to: SL-ABF-07-0239

Attention: Gary Pursell

Reference: San Francisco Oakland Bay SAS Bridge Superstructure
Caltrans Contract No. 04-0120F4
ABF Job No. 660110

Subject: State Letter 05.03.01-000795

Mr. Purcell:

American Bridge / Fluor (ABF) Quality Assurance Department is in receipt of State Letter 05.03.01-000795 November 06, 2007 providing ABF notification regarding Nonconformance Report (NCR) No.009 and 010.

This letter is issued to provide formal response addressing the proposed resolution to each of the mentioned NCR's for Engineer's review and approval.

NCR-00009 - Tower Mock-up 114M, Skin B Upper Panel

ZPMC performed 3rd time repair without approval by the Engineer, contrary to contract requirements.

ZPMC has generated an internal NCR addressing this issue. ZPMC has since generated a CWR form and notified production and QC personnel of the requirements for CWR and engineer approval for 3rd time repairs. Attached is the ZPMC internal NCR.

NCR-000010 - Tower Splice Mock-up Skin B upper panel

Rejects in Stiffener to Skin Plate welds exceeded 10%, repairs were made contrary to contract requirements.

This document is: **APPROVED**
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial *cc* Date: *1/18/08*

AMERICAN BRIDGE / FLUOR JV

Page 2

ABFJV has reviewed the Mock-up section of the Special Provisions with ZPMC to gain understanding of this requirement which is different from the requirements for production. Both ABFJV and ZPMC now understand this requirement. ZPMC initiated an internal NCR to address this nonconformance. ZPMC also conducted internal tests and has submitted a plan to improve weld quality. Attached for review is the ZPMC Internal NCR and the written plan to improve weld quality.

If you have any questions or need additional information, please contact this office

Sincerely,



AMERICAN BRIDGE / FLUOR JV

Steve Lawton

Foreign Quality Assurance Manager

cc: file

This document is: **APPROVED**
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial *SL* Date: *1/18/08*



LETTER OF RESPONSE

DATE: 2007.11.26

To: AB/F Steve Lawton

From: ZPMC

Mr. Lawton:

Subject: Response to CT NCR-000009

Sincerely

ZPMC has generated internal NCR-CT-007 in Response to NCR-000009-CT, Regarding performing 3rd time repair without engineer approved. As stated in the ZPMC WQCP. ZPMC has since completed a CWR form and notified shop QC and production personnel of the requirement for CWR and engineer approval for 3rd time repair.

Attached you will find a copy of ZPMC internal NCR.

If further information is needed, Please contact me.

Sincerely

Yang Xuehui

A handwritten signature in black ink, appearing to read "Yang Xuehui", is written below the printed name.

This document is: APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial *u* Date: *1/18/08*

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

333 Burma Rd.

Oakland, CA 94607

(510) 622-5660, (510) 286-0550 fax

Flex your power
Be energy efficient!

November 06, 2007

Contract No. 04-0120F4
04-SF-80-13.2 / 13.9
Self-Anchored Suspension Bridge
Letter No. 05.03.01-000795
CAL-ABF-42-000795Michael Flowers
Project Executive
American Bridge/Fluor Enterprises, a JV
375 Burma Road
Oakland, CA 94607

RECEIVED

NOV 06 2007

Dear Michael Flowers,

AMERICAN BRIDGE/FLUOR
02-02NCR's 9, 10, 11, 12 & 13 - Zhenhua Port Machinery Company, Ltd.

This letter is issued to provide a formal notification to American Bridge/Fluor Enterprises (ABF) of the issuance of non-conformance reports (NCR's) at the Zhenhua Port Machinery Company, Ltd. (ZPMC) facility in Shanghai, China. Verbal notification was previously provided to ABF representatives on site. The following is a summary of the NCR's which have been attached to this document:

NCR 9 - 114m Mock-up Skin B Upper Panel

The Contractor allowed the Fabricator to proceed with third time repairs to Skin B sub-assemblies without the approval of the Engineer.

NCR 10 - 114m Mock-up Skin B Upper Panel

The Contractor allowed the Fabricator to make repairs to rejectable indications found in the complete joint penetration welds between the longitudinal stiffener and Skin Plate B at lengths greater than 10% of the cumulative length of the welds.

NCR 11 - Mock-up

Quality Control failed to document the required fit-up inspection of Longitudinal Stiffener Piece Mark p920-3 to Interior Splice Assembly MUC -A75, Weld Joint No. 3A.

NCR 12 - 114m Mock-up Skin Plate E

The Contractor allowed the Fabricator to make repairs to rejectable indications found in the complete joint penetration weld joint #3 on Skin Plate E at lengths greater than 10% of the cumulative length of the welds.

NCR 13 - 89m Mock-up

The Contractor allowed the Fabricator to weld parts of the 89m strut sub-assemblies with an electrode not in compliance with the Contract Specifications.

This document is: APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 6-1.02 of the
Standard Specifications
Initial *cc* Date: 11/18/08

American Bridge/Fluor Enterprises, a JV
November 06, 2007
Page 2 of 2

ABF shall provide a formal response addressing the proposed resolution to each of these NCR's for the Engineer's review and approval.

Sincerely,



GARY PURSELL
Resident Engineer

Attachment

cc: Rick Morrow, Brian Boal, Pat Lowry, Mazen Wahbeh, Mark Woods
file: 05.03.01, 09.01.06

document is: APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial  Date: 1/18/08



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-007
(NCR-000009-CT)

Item: 114M Skin B upper panel
名称描述: 114 米 B 上面板

Item Number:
件号: NA

Drawing Number:
图号: MA101

Location: 114M Mock Up
位置: 114 米模型段

Date:
日期: 2007-10-17

Description of Nonconformance:

不符合项状态描述:

ABF has allowed the Fabricator to proceed with the third time repair without approval of the Engineer at the Skin B upper panel, subassembly MA101, stiffener # mp-1006, joint # MUSC-MA101-8.

ABF 允许对 114 米 B 上面板 MA101 未得到工程师批准时进行第三次返修。筋板 mp1006, 焊缝 MUSC-MA101-8。

Work By: Lu Jiang cheng Prepared by: Zhao Chen sun Reviewed by QCE: Fu Yuhong 2007.10.17
施工方: 07.12.17 准备: 2007.10.17 质量工程师批准:

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 1. Do critical welding report.

2. Stop using the low quality welders

3 Do the relevant experiment to look for the best weld method.

Prepared by: Yang Xue hui Approved by QCA: Hu Gang
准备 2007.10.17 质量经理批准 2007.10.17

Reason for Nonconformance:

不符合原因:

The weld pass wasn't cleaned clearly.

Prevention of Re-occurrence:

预防措施:

1 Stop using the low quality welders

2. Do the relevant experiment to look for the best weld method.

Approved by/批准: Yang Xue hui 2007.10.17

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

1. Clean the weld pass clearly during the weld.

2. Use the high quality welders.

3. Put the plate up and repair on the horizontal welding location.

Reviewed /批准: Lu wengu 2007.10.17

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: _____

This document is: APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial u Date: 1/18/08



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-007
(NCR-000009-CT)

Item: 114M Skin B upper panel
名称描述: 114 米 B 上面板

Item Number:
件号: NA

Drawing Number:
图号: MA101

Location: 114M Mock Up
位置: 114 米模型段

Date:
日期: 2007-10-17

Description of Nonconformance:

不符合项状态描述:

ABF has allowed the Fabricator to proceed with the third time repair without approval of the Engineer at the Skin B upper panel, subassembly MA101, stiffener # mp-1006, joint # MUSC-MA101-8.

ABF 允许对 114 米 B 上面板 MA101 未得到工程师批准时进行第三次返修。筋板 mp1006, 焊缝 MUSC-MA101-8.

Work By: Liu Yang Chen Prepared by: Zhao Chen Sun Reviewed by QCE: Fu Yuhong 2007.10.17
施工方: 07.10.17 准备: 2007.10.17 质量工程师批准:

- 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 ①出具关键焊缝返修报告。
②停用合格率低焊工。
③作相关试验,寻找最佳焊接途径。

Prepared by: Yang Xuehui Approved by QCA: Hu Gang
准备: 杨学辉 Yang Xuehui 2007.10.17 质量经理批准: 2007.10.17

Reason for Nonconformance:

不符合原因: 焊缝未清理干净

Prevention of Re-occurrence:

- 预防措施: ①停用合格率低焊工。
②作相关试验,寻找最佳焊接途径。

This document is APPROVED
State of California
DEPARTMENT OF TRANSPORTATION
Pursuant Section 5-1.02 of the
Standard Specifications
Initial YX Date: 11/18/08

Approved by/批准: Yang Xuehui 2007.10.17

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

1. 焊接过程中注意清理焊缝。
2. 使用合格率高焊工。
3. 将板单元竖起, 将焊缝位置进行返修。

Reviewed /批准: Liu Yang Chen 2007.10.17

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 - District 4 Toll Bridge Program

333 Burma Rd.
Oakland, CA 94607
(510) 622-5660, (510) 286-0550 fax



*Flex your power
Be energy efficient!*

February 22, 2008

Contract No. 04-0120F4
04-SF-80-13.2 / 13.9
Self-Anchored Suspension Bridge
Letter No. 05.03.01-001406

Michael Flowers
Project Executive
American Bridge/Fluor Enterprises, a JV
375 Burma Road
Oakland, CA 94607

Dear Michael Flowers,

Response to NCRs 1, 5, 7, 8, 9, 10, 11, 12 & 13

This letter is issued as a response to ABF-CAL-LTR-000443, 444, 445, dated February 14, 2008, and ABF-CAL-LTR-000446, dated February 15, 2008, requesting written confirmation from the Engineer that the referenced Non-Conformance Reports (NCRs) at Zhenhua Port Machinery Company, Ltd (ZPMC) have been closed. The Department considers the following ZPMC NCRs closed:

NCR No.	State Letter No.	ABF Document No.	Description
1	05.03.01-000123	ABF-CAL-LTR-000443	Radiographic Testing issues (IQI placement, source type, etc.)
5	05.03.01-000757	ABF-CAL-LTR-000444	Repairs to longitudinal stiffener welds greater than 10% in length on the 77m Mock-up
7	05.03.01-000757	ABF-CAL-LTR-000444	QC not following the approved UT procedure on 114m Mock-up
8	05.03.01-000757	ABF-CAL-LTR-000444	Repairs to skin plate welds greater than 10% in length on the 114m Mock-up
9	05.03.01-000795	ABF-CAL-LTR-000445	Third time repairs to Skin B sub-assemblies on the 114m Mock-up without Engineer approval
10	05.03.01-000795	ABF-CAL-LTR-000445	Repairs to longitudinal stiffener welds greater than 10% in length on the 114m Mock-up
11	05.03.01-000795	ABF-CAL-LTR-000446	Failure to document fit-up of longitudinal stiffener on Mock-up
12	05.03.01-000795	ABF-CAL-LTR-000446	Repairs to skin plate welds greater than 10% in length on the 114m Mock-up
13	05.03.01-000795	ABF-CAL-LTR-000446	Welding electrode used on 89m Strut Sub-Assembly not in compliance

American Bridge/Fluor Enterprises, a JV
February 22, 2008
Page 2 of 2

Please contact us if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gary Purcell".

GARY PURSELL
Resident Engineer

cc: Rick Morrow
Brian Boal
Gary Lai
Mark Woods

file: 05.03.01

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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Shanghai, China**Report No:** NCS-000006**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Dec-2007**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0009**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: 03-Oct-2007**Description of Non-Conformance:**

ABF has allowed the Fabricator to proceed with the third time repair without approval of the Engineer at the Skin B upper panel, subassembly MA101, stiffener # mp-1006, joint # MUSC-MA101-8.

Contractor's proposal to correct the problem:

None proposed at this time.

Corrective action taken:

ZPMC has generated an internal NCR addressing this issue. ZPMC has since generated a CWR form and notified production and QC personnel of the requirements for CWR and engineer approval for 3rd time repairs.

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 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