

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-000120**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Apr-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0116**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: SP-092-001
Procedural	Procedural	Descriptor:	OBG Side Panel

Reference Description:**Description of Non-Conformance:**

The Contractor did not perform proper QC documentation of welding. The Contractor performed repair welding on stiffener fillet welds on SPCM side panel SP-092-001 under observation of QC personnel; however the QC inspector was not documenting welding parameters (volts, amps, travel speed, etc.) during his inspection. When QA inquired about this, the QC inspector responded that welding parameters did not need to be recorded for repairs. This is in violation of the Contractor's approved Welding Quality Control Plan (WQCP). There were 20 undocumented repairs performed on this component.

Applicable reference:

Special Provisions, Sec. 8-3.01 Welding, General (p. 149): "As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

WQCP, Sec. 6.4.1: "Inspections shall be performed at suitable intervals during all phases of the work and the inspection shall include but not be limited to the following: ...

6.4.1.2 Verify that the requirements of the Weld Procedure Specification are being followed including preheat, filler metal, interpass temperature and interpass cleaning...."

WQCP, Sec. 6.6: "Visual inspections shall be documented on the Continuous Visual Inspection Report (Exhibit 6.8.1)...."

WQCP, Sec. 7.1.4: "All weld repairs shall be documented."

WQCP, Sec. 7.4.6: "The repair documentation shall include the same information that was required when the original weld was made."

WQCP, Sec. 12.8.4: "Inspection activities shall be documented in accordance with the exhibits contained in this manual."

Who discovered the problem: Kenneth Riley**Name of individual from Contractor notified:** ABFJV QC Inspector Art Peterson**Time and method of notification:** 4/20/08 1705 hrs verbal via phone

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Stanley Ku
Time and method of notification: 4/21/08 1115 hrs verbal
QC Inspector's Name: ZPMC QC Inspector Wu Ming Kai
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:	Lowry,Patrick	Quality Assurance Inspector
Reviewed By:	Lowry,Patrick	QA Reviewer



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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 95607

Date: 22-Apr-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: 05.03.06-000097

Subject: NCR No. ZPMC-0116

Reference Description: The Contractor did not perform proper QC documentation of welding.

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: OBG **Lift:**

Remarks:

The Contractor performed repair welding on stiffener fillet welds on SPCM side panel SP-092-001 under observation of QC personnel; however, the QC inspector was not documenting welding parameters (volts, amps, travel speed, etc.) during his inspection. When QA inquired about this, the QC inspector responded that welding parameters did not need to be recorded for repairs. This is in violation of the Contractor's approved Welding Quality Control Plan (WQCP). There were 20 undocumented repairs performed on this component.

Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0116

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000097

Subject: NCR No. ZPMC-0116

Dated: 05-Aug-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000062 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: Additional staff and training has been provided to ensure proper inspectin technique.

Please see attached.

Submitted by: Kanapicki, Charles

Attachment(s): ABF-NPR-000062R00;

Caltrans' comments:

Status: REJ

Date: 11-Sep-2008

This response is not acceptable. Documentation of the repair performed and NDT should be included to resolve the Non-Conformance. Revision NPR-0062R01 to this proposed Non-Conformance resolution has already been submitted which includes this information. See the response to NPR-0062R01.

Submitted by: Wright, Doug

Attachment(s):

Date: 11-Sep-2008

17 July 2008

Reply to: SL-ABF-08-0xxx

Attention: Gary Pursell

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

Subject: NCR# ZPMC-116

Mr. Pursell:

This letter is issued to provide formal response addressing the proposed resolution to the following nonconformance reports:

NCR # ZPMC-0116

The Contractor did not perform proper QC documentation of welding.

Training has been provided regarding the proper inspection techniques as well as the contract requirements. Additional staffing has been added to insure compliance with the Contract requirements.

If further clarifications are needed, please contact me.

Nate S. Lindell
Quality Assurance Manager
American Bridge Fluor Joint Venture

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000097

Subject: NCR No. ZPMC-0116

Dated: 08-Sep-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000062 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has generated an internal NCR to document and inform the relative personnel of this non-conformance

ZPMC has generated an internal NCR to document and inform the relative personnel of this non-conformance, ZPMC may not document volts, amps, and travel speed for each repair, however, the repair process is monitored by QC, inspection of welding parameters is part of the monitoring process. The repair locations are documented, final inspections are documented. See attached.

Submitted by:

Attachment(s): ABF-NPR-000062R01;

Caltrans' comments:

Status: CLO

Date: 11-Sep-2008

The Contractor's response is acceptable. ZPMC has written an internal NCR, and the final VT and MT reports for the weld in question are attached. The Department concurs that Non-Conformance ZPMC-0116 is closed.

Submitted by: Wright, Doug

Date: 11-Sep-2008

Attachment(s):



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 08/20/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000120(ZPMC-0116)FOR CLOSURE

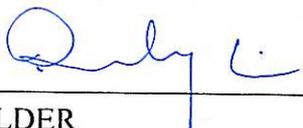
SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-292FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000120(ZPMC-0116).
- (3) COPY OF INTERNAL NCR NCR-B-053
- (4) COPY OF THE PERTINENT FINAL VT AND MT REPORTS

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



 PLAN HOLDER

RECEIVED 20 AUG 2008



 DATE



 COMPANY

 PHONE NO.

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



No. B-292

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-8-20

REGARDING: NCR-000120

With this letter of response, ZPMC apply to closure the caltrans **NCR-000120 (ZPMC-0116)** . If ZPMC made out the repair report (include CWR and WRR) for defects, then our QC will record the welding parameters in the course. On the other hand that if there is only pointed out by ZPMC QC on site with the visual inspection, the surface defects will be repaired immediately by the QC witness but without the record.

We will perform the repair follow the repair procedure strictly, and all of the welding parameters will be checked even if there is no documenting in the paper.

So ZPMC considers the **NCR-000120 (ZPMC-0116)** can be closed.

Please reference attached documentation for acceptance and close the **NCR-000120 (ZPMC-0116)** .

ATTACHMENT:

NCR-000120 (ZPMC-0116)

ZPMC internal NCR

The pertinent final VT and MT reports

zhao shuangbao

2008.8.20



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
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 95607

Date: 22-Apr-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: 05.03.06-000097

Subject: NCR No. ZPMC-0116

Reference Description: The Contractor did not perform proper QC documentation of welding.

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- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved - No Response Required.

Material Location: OBG

Lift:

Remarks:

The Contractor performed repair welding on stiffener fillet welds on SPCM side panel SP-092-001 under observation of QC personnel; however, the QC inspector was not documenting welding parameters (volts, amps, travel speed, etc.) during his inspection. When QA inquired about this, the QC inspector responded that welding parameters did not need to be recorded for repairs. This is in violation of the Contractor's approved Welding Quality Control Plan (WQCP). There were 20 undocumented repairs performed on this component.

Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0116

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
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 Quality Assurance and Source Inspection

Bay Area Branch
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 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, PRCReport No: NCR-000120Prime Contractor: American Bridge/Fluor Enterprises, a JVDate: 20-Apr-2008Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing IslandNCR #: ZPMC-0116

Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: SP-092-001
 Procedural Procedural Descriptor: OBG Side Panel

Reference Description:

Description of Non-Conformance:

The Contractor did not perform proper QC documentation of welding. The Contractor performed repair welding on stiffener fillet welds on SPCM side panel SP-092-001 under observation of QC personnel; however the QC inspector was not documenting welding parameters (volts, amps, travel speed, etc.) during his inspection. When QA inquired about this, the QC inspector responded that welding parameters did not need to be recorded for repairs. This is in violation of the Contractor's approved Welding Quality Control Plan (WQCP). There were 20 undocumented repairs performed on this component.

Applicable reference:

Special Provisions, Sec. 8-3.01 Welding, General (p. 149): "As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."
 WQCP, Sec. 6.4.1: "Inspections shall be performed at suitable intervals during all phases of the work and the inspection shall include but not be limited to the following: ...
 6.4.1.2 Verify that the requirements of the Weld Procedure Specification are being followed including preheat, filler metal, interpass temperature and interpass cleaning...."
 WQCP, Sec. 6.6: "Visual inspections shall be documented on the Continuous Visual Inspection Report (Exhibit 6.8.1)...."
 WQCP, Sec. 7.1.4: "All weld repairs shall be documented."
 WQCP, Sec. 7.4.6: "The repair documentation shall include the same information that was required when the original weld was made."
 WQCP, Sec. 12.8.4: "Inspection activities shall be documented in accordance with the exhibits contained in this manual."

Who discovered the problem: Kenneth RileyName of individual from Contractor notified: ABFJV QC Inspector Art PetersonTime and method of notification: 4/20/08 1705 hrs verbal via phone

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 4/21/08 1115 hrs verbal

QC Inspector's Name: ZPMC QC Inspector Wu Ming Kai

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: Lowry,Patrick

Quality Assurance Inspector

Reviewed By: Lowry,Patrick

QA Reviewer

磁粉检测报告

REPORT NO. 报告编号 B787-MT-804		DATE日期 2008.04.23	PAGE 页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SP92 WEST BOX SIDE PLATE 5B-C5		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Jan. 1 ST , 2009	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5362 5395 5360	
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC	
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm	
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材, 厚度	A709M-345F2-X 10/18mm	
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT	

WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SP092-001-008				ACC.		10%MT
SP092-001-009				ACC.		10%MT
SP092-001-010				ACC.		10%MT
SP092-001-011				ACC.		10%MT
SP092-001-012				ACC.		10%MT
SP092-001-013				ACC.		10%MT
SP092-001-014				ACC.		10%MT
SP092-001-015				ACC.		10%MT
SP092-001-016				ACC.		10%MT
SP092-001-017				ACC.		10%MT
SP092-001-018				ACC.		10%MT
SP092-001-019				ACC.		10%MT
SP092-001-020				ACC.		10%MT
SP092-001-021				ACC.		10%MT

BLANK

EXAMINED BY 主探 <u>Zhou Dengyin</u>	REVIEWED BY 审核 <u>Cai Xinxin</u>
LEVEL - II SIGN 签名 / DATE 日期 2008.4.23	LEVEL-II SIGN / DATE 日期 2008.04.23
质量经理 / QCM <u>Hu Gang</u> 2008.5.1	用户 CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



周数	25#
日期	2008.04.22

OBG SIDE PLATE

Girder/ 梁:

Tower/ 塔:

Quality Control Representative:
质检代表:

CWI:
检验员:

Leo Tanaka
Wu Ming-Kai 08/04/22
04082031

Quality Assurance Manager ~Approval
质量控制经理:

Hu Fang

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥
Project No.: 项目编号:	ZP06-787

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Over lap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 返修后接受或拒收
SP092-001-008	054459	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-009	054459	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-010	054459	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-011	053742	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-012	053742	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-013	053742	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-014	053742	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-015	053742	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-016	062447	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-017	062447	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-018	062447	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-019	062447	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-020	048810	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SP092-001-021	048810	2F	supercoated 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA

After root weld

After cover pass

After CWR or WRR No.:

After HSR No.: HSR(B)-130

Others

#R787-QCP-603

"√" is no defects. "X" is defects. "NA" is not applicable.

3787-MT-804

DEPARTMENT OF TRANSPORTATION

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(707) 649-5493

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-000072**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Sep-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0116**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: 20-Apr-2008**Description of Non-Conformance:**

The Contractor did not perform proper QC documentation of welding. The Contractor performed repair welding on stiffener fillet welds on SPCM side panel SP-092-001 under observation of QC personnel; however the QC inspector was not documenting welding parameters (volts, amps, travel speed, etc.) during his inspection. When QA inquired about this, the QC inspector responded that welding parameters did not need to be recorded for repairs. This is in violation of the Contractor's approved Welding Quality Control Plan (WQCP). There were 20 undocumented repairs performed on this component.

Contractor's proposal to correct the problem:

The same problem has not been observed since then. METS-OSM will track this issue as a Quality Management Issue and does not request a response from the Contractor at this time. If this issue becomes systemic, METS will elevate this issue to second-tier and request a response from the Contractor.

Corrective action taken:

Training has been provided regarding the proper inspection techniques as well as the contract requirements. Additional staffing has been added to insure compliance with the Contract requirements.

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 Ady Velasco, 011-86-138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By: Liu, Chengwen

Quality Assurance Inspector

Reviewed By: Velasco, Abifhiram

QA Reviewer