

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, China**Report No:** NCR-000920**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0882**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 14W, FB3343A-001-337
Procedural	Procedural	Description:	

Reference Description: New Welding Procedure Not Being Followed (Rager/McQuaid)**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343A ,this QA discovered ZPMC welding personnel appear to not be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

5. Postweld Thermal Treatment (5A, 5C, 5D)

NOTE: The above reference is relative to section 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-337

The welding process used was Flux Cored Arc Welding.

The area was being preheated using electric strip heaters.

The weld is a Complete Joint Penetration with steel backing joining FB web plate (X4954A) to Stiffener plate (X4949N).

The weld is not Seismic Performance Critical Material.

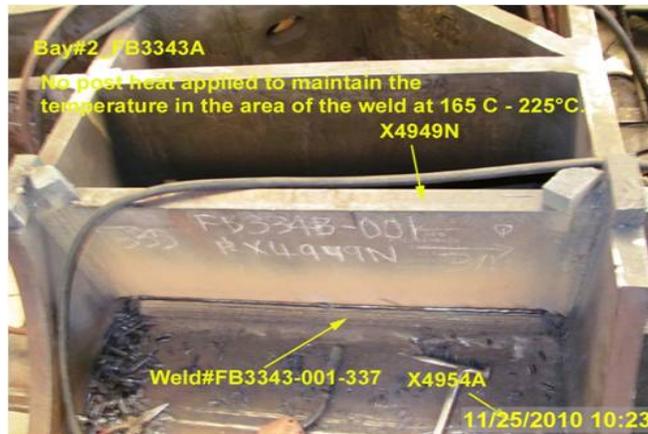
The FB web base material thickness is 50 mm and stiffener plate is 45 mm.

FB3343A is located Sub assembly Bay#2.

For further information see the attached photos.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

NEW WELD PROCEDURE (Rager/McQuaid)

5) Postweld Thermal Treatment.

A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165 C - 225°C.

C. For material thickness over 25mm, post heating times will be increased by 112 hour for each increment of 12 mm or fraction thereof.

D. After the post weld heating time has been reached the repair shall be cooled by removing the heating source and leaving the blankets in place.

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Mr.Wang wen bin

Time and method of notification: 1000_11/25/10_Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1000_11/26/10_Verbal

QC Inspector's Name: Mr.Yuan Hai Gang

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Yes No

Contractor's proposal to correct the problem:

NA

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:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	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: 26-Nov-2010

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0882

Job Name: SAS Superstructure
Document No: 05.03.06-000877

Reference Description: New Welding Procedure Not Being Followed (Rager/McQuaid)

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: OBG **Lift:** 14

Remarks:

During Caltrans QA in process observations of the fabrication of FB3343A ,this QA discovered ZPMC welding personnel appear to not be following the NEW WELD PROCEDURE (Rager/McQuaid)
 The following requirements were not followed:

- 5) Postweld Thermal Treatment.
 - A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165°C - 225°C.
 - C. For material thickness over 25mm, post heating times will be increased by 112 hour for each increment of 12 mm or fraction thereof.
 - D. After the post weld heating time has been reached the repair shall be cooled by removing the heating source and leaving the blankets in place.

The weld is identified as FB3343-001-337
 The welding process used was Flux Cored Arc Welding.
 The area was being preheated using electric strip heaters.
 The weld is a Complete Joint Penetration with steel backing joining FB web plate (X4954A) to Stiffener plate (X4949N).
 The weld is not Seismic Performance Critical Material.
 The FB web base material thickness is 50 mm and stiffener plate is 45 mm.
 FB3343A is located Sub assembly Bay#2.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0882

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000877

Subject: NCR No. ZPMC-0882

Dated: 01-Dec-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000875 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: As this NCR was written without a contractual basis it should be withdrawn.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contract document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without a contractual basis it should be withdrawn.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000875R00

Caltrans' comments:

Status: REJ

Date: 03-Dec-2010

CT acknowledges contractor's response. However, successful NDT will close this NCR.

Submitted by: Chao, Ching

Date: 03-Dec-2010

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000877

Subject: NCR No. ZPMC-0882

Dated: 22-Feb-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000875 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution:

See attached NDT results to show the weld is acceptable. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000875R01;

Caltrans' comments:

Status: CLO

Date: 23-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0882 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 23-Feb-2011

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, China**Report No:** NCR-000920**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0882**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 14W, FB3343A-001-337
Procedural	Procedural	Description:	

Reference Description: New Welding Procedure Not Being Followed (Rager/McQuaid)**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343A, this QA discovered ZPMC welding personnel appear to not be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

5. Postweld Thermal Treatment (5A, 5C, 5D)

NOTE: The above reference is relative to section 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-337

The welding process used was Flux Cored Arc Welding.

The area was being preheated using electric strip heaters.

The weld is a Complete Joint Penetration with steel backing joining FB web plate (X4954A) to Stiffener plate (X4949N).

The weld is not Seismic Performance Critical Material.

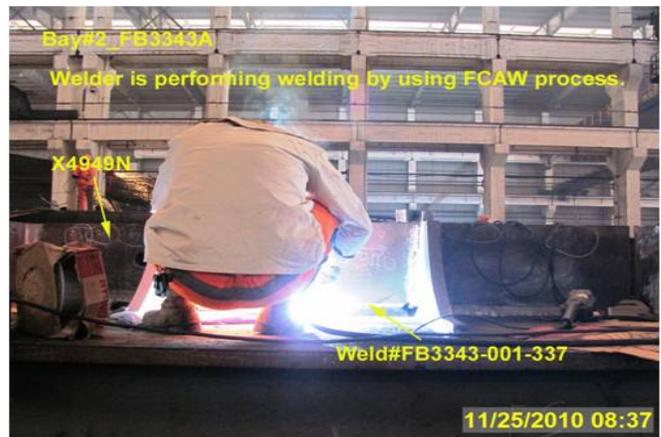
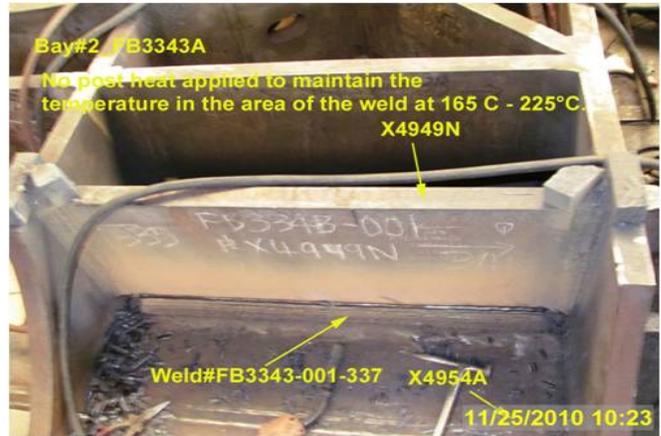
The FB web base material thickness is 50 mm and stiffener plate is 45 mm.

FB3343A is located Sub assembly Bay#2.

For further information see the attached photos.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

NEW WELD PROCEDURE (Rager/McQuaid)

5) Postweld Thermal Treatment.

A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165 C - 225°C.

C. For material thickness over 25mm, post heating times will be increased by 112 hour for each increment of 12 mm or fraction thereof.

D. After the post weld heating time has been reached the repair shall be cooled by removing the heating source and leaving the blankets in place.

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Mr.Wang wen bin

Time and method of notification: 1000_11/25/10_Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1000_11/26/10_Verbal

QC Inspector's Name: Mr.Yuan Hai Gang

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Yes No

Contractor's proposal to correct the problem:

NA

Comments:

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Inspected By:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-16715 DATE 2010.12.11 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787 CONTRACTOR: CALTRANS

ITEMS NAME: THE 14 FLOOR BEAM DRAWING NO.: FB3343 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 FCAW T JOINT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE PANAMETRICS EPOCH 4B 081610708

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-345T2-X 45/50mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625 in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation	Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
										a	b	c	d			Length 长度
FB3343-001-335		70													ACC.	100%
FB3343-001-337		70													ACC.	100%
FB3343-001-340		70													ACC.	100%

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EXAMINED BY 主探
Daz Goulshe 2010-12-11

REVIEWED BY 审核
 _____ *Lin Jian* 2010.12.11

LEVEL - II SIGN / DATE

LEVEL - II SIGN / DATE

质量经理 / QCM

用户CUSTOMER

签字 SIGN / 日期 DATE
 _____ 2010.12.11

签字 SIGN / 日期 DATE

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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, China**Report No:** NCS-000917**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0882**Type of problem:**

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

Date the Non-Conformance Report was written: 25-Nov-2010**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343A, this QA discovered ZPMC welding personnel appear to not be following the NEW WELD PROCEDURE (Rager/McQuaid)

The following requirements were not followed:

5. Postweld Thermal Treatment (5A, 5C, 5D)

NOTE: The above reference is relative to section 5 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-337

The welding process used was Flux Cored Arc Welding.

The area was being preheated using electric strip heaters.

The weld is a Complete Joint Penetration with steel backing joining FB web plate (X4954A) to Stiffener plate (X4949N).

The weld is not Seismic Performance Critical Material.

The FB web base material thickness is 50 mm and stiffener plate is 45 mm.

FB3343A is located Sub assembly Bay#2.

For further information see the attached photos.

Contractor's proposal to correct the problem:

Contractor will provide the NDT report to prove the weld is acceptable.

Corrective action taken:

Contractor provided the NDT report. The NDT report proves the weld is acceptable.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached? Yes No

Comments:

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Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer