

**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-000911**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0873**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Lift 14W, FB3343-001-340**Procedural****Procedural****Description:****Reference Description:** New Welding Procedure Not Followed**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343-001-340, this QA discovered the following issue(s): ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

2. Assembly (2E, 2F)

NOTE: The above references are relative to section 2 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-340

The welding process used was FCAW

The area was being preheated using Torch

The weld is a CJP joining X4949R to X8501G

The weld is not SPCM

FB3343-001 is located Bay 2

See attached photograph for additional detail.

---

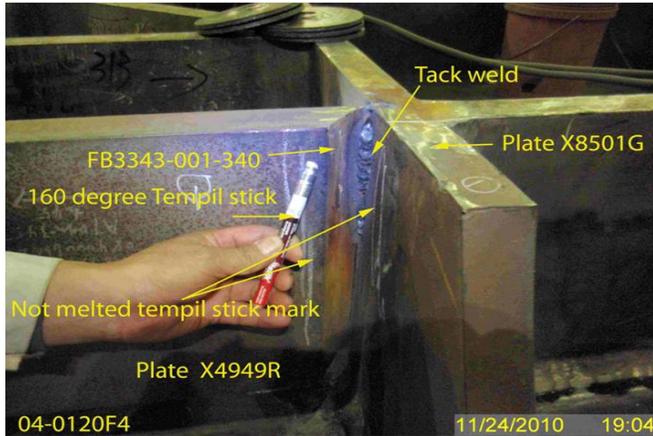
---

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---

---



## Applicable reference:

2) Assembly

E. All tack welding shall be performed in accordance with an approved WPS and as amended by this procedure.

F. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

**Who discovered the problem:** Dong J, Shin

**Name of individual from Contractor notified:** Peter Ferguson

**Time and method of notification:** 02:00hrs, Email, 11/25/2010

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 13:00hrs, Email, 11/25/2010

**QC Inspector's Name:** Tian Lei

**Was QC Inspector aware of the problem:** 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.

---

<b>Inspected By:</b>	Devey,Jim	SMR
----------------------	-----------	-----

---

<b>Reviewed By:</b>	Wahbeh,Mazen	SMR
---------------------	--------------	-----

---



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

<b>To:</b>	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	<b>Date:</b>	25-Nov-2010
<b>Dear:</b>	Mr. Charles Kanapicki	<b>Contract No:</b>	04-0120F4 04-SF-80-13.2 / 13.9
<b>Attention:</b>	Mr. Thomas Nilsson Project/Fabrication Manager	<b>Job Name:</b>	SAS Superstructure
<b>Subject:</b>	NCR No. ZPMC-0873	<b>Document No:</b>	05.03.06-000868
<b>Reference Description:</b>	New Welding Procedure Not Followed		

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 FB3343-001-340, this QA discovered the following issue(s):  
ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)  
The following requirements were not followed:

- 2. Assembly (2E, 2F)

NOTE: The above references are relative to section 2 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-340  
The welding process used was FCAW  
The area was being preheated using Torch  
The weld is a CJP joining X4949R to X8501G  
The weld is not SPCM  
FB3343-001 is located 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.

**Transmitted by:** Laraine Woo Transportation Engineer  
**Attachments:** ZPMC-0873

---

# NCT

( Continued Page 2 of 2 )

---

**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:** 05.03.06-000867

**Subject:** NCR No. ZPMC-0873

**Dated:** 01-Dec-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000866 **Rev:** 00

---

**Contractor's Proposed Resolution:**

**Reference Resolution:**

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-000866R00

---

**Caltrans' comments:**

**Status:** REJ

**Date:** 03-Dec-2010

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

**Submitted by:** Chao, Ching

**Attachment(s):**

**Date:** 03-Dec-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000867

**Subject:** NCR No. ZPMC-0873

**Dated:** 08-Dec-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000866 **Rev:** 01

---

### Contractor's Proposed Resolution:

**Reference Resolution:** We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000866R01

---

### Caltrans' comments:

**Status:** REJ

**Date:** 09-Dec-2010

Normal NCR closure package with NDT reports shall be submitted with the NPR to close out the NCR.

**Submitted by:** Woo, Laraine

**Attachment(s):**

**Date:** 09-Dec-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000867

**Subject:** NCR No. ZPMC-0873

**Dated:** 14-Dec-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000866 Rev: 02

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** We will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000866R02

---

**Caltrans' comments:**

**Status:** REJ

**Date:** 15-Dec-2010

Normal "NCR closure package with NDT reports" shall be submitted with the NPR to close out the NCR.

**Submitted by:** Chao, Ching

**Attachment(s):**

**Date:** 15-Dec-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000868

**Subject:** NCR No. ZPMC-0873

**Dated:** 04-Mar-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000866 Rev: 03

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC is providing NDT to show the weld is acceptable based on this ZPMC requests closure of this NCR.  
ZPMC is providing NDT to show the weld is acceptable based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua  
**Attachment(s):** ABF-NPR-000866R03;

---

**Caltrans' comments:**

**Status:** CLO

**Date:** 06-Mar-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0873 is closed.

**Submitted by:** Eagen, Sean  
**Attachment(s):**

**Date:** 06-Mar-2011

**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-000911**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0873**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural  **Bridge No:** 34-0006Joint fit-up  Coating  Other  **Component:** Lift 14W, FB3343-001-340Procedural  Procedural  **Description:****Reference Description:** New Welding Procedure Not Followed**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343-001-340, this QA discovered the following issue(s): ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

2. Assembly (2E, 2F)

NOTE: The above references are relative to section 2 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-340

The welding process used was FCAW

The area was being preheated using Torch

The weld is a CJP joining X4949R to X8501G

The weld is not SPCM

FB3343-001 is located Bay 2

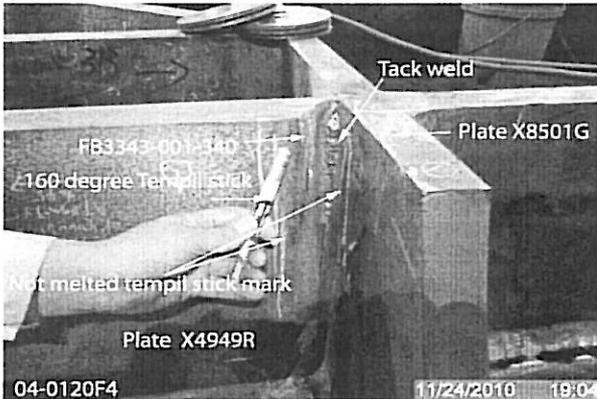
See attached photograph for additional detail.

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---



**Applicable reference:**

2) Assembly

E. All tack welding shall be performed in accordance with an approved WPS and as amended by this procedure.

F. Preheat shall be applied in such a manner to provide a minimum temperature in the area of the weld of 165°C.

**Who discovered the problem:** Dong J, Shin

**Name of individual from Contractor notified:** Peter Ferguson

**Time and method of notification:** 02:00hrs, Email, 11/25/2010

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 13:00hrs, Email, 11/25/2010

**QC Inspector's Name:** Tian Lei

**Was QC Inspector aware of the problem:**  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:** 25-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-0873

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000868

**Reference Description:** New Welding Procedure Not Followed

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 FB3343-001-340, this QA discovered the following issue(s):  
ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)  
The following requirements were not followed:

2. Assembly (2E, 2F)

NOTE: The above references are relative to section 2 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-340  
The welding process used was FCAW  
The area was being preheated using Torch  
The weld is a CJP joining X4949R to X8501G  
The weld is not SPCM  
FB3343-001 is located 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.

**Transmitted by:** Laraine Woo Transportation Engineer

**Attachments:** ZPMC-0873

---

**NCT**

*( Continued Page 2 of 2 )*

---

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

**File:** 05.03.06



# 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. 28<sup>ST</sup>, 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 IIW 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			Sound Path 声程
FB3343-001-335		70					38								ACC.	100%
FB3343-001-337		70					38								ACC.	100%
FB3343-001-340		70					38								ACC.	100%
BLANK																

EXAMINED BY 主探 <i>Dai Gen Shuang</i> LEVEL - II SIGN / DATE      12/11/10	REVIEWED BY 审核 <i>Li Liang</i> LEVEL - II SIGN / DATE      12/11/10
质量经理 / QCM <i>[Signature]</i> 签字 SIGN / 日期 DATE	用户CUSTOMER _____ 签字 SIGN / 日期 DATE

**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:** Changxing Island, Shanghai, China**Report No:** NCS-000953**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-Mar-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0873**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
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Date the Non-Conformance Report was written:** 24-Nov-2010**Description of Non-Conformance:**

During Caltrans QA in process observations of the fabrication of FB3343-001-340, this QA discovered the following issue(s): ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

2. Assembly (2E, 2F)

NOTE: The above references are relative to section 2 of the NEW WELD PROCEDURE (Rager/McQuaid) and the corresponding paragraph letters.

The weld is identified as FB3343-001-340

The welding process used was FCAW

The area was being preheated using Torch

The weld is a CJP joining X4949R to X8501G

The weld is not SPCM

FB3343-001 is located Bay 2

See attached photograph for additional detail.

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

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

**Corrective action taken:**

NDT report was provided by the Contractor showing 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:**

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

---

---

**Inspected By:**    Ng,Michael

Quality Assurance Inspector

---

---

**Reviewed By:**    Wahbeh,Mazen

QA Reviewer