

**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

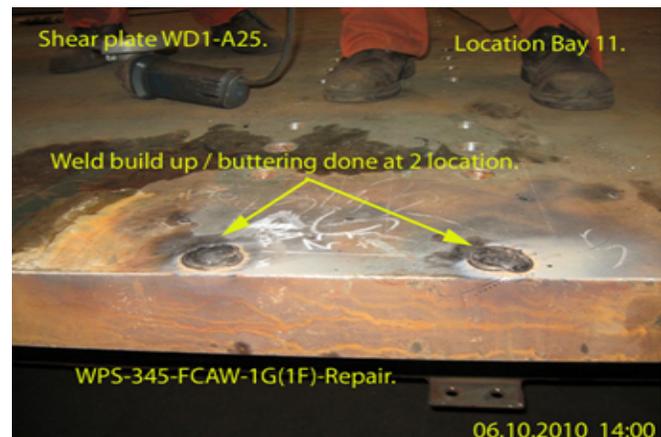
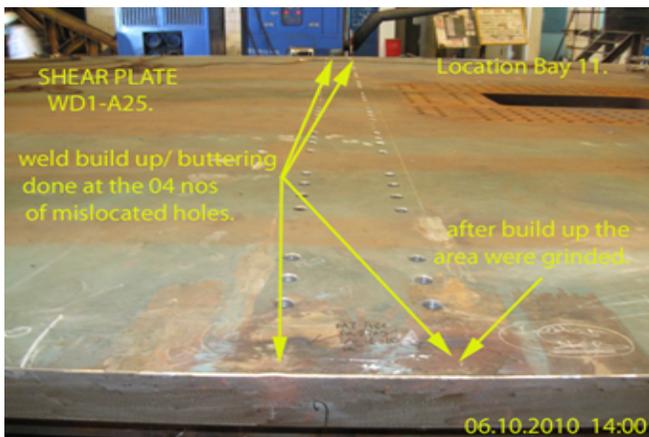
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000761**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-Jun-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0723**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> Shear Plate A25
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Repair Procedure not following WPS**Description of Non-Conformance:**

- During random visual inspection in Bay 11, this Quality Assurance Inspector discovered the following issues:
- ZPMC personnel performing Flux Core Arc Welding for base metal repair on mislocated holes on the surface of shear plate WD1-A25.
- ZPMC Quality Control (QC) presented WPS-345-FCAW-1G (1F)-Repair as applicable to repair.
- The repair welding completed without elongating the holes drill area as required by applicable WPS.
- This repair welding performed in the similar manner on four (4) holes of shear plate WD1-A25.
- Shear plate identified as WD1-A25.
- The members are located in Bay #11.

For further information, please see the attached pictures below.

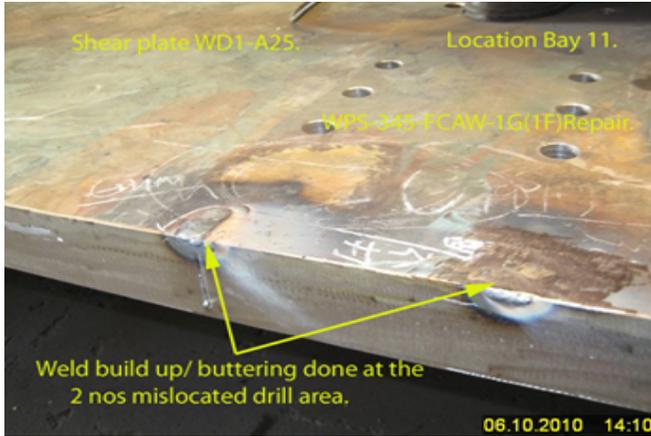


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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

WPS-345-FCAW-1G (1F)-Repair.

AWS D1.5 2002, Section 3.7.7.2: "Base metal repair subject to dynamic tensile stress may be restored by welding provided....."

General Notes No: 4

**Who discovered the problem:** Shailesh Gaikwad

**Name of individual from Contractor notified:** Zhao Mao Mao

**Time and method of notification:** 1400/Verbal

**Name of Caltrans Engineer notified:** Ken Lee

**Time and method of notification:** 0820/Verbal

**QC Inspector's Name:** Bi Dawei

**Was QC Inspector aware of the problem:** Yes No

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

N/A

**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.

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**Inspected By:** Ng,Michael

QA Inspector

**Reviewed By:** Devey,Jim

SMR

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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
 333 Burma Road  
 Oakland CA 94607  
 Tel: 510-286-0539 Fax: 510-286-0550

**NON-CONFORMANCE REPORT TRANSMITTAL**

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

**Date:** 11-Jun-2010

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

**Dear:** Mr. Charles Kanapicki  
**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Document No:** 05.03.06-000719

**Subject:** NCR No. ZPMC-0723

**Reference Description:** Repair Procedure not following WPS/Tower/ Base Shear Plate A25

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:** N/A

**Remarks:**

ZPMC personnel performing Flux Core Arc Welding for base metal repair on mislocated holes on the surface of shear plate WD1-A25.  
 ZPMC Quality Control (QC) presented WPS-345-FCAW-1G (1F)-Repair as applicable to repair.  
 The repair welding completed without elongating the holes drill area as required by applicable WPS.  
 This repair welding performed in the similar manner on four (4) holes of shear plate WD1-A25.  
 Shear plate identified as WD1-A25 and the members are located in Bay #11.

References:

- WPS-345-FCAW-1G (1F)-Repair.
- AWS D1.5 2002, Section 3.7.7.2: "Base metal repair subject to dynamic tensile stress may be restored by welding provided....."
- General Notes No. 4

**Action Required and/or Action Taken:**

Propose resolutions for the identified non-conformance items and document that the various deficiencies have been brought into compliance with contract requirements. Also propose a resolution that addresses the apparent failure of Quality Control to identify the non-conformance with the appropriate Welding Procedure Specification (WPS). Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

**Transmitted by:** Gina Rizzardo Transportation Engineer

**Attachments:** ZPMC-0723

**cc:** Rick Morrow, Gary Pursell, Mark Woods

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# NCT

( *Continued Page 2 of 2* )

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**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000719

**Subject:** NCR No. ZPMC-0723

**Dated:** 17-Jun-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000714 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the base metal in accordance with the attached WPS and is providing the MT and UT to show that it is acceptable.

The material in question is actually TTP and not TM/SRM. ZPMC has repaired the base metal in accordance with the attached WPS and is providing the MT and UT to show that it is acceptable. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000714R00;

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**Caltrans' comments:**

**Status:** AAP

**Date:** 17-Jun-2010

The proposed resolution is accepted with action pending. The MT and UT results are acceptable; however, ZPMC did not address the apparent failure of Quality Control to identify the non-conformance with the appropriate Welding Procedure Specification (WPS). This NCR will be considered closed once the documentation of the steps taken by the Quality Control Manager to prevent future occurrences is submitted and reviewed.

**Submitted by:** Rizzardo, Gina

**Attachment(s):**

**Date:** 17-Jun-2010



No. T-142

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2010-6-17**

**REGARDING: NCR-000761(ZPMC-0723)**

ZPMC received NCR-000761(ZPMC-0723), it mentioned that CT inspector discovered ZPMC perform welding repair without elongating the holes drill area as required by applicable WPS during random visual inspection in Bay 11.

The applicable reference CT quoted is AWS D1.5 2002, section 3.7.7.2: "Base metal repair subject to dynamic tensile stress may be restored by welding provided..." and general notes No:4. ZPMC think CT misunderstood the requirement and drawing. According to the drawing WD1-A25A/E, the base shear plate A25 design property is TTP material not TM/SRM. So, AWS D1.5 2002, section 3.7.7.1 shall be applied, "Base metal not subjected to dynamic tensile stress may be restored by welding, provided the Contractor prepares and follows a repair WPS." Here ZPMC submit the UT, MT reports and relevant WPS for CT verification.

So ZPMC hope CT could take a review of these document and close this NCR.

**ATTACHMENT:**

**NCR-000761(ZPMC-0723)**

**T787-MT-9354**

**T787-UT-2983**

**WPS-345-FCAW-1G(1F)-Repair**

**Drawing: WD1-A25A/E**

  
2010-6-17



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
333 Burma Road  
Oakland CA 94607  
Tel: 510-286-0539 Fax: 510-286-0550

## NON-CONFORMANCE REPORT TRANSMITTAL

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

**Date:** 11-Jun-2010

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

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000719

**Subject:** NCR No. ZPMC-0723

**Reference Description:** Repair Procedure not following WPS/Tower/ Base Shear Plate A25

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- Quality Control (QC) not performed in conformance with contract documents.
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- Non-Conformance Resolved.

**Material Location:** Tower **Lift:** N/A

### Remarks:

ZPMC personnel performing Flux Core Arc Welding for base metal repair on mislocated holes on the surface of shear plate WD1-A25. ZPMC Quality Control (QC) presented WPS-345-FCAW-1G (1F)-Repair as applicable to repair. The repair welding completed without elongating the holes drill area as required by applicable WPS. This repair welding performed in the similar manner on four (4) holes of shear plate WD1-A25. Shear plate identified as WD1-A25 and the members are located in Bay #11.

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- General Notes No. 4

### Action Required and/or Action Taken:

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The response for the resolution of this issue is requested within 7 days.

**Transmitted by:** Gina Rizzardo Transportation Engineer  
**Attachments:** ZPMC-0723

**cc:** Rick Morrow, Gary Pursell, Mark Woods

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**NCT**

*( Continued Page 2 of 2 )*

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**File:** 05.03.06

**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, P.R. China

**Report No:** NCR-000761

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 10-Jun-2010

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

**NCR #:** ZPMC-0723

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural

**Bridge No:** 34-0006

Joint fit-up  Coating  Other

**Component:** Shear Plate A25

Procedural  Procedural  Description:

**Reference Description:** Repair Procedure not following WPS

**Description of Non-Conformance:**

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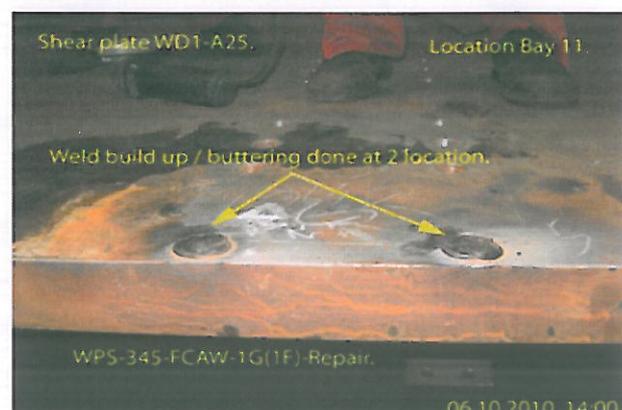
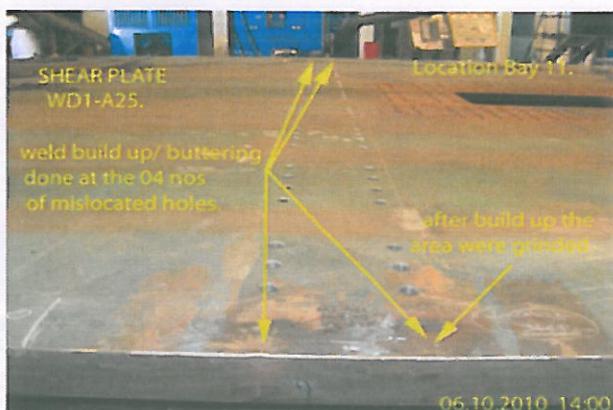
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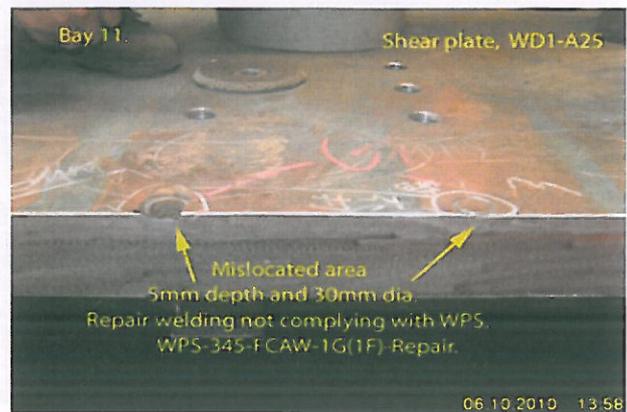
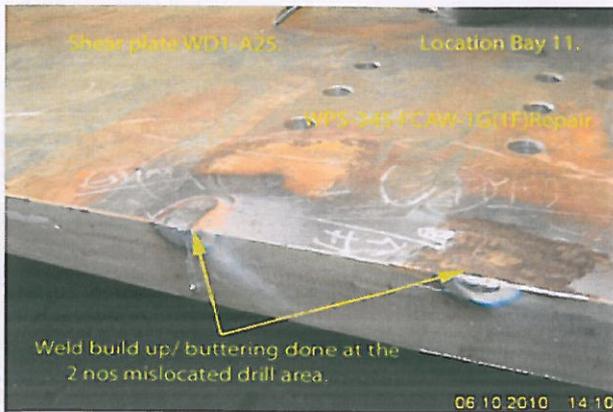
- The members are located in Bay #11.

For further information, please see the attached pictures below.



## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )



### Applicable reference:

WPS-345-FCAW-1G (1F)-Repair.

AWS D1.5 2002, Section 3.7.7.2: "Base metal repair subject to dynamic tensile stress may be restored by welding provided....."

General Notes No: 4

**Who discovered the problem:** Shailesh Gaikwad

**Name of individual from Contractor notified:** Zhao Mao Mao

**Time and method of notification:** 1400/Verbal

**Name of Caltrans Engineer notified:** Ken Lee

**Time and method of notification:** 0820/Verbal

**QC Inspector's Name:** Bi Dawei

**Was QC Inspector aware of the problem:**  Yes  No

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

N/A

### 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:** Ng, Michael

QA Inspector

**Reviewed By:** Devey, Jim

SMR





REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 1787-MT-9354

DATE 日期 2010.06.16

PAGE OF 页码 1/1

Revision No: 0

PROJECT NO. 工程编号: ZP06-787

CONTRACTOR: CALTRANS

CALTRANS

DRAWING NO. WD1-A25

CALTRANS CONTRACT NO.:

图号:

SHEAR PLATE

加州工程编号

04-0120F4

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

CALIBRATION DUE DATE

参考规范编码

接受标准

程序编号

仪器校正有效期

AWS D1.5-2002

AWS D1.5-2002

ZPQC-MT-01

Dec. 28<sup>th</sup>, 2010

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

Continuous magnetic yoke

CURRENT

AC

磁化方法

磁轭式连续法

电流

PARTICLE TYPE

Dry magnet powder

Yoke Spacing

70~150mm

磁粉类型

干磁粉

磁轭间距

MATERIAL TO BE EXAMINED

WELDING 焊接件

Material & thickness

A709M-345T2-Z

检测材料

FORGING 锻造

母材, 厚度

50/80 mm

WELDING PROCESS

NA

TYPE OF JOINT

NA

焊接方法

WELD I.D. 焊缝编号

INDICATION 指示

TYPE 类型

LENGTH IN mm 长度

ACCEPT 接受

REJECT 拒收

REMARKS 备注

DISCONTINUITY不连续性

BLANK

A25

ACC.

100%MT

EXAMINED BY 主操

Cai Xinlin 2010.6.16

REVIEWED BY 审核

LEVEL-II SIGN 2010.6.16

质量经理 / QCM

2010.6.16

用户 CUSTOMER

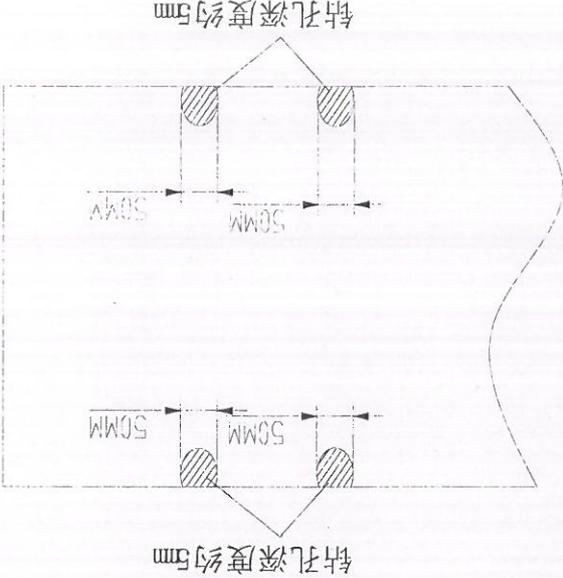
签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

		SHANGHAI ZHENHUA PORT MACHINERY CO LTD	
母材探伤申请表 APPLICATION FORM FOR BASE MATERIAL NDT		产品名称 美国海湾大 桥	
探伤类别 NDT type UT100%		数量 Quantity 4	
序号	零部件图号	零部件名称	件号
1	WD1-A25	盖板	P 1007 P 1008
数量	板厚/尺寸	炉批号	材料
4	80*50*50	7301301N 7301301N	A709M- 345T2-Z
结论	材料	结果	
Result	Material		

探伤位置图	Scheme showing the test part
	
注: 阴影部分为探伤区域	

申请人	安庆祥	日期	2010.06.12	主探者	陈洪萍	日期	10.06.16
Applicant	Anqingxiang	Date	2010.06.12	Inspected by	Chen Hongping	Date	10.06.16

探伤报告编号 2983

# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告



REPORT NO. 报告编号 T787-UT-2983 DATE 2010.06.16 PAGE 1 OF 1 Revision No: 0

PROJECT NO.: 工程编号 ZP06-787

CONTRACTOR: CALTRANS

ITEMS NAME: 部件名称

FOURTH LIFTING TOWER(E)

DRAWING NO.:

WD1-A25

CALTRANS CONTRACT NO.: 04-0120F4

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

NA

NA

Dec. 28<sup>th</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

071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块

COUPLANT 耦合剂

MATERIAL/THICKNESS 材料厚度

A709M-345T2-Z 80/50mm

AWS IIV BLOCK TYPE II

C.M.C

### 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

Changchao

70°

2.5MHz

18x18mm

Changchao

60°

2.5MHz

18x18mm

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

Attenuation Factor Level

Indication Level Reference Level

d c b a

Length 长度

Sound Path 声程

Depth from Surface 距表面深度

From X 距X

From Y 距Y

DISCONTINUITY 不连续性

LOCATION OF DISCONTINUITY 不连续位置(mm)

Discontinuity Evaluation 缺陷估计

Remark 备注

WD1-A25

70

34

ACC.

100%

ACC.

100%

ACC.

100%

BASE METAL PER T-WR3371

BLANK

EXAMINED BY 主检

10-26-16

REVIEWED BY 复核

XU Rong gao 10-26-16

质量经理 / QCM

10-26-16

用户CUSTOMER

LEVEL - II SIGN / DATE

签字 SIGN / 日期 DATE



焊接工艺规程 B\*

WELDING PROCEDURE SPECIFICATION

编号: No.

WPS-345-FCAW-1G(F)-Repair

(返修焊接工艺)

有效期 Period of validity

FCM:2007.1-2010.1

NON-FCM:2007.1-2012.1

母材技术条件 (Material specification) ASTM A.709M Gr.345F2

焊接方法 (Welding process) 药芯焊丝 CO2 气体保护焊 (FCAW)

手工或机械 (Manual or machine or semi-auto) 半自动 (Semi-auto)

焊接位置 (Position of welding) 平焊 (1G, 1F)

填充金属技术条件 (Filler metal specification) AWS A5.20

填充金属级别 (Filler metal classification) E71T-1

填充金属牌号 (Filler metal brand) Supercored 71H (Φ 1.4)

焊剂 (Flux) N/A

保护气体 (Shielding gas) 100%CO2

单焊道或多焊道 (Single or multiple pass) 多道 (Multiple Pass)

单弧或多弧 (Single or multiple arc) 单弧 (Single arc)

焊接电流 (Welding current) 直流 (DC)

极性 (Polarity) 反接 (RP)

焊丝伸出长度 (Electrode extension) 20mm

焊接方向 (Welding progression) N/A

根部处理 (Root treatment) N/A

破刨前预热温度 (Preheat temperature before gouging)

非关键性返修 (Noncritical repair) N/A

焊前最低预热温度和道间温度 (Minimum preheat and interpass temperature before welding)

非关键性返修 (Noncritical repair) 60°C [T≤20mm] 100°C [20mm<T≤40mm] 120°C [40mm<T≤60mm] 150°C [60mm<T≤160°C]

关键性返修 (Critical repair) 160°C [T≤40mm] 200°C [40mm<T≤140mm]

最高预热和道间温度 (Preheat and interpass temperature Max) 230°C

后热温度 (Postheat temperature) N/A

非关键性返修 (Noncritical repair) N/A

关键性返修 (Critical repair) 230°C ~ 315°C

热输入 (线能量) (Heat input) 最小 (Min) 1.54KJ/mm

焊接工艺

保温时间 (Keep temperature time) 1h, T<25mm

最大 (Max) 2.57KJ/mm

接头详图

Travel Speed (mm/min)

Welding Current

Amper (s) Volts

Electrode Size (mm)

1~n 1.4 280-350 28-32.5 182.6-442.4

Refer to WPS parameters table to determine operating parameter to stay within the heat input limit.

选定适用的电流、电压后在 WPS 焊接参数选用表中查到焊接速度范围。

该工艺可以因制造工序、装配、焊道尺寸等而变化, 但在 ASHTO/AWS D1.5 第 5 章给出的变量限值之内。

(This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variable in section 5.)

批准 (Authorized by) 日期 (Date) 2007.3.20

工艺评定记录编号 (PQR No.) HP2006107.10

\* 本 WPS 符合 ASHTO/AWS D1.5 2002, 用于桥梁结构。

(This WPS is conformable with the current edition of ASHTO/AWS D1.5 2002, used for BRIDGE structure.)

R787-QCP-1601

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## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000719

**Subject:** NCR No. ZPMC-0723

**Dated:** 21-Jun-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000714 Rev: 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** THE QCM has had a meeting with ZPMC's QA department to review this type of incident.

THE QCM has had a meeting with ZPMC's QA department to review this type of incident. Typically this has not been an issue in the Tower and ZPCM has committed to continue that trend by issuing an NCR to its Tower QC department to ensure that they understand the importance of this issue. Based on these actions and previously submitted documents, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000714R01

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### Caltrans' comments:

**Status:** CLO

**Date:** 21-Jun-2010

The documentation received is sufficient and the Department concurs that NCR ZPMC-0723 is closed.

**Submitted by:** Rizzardo, Gina

**Attachment(s):**

**Date:** 21-Jun-2010

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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, P.R. China**Report No:** NCS-000678**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 21-Jun-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0723**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:** 10-Jun-2010**Description of Non-Conformance:**

- During random visual inspection in Bay 11, this Quality Assurance Inspector discovered the following issues:
- ZPMC personnel performing Flux Core Arc Welding for base metal repair on mislocated holes on the surface of shear plate WD1-A25.
- ZPMC Quality Control (QC) presented WPS-345-FCAW-1G (1F)-Repair as applicable to repair.
- The repair welding completed without elongating the holes drill area as required by applicable WPS.
- This repair welding performed in the similar manner on four (4) holes of shear plate WD1-A25.
- Shear plate identified as WD1-A25.
- The members are located in Bay #11.

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

Repair Base Metal per approved WPS and perform MT and UT of required areas.

**Corrective action taken:**

ZPMC has repaired the base metal, and received with the approved WPS. NDT documentation included 100% MT and UT. Verifying repaired welds are now in conformance with contract requirements. In addition, QCM held a meeting with ZPMC's QA Department to review this type of incident to prevent future occurrences.

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

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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**Inspected By:** Ng,Michael

Quality Assurance Inspector

**Reviewed By:** Devey,Jim

QA Reviewer