
QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Subhasis Bera
Name of individual from Contractor notified: Ji Cai Fang
Time and method of notification: 1045 hours_12-27-09_Verbal
Name of Caltrans Engineer notified: Bill Howe
Time and method of notification: 1830 hours_12-27-09_Email
QC Inspector's Name: Xu Tao
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000528

Subject: NCR No. ZPMC-0538

Dated: 09-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000586 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC acknowledges the incorrect filler material was used and has completely removed the weld in question. An internal NCR was issued and the weld was rewelded using the correct weld material.

ZPMC acknowledges the incorrect filler material was used and has completely removed the weld in question. An internal NCR was issued and the weld was rewelded using the correct weld material. ZPMC is providing NCT reports to show the weld is acceptable. Based on this ZPMC is requesting closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000586R00;

Caltrans' comments:

Status: CLO

Date: 09-Feb-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Date: 09-Feb-2010

Attachment(s):



No. B-603

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-2-9

REGARDING: NCR-00565 (ZPMC-0538)

With this letter of response, ZPMC requests closure of CT NCR-00565 (ZPMC-0538), what mentioned that CT Inspector observed the use of filler metal not specified in the approved WPS in segment 10CW.

- The repair was being performed to WPS-345+485-FCAW-3G(3F)-Repair. The WPS specifies the use of filler metal brand K-71TSR. The welder was using filler metal brand Supercored 71H for the repair of weld SEG063E-160. ZPMC acknowledged this problem and has issued internal NCR. ZPMC will enhance the welding control during repair.
- According to technical response to this nonconformance, the weld SEG063E-160 was removed and rewelded using K-71TSR.
- After rewelding VT & UT were performed to warrant the weld's quality.

Based on the taken actions and attached documentation, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-00565 (ZPMC-0538)

NCR-B-359(ZPMC-0538)

B-VT-49275

B787-UT-11218

for w
2/9/10



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-B-359(ZPMC-0538)
Item: Uncorrected filler metal 名称描述: 用错填充金属	Item Number: 件号: N/A	Drawing: 图号: N/A
Location: Outside yard 位置: 外场	Date: 日期: 2009-12-31	

Description of Nonconformance:

不符合项状态描述:

During a random in process inspection of OBG segment 10CW, this Caltrans Quality Assurance Inspector observed ZPMC welding personnel performing FCAW weld repairs using a filler metal not specified on the applicable WPS.

- The repair was being performed to WPS-345+485-FCAW-3G(3F)-Repair
- The WPS specifies the use of filler metal brand K-71TSR
- The welder was using filler metal brand Supercored 71H.
- The weld joint is a CJP identified as SEG-063e-160 near PP93.
- The weld being repaired is joining material grades A709 Grade 345 to A709 Grade 485.
- The weld is joining parts identified as RS65EA(485) to X3S(345).

在对 OBG 箱体 10CW 的检验中, 加州检验员发现 FCAW 的返修没有按照 WPS 运用填充金属。

- 返修 WPS 为 WPS-345+485-FCAW-3G(3F)-Repair
- WPS 规定的填充金属为 K-71TSR
- 现场焊工所用的为 Supercored 71H
- 该焊缝为 SEG-063e-160, CJP, 靠近 PP93
- 返修接头为材质 A709 Grade 345 与 A709 Grade 485.
- 涉及构件号为 RS65EA(485) to X3S(345).

Work By: 施工方: <u>胡国兴</u>	Prepared by: <u>Zhao Jianwei</u> 准备: <u>2009/12/31</u>	Reviewed by QCE: 质量工程师批准: <u>Lu Jianhua</u>
<input type="checkbox"/> Drawing Error 图纸错误	<input type="checkbox"/> Material Defect 材料缺陷	<input checked="" type="checkbox"/> Fabrication Error 制作错误
<input type="checkbox"/> Other 其他原因		

Disposition: 处理措施:	<input type="checkbox"/> Use as is 回用	<input type="checkbox"/> Repair 返修	<input type="checkbox"/> Reject 拒收
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Recommendation:

建议:

Prepared by: 准备	Approved by QCA: 质量经理批准
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Reason for Nonconformance:

不符合原因:

FCAW 焊工维修时按照 WPS 运用填充金属。
Filler metal not specified on the applicable WPS.

Prevention of Re-occurrence:

预防措施:

1. 加强对维修工之焊接质量控制。
2. 对焊工进行一次全面培训。

1. Enhance controlling during repair.

2. Train all the welders.

Approved by/批准: _____

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

将相应的焊缝去除, 采用正确的 WPS 重新焊接。
Remove the unacceptable welds, re-weld according approved WPS.

Reviewed /批准: Muller 01.05/10

Verification:

Acceptable

Unacceptable

确认:

可接受

不可接受

已将相应的焊缝去除, 重新焊接。

Remove the unacceptable welds and re-weld.

Verified by QCI/质检确认:

Zhu Zhonghai

Reviewed by QCA/质检主任审核: _____

2010.02.07



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

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 28-Dec-2009

Contract No: 04-0120F4

04-SF-80-12.2 / 13.9

Dear: Mr. Charles Kanapicki
 Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0538

Document No: 05.03.06-009528

Reference Description: The use of filler metal not specified in the approved WPS in Segment 10CW

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: 10

Remarks:

During a random in process inspection of Orthotropic Box Girder (OBG) segment 10CW, this Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) weld repairs using a filler metal not specified on the applicable WPS.

-The repair was being performed to WPS-345-485-FCAW-3G(3F) Repair.

-The WPS specifies the use of filler metal brand K-71TSR.

-The welder was using filler metal brand Supercored 71H.

-The weld joint is a Complete Joint Penetration (CJP) identified as SEG-063E-160 near Panel Point (PP) 93.

-The weld being repaired is joining material grades A709 Grade 345 to A709 Grade 485.

-The weld is joining parts identified as RS65EA (485) to X3S (345)

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Instruct welders to ensure they are using the correct filler metal prior to the start of the weld. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Bill Howe

Attachments: ZPMC-0538

cc: Riek Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao
 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

Prime Contractor: American Bridge/Fluor Enterprises, a JV

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

Report No: NCR-000565

Date: 27-Dec-2009

NCR #: ZPMC-0538

Type of problem:

- Welding Concrete Other
- Welding Curing Procedural
- Joint fit-up Coating Other
- Procedural Procedural Description:

Bridge No: 34-0006

Component: OBG Segment 10CW Rib Stiffener

Reference Description: The use of filler metal not specified in the approved WPS in Segment 10CW

Description of Non-Conformance:

During a random in process inspection of Orthotropic Box Girder (OBG) segment 10CW, this Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) weld repairs using a filler metal not specified on the applicable WPS.

-The repair was being performed to WPS-345+485-FCAW-3G(3F)-Repair.

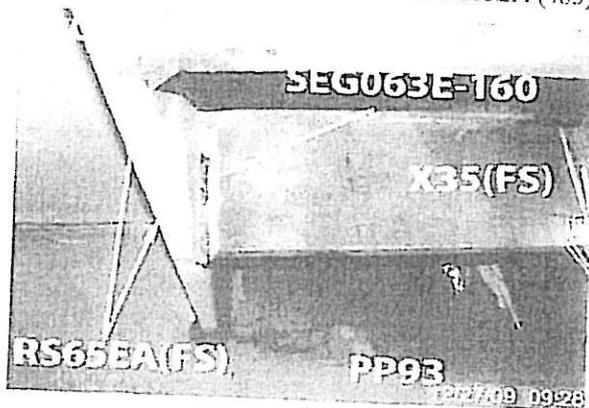
-The WPS specifies the use of filler metal brand K-71TSR.

-The welder was using filler metal brand Supercored 71H.

-The weld joint is a Complete Joint Penetration (CJP) identified as SEG-063E-160 near Panel Point (PP) 93.

-The weld being repaired is joining material grades A709 Grade 345 to A709 Grade 485.

-The weld is joining parts identified as RS65EA (485) to X3S (345).



Applicable reference:

Approved Welding Procedure Specification page 604 (Addendum D-50):

WPS-(345+485)-FCAW-3G(3F)-Repair specifies the use of filler metal brand K-71TSR.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Who discovered the problem: Subbasis Beja
Name of individual from Contractor notified: Ji Cai Fang
Time and method of notification: 1045 hours 12-27-09_Verbal
Name of Caltrans Engineer notified: Bill Howe
Time and method of notification: 1830 hours 12-27-09_Email
QC Inspector's Name: Xu Tao
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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Wahbeh, Mazen

SMR

BVT 49275



Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号 04-0120F4		Girder/梁: OBG Plate Panel Splice		周数 115#									
Project No.: 项目名称 San Francisco Oakland Bay Bridge 海湾大桥		Tower/塔: Representative: 质检代表: Lin Jm		日期 2010.1.12									
Project No.: 项目编号 ZP06-787		CWI: Inspector: 检验员: Lin Huojie 07/2014											
Quality Assurance Manager - Approval 质量控制经理: Lin Jm													
Weld No. 焊缝编号	Welder I.D.# 焊工工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Over lap 焊瘤	Crater 弧坑	Arc strike 弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	or Reject after repair 返修后
SEG063E-160	051348	3G	TL508H4 (Φ 4.0)	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
<input type="checkbox"/> After root weld <input checked="" type="checkbox"/> After CWR or WRR No.: B-WR9745 #R787-QCP-603													
											<input type="checkbox"/> After cover pass <input type="checkbox"/> After HSR No.: <input type="checkbox"/> Others		

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



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-11218 DATE 2009.01.21 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: 10CW CORNER ASSEMBLY DRAWING NO.: SEG063E 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
 SMAW CORNER-JOINT Dec. 28ST, 2009

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
 AWS IIW BLOCK TYPE II C.M.C A709M-345T2-X/A709M-GRADE485 25/30mm

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	18×18mm				
Changchao	0°	2.5MHz	20mm	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
SEG063E-160		70				32									ACC.	100%

AFTER B-WR9745

BLANK

EXAMINED BY 主探 Jin Feng REVIEWED BY 审核 Huang Jing
 LEVEL - II SIGN / DATE 09.01.21 LEVEL - II SIGN / DATE 09.01.21

质量经理 / QCM Li Jun 用户CUSTOMER _____
 签字 SIGN / 日期 DATE 01/21/09 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, P.R. China**Report No:** NCS-000510**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-Feb-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0538**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: 27-Dec-2009**Description of Non-Conformance:**

During a random in process inspection of Orthotropic Box Girder (OBG) segment 10CW, this Caltrans Quality Assurance (QA) Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) weld repairs using a filler metal not specified on the applicable WPS.

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- The weld being repaired is joining material grades A709 Grade 345 to A709 Grade 485.

- The weld is joining parts identified as RS65EA (485) to X3S (345).

Contractor's proposal to correct the problem:

Remove said weld and replace using appropriate filler material.

Corrective action taken:

Contractor replaced said weld with K-71TSR filler metal and provided NDT documentation verifying the weld is in compliance with Contract specifications.

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 Jim Simonis 152. 1675.3703, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Reviewed By: Wahbeh,Mazen

QA Reviewer