

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-000240**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Mar-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0214**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Segment 1BE, FB053-007/CA97A**Procedural****Procedural****Description:****Reference Description:** Unapproved base metal repair, 1BE**Description of Non-Conformance:**

Quality Assurance (QA) Inspector observed that base metal repair was performed on the floor beam top flange plate X156F. The base metal repair was at a portion of a CJP weld splice. This splice is joining the floor beam to the corner assembly diaphragm. The welder deposited approximately 40mm x 70mm of filler material around the weld splice. This base metal repair was performed without an Engineer's approval.

**Applicable reference:**

AWS D1.5- 2002 Section 3.7.4 "Prior approval of the Engineer shall be obtained for repairs to base metal, repair of major or delayer cracks..."

Who discovered the problem: Dan Hernandez**Name of individual from Contractor notified:** Tang You Ging**Time and method of notification:** 0900, Verbal**Name of Caltrans Engineer notified:** Stanley Ku**Time and method of notification:** 1300, Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

QC Inspector's Name: N/A

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 Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Wahbeh, Mazen	SMR
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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, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 06-Apr-2009

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

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project Manager - OBG

Document No: 05.03.06-000207

Subject: NCR No. ZPMC-0214

Reference Description: Unapproved base metal repair, 1BE

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:**

Remarks:

Quality Assurance (QA) Inspector observed that base metal repair was performed on the floor beam top flange plate X156F. The base metal repair was at a portion of a CJP weld splice. This splice is joining the floor beam to the corner assembly diaphragm. The welder deposited approximately 40mm x 70mm of filler material around the weld splice. This base metal repair was performed without an Engineer's approval.

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0214

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: 05.03.06-000207

Subject: NCR No. ZPMC-0214

Dated: 20-May-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000216 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Prior approval of base metal is not required unless it is a 3rd time repair as stated in section 9 of the ZPMC WQCP and Special Provisions. ZPMC requests closure of this NCR.

Prior approval of base metal is not required unless it is a 3rd time repair as stated in section 9 of the ZPMC WQCP and Special Provisions. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000216R00

Caltrans' comments:

Status: REJ

Date: 08-Jun-2009

The proposed resolution is not acceptable. Section 9.2.1.2 of the Welding Quality Control Plan (WQCP) states that "... prior approval of the Engineer shall be obtained for repairs to base metal ...".

Prior approval of base metal repairs is required on the first time excavation, not at the third-time excavation as stated in this NPR.

Submitted by: Wright, Doug

Date: 08-Jun-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Dated: 08-Jun-2009

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

Attention: Pursell, Gary
Resident Engineer

Job Name: SAS Superstructure

Document No.: ABF-NPR-000216 Rev: 01

Ref: 05.03.06-000207

Subject: NCR No. ZPMC-0214

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has included the Welding Repair Report that documents this base metal repair. ZPMC requests closure of this NCR.

ZPMC has included the Welding Repair Report that documents this base metal repair. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000216R01;

Caltrans' comments:

Status: CLO

Date: 11-Jun-2009

The proposed resolution is acceptable. The welding repair report is included, and the repair welds have been accepted by VT and UT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0214 is closed.

Submitted by: Wright, Doug

Date: 11-Jun-2009

Attachment(s):



焊缝返修报告

版本 Rev. No.

Welding Repair Report

0

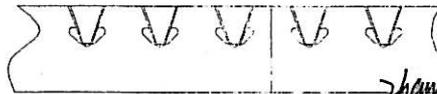
项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	CA95-CA104	报告编号 Report No.	B-WR2915
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元 Corner assem biy	NDT报告编号 Report No.of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

在检查中发现1, 2吊装段角单元隔板 (CSD10, CSD10A) 上的小筋板 (X156A, X156B, X156C, X156D) 开的R孔位置与图纸不符, 共32块, 根据检查报告要求对已开R孔进行堆焊。

After inspection, 1,2 lifting stiffener of corner assembly (CSD10, CSD10A), the position of R-hole wasn't according to drawing requirement, total 32parts, it needs to build-up according to inspection report.



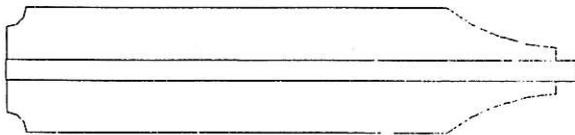
检验员 (Inspector):

Zhang Xianji

07.03.11

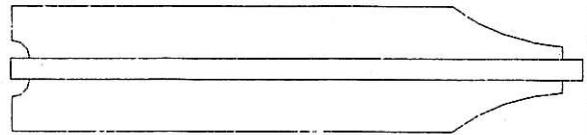
日期(Date): 09.03.11

焊缝返修位置示意图:

Draft of welding discontinuity:

现场情况

Condition on-site



图纸要求

Drawing requirement

ZPMC - 0214

WRR + final

VT/MT reports

(It was agreed by ABF before ~~grinding~~ grinding)

产生原因:

Caused:

施工对在制作时, 没有将图纸看清楚;

The worker didn't review drawing carefully during fabrication.

车间负责人(Foreman): *Li Hongyan* 日期(Date): *2009.03.12*

处理意见

Disposition :

1. 根据批准的焊接工艺规程WPS准备坡口形式;
2. 做100%VT确保缺陷被去除;
3. 在坡口对侧加钢衬垫, 具体参见AWS D1.5.3.13;
4. 根据批准的焊接工艺规程WPS进行预热及焊接;
5. 焊后去除钢衬垫, 将焊缝打磨至与母材平齐;
6. 根据图纸要求进行检测。

1. Prepare excavation with relevant WPS.
2. VT to verify repair area is free of all defects.
3. Add steel backing at the back of groove according to AWS D1.5.3.13;
4. Preheat and weld according to the relevant WPS.
5. Gouge off the steel backing and grind the weld flush with base metal after welding;
6. Perform NDT inspection of the weld according to the working drawings.

工艺: *Mu Tie fan*
Technical engineer

审核:
Approved by

日期
Date

29.3.12



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	CA95-CA104	报告编号 Report No.	B-WR2915
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元 Corner assem bly	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

培训和教育工人, 提高试图能力。

Train and educate worker to improve ability of understanding drawing.

车间负责人(Foreman): *Li Zhigang*日期(Date): *09.03.13*

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	<i>Mu Tiefang</i> <i>09.03.13</i>
返修(碳刨)前预热温度 Preheat temperature before gouging	<i>NA</i>	返修的缺陷 Description of discontinuity	<i>NA</i>
焊前处理检查 Inspection before welding	<i>Acc</i>	焊前预热温度 Preheat temperature before welding	<i>102°C</i>
最大碳刨深度 Max. depth of gouging	<i>NA</i>	碳刨总长 Total length of gouging	<i>NA</i>
焊工 welder <i>051356</i>	焊接类型 welding type <i>FCAW</i>	焊接位置 position	<i>19</i>
焊接电流 Current <i>272</i>	焊接电压 Voltage <i>28.6</i>	焊接速度 Speed	<i>5/5</i>

返修后检查

Inspection After repairing:

外观检查 VT result <i>Acc</i>	检验员 Inspector <i>C.M. Chen</i> <i>03110711</i>	日期 Date <i>2009.03.28</i>
NDT复检 NDT result <i>Acc</i>	探伤员 NDT person <i>[Signature]</i>	日期 Date <i>2009.03.30</i>

见证:

Witness/Review:

备注:

Remark:

#R787-QCP-900

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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-000255**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0214**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: 18-Mar-2009**Description of Non-Conformance:**

Quality Assurance (QA) Inspector observed that base metal repair was performed on the floor beam top flange plate X156F. The base metal repair was at a portion of a CJP weld splice. This splice is joining the floor beam to the corner assembly diaphragm. The welder deposited approximately 40mm x 70mm of filler material around the weld splice. This base metal repair was performed without an Engineer's approval.

Contractor's proposal to correct the problem:

Submit WRR and perform repair in accordance with accepted procedures.

Corrective action taken:

Contractor submitted WRR, performed repair, and submitted subsequent NDT reports confirming weld is in conformance.

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

Inspected By: Simonis, Jim Quality Assurance Inspector**Reviewed By:** Wahbeh, Mazen QA Reviewer